INCENTIVES TO INVEST: THE CASE OF MEXCIO

An Undergraduate Research Scholars Thesis

by

YANAIREM MORENO

Submitted to the Undergraduate Research Scholars program at Texas A&M University in partial fulfillment of the requirements for the designation as an

UNDERGRADUATE RESEARCH SCHOLAR

Approved by Research Advisor: Dr. Amy Pond

May 2020

Major: Political Science

TABLE OF CONTENTS

		Page
ABSTR	ACT	1
	Literature Review	
	Theoretical Framework	
	Project Description	
DEDICA	ATION	3
ACKNO	OWLEDGMENTS	4
KEY W	ORDS	5
INTROI	DUCTION	6
CHAPT	ER	
I.	LITERATURE REVIEW	8
	Research on FDI and Violence	8
	Research on FDI and Incentives	
II.	METHODOLOGY	13
III.	RESULTS	15
	Models for First Proposition	
	Models for Second Proposition	16
CONCL	USION	19
DEEEDI	ENICES	21

ABSTRACT

Incentives to Invest: The Case of Mexico

Yanairem Moreno Department of Political Science

Texas A&M University

Research Advisor: Dr. Amy Pond

Department of Political Science

Texas A&M University

Literature Review

When assessing how political representatives mitigate the risk of violence for foreign

investors, it is crucial to understand the profound role Mexico has in the international market.

For the past two decades, Mexico has been a major exporter and importer to the world economy-

specifically to the United States. As of 2017 Mexico is ranked 15th in the highest foreign direct

investment (FDI) inflow. This has caused a rapid increase in development in the country.

Additionally, it is also important to mention that in the past two decades organized

crime/violence has been an ongoing issue for the country. There has been diverging sides when

discussing if FDI is negatively affected by the violence. There has been research that has found

that violence in a host country can causes less investment. In contrast, there has also been studies

that found FDI being affected in some sectors but in others not. Because of this, it is important to

take a closer look at exterior conditions-political incentives. Political incentives are benefits

given to firms, usually economic advantages, by the current government.

1

Thesis Statement

Politicians frequently provide incentives to foreign investors to mitigate risk of violence; in doing so, they reduce the economic benefits associated with the investment inflows.

Theoretical Framework

For years, scholars have studied different tactics that bring foreign investment to host countries. Of these tactics, political incentives are prominent- especially in Mexico. Additionally, Mexico's crime rates have alarmingly risen over the past two decades. Therefore, it is important to examine how these political incentives are affecting the economy for the regions.

Project Description

For the past two decades, Mexico has been a significant exporter and importer of the world economy. Inevitably, its importance to the global market has caused a rapid increase in development within the country. Concurrent with an influx of foreign investment, violence has been an ongoing issue for the country. This project will pinpoint how Mexican state governments mitigate the risk of violence for foreign investors through economic incentives. The analysis also seeks to determine if political incentives genuinely benefit the region's economic development. This paper explores the proposition that politicians frequently provide incentives to foreign investors to mitigate the risk of violence; in doing so, they reduce the economic benefits associated with the investment inflows. This paper will examine the proposed positions through data on 15 out of 32 Mexican states from the years 2008, 2012, and 2017. The results indicate that governments provide more substantial distributions of economic incentives to states in areas with more violence. Further findings indicated that more GDP growth is associated with foreign investment and significant incentives. Additional models ran for the second proposition found

that in both, violent areas with substantial investment and violent areas with significant incentives experience an increase in regional GDP.

DEDICATION

For my parents.

ACKNOWLEDGMENTS

Without the technical and substantive support of the Political Science department at Texas A&M University this undergraduate research scholar's thesis would not have been possible. I would like to thank and acknowledge my research advisor, Dr. Amy Pond, for her guidance and support through the entirety of this project. Special thanks are owed to Dr. Brittany Perry, who guided and encouraged all of the undergraduate research scholars within the Political Science department. Finally, thanks to my parents, friends, and colleagues for their encouragement throughout the course of this research.

KEY WORDS

FDI Foreign Direct Investment

GDP Gross Domestic Product

INEGI Instituto Nacional de Estadística y Geografía

OECD Organization for Economic Co-operation and Development

SEGOB Secretaria de Gobernación

SESNSP Secretariado Ejecutivo del Sistema Nacional de Seguridad Publica

INTRODUCTION

The first step in understanding why firms decide to invest in foreign countries is looking at the benefits they will gain if they choose to do so. Some common examples are low-cost labor, proximity to market, new technology, higher profits, and safety. Nonetheless, there is not a country that offers the perfect environment for investment. For instance, a country that offers substantial tax incentives may also have poor labor conditions. These unappealing components will then require a firm to decide if the negative qualities overpower the benefits they can gain. This thesis will focus on foreign direct investment in Mexico.

For the past two decades, Mexico has been a significant exporter and importer in the world economy, with a specific relationship to the United States of America. However, Mexico has also experienced high levels of organized crime through the drugs cartels. The research will take a further observation of the state-level effects of foreign direct investment in states that experience high levels of violence. Withal, the study brings light to how political representatives are attracting investment despite the violence occurring in their regions.

For years, scholars have studied different tactics that attract foreign investment to host countries. Political representatives may grant investment incentives to attract investment – this practice is prevalent in Mexico (Jensen and Malesky, 2018). Mexico's international economic involvement has made it a hotspot for investing. The frequent inflow of investment has profoundly affected its citizens and the economic development of the country. Therefore, it is essential to discuss the effects that violence, in the country, has concerning foreign investment. This project will identify different ways that Mexican political representatives mitigate the risk of violence for these foreign investors.

This study intends to explore the contributions incentives have on the economic development of these regions. The argument presented is that when political representatives provide incentives to attract investors to their districts, the net effect of the foreign direct investment may be detrimental in places where incentives are sufficiently large. The two propositions in this paper are: to attract foreign investors in areas associated with more violence, governments must provide substantial incentives to attract investors. Moreover, less growth is associated with foreign investment and significant incentives.

The first segment of this paper will employ a literature review methodology. Foreign direct investment in Mexico has been a researched topic since the aftermath of the 1980 Peso Crisis. Prior research will allow and acknowledge a better understanding of work done on the phenomena. Building on existing literature, researchers have found that foreign investment increases growth, violence reduces the inflow of foreign investment, and more incentives undermine the benefits of foreign investment. Furthermore, the project will consist of a quantitative study, a data analysis to test the propositions presented above. The investigation directly observes capital investment, GDP, violence data, and incentives all at the state level. Acquired from FDIMarkets, OECD.stat, and SEGOB, the data will allow the creation of state-level models that will adequately display the occurrence in the individual regions. Likewise, it will shed light on the matter of whether politicians provide more significant incentives in locations with more violence.

CHAPTER I

LITERATURE REVIEW

For the past two decades, Mexico has been a significant exporter and importer, with a strong relationship with the United States of America. Following an economic crisis in the 1980s, the Mexican government shifted towards market-oriented policies that would open their economy (Ramirez 2000). Soon after, in 1994, the North American Free Trade Agreement (NAFTA) was implemented. NAFTA is a trade agreement between the United States, Canada, and Mexico that removes barriers to the exchange of goods and services. These two efforts have resulted in an influx of Foreign Direct Investment (FDI) within Mexico; as of 2017, it is ranked 15th in the highest FDI inflow and 1st in Latin America (Gonzalez 2019). Mexico's intense involvement with international trade has caused the country to grow at a fast rate (Ramirez 2000). However, throughout these last two decades, organized crime/violence has been an ongoing issue for the country. It is evident that if investors believe that their firm faces a notable political risk, they will not invest. Also, politicians are willing to provide substantial incentives in order to claim credit that will help them win reelection.

Research on FDI and Violence

Daniele and Marani looked into organized crime in specific regions in Italy and the effects it had on foreign direct investment. They found that FDI in Italy was negatively affected by organized crime caused by the mafias (Daniele & Marani, 2008). However, this study did not mention how the host regions kept investors from leaving. Scholars have argued that violence reduces. A fundamental factor to point out is the regional distribution of foreign direct

investment in Italy. The Centre-North area received the most investments, and the southern regions accounted for less than one percent of the nation's total. However, Daniele and Marani found that the degree of concentration is higher when looking at the provincial level. Interested in these findings, they took an in-depth look into the rationality of investors when choosing a location to invest. They found that areas with efficient institutions attract investors, and weak institutions can bring extra costs for firms. They looked at different projects that focused on the effects that crime had on foreign investment. The data found that investors are not attracted to areas with high levels of crime. When it came to Italy, investors choose not to invest in areas where there was an ample volume of Mafia crime. The measurement of violence was done by studying different crimes committed by the Mafia. Crimes included are extortion, bomb attacks, and arson. They found that the southern region, which was the area with the least investment, synchronously experienced high levels of Mafia crime.

In a comprehending study, Ashby and Ramos (2013) found evidence that organized crime resulted in a decrease in FDI. They concentrated on how organized crime affects investment and business activity in Mexico. In an experimental approach, they centered on different sectors of investment. The different areas included financial services, commerce, agriculture, oil and mining, and manufacturing. They performed an empirical analysis, where they looked into an industries-specific foreign investment on 32 Mexican states between 2004 and 2010. Similar to Daniele and Marani's study, this project avoided the need to find a control country since it is only focusing on one country. The criminal activity in the study circled organized crime from drug cartels as its measure. The dependent variable is investments in each state. They used a fixed-effects approach in order to capture change within state. Since it is difficult for investors to determine safety in a region for future dates, they must look at past

statistics. This data implies that the independent variable will lag by a year. Lastly, the focal variable for organized crime in Mexico is homicides per capita that had been reported by the government. Although there was no effect on foreign investment in the manufacturing sector, there was a negative effect on financial services, commerce, and agriculture the study found. Lastly, there was a positive effect on the sectors of oil and mining. This finding raises concerns about reverse causality. This outcome may suggest that violence in these areas occurs from people who steal oil.

Research on FDI and Incentives

In a project conducted by Verdugo, he looked at how responsive investors were to tax changes in Mexico (Verdugo 2006). He studied the modified actions investors took on their capital after tax reform. He found that when a reformation eliminates a subsidy, investors reduced their capital. Although this research only sheds light on a response of tax reform, one can infer that investors value subsides.

Jensen and Malesky looked at this issue by focusing on regional competition and how political representatives give tax incentives to investors (2018). They highlight how the absence of economic incentives do not change investment plans, however are used for credit claiming to help raise a political representative's approval rate. They provided data that incentives are used all around the world. They looked at different programs within the United States of American and several abroad and found similar trends throughout all of them. For instance, politicians use these incentives to claim credit for the investment they have brought to their region.

In a study conducted by Wei and Shleifer, the findings were very similar to Jensen and Malesky. Wei and Shleifer conducted an analysis that looks at how corruption in capital

importing affects the volume of inflows (Wei & Shleifer, 2000). His data measured the restrictions and incentives on FDI and looked at the effect of corruption. He found that firms were more likely to suffer from interference from local officials. Secondly, he found that most modern international financial policies offer insurance and other means of protection. Thus, supporting Jensen and Malesky's case on how incentives are a nice add on but do not cause substantial investments.

Similarly, to Jenson and Malesky, Samford and Gomez focus on how local politics takes a toll on FDI in Mexico (Samford & Gomez, 2014). In this project, they found that for states with more eminent levels of natural resources, combating crime and corruption was most important. However, this is not the case for states that focus on increasing investment in manufacturing and service institutions. They found that policymakers whose top priority is to attract businesses are more tolerant of crime and corruption. Samford and Gomez mention that this is possible because moderate level corruption may be assumed as a cost of investing in Mexico, or that the cost of corruption is not of important matter to investors. Policymakers are not motivated to combat these issues since it does not affect investors' decision making.

Similar to Jensen and Makesky's study expressing that investors do not change investment plans. In a similar study, Benton looked at how investors reacted to policy platforms of candidates for Mexico's 2006 presidential election (Benton 2008). She performed a statistical analysis of public opinion polls and the Mexican stock market. Her findings showed that with the rise of support for the left-leaning candidate lead to a lowered stock volatility and neutral market performance. However, there was a negative response to uncertainty. This research failed to explain as to why Mexico reacts differently compared to other Latin American countries that demonstrate left-leaning candidates creates lower market performance and higher market

volatility. Another project discovers that investment increases when investors are provided with a type of security (Li & Vashchilko, 2006). Firms are less likely to invest in locations that have interstate military conflict. Their project conducts an empirical analysis of investment flows for 1117 dyads among 58 countries between the years 1980 and 2000. They found that in states that have low-income dyads, security factors do not affect bilateral investment. However, both the security alliance and military conflict influence investment.

Prior research helps decipher the complex subject of the motives of foreign investors. However, these studies fail to observe the contributions political representatives have had on bringing FDI to their regions and their effects on economic development. Through this research, it is a plan to identify further reasons investors choose to invest in violent regions. More specifically, in different ways, Mexican political representatives mitigate the risk of violence for foreign investors. Additionally, explore whether these incentives benefit the region's economic development.

CHAPTER II

METHODOLOGY

In this project, the quantitative study aims to perform data analysis on the effects of foreign direct investment (FDI) on the regional gross domestic product (GDP). This method will foster an understanding of the patterns and generalization of causes on the phenomena. Detecting the correlation between FDI and GDP is the objective for uncovering if areas with violence are experiencing the benefits of FDI, measured through the regional GDP. Furthermore, once the data is collected, there will be a thematic analysis. This method will assist in identifying the central theme and patterns that relate to the hypothesis that proclaims less GDP growth is associated with foreign investment and significant incentives. The quantitative approach consists of focusing on 15 out of the 32 states in Mexico. The selection of states occurred for the reason that they are areas with high foreign investment, exceeding .5 billion dollars in foreign investment in the year 2018 (Gonzalez, E.) The specific states observed are Mexico City, Nuevo León, Mexico, Guanajuato, Coahuila, Baja California, Chihuahua, Tamaulipas, San Luis Potosí, Querétaro, Aguascalientes, Jalisco, Puebla, Veracruz, and Tabasco. Following the identification of states, they are separated into two control groups contingent with violence levels measured through in-state homicides that passed the 75 percentiles for the years 2008, 2012, and 2017. Accordingly, data is collected for the years 2008, 2012, and 2017 for the variables of the study. The first variable is the local homicide rate for the specific year. This data was accessed from SESNSP, the Executive Secretary of the National Security System. The following variable is the amount of capital investment in the specific state during the particular year measured in United States dollars in millions. Gathered through an online database called FDI Markets that admits

access to FDI by country and states, capital investment data was acquired. The next variable stands as the state GDP for the designated year. Garnered from the Organization for Economic Co-operation and Development (OECD) data site, regional GDP was collected- measured in millions of USD, constant prices, constant PPP, the base year 2005. Lastly, this approach will include an analysis by considering the incentives offered by specific states. The information was accessed through the Mexican Ministry of Finance and Public Credit. These incentives are issued to the states by the Mexican government during the specific fiscal year. They aim to generate incentives to increase economic growth within the states and have no specific destination.

Mirrored from a study by Fonseca and Llamosas-Rosas, it can be implied that a state with less fund capacity cannot attract new investment through economic incentives (Fonseca, F.J., & Llamosa-Rosas, I. 2008). The study will use linear regressions for each of the years conducted on the data analysis program Stata. The regression will estimate the relationship between FDI and the regional GDP. Moreover, the five models will be performed for each year observed- totaling to 15 regression models.

CHAPTER III

RESULTS

The quantitative analysis conducted focused on 15 out of the 32 states in Mexico through a series of linear regressions. The various regressions constructed were each performed for the years 2008, 2012, and 2017. These models were used to determine the findings for both propositions. The first of these propositions conveyed that governments provide substantial incentives in areas associated with a notable degree of violence to attract foreign investment. The models formulated observed the correlation between the continuous variables for the measurement of incentives and violence. In this case, the measurement for violence was the independent variable, and the measurement for incentives was the dependent variable. Following, in order to measure if violent areas with significant incentives attract foreign investment, an interaction term regression was conducted. The measurement for violent states and significant incentives were the interactive independent variables, and foreign investment stood as the dependent variable. The second proposal anticipated that less growth is associated with foreign investment and significant amounts of incentives. Models to convey the second proposition aimed to grasp a correlation between the outcomes of substantial incentives and foreign investment to regional GDP in violent areas. This demonstration was directed by analyzing an interaction term regression where significant incentives and foreign investments were the independent variables and regional GDP as the dependent variable. Furthermore, to uncover incentives that targeted violent areas and its effects on regional GDP, an interaction term regression was executed where sizeable incentives and violent states were the independent variables, and regional GDP was the dependent variable.

Models for First Proposition

The homicide measure is an essential indicator of violence and safety within a state. As mentioned by Daniele and Maranie in their study about the mafias in Italy, violence could result in less foreign investment. Furthermore, the incentives measure is a vital indicator of how governments are attracting foreign investors. The results in this model, illustrated in Table I., indicate that violence in states has a positive and significant relationship with the measure of incentives. These results suggest that as a state experiences more homicides, governments are providing a higher budget distribution for economic incentives. However, when an interaction term regression was conducted to investigate the change in capital investment due to the interaction of violent areas (states that experienced homicide levels above the 75 percentile) and measure of incentives, the outcome indicated an insignificant relationship. In comparison, these findings may suggest that in states who experience a notable degree of violence, governments are issuing incentives to mitigate the loss of investment. Moreover, this does not suggest that these incentives are indeed increasing capital investment from foreign investors.

Table I. Proposition 1: Regression Results with variable (x) Incentives variable (y) Homicides

Incentives08	Coefficient	p-value	R-square
Homicide08	1.15e+07	0.027	0.3241
Incentives12	Coefficient	p-value	R-square
Homicide12	1.25e+07	0.003	0.5094
Incentives17	Coefficient	p-value	R-square
Homicide17	1.52e+07	0.021	0.3470

Models for Second Proposition

The regional GDP measure is an essential indicator of the well-being of a state's economy. Further, GDP can demonstrate how different measurements can cause it to increase or

decrease. In addition, capital investment is a crucial example to measure the amount of foreign investment in a state. The change of regional GDP due to the capital investment and significant incentives (states that experienced incentives above the 75 percentile) was tested through an interaction term regression. The results in this model, illustrated in Table II., present a positive and significant relationship between the interaction variables and the regional GDP. These findings suggest that investment increases growth more in areas with substantial incentives. Although this is not consistent with the proposal, it may indicate that incentives granted by governments are attracting foreign investments that are benefiting its economy.

Table II. Proposition 2: Interaction Regression Results with variable (x) GDP variable (y) Incentives and FDI

GDP08	Coefficient	p-value	R-square
Incentives08#FDI08	32.13284	0.009	0.4788
GDP12	Coefficient	p-value	R-square
Incentives12#FDI12	409.2612	0.005	0.5317
GDP17	Coefficient	p-value	R-square
Incentives17#FDI17	157.9413	0.057	0.3016

The second model, illustrated in Table III., executed for this proposition, evaluated the change in regional GDP if prominent incentives are targeted in violent areas. The results indicated that there is a positive and significant relationship between the interaction terms of significant incentives in violent areas to regional GDP. This suggests that in areas with high violence and notable incentives, there is an increase in their GDP. Moreover, this could support that incentives granted by governments are mitigating the risk of violence and attracting foreign investments that are benefiting its economy; this can be inferred since capital investment is included in GDP.

Table III. Proposition 2: Interaction Regression Results with variable (x) GDP variable (y) Incentives and Homicides

GDP08	Coefficient	p-value	R-square
Incentives08#Homicide08	181170.7	0.000	0.6939
GDP12	Coefficient	p-value	R-square
Incentives12#Homicide12	94590.14	0.061	0.5879
GDP17	Coefficient	p-value	R-square
Incentives17#Homicide17	130541.2	.059	.6619

The last model, illustrated in Table IV., conducted for this proposal observed the change in regional GDP in areas that experienced high foreign investment and violence. The findings of this interaction term regression model found that there is a positive and significant relationship between high capital investment in violent areas to regional GDP. The results suggest that high capital investment in violent areas are increasing GDP. Moreover, this can imply that despite the violence, capital investment is still causing regional GDP to grow. Following, this suggestion may also imply that incentives are effective when attracting foreign investment in violent areas.

Table IV. Proposition 2: Interaction Regression Results with variable (x) GDP variable (y) FDI and Homicides

GDP08	Coefficient	p-value	R-square
FDI08#Homicide08	97348.16	0.016	0.5030
GDP12	Coefficient	p-value	R-square
FDI12#Homicide12	85132.95	0.039	0.5368
GDP17	Coefficient	p-value	R-square
FDI17#Homicide17	0 (empty)		

CONCLUSION

This research indicates a contribution to the study of how incentives play a role in foreign investment. By utilizing a set of variables, the estimates represent the effects that violence and incentives have on capital investment and regional economic growth. Since the two propositions test multifaceted variables, five different models are used to estimate the results. The findings indicate that governments provide more significant distributions of economic incentives to states in areas with more violence, being that they are positively correlated. However, the results for the first proposition did not conclude that there is an increase in foreign investment because there are high incentives. In contrast to the second proposal presented in this paper, the results indicate that more GDP growth is associated with foreign investment and significant incentives. Moreover, additional models ran for this proposition found that in both, violent areas with substantial investment and violent areas with significant incentives experience an increase in regional GDP. The conclusions for the second proposal could explain that governments, in violent areas, are using incentives efficiently to attract foreign investors that are benefiting their economy. Future research could expand upon this project by adding more years of data and including all of the Mexican states, which will enable us to examine a grander degree of the study. Also allowing a qualitative approach to contextualize the patterns and generalizations discovered in the quantitative process. The construct of the application occurs through interviewing foreign investors in Tamaulipas, Mexico, to demonstrate a proof of concept theory. The interviews will provide a slight corroboration in principle to verify that the theoretical argument has practical potential. By providing real-world knowledge about the focus group of investors, the interpretive findings will aid in uncovering the verity of a second hypothesis; to

attract foreign investors in areas associated with higher levels of violence, governments must provide substantial incentives to attract investors.

REFERENCES

Arel-Bundock, V., Peinhardt, C., & Pond, A. (2019). *Political Risk Insurance: A New Firm-level Data Set*. Journal of Conflict Resolution. https://doi.org/10.1177/0022002719875754

Ashby, N., & Ramos, M. (2013). Foreign direct investment and industry response to organized crime: The Mexican case. European Journal of Political Economy. 30. 80–91. 10.1016/j.ejpoleco.2013.01.006.

Benton, A. (2008). Do Investors Asses the Credibility if Campaigning Commitments? The Mexico's 2006 Presidential Race. Political Research Quarterly, Vol. 61, No. 3,pp. 405-420.

Calderon, L. Y., Heinle, K., Rodriguez-Ferreria, O., & Shirk, D. A. (2019, April 30). 2019 Organized Crime and Violence in Mexico. Retrieved from https://justiceinmexico.org/2019-organizedcrime-violence-mexico/

Daniele, V., & Marani, U. (2008). Organized Crime and Foreign Direct Investment: The Italian Case CESifo Working Paper Series No. 2416. Available at SSRN: https://ssrn.com/abstract=1281380

Fonseca, F.J., & Llamosa-Rosas, I. (2018) *Determinants of FDI Attracting in the Manufacturing Sector in Mexico*, 1999-2015. Working Papers, No. 2018-07

Gonzalez, E. (2019, May 16). Chart: A Breakdown of Foreign Direct investment in Mexico. Retrieved from https://www.as-coa.org/articles/chart-breakdown-foreign-direct-investment-mexico

Jensen, N., & Malesky, E. (2018). *Incentives to Pander: How Politicians Use Corporate Welfare for Political Gain* (Business and Public Policy). Cambridge: Cambridge University Press. doi:10.1017/9781108292337

Li, Q. & Vashchilko T. (2010). *Dyadic military conflict, security alliances, and bilateral FDI flows*, T. J Int Bus Stud 41: 765. https://doi.org/10.1057/jibs.2009.91

National Institute of Statistics and Geography, & Inegi. (n.d.). National Institute of Statistics and Geography. INEGI. Retrieved from http://en.www.inegi.org.mx/default.html

Ramírez, M.(2000). Foreign Direct Investment in Mexico: A Cointegration Analysis. *The Journal of Development Studies*, 37(1), pp.138–162

Samford, Steven & Gómez, Priscila Ortega, (2014), Subnational politics and foreign direct investment in Mexico, Review of International Political Economy, 21, issue 2, p. 467-496, https://EconPapers.repec.org/RePEc:taf:rripxx:v:21:y:2014:i:2:p:467-496.

Verdugo, A. (2006). *Regional Incentives for Investment in Mexico: The Accelerated Depreciation Reforms*. Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association, 99, pp.282-286

Wei, S. & Shleifer, A. (2000). *Local Corruption and Global Capital Flows*. Brookings Papers on Economic Activity, Vol 2000, No.2, pp.303-354