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Following the Leader: What Accounts for the Variation in Timing of Conditional Cash Transfers
in Latin America?

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ABSTRACT

Conditional Cash Transfers have become a popular and seemingly effective tool to combat poverty in Less Developed Countries. Much of the work related to CCTP's has been country-specific and concentrated on its social effects and impacts. This study acknowledges the effectiveness of CCTP's, although it focuses on their constant growth throughout Latin America. CCTP proliferation is important because they are politically innovative and have become the standard poverty-reduction solution in Latin America. For the first time, governments in Latin America are creating programs based on transferring income monetarily rather than handing out simple short term subsidies.

With so much research dedicated to the evaluation impacts of CCTP's, the question of adoption timing has yet to be fully addressed. This study explains the variation in timing of CCT program adoption in 17 Latin American countries. Finally, this study incorporates Venezuela and Cuba, the two countries in the region that have not adopted CCTP's. By using an event history analysis, the study concludes that the likelihood of adopting a CCTP is not accelerated by theories suggested in the existing literature. Factors such as macroeconomic instability, governing party weakness, high rural poverty and poor bureaucratic quality are not correlated with the likelihood of CCTP adoption in every Latin American country. The descriptive portion of the study focuses on Colombia as a case study to identify the internal governing factors that pushed that country's CCTP from its preliminary stages to its final adoption.

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GLOSSARY

CCT—Conditional Cash Transfer

CCTP—Conditional Cash Transfer Program

FA—Families in Action Conditional Cash Transfer Program (*Familias en Accion*)

CONPES—Colombian political and social economy council (*Consejo Nacional de Politica Economica y Social*)

SISBEN—Colombian selection system for social program beneficiaries (*Sistema de identificacion y clasificacion de potenciales beneficiarios para programas sociales*)

DNP—Colombian national department of planning (*Departamento Nacional de Planeacion*)

WB—World Bank

WDI—World Development Indicators

IADB—Inter American Development Bank

RAS—Minimum living standards in Colombia (*Consulta de Reglamento Tecnico del Sector*)

DPS—Colombian Department of Social Prosperity (*Departamento para la Prosperidad Social*)

ANSPE—Colombian agency focusing on extreme poverty (*Agencia Nacional para la Supremacion de la Pobreza Extrema*)

LDC—Less Developed Countries

ICRG—International Country Risk Guide

PRAF-I—Honduras's first CCTP (*Programa de Asignacion Familiar*)

COW—Correlates of War

PRS—Poverty Reduction Strategies

SAP—Structural Adjustment Programs

ICBF—Colombia's program in charge of family-related policy (*Instituto Colombiano de Bienestar Familiar*)

SENA—Colombian national service and labor educational institute (*Servicio Nacional de Aprendizaje*)

PROGRESA—Mexico's Education, Health, and Nutrition Program (*Programa de Educacion, Salud, y Alimentacion*)

IFPRI—International Food and Policy Research

INTRODUCTION

Conditional cash transfer programs are viewed by many as the “world’s favorite new anti-poverty device” (Economist, 2010) and are now implemented in over 40 countries across the globe. Latin America was the first region to adopt, implement, and evaluate CCT’s, and every country within that region executes a CCT program save Venezuela and Cuba. As a political tool, CCTP’s are unanimously implemented throughout Latin America and have thrived phenomenally in a region with wide variation in demographic profiles. Brazil, for example, which had 176 million citizens at the time of adoption, shares an almost identical poverty-reduction model as Panama, a small country with 3.29 million people¹. The apparent regional uniformity and overwhelming agreement that these programs are effective led me to closely observe the political processes driving CCT adoption.

Most scholars of CCT programs agree that their broad objective is centered “particularly on child focused interventions to reduce malnutrition and to promote early childhood development...and building the assets of the poor” (Lindert & Tesliuc, 2004, 141). My thesis asks what accounts for the variation in timing of CCTP adoption in Latin America during the 1990’s and 2000’s. This question is important for two main reasons. First, CCT programs are complex and intricate mechanisms that have generally succeeded in curbing poverty levels while demonstrating political sustainability. Secondly, not enough attention has been focused on the political mechanisms that lead to CCT adoption and more importantly, the conditions that accelerate or retard program adoption. On a broader scale, observing the timing of CCTP’s will clarify whether CCTP’s, social programs, or general policies in general are emulated at a cross

¹ See table 1.1 in appendix I

national level simply because they are successful and not necessarily because they are applicable to a particular country's macroeconomic condition.

This thesis observes macroeconomic and political factors that have a significant effect on the timing of CCT adoption. In order to observe how certain macroeconomic and governing conditions affect the timing of program adoption, this thesis will first analyze how relevant factors affect the actors involved in the policy making process. The descriptive component of the paper will analyze what particular incentives led policy makers to choose to adopt a CCT when they did. The paper will also focus on the redistributive nature of CCT's and its targeted populations, which demonstrate a clear rural-urban cleavage across the region. The political implications of national government attempts to adopt an expensive social program aimed primarily towards rural communities will also be observed. Colombia will be chosen to expand on this aspect because that country holds available qualitative information and has one of the most transparent and accessible bureaucratic departments managing CCT's. Colombia has also been monitoring and closely evaluating its CCT program since the first pilot program, which not every country has done.

The explanatory portion of the paper will observe seven main factors that affect the timing of CCT adoption in Latin America—macroeconomic performance, safety of ruling party, bureaucratic quality, size of rural population, inequality, national poverty, and disproportionate poverty concentrated in rural areas. An event history analysis will be used to pinpoint the timing of CCTP adoption in every country and test the effect of the stated independent variables on the likelihood of program adoption at a cross national level. Survival analysis will reveal how long it should take until CCTP's happen, accounting for macroeconomic, political, and social factors. Furthermore, survival analysis will help reveal what are the necessary and sufficient conditions

for CCTP adoption. This model could help predict which countries beyond Latin America are more likely to adopt CCTP's. As Eastern Europe and Southeast Asia consider CCT's as a possible solution, it is important to see what specific factors motivate states to swap old poverty-reduction schemes for CCT's.

Latin America is regarded in the traditional sense as the Spanish and Portuguese speaking countries in the region. French, British, and Dutch speaking nations in the Caribbean will be excluded from the study because they have different economic structures from the rest of the continent. The excluded countries are Antigua and Barbuda, Aruba, The Bahamas, Barbados, Belize, Cayman Islands, Curacao, Dominica, Grenada, Guyana, Haiti², Jamaica³, Suriname, and Trinidad and Tobago. These countries are also referred to as the Caribbean and Eastern Caribbean states, and they have not adopted CCTP's in the time period that this thesis is observing. There are 19 countries to account for after excluding the mentioned Caribbean postcolonial democracies. Out of the 19 countries in Spanish and Portuguese speaking Latin America, 17 have adopted CCTP's, and many have adopted both provincial and national CCTP's. This study is only concerned with national programs that encompass the entire population. Brazil, for example, adopted its first two regional Conditional Cash Transfer Programs in two different provinces as early as 1995 (Lindert, 2007, 11). Many countries based their national CCTP's on smaller municipal and provincial pilot models. It is necessary to differentiate between municipal and national models because the focus of the project is identifying the factors that affect the likelihood of program adoption at a cross national level.

² Haiti adopted a pilot Conditional Cash Transfer Program in 2012. This study only observes CCTP's introduced from 1990 to 2010.

³ Jamaica adopted its Conditional Cash Transfer Program in 2010.

LITERATURE REVIEW

I. CCTP expansion: Choosing the Starting Point

This thesis is relevant because it observes a peculiar trend among a pool of literature that focuses almost exclusively on individual CCT models and not on generalizable political factors that conditioned program regional proliferation. The secondary literature agrees overwhelmingly that collectively, CCTP's have had positive impacts on the entire region. CCTP scholars agree that "Latin America has begun to move toward social programs that combine more targeting with less discretion" (Diaz Cayeros & Magaloni, 2009, 37). The literature mentions seven factors that possibly affect the timing of program adoption: poor macroeconomic performance following years of growth under economic liberal policies, increased pressure on the governing party, disproportionately high rural poverty, high rural population density, high inequality, poor bureaucratic quality, and disproportionately high national poverty.

The stated macroeconomic, social, and political conditions are directly applicable to Mexico's CCTP because the theory is based partly on Santiago Levy's testimony of the Mexican experience. This literature review selects the testimony of the Mexican Finance Minister (served from 1994 to 2000) as a starting point for a broad discussion about the necessary and sufficient conditions required for CCTP adoption. The literature review then focuses on existing theories that parallel or criticize Levy's view about the Mexican program and applies it to a broad theory encompassing every national CCTP. The review of the existing literature consequently pinpoints factors proposed both in publications about specific programs, such as Mexico's PROGRESA, as well as publications that observe CCTP timing cross nationally, such as *Aiding Latin America's Poor* (Diaz Cayeros & Magaloni). The literature suggests that the most pressing issue when

discussing the timing of CCTP adoption is the state of the economy. Macroeconomic stability is the starting point for the dialogue centered on CCTP adoption: There is agreement that the economy must be contracting or recuperating from a recession in order for CCTP adoption to be considered. The assumption about CCTP adoption is that the program is a temporary solution to alleviate extreme poverty during economic recovery. In other words, CCTP's are supposed to begin exclusively as an anti-shock strategy.

Regarding the variation in timing of CCT adoption, the literature uniformly agrees that there are both international and domestic pressures that affect the likelihood of program adoption⁴. However, there is more research focused on the international factors pushing for CCT expansion. This paper is concerned with the domestic political and economic pressures that affect the likelihood of adopting a CCTP. The literature suggests that a confluence of macroeconomic, social, and political conditions influence policy makers to adopt a CCT scheme. These factors, although discussed independently of each other in the literature, show up repeatedly in testimonies of public officials who pushed the programs, such as Santiago Levy, finance minister of Mexico and father of PROGRESA (Levy, 2006). Santiago Levy and Henrique Cardoso, founders of the two largest CCTP's, stress that these programs were adopted as emergency anti-shock programs. In Brazil, regional CCTP's were instituted to "mitigate the effect of economic crisis and decrease the poverty gap" (Handa & Davis, 2006, 518). Levy finds that because the trigger of CCTP adoption is economic in nature, then the single biggest factor that influences program adoption is a severe economic downturn. The program's aim is to stabilize the economy by alleviating abject poverty, not necessarily to increase growth and completely eradicate poverty (Levy, 2006,19). Maintaining macroeconomic stability is crucial

⁴ Look at illustration 1.6 in Appendix I

for governments because it keeps poverty gaps stable. In other words, extreme poverty is extremely susceptible to macroeconomic instability.

II. Theory Building

A. Presenting the theory

Under the context of a region deeply affected by economic liberalism, the adoption of CCT's in Latin America was accelerated as a result of poor macroeconomic performance directly following increasing yet volatile economic growth. Latin America's growth in the first half of the 1990's proved short lived. In the first half of the 1990's, Latin America "saw less growth in per capita GDP than in 1950-1980" (Rodrik, 2006, 975). The adoption of CCT's requires a fundamental economic demand. There has to be a drastic macroeconomic shock that deeply exacerbates the social situation of the poorest in society. There also needs to be poor macroeconomic performance after a period of growth under economic liberal policies. Britto, Combariza, Levy, and Fizbein, all of who consulted the adoption of CCT programs in Brazil, Colombia, Mexico, and Argentina, claim that CCT's came as a response to "grave economic crises" (Combariza, 2010, 21). Second, there needs to be increased political pressure on the governing party. When the ruling party becomes threatened by increased political competition and decreasing popularity, it is more likely to attempt a high risk, high reward program. Especially in the first models, CCT's are the byproduct of political resourcefulness, in which policy makers gambled on a radically new scheme to combat poverty. This new approach might not have occurred if the ruling party was not threatened by the economic situation that Mexico, Colombia, or Brazil faced in 1994, 1999, and 2002, respectively.

Governments with weak bureaucracies are also more likely to adopt CCTP's because cash transfers are easily manageable and are expected to reduce administrative stress on bureaucratic departments. High inequality is also assumed to increase the likelihood of CCTP adoption, as it is also correlated with high poverty rates. Both national and rural poverty are expected to increase the likelihood of CCTP's because the main reason for the program's existence is to target and alleviate extreme poverty. In theory, CCTP's are adopted because social conditions are grave. Latin America in the 1990's demonstrated that high poverty rates correlate with extreme poverty, which CCTP's are supposed to alleviate.

High rural population density is also thought to increase the likelihood of adopting a CCTP. Cash transfers are aimed towards rural communities, which lack government services found in urban areas, such as schools and sanitary services. Conditional Cash Transfers could be indicative of shifting governing priorities, such as addressing the historically prevalent rural-urban cleavage and addressing poor macroeconomic performance in order to ensure the continuity of the regime (Britto, 2006). In Mexico, PROGRESA's first phase was "implemented in eleven states and benefited 300,000 families in rural areas" (Britto, 2004, 23). Social conditions in rural areas are for the most part, worse than in urban areas. Levy argues that in Mexico, "50 percent of rural households lived in poverty while 14 percent of urban households lived in poverty" (Levy, 2006, 4). Like Mexico, Brazil implemented its pilot program in a predominantly rural municipality. The *Bolsa Familia* pilot program was implemented in "Feijo municipality, which has 27,000 inhabitants of which approximately 58% in rural areas" (Lindert, 2007, 45). Countries with a higher rural presence are therefore more likely to start the CCTP dialogue because rural communities tend to be more vulnerable to economic shocks than urban communities.

B. Economic Factors: Recessions during Economic Liberalism

The politics of conditional cash transfers begin as a response to “drastic economic crisis or transition” (Rawlings, Sherburne-Benz, & VanDomelen, 2006, xxvi) during or shortly after the neoliberal era. Generally, economic crises “create the immediate motivation for change” (Levy, 2006, 14). An economic recession “motivates” (Levy, 2006, 15) governments to seek alternative solutions to political, social, and economic conditions. Many CCTP’s were created as alternative solutions to poverty reduction under economic recovery. The clear examples of programs adopted in recessions are Mexico, Argentina and Colombia. Other programs, such as Honduras’ PRAF-I, and Brazil’s Bolsa Familia were adopted under stagnant economies.

The late 1980’s ushered in an era of economic liberalism, in which young democratic governments “initiated market-oriented reform” (Philip, 1993, 556) focused on stabilizing economies with stern monetary policy. The main goal for many Latin American regimes in this time period was to cut the inflation rate, stabilize prices, and downsize the public sector. Economic liberalism became the norm in the region as The World Bank began pushing structural adjustment programs. In the early 1990’s, on the eve of CCTP’s, the Bank became a major influence in the region. Governments were strung to the Bank because they needed more low interest loan packages. The effect of the Bank’s relationship with the region resulted in a dependency for Bank funded Structural Adjustment Programs, which then led to tremendous economic maladjustments (Facha & Feinberg, 1986, 336). This repeated behavior started a period dominated by economic liberalism, or neoliberalism, across the region.

The effects of economic liberalism should be understood before observing the proliferation of CCT’s. The original CCT’s were founded by governments that adhered to

neoliberalism or that came after the stated ideology. Mexico's government, which adopted the first widespread national CCT program with comprehensive evaluation methods, "had a strong preference for Neoliberalism in the Salinas administration" (Snyder, 2001, 28). Carlos Salinas preceded Ernesto Zedillo, who presided over PROGRESA. Zedillo also agreed with economic liberalism—the first part of his administration is characterized by a "laissez faire approach to state and local governments" (Snyder, 2001, 176). Honduras' PRAF-I, the first CCTP, was almost entirely funded by the IADB and the World Bank (Moore, 2008, 4), two institutions that adhered and promoted Economic Liberalism in the 1990's. Colombia's CCTP, which was adopted in 2000, was also heavily funded by the IADB and World Bank. The first CCTP's were all established in countries that had been prescribed Structural Adjustment Policies by the World Bank and International Monetary Fund (Denes, 2003, 145). On the surface, it is clear that international governing organizations that promoted economic liberalism had influence on domestic economic policy-making in the region.

The literature suggests that economic liberalism was appealing to the region because its main premises of deregulation and privatization promised constant economic "modernization" (Snyder, 2001, 39) and growth. Economic liberalism in Latin America is embodied by the Washington Consensus, which suggests that states should adopt policies that follow "macroeconomic discipline, trade liberalization, and development of the market economy" (Williamson, 2004, 12). Governments in Latin America strictly followed economic liberalism and saw economic optimism triggered by decreasing inflation and increased investment. The region's shift to economic liberalism meant that national governments emphasized macroeconomic stability as their primary objective. On the other hand, the public sector needed to be downsized and its role with maintaining social welfare was severely diminished. The

impact of this was higher economic growth with high inequality and high poverty. The poorest suffered the most during this time period, as there were no encompassing social safety programs that insured social protection and economic stability. Social programs in Latin America during the neoliberal period were generally characterized by a failure to “include in [neoliberal] reforms the construction of social safety nets” (Huber & Solt, 2004, 152).

As Latin American economies expanded during the early to mid-1990’s, governments did not implement anti-shock programs to safeguard the poorest from unprecedented economic recessions. Instead, governments in this time period were concerned “mainly with macroeconomic stabilization” (Britto, 2005, 24), which required harsh structural adjustments. As this process led to privatization and smaller government, the poor in society became more vulnerable to external economic shocks. The wave of recessions that hit the region in the 1990’s and early 2000’s thus affected the poor noticeably because institutions were either not present or unable to lessen the effects of economic downturns. CCTP’s were adopted as temporary anti-shock responses to reoccurring systemic crises. In 1994, Mexico suffered a severe economic crisis due to the devaluation of its peso, and it eventually adopted the first strictly monitored national CCT program (PROGRESA) to combat hunger and chronic poverty in rural areas⁵. Mexico adopted this program with no assurance that it would be effective, but economic conditions, such as 6% drop in GDP, established a “motivation to institute a new approach towards poverty-reduction” (Levy, 2006, 13).

⁵ Brazil conducted impact evaluations on municipal CCTP’s in Brasilia in 1995 and 1996.

C. Social and Demographic Factors

The social and demographic factors that affect the likelihood of CCTP adoption are inequality, rural poverty, national poverty, and rural population density. These factors are tied to the economic factors mentioned in the previous section. Inequality, rural poverty, national poverty, and rural population density all fluctuate according to the state of the economy. The interconnected nature of the economy and the national social condition does not permit the discussion completely deviate from the stated economic factors. GDP growth, for example, has a direct effect on both national and rural poverty rates.

Latin American governments faced a pressing problem in the beginning of the 1990's. Latin America's slow GDP growth in the 1990's "is the primary cause of the region's high levels of poverty" (Pribble, Huber, & Stephens, 2006, 4). Generally, poverty reduction programs enacted in the region before CCTP's did not target education, which directly affects poverty (Wodon, et al., 2001, 135). Oversized and underfunded bureaucratic agencies will usually manage and implement ineffective poverty-reduction programs. Some countries, such as Brazil, sought a different approach to poverty reduction up until 1995. Brazil took on a policy of market-oriented economic reforms (Ravallion, 2009, 2), in which its GDP was projected to grow and incomes would consequently increase. The Brazilian economy, however, never boomed in the projected timeline. The socioeconomic implications of Brazil's hands off approach were brutal—Brazil's inequality levels increased dramatically and by 1990, had the one of the highest GINI coefficients in the region⁶. Latin America faced a peculiar problem as it entered the 1990's. Poverty was increasing drastically along with "glaring social inequality" (Hoffmann, 2012, 90). Hoffman suggests that the main drivers of the CCTP discussion were the policies of economic

⁶ See illustration 2.1 in appendix II

liberalism adopted in the late 1980's and 1990's. By the 1999 recession, policies centered solely on economic growth cut the regional poverty rate to 43.3 per cent, "but in real terms this still meant that 11 million more people were living in poverty than in 1990" (Hoffmann, 2012, 91). Based on this poverty statistic, Hoffmann argues that the success of poverty-reduction strategies should be measured by inequality rather than GDP per Capita.

There is also a strong rural-urban cleavage, which explains why CCT's were uniformly applied across Latin America to each country's peripheral rural communities. The main aim of CCTP's is to alleviate poverty in rural areas. Poverty in Latin America is densely concentrated in rural communities. Families in rural areas do not have access to many institutions located in urban areas. By design, CCT programs inherently "aim to safeguard people in rural communities, which are typically exposed to a broad array of shocks" (De Janvry, Finan, Sadoulet, & Vakis, 2006, 350). It is expected to see CCT's proliferate first in countries that have a disproportionately high amount of rural poverty, such as Mexico, Brazil, and Colombia. That is, countries with higher rural poverty than urban poverty are more likely to adopt CCT's earlier than countries with high urban poverty or similar urban-rural poverty levels. The literature agrees that "the rural poor are more prone to shocks" (De Janvry, Finan, Sadoulet, & Vakis, 2006, 360). CCT's demand services such as micro financing institutions, health clinics, and primary schools to expand into rural areas and thus provide a stable system that protects the poorest families from future macroeconomic shocks.

D. Political Factors: Path towards Policy Diffusion

The literature suggests that the main political factors that affect CCTP adoption are weak government and weak bureaucracy. Countries with low levels of bureaucratic quality—which

can be manifested by failed social programs—and unstable governing parties are therefore assumed to have a higher likelihood of emulating CCTP's. The main assumption is that a government that is being threatened in legislative elections by surging opposition is more likely to “depart from the status quo” (Levy, 2006, 15). This means that the governing party will take a risk by altering the administrative budget of the bureaucracy and creating new, short term but effective presidential programs. Low levels of bureaucratic quality are also assumed to increase the likelihood of CCTP adoption because the existing government agencies cannot sustain the traditional set of poverty reduction programs. The existing poverty reduction programs, which were administered by existing social ministries, were “inadequate to protect the poor during the [economic] crisis” (Levy, 2006, 14). Levy is implying that a significant reason why Mexico adopted a CCTP is because empirical research demonstrated that traditional poverty reduction programs were not showing results under the existing bureaucratic administration.

The government knows if it is threatened if the party of government is unstable. Stability can be measured by observing the presence of the governing party in the legislative branch. This dimension of party stability and its effect on the likelihood of adopting a CCT program has also been observed by the literature. The current theoretical argument centered on the relationship between political stability and CCT adoption states that “political stability and support played a key role in the creation of CCT's... and that CCT's are concerned with achieving some political and economic stability for the survival of the regime” (Britto, 2006, 7). Lack of political stability and a drastic need to establish political stability for the governing party and the actual regime is a main reason to adopt CCT's. It is as much of an economic stabilizer as a governing stabilizer. In order for adoption to happen, however, the regime needs to have the capacity to adopt a CCT program. This might explain why the bigger economies—Brazil, Mexico and Colombia—

adopted the programs first. The effect of a weak governing party on the likelihood of CCTP adoption can be captured by observing the relationship between a weak president and the likelihood of adopting a CCT. The strength of the ruling party and the presidency must be observed independently. Presidential systems are common in Latin America, which commonly results in divided government and with a President that is not completely “accountable to congress” (Mainwaring, 1990, 158).

Government capacity is exhibited in the executive branch and in the administrative organs of the bureaucracy. If the bureaucracy is capable of administering national social assistance programs, then there is less need for a CCTP. In other words, bureaucracies that deliver programs with efficient results are less likely to change their existing approach and less likely to receive decreased funding. With this said, the likelihood of CCT adoption is expected to increase by a track record of ineffective social programs. Ineffective social programs reflect the quality of the bureaucracy and the bureaucracy’s capacity for executing policy. Generally, the neoliberal era did not introduce successful social programs, although it did introduce encompassing nationally funded social programs with limited budgets and no international oversight. Poverty reduction programs in the early 1990’s were largely based on temporary food subsidies and handouts (Levy 2006). Following the 1994 collapse of the Mexican peso, Zedillo’s cabinet agreed that “existing programs, particularly the set of generalized and targeted food subsidies that were in place at the time were inadequate to protect the poor during the crisis” (Levy, 2006, 14). Subsequent failures of past programs to grant social security to the poorest citizens incentivized politically fragile governments to invest resources into a new encompassing social welfare strategy.

Britto chooses the Mexican example to demonstrate the significance of the “bureaucratic implications” (Britto, 2004, 42) of adopting a CCTP. Mexico’s existing bureaucracy had weak institutional capacity. There is a bottleneck effect in the bureaucracy that Zedillo’s government was trying to resolve. The Mexican ministries in charge of social development programs were too expansive and could not be administered in a “cost-efficient and sustainable” (Handa & Davis, 2006, 513) manner. In other words, the social welfare programs in place before PROGRESA were not fiscally cost-efficient from an administrative point of view. Zedillo’s administration reacted by creating an autonomous organization to implement PROGRESA with independent funding from other departments (Britto, 2004, 42). PROGRESA demonstrates how CCTP’s are adopted largely as a result of a bureaucracy that proved incapable of implementing existing poverty reduction programs. Levy mentions how previous poverty reduction programs consisted mainly of targeted food subsidies, and most benefactors lived in urban areas, while Mexico’s poorest lived in rural areas (Levy, 2006, 6). Levy states that a major reason for this is a systemic communication failure between government ministries, which led to large exclusion and inclusion errors. These factors exacerbated an already present “large urban bias” within Mexican food subsidy programs. PROGRESA’s autonomous administrative nature seems to address these past failures of the Mexican bureaucracy. Colombia, for example, shares a similar past with ineffective social programs before the adoption of CCT’s. Until the adoption of Colombia’s CCT, the department of Social Action gave food subsidies instead of any type of monetary assistance to the poorest families (Combariza, 2010, 69).

The administrative reform that is common to CCTP’s has two general impacts: visible results and reduced administration costs (Lindert, 2007, 14). The second impact is especially relevant to policy makers interested in creating a more effective and accountable government. In

the 1980's and 1990's, many governments in Latin America still sustained the expensive "patrimonial and corporatist welfare state design" (Hunter & Sugiyama, 2009, 33). CCTP's are a more integrated approach which "bundles disparate programs and targets benefits to families living in extreme poverty" (Hunter & Sugiyama, 2009, 46). In other words, CCTP's streamline the old state ran social welfare machine. Since this new poverty reduction model worked in Brazil's municipal CCTP's, Honduras' PRAF-I, and Mexico's PROGRESA, policy makers around the region will likely contemplate adopting the CCTP model. The regional diffusion of CCTP's can be attributed to the economic effects of the pioneer CCTP's and their ability to streamline state social welfare systems.

One difference between CCTP's and previous welfare schemes is the gradual level of implementation. Every CCT had an introductory pilot model, or experiment⁷, which has observable political implications. Partial implementation of CCT's implies that the programs were designed to mature gradually. The reform of the pension system allows insight into the differences between CCTP's and the past social welfare systems. The reform of the pension system in Latin America occurred a decade before CCT's and was adopted nationally, covering 100% of eligible beneficiaries (Weyland, 2005, 263). CCT adoption occurred differently—certain regions were targeted first and it took months or years to cover all eligible recipients. The reform of the pension system was a complete overhaul of the existing pension model. The reform of the pension system included a lengthy discussion in the legislature and both the central government cabinet. The reform of the pension system was definitely a national project, with input from many actors. CCT adoption is different. The dialogue is limited, and few actors are

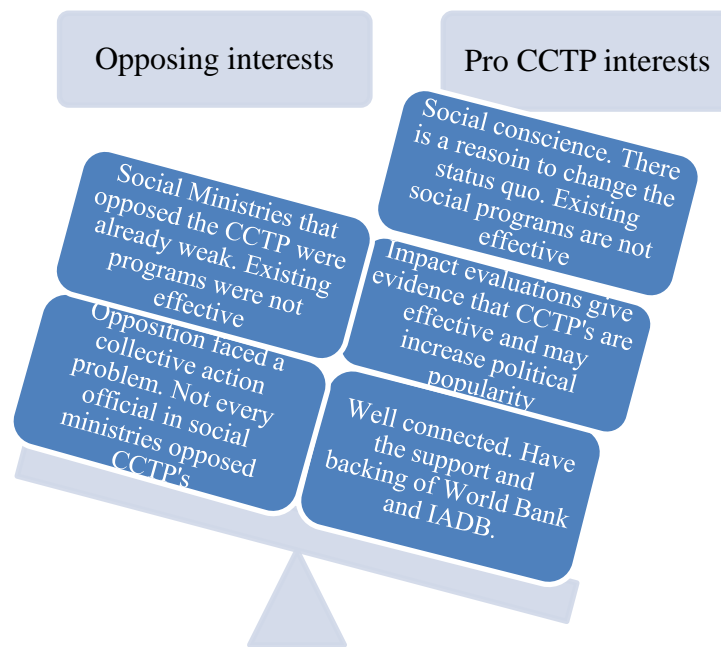
⁷ Pilot experiments are used to estimate the enrollment probability model necessary to establish the targeting and calibration formulas (De Janvry, 2006, 28).

involved. The president and his cabinet have the final say on program adoption, and the legislature, for the most part, is left out of the adoption process.

A main reason for the diffusion of CCT's after Mexico's PROGRESA experiment might be because political support increased shortly after the program was adopted, and "CCT programs in Brazil and Mexico had electoral considerations behind their coverage expansions" (Britto, 2006, 24). Britto claims that in the Mexican case, PROGRESA was quickly "politicized... [Because of] its presumably positive effects" (Britto, 2004, 34). Before adoption, PROGRESA received much of its opposition from the president's cabinet (Levy, 2006), and "potential losers lacked unity and organization to block the program's introduction" (Britto, 2004, 34). Once these obstacles were cleared and impact evaluations reported positive social effects, other regional governments saw CCTP's in a positive light and noticed its political feasibility. CCTP's were attractive beyond Mexico because it introduced "the notion of co-responsibility⁸ of beneficiaries and a move away from the traditional notion of paternalistic social assistance" (Britto, 2004, 34). CCTP's give weakening governing parties a fairly safe yet effective poverty reduction strategy with minimal opposition. Moreover, CCTP's are backed by multiple impact evaluations that give empirical support for adopting the program based on its social impact.

⁸ Co-responsibility refers to the dual nature of accountability introduced by the cash transfer, which includes both the government and the beneficiary family.

Illustration 1: Why did opposing interests lose the CCTP debate in the Mexican cabinet?



A simple ideological explanation should also be observed when asking the question of timing. The literature on policy diffusion, led by Borges Sugiyama, emphasizes that there is no correlation between presidential political ideology and likelihood of adopting CCT's⁹. Borges Sugiyama's observation of CCT policy diffusion in "The diffusion of Conditional Cash Transfer programs in the Americas" suggests that the recognized source of CCT diffusion at the domestic level is a vague combination of factors such as "electoral support, clientelistic purposes [and] the wholesale adoption of CCT models" (Borges Sugiyama, 2011, 266). She also shows that leftist governments adopted CCT's sporadically through the 2000's and the first programs were led by a combination of leftist and right leaning regimes. Borges Sugiyama clarifies that there is no significant relationship between ruling political party and CCT adoption. Roughly half the CCT's were adopted by center-left or leftist governments and the other half by center-right or

⁹ See illustration 1.3 in appendix I

right governments. However, she does not account for the proliferation of new coalition political parties arising in most CCT adopting countries. These coalitions are common throughout the region, and are usually created by a popular politician who wants to stay in power.

Most of the attention on the proliferation of CCT's is centered on the regional diffusion of this social program. One argument states that there has been a "diffusion of best practices" (Britto, 2005, 23) after the 1980's and that there is a regional domino effect led by the World Bank. These scholars claim that CCT's came about as a side-effect of a particular social welfare philosophy spread by International Organizations. The other main argument regarding diffusion states that CCT's, including the first model in Mexico, "represents earlier maternalistic social policy approaches" (Molyneux, 2006, 426) and political innovation on behalf of high level bureaucrats and ministers. One argument gives full credit to the international community, and the other suggests that there are domestic factors that lead to CCT's as well as "local initiatives independent of international influence" (Britto, 2006, 22). There is no doubt, however, that in the context of CCTP's, governments have cozied up to the idea of CCTP's even if the programs are not entirely needed.

The economic conditions in which the first five programs were adopted are entirely different from the conditions in which post-2002 programs were adopted. This is especially clear when observing GDP growth. The first five programs were adopted amidst economic recessions, while post-2002 programs were adopted in times of economic growth¹⁰. It seems that post-2002 governments "imagine that, if they do not have a CCTP, all they need to do is introduce it; if they do, they have sorted out problems of social protection" (The Economist, 2010). It is a possibility that after 2002, governments used CCTP's to simply combat general poverty instead

¹⁰ See illustration 3.3 in appendix III

of alleviating poverty caused by an economic shock. The reason for this might be that the international community is pushing CCTP's on a global scale as a feasible instrument to alleviate poverty. In the first CCT's, IO's became involved in the process only when they were approached by individual governments for funding. International policy actors, however, were quick to endorse the program models (Molyneux, 2006, 426). The international community, led by the World Bank, intensified its promotion for CCTP's after the first programs were evaluated and reports detailed the success of Latin American CCTP's.

The World Bank originally started with a funding role, in which they "financed programs, such as Colombia's Familias en Accion in 2000" (Attanasio 2005, 2). The World Bank, however, did not fund every program in the 1990's. Mexico's PROGRESA, for example, "ran only on federal funds with no direct funds from the federal bank" (Molyneux, 2006, 443). Molyneux puts forth the notion that not every CCTP, including the first models, were influenced by the international economic community. Although other models of CCT's did originally gain funds from international organizations, many developed the program model domestically and consulted the World Bank afterward. Today, however, the World Bank takes a completely different role and is more proactive about spreading the programs to Africa, Eastern Europe, and Asia. The World Bank has periodic reports that "documents the experience of conditional cash transfer programs" (Lindert, 2007, 2) and emphasize the positive outcomes of specific CCTP's. The World Bank also funds specialized research arms such as the *Brazilian Studies Association*, which present academic reports on the status of individual country CCT programs.

The works that observe program diffusion are concerned with the consequences of CCT implementation on specific countries and specific populations e.g., quality of life for female beneficiaries in Brazil's *Bolsa Familia* program compared to female beneficiaries in Colombia's

Familias en Accion. The literature observing diffusion also agrees that international organizations play a major role in CCT regional proliferation. This same group of scholars also agrees that cross-national variation in program design is attributed to “domestic factors associated with welfare regimes... and they are the product of top-down closed policy formation” (Franzoni & Voorend, 2011, 279). In terms of political resistance to CCTP’s, most opposition came from high level bureaucrats, consultants, and ministers. The restoration of the welfare regime is dependent on the respective social ministries to give way to a new approach.

My case study demonstrates how these political phenomena developed in Colombia. The Colombian government has published several academic reports that make it easier to observe these explanatory factors. In 2010, the Colombian government published a lengthy academic report called *El Camino Recorrido, 10 anos Familias en Accion*. The report gives historical insight into the actors in the legislature and executive branch that organized CONPES¹¹ 3081 of 2000, the law that founded Colombia’s CCT. This report offers information that is used in two other important laws affecting Familias en Accion, Colombia’s CCT. This report is important because it is written and distributed by the Colombian department of national prosperity, which is in charge of executing all social welfare programs, including Familias en Accion. It contains important primary sources about the introductory development of the program and the different dimensions that influenced actors to pursue a Colombian CCT.

CCT government reports such as Colombia’s *El Camino Recorrido, 10 anos Familias en Accion* are common throughout Latin America. These national reports offer a fitting “comparable analysis of the political opportunities and constraints for decision-makers” (Borges

¹¹ Since 1958, CONPES has served as an autonomous consulting committee to the Colombian legislature and executive on social and economic development

Sugiyama, 2011, 266). Regarding the profile of the decision-makers, the literature suggests that these programs were designed by powerful committees and departments founded by presidents as a result of international pressure. The literature also suggests that as time progressed and program evaluations were published, “the international development community has clearly defined CCT’s as the new norm” (Borges Sugiyama, 2011, 265). The importance of international pressure on individual governments in Latin America is mentioned by both Sugiyama and Molyneux, among others. The World Bank and IMF are just one of the few proponents of CCTP’s, as “proliferation of CCT programs has been accompanied by widespread optimism about expected improvements in the quality of life of the poor” (De la Torres, 2010, 3). There is push for CCTP’s originating from both domestic and international forces.

III. CCTP Effectiveness Studies

Ambiguity remains regarding the political process driving these programs. Additionally, there is no substantial observation of external factors e.g., economic shocks, that trigger CCTP adoption. Part of this is because a majority of the wealth of information dedicated to CCTP’s focuses on program effectiveness. Most of these reports are led by individual countries and are monitored by the World Bank and Inter-American Development Bank.

The most popular topic in World Bank reports is CCT effectiveness on poverty alleviation on specific countries. “The Impact of the Uruguayan Conditional Cash Transfer Program” (Borraz & Gonzalez, 2009) is a classic example of a case study associated to World Bank information and resources. Borraz and Gonzalez retrieve data from the Uruguayan national household survey, which allows them to observe the correlation between the CCT program and poverty levels. This particular approach does not discuss the factors that led to the adoption of

this specific program in Uruguay. There is a variety of publications similar to the Borraz and Gonzalez case study, and very few even address in passing the preliminary stages of program adoption. As powerful international organizations push for the global proliferation of CCT's, more publications focus on the positive effects of CCT's on women, internally displaced people, children, and the unemployed. The biggest cluster of publications focus on the impacts of CCT's, and most of them indicate positive causation between CCT implementation and improved social welfare.

The World Bank is not the only international organization advocating for the spread of CCT's. The UN's Development Program also monitors Latin American CCT programs and publishes efficacy reports. The International Poverty Center—a UN Development Program branch situated in Brasilia—published reports such as “Achievements and Shortfalls of Conditional Cash Transfers: Impact Evaluation of Paraguay's Tekoporã Program”. Like most case studies on CCT programs, Ribas, Soares and Hirata use a national household survey to evaluate the effectiveness of Paraguay's recently implemented CCT program. Also corresponding with efficacy reports, Ribas, Soares, and Hirata conclude that CCT programs have a positive significant impact on increasing school attendance, “especially among the very poor” (Ribas, Soares, & Hirata, 2008, 18). The group of scholars interested in program efficacy also agrees that CCT programs do not significantly decrease child labor. This is particularly troubling in countries such as Honduras and Guatemala, where CCT programs were implemented mainly to reduce child labor. There are systemic effects of CCT implementation, yet many of the reports are designed for particular countries, and leave out relevant cross-national effects. For example, a report on the Paraguayan pilot CCT program indicates similar social outcomes as the Guatemalan CCT program, yet there is no research that compares and relates both models.

PRESENTATION OF HYPOTHESES

The first hypothesis states that an *abrupt economic recession increases the likelihood of adopting a CCT program*. Poor macroeconomic performance following the economic growth of the neoliberal years forces governments to look at innovative anti-shock strategies in order to secure the welfare of the most vulnerable citizens. This will be tested by observing each country's GDP per Capita in recession years from 1990 to 2010 and noting how much time it takes for each country to adopt a CCTP. For example, Mexico's worst recession before it implemented its program was in 1994-1995. The Mexican government authorized and adopted PROGRESA two years later, in 1997. This hypothesis can be falsified if CCT program adoption in each country differs in time period after a recession year, if CCT's were adopted before recessions, or if CCT's were adopted following years of good macroeconomic performance.

The second hypothesis states that a *weak governing party increases the likelihood of adopting a CCT program*. The governing party is defined as the party of the executive, which is not necessarily the party with the most seats in the lower house of the legislative branch. The strength of the ruling party will be measured by observing the number of seats in the lower house of the legislature that belong to the party of the executive. The strength of the president's party was selected to measure the safety of the government. In a presidential system, the government is controlled by the party of the executive, even if it does not have a majority of seats in the legislature. I will test this hypothesis by observing legislative elections in every country in Latin America from 1990 to 2010 and seeing how many seats the ruling party won or lost in each election. It is expected that a CCT is more likely to be adopted following an unsuccessful election year for the ruling party. That is, if the party of the president lost a majority of seats in the legislature, the president is more likely to adopt a CCT program and begin the dialogue

towards a CCT. All CCT's in Latin America were started as temporary anti-shock presidential programs, which is why government safety should be observed when discussing the likelihood of CCT adoption. This hypothesis can be falsified if CCT's were adopted following very successful electoral years for the president's party.

My third hypothesis states that *a poor record of bureaucratic quality increases the likelihood of adopting a CCT program*. Countries with poor record of administering poverty reduction programs are less likely to continue to adopt wide ranging and costly poverty reduction programs that expand the bureaucracy. The simple and effective operational structure of CCT programs allows countries to pinpoint which communities' need the most help and directly implement strategies to reduce poverty in the short term. CCT's are designed as a temporary solution to effectively alleviate poverty, although they have become so effective that governments have not been able to gradually disband them. Poor bureaucratic administration indicates a failure to institutionalize a national solution to poverty reduction, which in turn incentivizes a quick, manageable and effective solution to cut poverty levels. CCT's are targeted, which means that they are easier to manage and do not strain the bureaucracy as much as an overarching poverty-reduction model. This hypothesis can be falsified if CCT's are adopted earlier by countries with good levels of bureaucratic quality. The information will be taken from the International Country Risk Guide index, which measures bureaucratic quality on a 4 point scale.

My fourth hypothesis states that *high rural population density increases the likelihood of adopting a CCT program*. CCT's are designed to concentrate on rural poverty. After the program has reduced rural poverty, it can be implemented in urban areas as a secondary target. CCT's are designed specifically to reduce rural poverty so they are expected to be adopted first in countries

that have high rural population density. This hypothesis can be falsified if countries with low rural population density adopt the program before countries with high population density. Population density will be measured by taking the total percent of population that is located in rural areas. The fifth hypothesis also focuses on the rural-urban cleavage. *High rural poverty increases the likelihood of adopting a CCT program.* Rural poverty will be measured by taking the rural poverty headcount, which indicates the percentage of citizens living in rural areas living under the poverty line. The poverty headcount is taken from the World Development Indicators and the International Labor Organization household data surveys on poverty and inequality. This hypothesis can be falsified if the CCT's were adopted in countries with low or decreasing rural poverty.

The sixth hypothesis claims that *high national poverty increases the likelihood of adopting a CCT program.* This hypothesis seeks to prove that countries with chronic poverty are more likely to adopt CCT's earlier. Like rural poverty, national poverty will be measured by a national poverty headcount. This hypothesis can be falsified if countries with low levels of national poverty adopt CCT's earlier than countries with high levels of national poverty. The seventh hypothesis states that *high inequality increases the likelihood of adopting a CCT program.* Inequality will be measured by the Gini Coefficient, which will be observed for each country from the years 1990 to 2010. This hypothesis can be falsified if countries with low inequality adopt CCT's earlier.

RESEARCH DESIGN

I. Introducing the research design

The purpose of the research design is to answer the following questions: what accounts for the variation in timing of CCTP adoption? What are the necessary and sufficient conditions for CCTP adoption? Furthermore, the research design will reveal if factors affecting CCTP adoption differ throughout the region.

The theory collected in the literature review includes broad concepts such as economic growth, safety of government, national poverty, policy diffusion, and rural poverty. The theory also introduces narrower concepts, such as inequality, rural population, and bureaucratic quality. In all cases, it is necessary to operationalize the concepts so that there can be a transparent method of measurement. To measure economic growth, GDP per capita was collected for nineteen Latin American countries: Cuba, Dominican Republic, Mexico, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Chile, Argentina, Uruguay, Paraguay, Bolivia, and Brazil. The recently independent East Caribbean nations were excluded entirely from the study. Only the Spanish and Portuguese speaking countries will be included¹².

II. Measuring the likelihood of CCTP adoption

The focus of the paper is to explain the variation in timing of CCTP adoption in 17 countries that have already adopted programs and two countries that have chosen to not adopt a CCTP. The best way to measure the variation in timing of CCTP adoption is to observe exactly

¹² This particular method is repeated for every variable. There are 399 observations.

at what point in time each country adopts a CCTP while simultaneously introducing a variety of macroeconomic and political factors that can be applied to each year. Statistically, the best way to do this is by adding variables that can be applied to each year, from 1990 to 2010, to each country. Variables that are applicable to a set time range of twenty years—such as inequality and economic growth—are necessary to create a survival analysis model. Survival analysis is an increasingly popular tool used by scientists in the social sciences seeking to create time-to-event models (Mills, 2011, xviii). Survival analysis—also known as hazard models or event history analysis¹³—is a “collection of statistical methods that focus on questions related to timing and duration until the occurrence of an event” (Mills, 2011, 1). In this case, the event is the adoption of the conditional cash transfer program. This paper uses event history analysis to observe how long it takes for each program to be successfully adopted. The event of interest is not implementation, but adoption. The difference is crucial in the context of this project. Implementation refers to when the program is passed on to a bureaucratic agency to execute the targeting process, whereas adoption refers to the political agreement to create a CCTP. Implementation usually occurs months after adoption, and is preceded by some type of introductory pilot program concentrating on a small population. Since there are so many ways to achieve implementation, it was excluded from the study as the event in question.

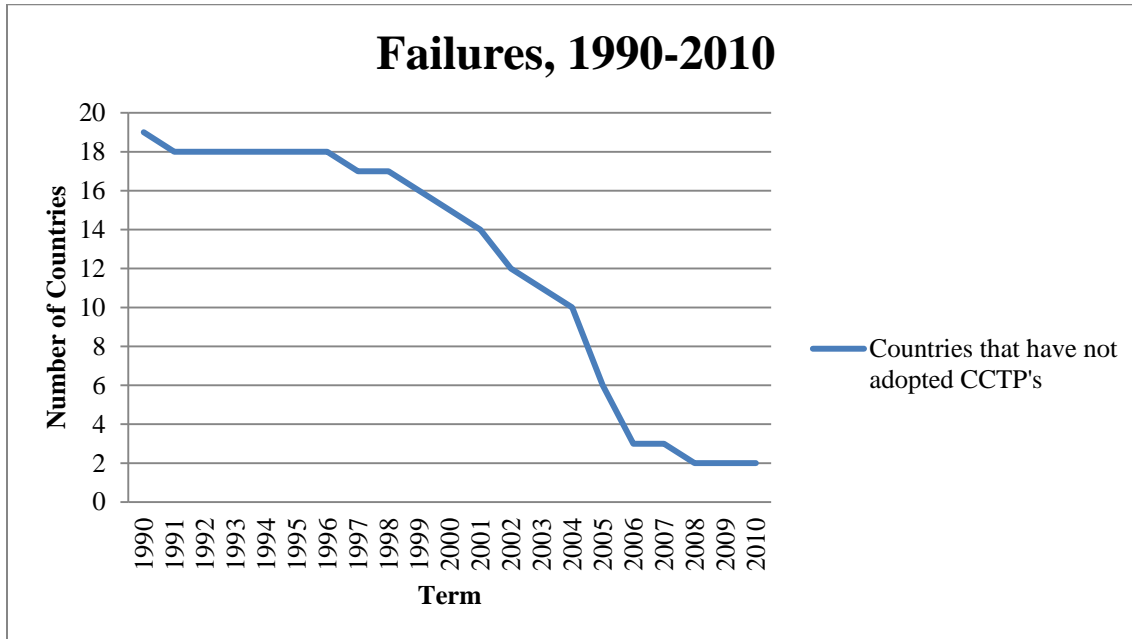
Survival analysis models are similar to typical least square regressions, except they have different likelihood estimators. Survival analysis should be used for this project because it is measuring specifically the timing of programs. It “adds information about timing... and not only focuses on the outcome but also analyzing the time to an event” (Mills, 2011, 11). Every event being observed under survival analysis has three main fundamental components, all of which

¹³ This paper will refer interchangeably to survival analysis and event history analysis.

have a time dynamic. The first component is the *start* of the period being examined, which in this case is 1990. In the beginning of 1990¹⁴, all 19 countries had not adopted CCTP's, and economic liberalism was reaching its peak of popularity in the region. From 1990 to 2010, all 19 countries could choose to adopt a CCTP. In survival analysis, the adoption of any program can be referred to as the failure. Every program adopted, then, increases the total number of failures. The time between 1990 and 2010, or *survival time*, is the second fundamental component of the survival analysis. During the observed survival time, 17 CCTP's were adopted. The third fundamental component of survival analysis is the actual event, also referred to as death, or failure. Like people dying, the event history analysis will let me see how many countries have died off, or adopted a CCTP. After observing all 19 countries from 1990 to 2010 in the event history model, Venezuela and Cuba are “censored, i.e. still alive at the last observation” (Mills, 2011, 3). The units of analysis that survive through the last observation are known as *censored*. Illustration 1 demonstrates the number of failures from 1990 to 2010 and the two censored countries. Illustration 1 also shows that since 1990, there has been a constant increase in failures, which resulted in only two censored observations in 2010.

¹⁴ Honduras adopted its CCTP—PRAF—towards the end of 1990.

Illustration 2



Source: World Bank.

The time axis for this specific survival model is discrete. The discrete-time approach deals with larger time units, such as years, and is used for relatively imprecise measurements. Continuous time axis is used for more precise term periods, such as seconds, minutes, hours, or days. The time axis for this project cannot be continuous because timing, or likelihood of program adoption, is measured in years. The dependent variable for event history analysis is the outcome, so in this context it is adoption of a CCTP program. In survival analysis, the dependent variable is the hazard rate, or hazard function, which is the “conditional probability” (Mills, 2011, 2) that a CCTP occurs in a particular year. In this case, the dependent variable for the hypotheses is *adopt*, which measures the likelihood of adoption. *Adopt* was generated as a random variable that represents survival times. The first step is using the cowcode country codes, which identify each country and destrings the country name so that it can be interpreted statistically in meaningful numeric text. The cowcode variable gives a specific number to each

country. The next step to create the variable *adopt* is to create a parallel column in the dataset that has a dichotomous coding system in which “0” represents no CCTP and 1 represents CCTP adoption. After every “1”, the observation fails, or dies off, so there is no more need to continue coding after each adoption year. Table 1 shows Mexico’s CCTP variable¹⁵. The CCTP variable is the only variable that is fixed, which means that it does not change over time. When it reaches 1, it dies off. All other variables are time-varying. The *adopt* variable has 382 observations for non-adoption years and 17 additional observations for adoption years, so there is a total of 199 observations in the data set.

Table 1

70	Mexico	1990	0
70	Mexico	1991	0
70	Mexico	1992	0
70	Mexico	1993	0
70	Mexico	1994	0
70	Mexico	1995	0
70	Mexico	1996	0
70	Mexico	1997	1

Table constructed in data set with specific CCTP World Bank data.

Event history analysis has three main types of predictive regression models: Exponential, Weibull, and Cox. This project only uses the Cox regression because it creates a survival function predicting the probability that the CCTP occurs at a given time, given the values of the independent variables. The Cox regression creates a hazard ratio, in which 1 means no effect and 0 means no chance of failure. This survival event history model is semi-parametric because it makes no assumption about the shape of the hazard function and makes a strong assumption about how covariates affect shape of hazard function by assuming proportional hazard between groups over time. Semi-parametric models also allow the inclusion of “multiple covariates”

¹⁵ The cowcode country code and string variable saying Mexico should take up the two columns left of the CCTP column. Look at appendix () for more information.

(Mills, 2011, 14). As the hazard ratio increases, the likelihood that an event might occur increases. A hazard ratio of 1.30, for example, means that the likelihood that the program might be adopted in a particular country increases by 30%. The P value is another indicator that is presented in a Cox regression. The P value is the probability that a value has been estimated as big or small as it was when it was really 0. In other words, a P value is the probability that the results happened by chance. If the results are significant, the P value should be below .05. A P value close to 0 indicates that there is a small probability that the results happened by chance.

In order to measure economic growth for the event history analysis, GDP per capita was gathered as an explanatory, time-varying variable for each of the nineteen countries from 1990 to 2010. The theory states that as GDP per capita decreases suddenly and a recession occurs, the likelihood of CCTP adoption increases. GDP per capita was selected as a measure of economic recessions because since it is recorded in one year intervals, it can predict exactly how much a country's economy contracts and grows on a yearly basis. Each country is observed twenty times, once for each term. GDP per capita, specifically referred to as GDP at purchasing power parity per capita, is the value of all final goods and services produced within a country each year divided by the average population in the same year. GDP per capita is measuring the economic growth of each country per year, from 1990 to 2010. Moreover, GDP per capita is capturing each economic recession, which will clarify whether the severity of an economic recession affects the likelihood of program adoption.

The second explanatory variable is percent of total population living in rural areas, which is measuring the rural population density of each country. Both rural and total population variables are measured at the ratio level. Countries with higher rural population density are expected to adopt CCTP's at earlier time periods. Rural population is time-varying, because its

values change from year to year. The percent of total population living in rural areas is applied to each country for each term from 1990 to 2010. The percent of total population living in rural areas is a proper indicator of rural population density because it gives a macro indicator of total population concentrated in rural areas. It also gives a fluctuating degree of variation per year, so we can see how fluctuation affects the hazard rate on a yearly basis. The third explanatory variable is rural poverty, which is measured by the poverty headcount ratio at rural poverty line. This is basically accounting for the percentage of rural population that lives under the national poverty line. Its periodicity is annual, and like economic growth and rural population, it is a time-varying, explanatory variable. Rural poverty is an important indicator of CCTP adoption likelihood because CCTP's were designed as anti-shock programs to alleviate drastic poverty during economic recessions, not necessarily to help grow the economy. Since rural population is more vulnerable to economic shocks, then it is assumed that countries with high degrees of rural poverty will be more likely to adopt CCTP's.

The fourth explanatory variable is national poverty, which is measured by the poverty headcount ratio at national poverty line. The headcount ratio can also be interpreted as the percent of the total population that is living below the poverty line. The national and rural poverty lines are considered ratio measurements. The headcount ratio, or national poverty rate, is an estimate based on population weighted subgroup estimates from household surveys¹⁶. Both rural poverty and national poverty were organized as a series that includes estimates that are reasonably comparable over time¹⁷. Like rural poverty, national poverty is a time-varying variable. The study suggests that as national poverty increases to drastic levels, the likelihood of

¹⁶ The data was taken from the World Development Indicators, the Global Poverty Working Group, and the World Bank.

¹⁷ World Bank general statement regarding its collection methods for rural and national poverty estimates.

CCTP adoption will increase. That is, the risk of failure increases as national poverty increases. Any fluctuation in national poverty will be captured from the years 1990 to 2010¹⁸, and the Cox regressions on the event history analysis will indicate whether an increasing national poverty rate correlates with a higher likelihood of CCTP adoption. National poverty, like rural poverty and Gini coefficient, included estimates based on household surveys for each of the 19 observed nations. There is a significant amount of data that is not available for some of the countries. Argentina, for example, has no data on national poverty and some data available for rural poverty and GINI. To solve for this, imputations were recorded on the three stated variables for all available data. The imputation process will be discussed more in the next section.

The fifth explanatory, or independent variable, captures inequality for each country. Inequality is measured by the GINI index. The GINI index measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. The percentages for this are calculated with a Lorenz curve, which plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household¹⁹. The GINI index is also a time-varying variable, which fluctuates on a yearly basis for each country from 1990 to 2010. Countries with high levels of inequality are more likely to adopt CCTP's and have a higher risk of failure in the survival analysis. The sixth independent variable is government safety, which is measured by the governing party's net gain or loss of legislative seats in legislative elections. The government safety variable was calculated by observing the net gain or loss in seats for the governing party during legislative election years. For example, if the governing party loses four

¹⁸ National poverty, gini, and rural poverty had ten additional imputed data sets. For more information on the imputed data sets, look below to the third section.

¹⁹ The Lorenz curve definition and Gini index are taken from the World Development Indicators.

legislative seats²⁰ from the last election year, then the observation for that particular year will be -4. The variable is calculated by noting how many seats the governing party gained or lost between election years out of the total number of seats in the lower chamber of the legislature. The governing party is defined as the party of the executive. In presidential systems, the executive does not always have the majority in the legislature and divided government is actually a common occurrence in Latin America. The safety of the executive's party is relevant to this study because the government regulates and manages the bureaucratic procedures driving CCTP adoption and implementation. Therefore, a weakening government is more likely to adopt a CCTP as it is in distress and in need of popular support. In many cases, adopting CCTP's and other social welfare redistributive schemes have proven as effective political maneuvers used to gain popularity and mobilize voters. Voter mobilization and politicization of social programs is especially clear when observing class cleavages (Handlin, 2012, 2).

The theory suggests that a weaker governing party is more likely to adopt a CCTP and have a higher hazard ratio. The variable is also time-varying, and can fluctuate in 2, 3, 4, or 5 year intervals, depending on each country. It only changes in election years, because the distribution of legislative seats cannot change in non-election years. Every country in the study is democratic or semi democratic²¹, save Cuba, which was excluded from the study when accounting for government safety. The variable *govsafety* was constructed by recording the executive of each country from 1990-2010, the party of the executive, the total number of seats in the legislature and the number of seats that the executive's party controlled. A percentage of seats obtained by the ruling party was calculated and in election years, the number of seats

²⁰ Only accounts the lower chambers

²¹ Paraguay was controlled by a hegemonic party (Partido Colorado) until 2008. The PC held power for 61 years and from 1947 to 1962 it ruled as a one-party state.

gained or lost was also recorded. Finally, a variable was generated with this information to capture how many seats were gained or lost in each election year. All other years are recorded as “0”. This process was repeated for every country in the study from 1990 to 2010.

The seventh and last explanatory variable is bureaucratic quality, which is measured by a four point scale from 0 to 4. The lowest possible score for bureaucratic quality is a 0 and the highest is a 4. The reason why bureaucratic quality is introduced as an explanatory variable is because countries with failed social programs are more likely to seek a radically new alternative to poverty reduction. Mexico in 1992 and 1993 is a perfect example, in which the central government failed to create an anti-shock, poverty-reducing program and had no response for the Peso crisis of 1994-1996. The reason that Mexico could not implement effective social policy before its CCTP was not because it lacked funds or initiative. Mexico’s bureaucracy had a relatively low capacity that could not manage an encompassing program that covered the entire population. Bureaucratic quality, then, measures not just the bureaucracy’s actual quality but also its capacity. Unlike national poverty reduction programs, CCTP’s can be adopted with low levels of bureaucratic capacity and are a low cost and effective way of alleviating poverty. With this said, this project predicts that low levels of bureaucratic quality increases the likelihood of CCTP adoption.

The first control is total population, which was added because on the surface, it seems that there is a population effect on the likelihood of CCTP adoption. The first five countries that adopted CCTP’s have 70% of the region’s entire population, which is comprised of 33 countries, colonies, and constituent states²². In order to see if there is an interaction effect with the explanatory variables, the study will control for total population. Total population is measured by

²² Data on population gathered from the World Development Indicators.

the entire population of each country for each year from 1990 to 2010. This controlling variable is also time varying and is measures population in millions. A second confounding factor that had to be accounted for is a possible domino effect, or snowball effect, that might have led to the regional growth of CCTP's after 2002. This variable was largely created to address the stark demographic, economic, and political differences between countries that adopted programs before 2002 and after 2002. If this variable is significant, it can be assumed that having many programs adopted increases the likelihood of program adoption on states that have not adopted CCTP's. The variable *snow* was generated by creating a summation index, which accumulates scores on individual items to form a composite measure of some type of influencing effect on programs adopted after 2002. The composite measure was created by observing the number of CCTP's adopted by year, starting in 1990 and adding each additional program in its respective adoption year until 2010²³. Once the measure was generated, it could be applied uniformly to all 19 countries.

Percentage GDP growth was also added as a control because it is the classic measurement of economic growth. If GDP per capita does not fully capture the effects of a contracting economy on the likelihood of CCTP adoption, then this simpler, percentage based measure should do so. Two variables related to international finance were added to the further tests: Foreign Direct Investment and net official development assistance and official aid. Foreign Direct Investment was included in further tests to observe a possible relationship between foreign investment and the likelihood of CCTP adoption. FDI is also time varying and is applied to each of the 19 countries for each year from 1990 to 2010. It is collected on a yearly basis for

²³ For example, 1990 was "1" because only Honduras adopted a CCTP that year. The next program was adopted in 1997, so "1" remains in place from 1990 to 1996, and "2" replaces it in 1997, until another program is adopted and the number would increase again.

every country in the world. The International Debt Statistics department of the World Bank takes care of organizing the financial information.

Net official development assistance aid was also included for every observation on a yearly basis from 1990-2010 in millions, constant to 2010 US currency. This variable was added to the further tests to measure each country's dependence on debt assistance from hegemonic international governing institutions, such as the International Monetary Fund and the World Bank. It is assumed that countries that are dependent on debt assistance from the World Bank are therefore highly influenced by World Bank policy suggestions. The World Bank is a major proponent of CCTP's, so it is a possibility that debt assistance is correlated to a higher likelihood of CCTP adoption. The stated confounding variables are included in the study to eliminate possible alternative causes of CCTP adoption. By adding confounding variables, all possible joint causes of the explanatory variables and likelihood of CCTP adoption have been eliminated. This helps in increasing the likelihood of finding a causal relationship instead of a spurious relationship. Both FDI and net development assistance indicate whether the international economic community has a significant influence on Latin American CCTP adoption efforts. If the two additional variables are disproven using Cox regressions in an event history analysis, then we will know that the stated hypotheses have a causal relationship with the likelihood of CCTP adoption. In order to capture a possible effect for economic size, a variable was generated by multiplying gdp per capita by the total population of each country to create an indicator of economic size. This is necessary because on the surface, the first programs were enacted by the largest economies in the region. Brazil, Colombia, Argentina and Mexico all adopted CCTP's before 2002.

III. Data Collection Plan, Units of Analysis, and Levels of Measurement

The collection of data for this project was concentrated on macro indicators mainly from the World Bank's World Development Indicators, the International Country Risk Guide, the United Nations Millennium Development Goals, International Labor Organization, national country statistical agencies, and Elections in the Americas, a regional elections data handbook. There were two economic growth variables used in the project: GDP per capita and percentage GDP net growth. All data for these two variables was collected with information from the World Development Indicators. Percentage GDP growth is collected annually from the WDI. The indicator is created by the World Bank national accounts data, and OECD National Accounts data files. The WDI defines GDP growth as the annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 US dollars²⁴. The WDI releases a weighted average of percentage GDP growth annually, and there is data available for all observation years for all 19 countries. The data for GDP per capita is also collected from the WDI and the World Bank national accounts data and OECD National Accounts data files. The WDI releases the GDP per capita of every country annually, and there is data available for each country from 1990 to 2010. Like GDP growth, it is held constant to 2000 US currency. The World Bank defines GDP per capita as the gross domestic product divided by midyear population. The data for these two economic variables was exported from the World Development Indicators and exported into a Microsoft Excel spreadsheet using a WDI data export application.

²⁴ Short definition of GDP growth created by the World Bank national accounts data and OECD national accounts data files.

GINI is the variable used to measure inequality, and it was taken from a variety of sources: The World Bank's World Development Indicators, the World Income Inequality Database, the World Bank's poverty site, and PovcalNet²⁵. All of these sites are controlled by the World Bank, so the data that is consolidated in PovcalNet is very similar to the WDI data. The GINI index was incomplete in every site, so the data for each country was first compared to each other to see if it could be merged and then the data was selected for each databank and merged per individual country and year from 1990 to 2010. With this said, there were still about 60 observations that were left incomplete. These observations required statistical imputing along with rural poverty and national poverty once the raw data had been exported into an editable document. Bureaucratic quality, which also serves as a measure of bureaucratic capacity, was retrieved from the ICRG. The ICRG produces a bureaucratic quality score from 0 to 4 on a monthly basis²⁶. The ICRG's bureaucratic quality rating is based on the institutional strength and quality of the bureaucracy. High points are given when the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services²⁷. The bureaucratic quality scale was retrieved for each country for each year from 1990 to 2010. Since the data is collected and organized on a monthly basis, the monthly scores had to be truncated into year forms so that there were twenty observations per country, one per year. Access to the ICRG database is commercial, but for this project the information was retrieved free of charge because Emory's Woodruff library has unlimited access to all ICRG data.

²⁵ PovcalNet is an interactive computational tool that allows replicating the calculations made by World Bank's researchers in estimating the extent of absolute poverty in the world. PovcalNet is self-contained; it has reliable built in software that quickly does the relevant calculations in the built in database. The site provides data for GINI coefficients and income breakdowns by decile, taken from household surveys.

²⁶ ICRG produces other indicators of governance. It focuses on political, economic, and financial risk ratings for countries important to international business. Definition retrieved from The Political Risk Services Group. For more information please see <http://www.prsgroup.com/icrg.aspx>

²⁷ ICRG definition of bureaucratic quality.

Government safety was retrieved from Adam Carr's online election archive²⁸, Dieter Nohlan's Elections in the Americas²⁹, and individual country national electoral agencies such as Guatemala's *Tribunal Supremo Electoral*. For certain years, election results were retrieved from public media sources such as newspapers. Every presidential and legislative election in all 19 countries was covered from 1990 to 2010. For each year from 1990 to 2010, the executive of each country was recorded as well as the executive's party and seats in the legislature controlled by the government's party. This information was exported into an editable document and from this I created a percentage of total legislative lower house seats controlled by the executive's party. Finally, I created a variable that accounted for the net amount of legislative seats gained or lost by the government's party.

The next two variables, national poverty and rural poverty, were collected from the World Development Indicators, PovcalNet, The World Bank poverty site, Global Poverty Working Group, and the International Labor Organization. These sites all had a set indicator for poverty gap at national poverty line. The measures of both national and rural poverty fluctuated between sources, so I had to choose observations that were comparable to one another. Most of the data for rural poverty was retrieved from the WDI and the ILO, and the national poverty was retrieved overwhelmingly from the WDI. If numbers differed by 2% then the mean was calculated to form a definite number. Rural population was extracted from the WDI, which consolidated data from the United Nations, World Urbanizations Prospects department. Data for rural population is gathered annually, so it is applied to each country for each year from 1990 to 2010. The same method is applied to total population, although the total population numbers are gathered by the World Bank instead of the United Nations. In both cases the data is consolidated

²⁸ Adam Carr's election archive: <http://psephos.adam-carr.net/>

²⁹ Elections in the Americas is part of a data handbook series that covers election results in every continent.

in the WDI data bank. Foreign Direct Investment is collected in the WDI, which amalgamates the data from the International Debt Statistics. FDI information was retrieved for each country and organized on a yearly basis from 1990 to 2010. The data was collected annually, so it can be easily applied to each country in annual periodicity. Net official development assistance and official aid received was gathered from the WDI, which consolidated data from a variety of external data banks: Development Assistance Committee of the Organization for Economic Co-operation and development, Geographical Distribution of Financial Flows to Developing Countries, Development Co-operation report, and International Development Statistics database.

I am observing how each explanatory variable affects a specific country year, so the unit of analysis is country year. The data for GINI index and the two poverty measures were incomplete and required restructuring. Event history analysis models will not accept variables with incomplete observations. If a data set has more than a couple of missing observations, the Cox regression could create statistically inaccurate and weak results. In order to avoid this complication with the GINI, national poverty, and rural poverty variables, I imputed the missing observations by creating 10 additional datasets and then out of those data sets I substituted values for each missing value. The Cox regressions will be conducted with and without imputed values, as well as with and without the full 19 countries. There is a possibility that pre 2002 programs were adopted under different circumstances than post 2002 programs. To test this, all countries that adopted CCTP's after 2002 will be tested with Cox regressions independently of the first five adopting countries, and vice versa. Some results give a regression coefficient and others a hazard ratio.

The regression coefficient expresses the “covariance in the variance of the independent variable so as to render a measure of the effect of the dependent variable, on a one unit change

on the measurement scale of the independent variable” (Pennings, Keman, & Kleinnijenhuis, 1999, 110). The hazard ratio, on the other hand, is the “ratio of two hazard rates and often the central statistic for interpretation of covariate effects” (Mills, 2011, 257). They are basically explaining the same thing, except the values are somewhat different. In a coefficient, a 0 means no effect, and positive numbers mean a positive effect between the explanatory variable and the dependent variable. A -1 in a coefficient means that there is no chance of failure. In a hazard ratio, “1” means that there is no effect between the explanatory variable and the dependent variable. Numbers above 1 mean that there is a positive effect with the dependent variable and below “1” signifies a negative relationship with the dependent variable. A 0 in a hazard ratio means that there is no chance of failure.

I am also conducting a case study of Colombia as a small-N. This thesis delves into Colombia’s CCTP experience because it will prove that the hypotheses created from primary sources and the secondary literature applies to a particular case. Furthermore, the Colombian case study allows directly applying Santiago Levy’s proposed explanatory factors of the Mexican CCTP adoption experience. Colombia also has one of the most transparent evaluation and monitoring departments for its CCT program and holds accessible legislative and bureaucratic information about its CCTP. Colombia was chosen to not only lend validity to the observations, but to give a descriptive account of the internal political processes that created its CCT program. The information for the small-N study is collected by interviewing elites such as public officials, high level bureaucrats, and consultants. In order to strengthen my hypotheses, I interviewed public officials and professors in the DPS (Department of Social Prosperity), DNP (Department of National Planning), and *Universidad de los Andes*. The interviews should help me achieve a connection between the explanatory variables and dependent variable. Furthermore, interviewing

elites and public officials helps clarify the micro factors that helped CCTP programs proliferate in the region. I will also use the online database of *El Tiempo*—Colombia’s largest newspaper—to observe the number of media publications on the Colombian program and the leading party’s opinion about the program. This will allow me to collect quantitative data from polls and qualitative analysis from press releases regarding questions and allegations regarding the CCT program from the preliminary discussion stages until now. Finally, I will observe the set of CONPES administrative records that officially decreed Colombia’s CCTP in early 2000. These primary sources will specify what the biggest needs for a CCTP in Colombia were in the years before adoption.

QUANTITATIVE ANALYSIS

I. Tests

Hypothesis 1: Abrupt economic recession increases the likelihood of adopting a CCT program

Hypothesis 1 (H_0): There is no significant correlation between economic recession and the likelihood of adopting a CCTP.

The first hypothesis states that an abrupt economic recession increases the likelihood of adopting a CCTP. Economic recession was measured by fluctuations in GDP per Capita (gdpcap) for each observation. When tested with the dependent variable (likelihood of adopting a CCTP) on an exponential distribution, the hazard ratio is 1.000235, which means that higher GDP per Capita increases the likelihood of adopting a CCTP, or failing, by .00024%. The results reject the original prediction, which assumes that the hazard ratio for GDP per Capita should be negative because lower GDP per Capita should increase the likelihood of adopting a CCTP. The P value is 0.120, so there is a high possibility that the result also happened by chance. Under an exponential distribution, the P value demonstrates that the results are not significant. The results are also insignificant with the Cox regression.

The hazard ratio for *gdpcap* is .9999665, which indicates that as GDP per Capita decreases, the likelihood of adopting a CCTP, or failure, increases. Although this result goes in the predicted direction, the *p* value is 0.813, which shows no significance. The Cox and Exponential regressions demonstrate that GDP per Capita—the independent variable—does not have a strong or significant effect on the likelihood of CCTP adoption. When seven additional confounding variables are added with a Cox regression, the results remain insignificant. GDP per Capita has a coefficient of -.0002075, which means that as GDP per Capita increases, the likelihood of adopting a CCTP decreases. This can also be seen conversely—as GDP per Capita increases, the likelihood of adopting a CCTP decreases. The P value is 0.615, which indicates that the results are insignificant. The confounding variables for this last Cox regression are rural poverty headcount, total population, rural population, gini coefficient, national poverty headcount, bureaucratic quality, and safety of government. Based on the results in two Cox regressions—one with confounding variables and one without controls—I fail to reject the null hypothesis.

Hypothesis 2: Weak governing party increases the likelihood of adopting a CCT program

Hypothesis 2 (H_0): There is no significant correlation between the strength of the governing party and the likelihood of adopting a CCT program

The second hypothesis states that a *weak governing party increases the likelihood of adopting a CCT program*. Governing party is defined as the party of the executive. Weakness is defined by the number of seats that the party of the executive has gained or lost in the lower chamber of the legislative branch. The variable representing the strength of the governing party is *govsafety*, which is composed of the net gain or loss of seats in the lower chamber of the legislature in every election year for each Latin American country from 1990 to 2010. Cuba is excluded from this variable because the communist party does not allow for democratic

competition. If the executive's party has lost seats in the lower chamber of the legislative branch, then it can be assumed that the governing party has lost touch with local constituencies. Because the lower house is the most democratic governing institution, then it is a fair assessment of the governing party's national standing. The first Cox regression demonstrates *govsafety*'s effect on the likelihood of program adoption. The model shows that as the governing party gains seats in the lower chamber, the hazard ratio dips to .9777655, which indicates that a safer government reduces the likelihood of failure, or CCTP adoption. These results fail to reject the null hypothesis and disprove the assumption that weak governments were more susceptible to an innovative and radical policy change, such as adopting a CCTP in unpopular time periods. The *p* value for the Cox regression is 0.427, which indicates no significance and the 95% confidence interval is .9249648 and 1.03358.

When *govsafety* is treated with confounding variables, the coefficient is similar to the previous hazard ratio. *Govsafety*'s coefficient is -.0219686, which signifies that as the governing party gains seats in the legislature, its likelihood of adopting a CCTP decreases. This could also be interpreted conversely, if the governing party weakens, or loses seats in the lower chamber, then the likelihood of adoption increases. The *p* value for *govsafety* is .439, so it is far from significant. The 95% confidence interval ranges from -.0776664 to .0337293. The confounding variables are rural poverty, total population, GDP per Capita, Gini coefficient, national poverty, and bureaucratic quality. The results indicate that my assumptions fail to reject the null hypothesis.

Hypothesis 3: A poor record of bureaucratic quality increases the likelihood of adopting a CCT program

Hypothesis 3 (H_0): There is no significant correlation between poor bureaucratic record and the likelihood of adopting a CCTP.

The third hypothesis assumes that a *poor record of bureaucratic quality increases the likelihood of adopting a CCT program*. Bureaucratic quality is taken from the International Country Risk Guide, a consulting agency that has monthly reports on bureaucratic quality for every country in Latin America. The ICRG scale goes from 0 to 4, 0 being the lowest bureaucratic quality and 4 being the highest. As countries struggle to fiscally sustain immense national programs, they are more likely to adopt a targeted CCTP that is effective and easier to sustain. The hazard ratio is 1.629581, which means that as bureaucratic quality increases, the likelihood of program adoption increases by 62%. The *P* value, however, is 0.289, which means that there is no statistical significance. The 95% confidence interval is wide ranging, from .6604204 to 4.020974. When bureaucratic quality was controlled for *gdpcap*, *rurpov*, *rurpop*, *Gini*, *natpov*, and *govsafety*, the coefficient was .4067122. This means that when bureaucratic quality increases, the likelihood of program adoption increases by 40%. The *P* value is .459, so the probability that this happened by chance is high. The confidence interval ranges from -.6694155 to 1.48284. This Cox regression had 10 imputations for *rurpov*, *natpov*, and *Gini*. Argentina and Cuba were excluded from the study when *rurpov*, *natpov*, or *Gini* were introduced because they lacked any data on poverty measures. The standard error is .5488101 also shows that there is no statistical significance.

Hypothesis 4: High rural population density increases the likelihood of adopting a CCTP

Hypothesis 4 (H_0): There is no significant correlation between rural population density and the likelihood of adopting a CCTP.

The fourth hypothesis assumes that high rural population density increases the likelihood of adopting a CCTP. Total population and rural population are taken from the World Development Indicators and then the percentage of population living in rural areas is taken from the two mentioned indicators. Population density is therefore the percentage of total population

living in rural areas, which are defined by independent countries and given to the WDI to publish. In the first regression *rurpop* does not have any controls. The hazard ratio is 1.005694, which shows no correlation between rural population density and likelihood of program adoption. Although insignificant, the result states that high rural population density increases the likelihood of program adoption. The standard error is .0175742 and the *P* value is 0.745, which indicates that the chance that rural population density has a sizeable effect on program adoption is low.

When rural population density is controlled for *gdpcap*, *rurpov*, *Gini*, *natpov*, *burqual*, and *govsafety*, the coefficient is -.0044744 and the *P* value is 0.9067. These results indicate a weak correlation between rural population density and likelihood of adoption, and almost no probability that the independent variable affects the dependent variable significantly. Moreover, the 95% confidence interval ranges from -.0796349 to .0706861. When controlling for various factors, I failed to reject the null hypothesis.

Hypothesis 5: High rural poverty increases the likelihood of adopting a CCTP

Hypothesis 5 (H_0): There is no significant correlation between rural poverty and the likelihood of adopting a CCTP.

The fifth hypothesis assumes that high rural poverty increases the likelihood of adopting a CCTP. As rural poverty increases, a country is more likely to fail in the survival analysis (adopt a CCTP). When *rurpov* is not controlled for in a Cox regression, the coefficient is .0032215, which is weakly correlated to the hypothesis, although the *P* value (0.848) shows no statistical significance. The 95% confidence interval ranges from -.029809 to .036252. *Rurpov* does not account for Argentina and Cuba, because those two observations did not have any data on rural poverty. The rest of the observations also had some holes in the data, so I imputed the

missing data points using multivariate normal regression. The imputation created ten new data sets for *rurpov* and created an average of the new values along with variables that shared similar characteristics, such as *Gini* and *natpov*. Coincidentally, these two variables also had missing data points and required multiple imputations. I also ran a multivariate normal regression using the Cox model for *rurpov* controlling for *gdpcap*, *totalpop*, *rurpop*, *Gini*, *natpov*, *burqual*, and *govsafety*. The *P* value (0.441) result was insignificant and the coefficient was -.0376476, which indicates a potential weak correlation converse to the first Cox regression. When adding controls, high rural poverty seems to decrease the likelihood of adopting a CCTP. However, this does not matter because the *P* value shows no statistical significance—I fail to reject the null hypothesis. The 95% confidence interval ranges from -.1346146 and .0593194.

Hypothesis 6: High national poverty increases the likelihood of adopting a CCTP.

Hypothesis 6 (H_0): There is no significant correlation between high national poverty and the likelihood of adopting a CCTP.

Honduras, Mexico, and Brazil, the first countries that adopted CCTP's, experienced chronic poverty at every level within society. Because the first CCTP adoptions came from countries with high national poverty, one can assume that national poverty significantly increases the likelihood of CCTP adoption. Running *natpov* on a Cox regression shows that without controls, national poverty does not have a significant effect on the likelihood of adopting a CCTP. The coefficient is .0079717 and the *P* value is 0.712, which demonstrate no statistical significance or strong correlation between national poverty and program adoption. The standard error is .0215469 and the 95% confidence interval ranges from -.034793 to .0507364. *Natpov* was imputed in the same fashion as *Gini* and *rurpov*. All Cox models containing *natpov* contained multiple imputations for missing data points. Argentina and Cuba were excluded from results containing *natpov* because they lacked any quantitative information.

When controlled for *gdpcap*, *totalpop*, *rurpop*, *Gini*, *rurpov*, *burqual*, and *govsafety*, *natpov*'s coefficient was .0288512, which is relatively strong. The high *P* value (0.667), however, indicates no statistical significance. The 95% confidence interval ranges from -.105511 to .1632536, and the standard error is .0666464. Total population was added as a confounding variable to observe any potential population effects. Total population had a coefficient of 1.13e-08, which signifies a strong correlation between population size and the likelihood of adopting a CCTP. The *P* value, however, is 0.160, which is relatively high. It should be noted that Totalpop had the highest coefficient and lowest *P* value out of any variable. Based on both *P* values and coefficients, I failed to reject the null hypothesis.

Hypothesis 7: High inequality increases the likelihood of adopting a CCTP

Hypothesis 7 (H_0): There is no significant correlation between high inequality and the likelihood of adopting a CCTP.

Gini is one of three variables that required imputations to replace missing data points. The hypothesis regarding inequality's effect on the likelihood of program adoption assumes that high or increasing inequality correlates with increasing likelihood of adopting a CCTP. When the independent variable *Gini* is tested without controls, there is a weak correlation between inequality and likelihood of program adoption. The coefficient is .052561 and the *P* value of 0.400 demonstrates no statistical significance. When I control for GDP per Capita, total population, rural poverty, rural population, national poverty, bureaucratic quality, and government safety, the coefficient decreases to .0379595 and the *P* value increases to 0.725. The 95% confidence interval ranges from -.1751259 to .2510449 and the standard error is .107917. The high *P* value shows that I failed to reject the null hypothesis for inequality's effect on program adoption. The model below is a Cox regression, which shows the effect of *Gini* on

likelihood of adoption, controlling for GDP per Capita, total population, rural population, bureaucratic quality, government safety, rural poverty, and national poverty.

II. Tests with additional Economic Variables

My tests failed to reject all of the null hypotheses with and without confounding variables. A reason for the insignificant results might be because the relevant theories about CCTP adoption may have been geared towards the more renowned cases, such as Mexico, Brazil, and Colombia. These three cases have many similarities that separate them from latter CCTP's. There are three clear distinguishable features that separate the CCTP's in Brazil, Mexico, Argentina, and Colombia from the rest of the region. The first feature is population; Brazil, Mexico, Argentina, and Colombia are the four most populous countries in the entire region. These four countries also adopted CCTP's following economic recessions, as the literature suggests.³⁰ The last factor separating Brazil, Colombia, Argentina, and Mexico is the time in which they adopted their programs. Although Brazil did not consolidate its CCTP until 2001, it had already been implementing provincial CCTP's since the Cardoso administration in the late 1990's (find quote to support Brazil provincial CCTP's). Likewise, Colombia began its adoption process in 1999 and Mexico in 1996 (supporting evidence from interviews). The remaining CCTP's in the region were adopted from 2003 onwards, and do not share many of the preliminary macroeconomic or political factors as Brazil, Argentina, Colombia, Honduras, and Mexico.

Two additional variables were introduced to address the policy rupture in 2002 and find empirical grounds to dichotomize the Brazilian, Mexican, Colombian, Argentinian, and Honduran CCTP's from the rest of the CCT models. The first variable is *snow*, which measures

³⁰ See figure 3.3 in appendix III

the effect of having an increasing number of programs on countries that have not adopted CCTP's. The variable goes from 1990 to 2010, and every year as more programs are adopted the number increases. For example, in 1990 the variable is 0 for all countries, in 1991 it's 1 because Honduras adopted its CCTP, and it remains 1 until Mexico adopts its CCTP in 1997. From 1997 until the next program is adopted in 1999, the variable will be set on 2 for each country, and so on. The variable is applied the same way for each country, until the country adopts a CCTP (or fails). *Snow* was added to observe a possible domino effect, or snowball effect, on CCTP adoption as time went on. The assumption is that as smaller economies realized that CCTP's worked before and after recessions, they began emulating the program model, thus creating a sort of domino effect based on program effectiveness. The coefficient of *snow*'s effect on *adopts*—the dependent variable is .0015904. This result is in line with my assumption, although the coefficient is weak and insignificant. The *P* value is .066, which is not statistically significant, although it is closer to the .05 statistically significant threshold than the other variables. When controlled for *GDPNetGrowth*, *gdpcap*, *totalpop*, *rurpop*, and *burqual*, *snow*'s coefficient strengthens but its *P* value decreases. Again, the *P* value demonstrates that it is statistically insignificant.

The second variable is *GDPNetGrowth*, which captures yearly percentage GDP growth. I am expecting a negative relationship between GDP growth per year and the likelihood of program adoption, which is measured by the dependent variable *adopt*. As GDP growth decreases from one year to another, I am expecting for the likelihood of adoption to increase. When I run a Cox regression for *GDPNetGrowth* controlling for *gdpcap*, *totalpop*, *rurpop*, *rurpov*, *Gini*, *natpov*, *burqual*, and *govsafety*, the coefficient is .1409821. The coefficient is strong, although the effect of GDP growth on likelihood of CCTP adoption is the opposite as the

stated assumption. A positive coefficient means that high GDP growth increases the likelihood of program adoption. The P value is 0.252, which proves that it is not statistically significant. Table 5.1³¹ shows the statistical effects of GDP growth on the likelihood of adoption. The *P* values shown on the table also show that there is no statistical significance.

In order to observe GDP growth's effect on the likelihood of adoption only on the first programs adopted in Brazil, Honduras, Mexico, Colombia, and Argentina, I ran a cox regression on GDPNetGrowth, controlling for *gdpcap*, *totalpop*, *rupop*, *rupov*, *Gini*, *natpov*, *burqual*, and *govsafety*. Again, I used *adopt*, measuring the likelihood of CCTP adoption, as the dependent variable. I ran this test on Argentina, Mexico, Brazil, Honduras, and Colombia to determine if the theories described in the literature only apply to the first adopters of CCTP's and countries that adopted before 2003. When I ran a Cox regression on GDP growth's effect on likelihood of adoption (*adopt*), the hazard ratio was relatively strong (*1.175093*) although it is indicating a relationship converse to the original assumption. In this case, high GDP growth decreases the likelihood of CCTP adoption. The *P* value is 0.220, which indicates no statistical significance.

An additional variable was created to measure the effect of economic size on the likelihood of program adoption. Since the first five programs were adopted by the largest regional economies, then a variable that captures economic size should be applied to the statistical models. Economic size was generated by multiplying total population by gdp per capita, which gives an estimate of the economic size of each observation. A Cox regression was created to test the size of the economy on the likelihood of adoption without controls. The coefficient for this Cox regression was 3.36e-12, which indicates that economic size does not account for much effect on the likelihood of program adoption. The Cox regression's P value

³¹ See table 5.1 on appendix V

(.042) demonstrated that the effect of economic size of the likelihood of adoption is statistically significant. However, the small coefficient shows that although significant, economic size does not have a noticeable effect on the timing of program adoption. When controlled for economic growth, rural poverty, rural population, inequality, national poverty, bureaucratic quality, and government safety, economic size had the same coefficient under the Cox regression. The P value, however, was not significant.

FAMILIAS EN ACCION: EMULATING SUCCESS

I. The recession of 1999

In the first half of the 1990's, Colombia's economic growth fluctuated between 3 and 6 percent growth annually. Like most Latin American democracies in the early 1990's, Colombia liberalized its external economic relations and instituted general reforms called the "*apertura*, or opening up, of the economy" (Taylor, 1999, 127). During the first part of the 1990's, Latin America as a whole chose to open its borders to trade in the hope that liberalization would result in economic growth. In turn, constant economic growth was expected to raise wages and reduce poverty. Colombia's economic trajectory throughout the 1990's serves as an example that opening up the economy, now known by regional economists as *crecimiento hacia afuera*³², had serious economic and sociopolitical implications in the following decade. One of Colombia's biggest liberalization reforms was restructuring the financial sector, which was largely underdeveloped. Colombia underwent as much financial liberalization as economic liberalization (Galarza & Enciso, 2003, 159). These structural reforms led to a credit boom from 1993 to 1997 and in 1998 there was a steep "drop in the share of credit to the private sector" (Galarza &

³² *CreCIMIENTO hacia afuera*, or outward development, is a simplified way to describe the economic track taken by the region during neoliberalism.

Enciso, 2003, 169). The situation only worsened in 1999, as Colombia's economy contracted 7% because of decreased spending and a sharp credit crunch.

By 1999, Colombia's credit bubble had burst and the economy was experiencing stagnation. The literature suggests that this was caused by financial liberalization's unregulated "financial deepening"³³ (Galarza & Enciso, 2003, 177). The financial crisis that ensued had a profound effect on Colombian society. Colombia's demographic profile worsened noticeably from 1999 to 2000, and the government in power was feeling the political consequences of an economy in a downward spiral (Marquez, 2012). Several economic and social indicators demonstrate the grave socioeconomic implications of the 1999 financial crisis. The rural poverty headcount ratio increased from 69% to 72% from 1999 to 2000³⁴. Inequality, which is measured by the GINI index, remained at 58.74, an alarmingly high GINI coefficient. GDP growth contracted 7% points from 1998 to 2000—the biggest decrease of Colombian GDP in decades. Under a stagnant economy, both the rich and poor in Colombia had no space for economic mobility.

The income share for the richest 20%³⁵ of the population remained constant at 62% from 1999 to 2000. The income share for the poorest 20% changed minimally from 2% to 1.9% from 1999 to 2000. The lowest quintile only has 2% of the national income share, so it has much less protection against unexpected economic shocks such as the 1999 recession. In the Colombian case, an entire quintile of the population had become even more susceptible to extreme poverty.

³³ The IMF defines financial deepening as increased access to a range of financial services for savings and investment decisions. For more detailed information see <http://www.imf.org/external/pubs/ft/sdn/2011/sdn1116.pdf>

³⁴ Data retrieved from World Development Indicators data bank. For more information visit <http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators>

³⁵ Income share is defined by The World Bank Development Research Group as the share that accrues to subgroups of population indicated by the deciles or quintiles.

A portion of the population already lacked basic health, education, and nutrition; a prolonged recession that worsens their economic recession any longer might jeopardize social order and civil society. The government, then, stands in a position in which they need to alleviate poverty in the lowest quintile. The question at hand is simply to alleviate the economic effect of recessions among those who do not have the resources to protect themselves. Achieving high levels of economic growth is a different matter. Francisco Espinosa, an official for Colombia's DNP, states that "poverty alleviation and economic recovery are not the same thing for the federal government. Sometimes, however, the two terms might be mistaken for each other" (Espinosa, 2012).

II. Applying the theories

This case study seeks to delve into the Colombian story and apply the general theories collected in the literature review to its CCTP adoption experience. Colombia suffered one of its most acute recessions in 1999 and adopted a CCTP amidst a stagnant economy. By looking at GDP growth, there is evidence that Colombia followed a similar track as Mexico. This case study will see if Santiago Levy's explanations for the Mexican case apply to Colombia's CCTP. Both countries adopted a CCTP amidst an economic recession³⁶, and both countries adopted programs with a record of failed subsidy-based poverty reduction schemes. Both countries adopted CCTP's to streamline underperforming bureaucratic agencies in charge of poverty reduction programs. Both countries had similar social and demographic profiles. Rural poverty headcount hovered around 75%³⁷ for both countries in adoption years and national poverty headcount was over 50% in adoption years for both countries. Among the five largest Latin

³⁶ Look at illustration 3.4 in Appendix III

³⁷ Measured by the rural poverty headcount (World Development Indicators)

American economies, Mexico and Colombia had the two largest rural populations³⁸. In the elections preceding Colombia's CCTP adoption (1998), the governing party lost 23 lower chamber seats in the legislature. Likewise, the governing party in Mexico lost 61 lower chamber seats in the year preceding CCTP adoption (1997).

It seems that the theories collected in the literature review apply to Colombia as much as they do to Mexico. Colombia's central government adopted its CCTP as a "temporary anti-shock solution to the economic crisis of 1998-1999" (Sanchez Prada, 2012). The goal for adopting Colombia's CCTP was targeted economic alleviation. The motivator seemed to be the effectiveness of CCTP's shown in impact evaluations in Mexico. Colombia created its CCTP in PROGRESA's shadow; the preliminary dialogues were conditioned by "Mexican success, the W.B. and the IADB" (Sanchez Castro, 2012). It seems that the theories regarding economic stability, governing stability, and social stability are applicable to Colombia, although they are not exactly why Colombia adopted its CCTP. Colombia adopted Familias en Accion because the program worked somewhere else under similar conditions. Moreover, the decision making process for Colombia's CCTP adoption was limited to a few actors, including the "secretary of housing and President Pastrana himself" (Sanchez Castro, 2012). In this respect, the theoretical arguments trying to attach economic, political and social factors to the Colombia case do not explain the actual policy making process that led to the adoption of Familias en Accion. The dialogue occurred at the very top of the political chain, with the President being consulted by ministers, consultants, and diplomats. The actors involved in the preliminary process shows that the process was not democratic; the IADB and World Bank were key players because they would fund the first stage of the program. The story of FA is one of "ministerial and cabinet politics, in

³⁸ Look at illustration 4.1 in Appendix IV

which the Colombian government contemplated emulating a program that already proved success in Mexico” (Sanchez Prada, 2012). This episode gives a glimpse into the start of the program’s diffusion in the region. The Colombian central government looked abroad as well as within the country to solve its unprecedented economic crisis. This lends evidence that CCTP’s also proliferated in Latin America because governments began to look elsewhere for long sought answers to poverty reduction.

III. Emulating PROGRESA: The birth of Familias en Accion

In March 15, 2000, CONPES 3081 officially recognized *Red de Apoyo Social (RAS)* as an integral component of Plan Colombia³⁹. This executive proposal introduced Familias en Accion (FA) as one of three CCTP’s that composed RAS (Combariza, 2010, 78). RAS was adopted as the official economic recovery strategy of Plan Colombia (CONPES 3081, 2000, 2). Although FA was one of three⁴⁰ programs that made up RAS, it stood out as the larger program that encompassed the entire eligible population. The other two programs were eventually merged into FA. Colombia’s CCTP was adopted strictly as a “temporary anti-shock economic recovery program” (Sanchez Prada, 2012). FA was formed by CONPES, a maximum authority committee on economic and social policy (Combariza, 2010, 77). This means that the adoption process was relatively fluid and had minimum legislative input. FA was designed from a top to bottom approach, in which “a committee comprised of DNP, ICBF, and SENA officials would oversee the CCTP. This committee would also be in charge of dealing with external funding sources such as the World Bank and Inter-American Development Bank” (Combariza, 2010, 78). FA, like other CCTP’s, had no input at the grassroots level. In fact, it was adopted by a few influential

³⁹ Plan Colombia is a pact between the U.S. and Colombia in which Colombia receives various types of aid and debt assistance to assist in counter narcotics trafficking.

⁴⁰ The other two programs were 1) Manos a la Obra, which offered part time employment opportunities for capacitated workers and 2) Capacitacion Laboral de Jovenes Desempleados de Bajos Recursos, which offered young adults training to enter the labor force.

public officials and consultants in various ministries, including health, education, and national economy (Garcia Jaramillo, 2012). FA was created as an autonomous program with little ties to any government agency. FA was created out of necessity and was designed to implement policy quickly and independently.

In 1999, the Colombian national government found itself in a drastic economic situation. Colombia's GDP had contracted 7% since 1998 and 4.2% in 1999 alone. Fernando Sanchez Prada is a World Food Program administrator focusing on social safety nets was Colombia's CCTP strengthening coordinator from 2004 to 2012. He mentions that the Colombian government in 1998 and 1999 looked for economic stabilizing solutions outside of the country (Sanchez Prada, 2012). In 1996 and 1997, Mexico had adopted PROGRESA, a rural anti-poverty program that had been largely successful in reducing poverty in a time of economic recovery. PROGRESA began as a subsidy program, in which the government gave "enriched milk and flour tortillas" (Sanchez Prada, 2012) to the rural poor. The first PROGRESA evaluation, which was released in 1997, demonstrated that the program's efforts in rural areas were effective and the Mexican government—led by finance minister Santiago Levy—moved towards a conditional cash transfer program⁴¹. By 2004, PROGRESA had grown considerably to four million beneficiary families (Janvry and Sadoulet, 2004, 1).

Colombia had two major demographic similarities to Mexico in 2000: a very poor rural population, and a poor history of national poverty reduction programs (Levy, 2006), especially programs that did not target the rural poor⁴². In 1999, Colombia sent an envoy, led by government consultant Rita Combariza to Mexico City to learn about PROGRESA and its

⁴¹ This information comes from a Data set created by an IFPRI evaluation of PROGRESA's effect on rural poverty. Information was gathered at the household and community-level surveys. For more information please visit IFPRI's PROGRESA data bank. <http://www.ifpri.org/dataset/mexico-evaluation-progresa>

⁴² See illustration 4.1 in Appendix IV to see rural population of Mexico and Colombia

effects on rural poverty. Combariza returned to Colombia with admiration for Mexico's CCTP and recommended the adoption of a similar program in Colombia but with one important reservation: cash transfers should begin immediately in the pilot program and there should be no food subsidies (Sanchez Prada, 2012). Combariza pointed out that Colombia's bureaucracy had historically been unable to properly alleviate poverty with food subsidy programs (Sanchez Castro, 2012). If a successful CCTP was to be adopted in Colombia, it had to be strictly monetary. The design for FA, however, was borrowed from PROGRESA because the countries shared comparable poverty and demographic levels (Sanchez Castro, 2012).

IV. Regional applicability: Macroeconomic Anti-Shock Strategy

After Combariza's request for a CCTP similar to Mexico's PROGRESA, the adoption process occurred rapidly. Even Combariza, however, could not assure the program's success. The executive office of the President⁴³ adopted two other CCTP's along with FA, and their impact was designed to be effective but temporary in nature. The three CCTP's that comprised RAS were not expected to last after the economic recovery. However, implementing a national CCTP was a sizeable endeavor. The presidency placed much confidence on the external consultants that proposed the model and was "throwing the dice" (Sanchez Castro, 2012) on the success of the program. Colombia only had two previous models of national CCTP's to assess⁴⁴. The proponents of Colombia's CCTP did not know what they were going to get from FA, and they only had "Mexico and the World Bank for help" (Sanchez Castro, 2012). If FA was to succeed, it would have to be an "innovative, organic national cooperation effort" (Marquez Lopez, 2012). Once that CONPES 3075 was adopted, the various government actors united to

⁴³ Andres Pastrana was President from 1998 to 2002, and the first stage of FA was adopted by his administration.

⁴⁴ Brazil had also implemented CCTP's, although at the subnational level. The two previous national CCTP's were adopted in Honduras (1990) and Mexico (1997).

lubricate the wheels on which the CCTP would operate. There is no doubt, however, that consultants from the World Bank and the Mexican government conditioned Colombia's CCTP.

At the time, the World Bank, IADB, and the Mexican program were the biggest external influences on the Colombian CCTP. Gradually, however, the “World Bank has helped push an international community of conditional cash transfers” (Sanchez Castro, 2012). Since the first CCT conference in 2002, “CCTP’s have engaged intensively in learning from each other—often directly, sometimes facilitated by international agencies” (Fiszbein & Schady, 2008, 97). Today, the World Bank is the main facilitator of CCTP diffusion. The Bank has “organized a series of study trips to successful Latin American programs... [and] has initiated major global conferences cosponsored with other international agencies to draw together all CCT adopters” (Fiszbein & Schady, 2008, 97). World Bank involvement has increased since 2002 and has formalized a strong international CCT community with influence beyond Latin America. The community “has officials in London, New York City, and Sydney, and is looking to familiarize the entire world with Latin America’s CCT experience” (Fiszbein & Schady, 2008, 97). In the Colombian experience, international organizations incentivized the central government to begin the CCTP dialogue by providing funding for bureaucratic administration and implementation.

The first step towards program adoption was taken by the office of the President. The *Presidencia de la Republica* appoints a committee to investigate possible poverty reduction schemes based on external consulting reports. The committee then conducts the necessary research and policy analysis along with experts from varying ministries, legislative committees, and departmental agencies. The committee also seeks input from local governments who will receive the aid and from international organizations such as NGO’s, think tanks, and states that have already adopted a similar policy (Marquez Lopez, 2012). In the Colombian case, adoption

was a joint process between multiple actors with varying interests. Local mayors had valuable input because they had information about the economy of their municipalities. Banks also had a say because the 1999 economic crisis was caused mainly by financial instruments (Sanchez Castro, 2012). Moreover, national banks are greatly affected by a CCTP because nearly one fifth of the entire population would be introduced to modern commercial banking instruments such as credit and savings accounts (Espinosa, 2012). Banks also reap benefits because poor people move money at faster rates than the rich; proportionally, they spend more income (Sanchez Castro, 2012).

This change in spending behavior does two things: money is transferred at higher rates and a sizeable amount of money made in the informal sector would be stored in savings account in commercial banks. After the committee processes the input, it makes a final recommendation to the President, who as the “supreme administrative authority” (Colombian Political Constitution of 1991, section VII, art. 188) can “create national programs and administrative bodies” (Colombian Political Constitution of 1991, section VII, art. 189). Once the program is created, it becomes a part of the national bureaucracy.

In 1999, the Colombian government needed some type of program to alleviate the rising poverty rate among the rural population. FA began strictly as a temporary anti shock program aimed towards the rural population. In fact, the program did not target the urban population until the program’s second stage. A major reason why the program expanded to urban areas was because urban expansion worked in the Mexican program (Combariza, 2010, 81). FA, like most CCTP’s, begun as temporary but eventually became an effective political tool that had the potential to mobilize a large group of eligible voters (Sanchez Prada, 2012). The expansion to urban areas is the testament to the program’s positive impacts. It did not only expand in its

second stage because it worked in Mexico, but also because the first stage was extremely successful.

Colombia's biggest newspaper, *El Tiempo*, has an online database that records mentions of every subject by month and year. This is a very accurate way to observe how the program gained attention on a monthly basis. This also shows that although the program was adopted as a technocratic tool to reduce poverty in the short term, its effectiveness popularized it beyond the government's expectations. Consequently, its growing popularity obstructed any chance of terminating it indefinitely after the economic recession. Familias en Accion had approximately 241,000 mentions in the national press from 1999 to 2010, while the other two programs that were adopted in 2000 as part of the RAS strategy had 38,000 mentions combined⁴⁵. Furthermore, there was a large series of impact studies dedicated to the effectiveness of FA, and they all overwhelmingly agreed that FA has a positive impact on reducing poverty. There were 17 impact studies published between 2003 and 2010 alone, covering improvements in education, nutrition and health, social services, consumption, internal displacement, and even social capital (Combariza, 2010).

DISCUSSION AND FURTHER RESEARCH

The quantitative analysis section proves that the theory constructed from the literature review fails to reject the null for every hypothesis. The theory was constructed mainly from three distinct types of sources: (1) secondary sources that focused on the diffusion of CCTP's in Latin America, (2) testimonies from policy makers involved in the Colombian and Mexican CCTP's, and (3) specific country cases with detailed information about particular CCTP's. One important

⁴⁵ Please see illustration 1.2 on appendix I. Data retrieved from *El Tiempo*'s article data bank. For more information visit http://www.eltiempo.com/seccion_archivo/index.php

thing to note about the literature is that it focuses primarily on the Brazilian, Colombian, and Mexican CCTP's. Brazil, Colombia, and Mexico employ the largest CCTP's in terms of beneficiaries and administrative size. Judging by the output of scholarship committed to these CCTP's, it is fair to say that the three largest programs receive more attention than smaller programs. The theory, however, still needs to be applied to every CCTP adopter in the region, which might have very different preliminary conditions than Brazil, Colombia, or Mexico. Panama, for example, was 1/59th the size of Brazil at the time of adoption. In order to generalize the theory, however, the hypotheses were still applied to every country in the region.

The main justification for applying the theory to every country in the region is its applicability. Every country in Latin America, despite its size, is prone to an economic recession, high levels of poverty, high inequality, and high rural population density. Moreover, every country in Latin America shares a democratic governing structure, which means that every government feels pressured to retain power in the legislature⁴⁶ as well as the executive branch. The survival analysis model shows that clearly, the political, social, demographic, and economic factors that accounted for CCTP adoption in Mexico and Colombia cannot be applied to each country. Many countries adopted CCTP's under extremely different political and economic conditions, and their social profiles are wide ranging. Most CCTP's adopted before 2002 were adopted under recuperating economic conditions, while most CCTP's adopted after 2002 were adopted under positive economic growth. Inequality shows a similar pattern as economic growth—the earlier programs were adopted under high inequality, while post-2002 programs were adopted with decreasing inequality. Weak government did not seem to have an effect on the likelihood of CCTP adoption. Mexico and Colombia had the weakest governing parties at the

⁴⁶ In presidential systems, the party of the government does not always control the legislature.

time of adoption. Seven governing parties won lower house seats in the legislative elections preceding the CCTP adoption. Six governing parties lost seats in the legislative elections preceding CCTP adoption and four governing parties were newly formed parties or coalitions, so they did not lose or gain any seats since the last legislative election.⁴⁷

The quantitative analysis shows that there are no significant results for any hypothesis, and the results remain statistically insignificant when countries are divided into two groups—pre 2002 adoptions and post 2002 adoptions. The interesting part is that the results are not significant by a large amount. *P* values for factors that were assumed to be the main cause of CCTP's, such as GDP growth and rural poverty, were far off from the .05 threshold. The common assumption about CCTP adoption is that governments enact the CCTP to protect the rural poor from economic recessions. In simple terms, CCTP's are an anti-shock solution to economic recessions. However, the quantitative analysis shows that countries in Latin America adopted CCTP's under different circumstances. A minority of countries actually adopted CCTP's under economic contraction or economic alleviation. Many countries adopted CCTP's under completely different circumstances from what the literature assumes. The stark difference in the economic condition of pre 2002 adopters and post 2002 adopters shows that the macroeconomic instability component was just not there after Brazil consolidated its national CCTP in 2001 and Argentina adopted its CCTP in 2002.

This leads to one interesting explanation, which is that states adopt CCTP's because they are successful in other countries. For example, the main reason that Colombia adopted its CCTP was because the Mexican example had worked very well. Colombia did share the same economic, social, and political factors as Mexico, but ultimately the politicians adopted Familias

⁴⁷ Look at table 1.2 in Appendix I

en Accion because a previous model had worked. There was less risk in adopting Familias en Accion because the program was designed after a successful experiment. Colombia did not engineer its CCTP organically. A noteworthy reason for Colombia's CCTP adoption was the group of consultants and bureaucrats that visited Mexico in 1999 to learn about PROGRESA (Sanchez Castro, 2012). This behavior can be explained by the "States as Policy Laboratories" (Volden, 2013, 294) theory, which highlights that "states with successful policies are more likely to be emulated than those with failing policies" (Volden, 2013, 294). Volden argues that in American states are more likely to emulate policies of states that have already implemented successful policies. More successful policies, therefore, are more likely to spread quickly than policies that are not successful. This theory is one possible reason why CCTP's spread in Latin America even when the basic economic conditions to adopt the program were not met. The reason why CCTP's spread across the entire region is twofold: The Brazilian pioneer municipal programs in 1996 and Mexican PROGRESA proved successful, and World Bank and IADB funding incentivized adoption to economies that could not afford funding the program solely with national funds. This shows that Volden's theory of states as laboratories could be applicable to Latin America's experience with conditional cash transfers.

Further research should continue to seek answers as to why CCTP's expanded in the entire region even when the necessary economic conditions for CCTP's are not met. Looking at national data indicators such as GDP per capita and GINI index will not provide a generalizable explanatory factor for the proliferation of CCTP's. Macro indicators will also not explain the likelihood of program adoption across the region because there is too much variation between countries. One way to continue to search for economic factors that accelerate CCTP adoption is by branching out from observing economic growth or GDP per capita. Using more complex

variables that delve into fiscal policy could be useful for analyzing further economic factors that affect the timing of CCTP adoption. Analyzing fiscal trends might shed light into possible incentives for a dialogue regarding CCTP's. Economic growth is a large variable and it might not be capturing the budgetary motives for adopting a CCTP from a central government⁴⁸ perspective.

Further research should also be qualitatively based in the country level and analyze if each country adopted its CCTP simply because they had successful models to choose from. This paper's case study of Colombia proved that at least in the Colombian case, the Mexican success story propelled the central government to push for an autonomous poverty reduction program. If I had more time, I would have done the same qualitative research I conducted in Colombia in every country to see if there was a chain reaction in the region, where central governments and presidential cabinets began to consider the program as its neighbors enjoyed the political success of CCTP's. For example, I would have interviewed bureaucrats and policy makers in post 2002 countries such as Peru and Ecuador to see if they adopted their CCTP because Colombia had published positive impact evaluations. This case by case qualitative approach would have been the best way to test the *states as laboratories* theory suggested by Craig Volden. The limitations of this project includes a lack of time and lack of resources to interview policy makers from each country to prove that the later programs were adopted because there were multiple successes and the World Bank was actively promoting CCTP's.

An important addition to a future study that concentrated on the variation in timing of CCTP adoption in Latin America could be to directly address the independent variables directly in the case study interviews. Furthermore, this could be repeated in three or four additional case

⁴⁸ Central Government refers to the executive branch and ministries.

studies of pre and post 2002 CCTP adopters. Interviewing public officials in more than one country would have enriched the qualitative portion of the thesis. Another recommendation for future research is to examine the international pressures more closely. World Bank influence could be another explanatory factor driving CCTP adoption in Latin America and beyond. In order to do this, I recommend observing the number of World Bank officials situated in each country. This will help to see if a higher number of World Bank officials, which represents World Bank presence, increase the likelihood of CCTP adoption. Another measure of international influence is observing boots on the ground in each country. Observing the number of NGO's in each country, specifically NGO's related to humanitarian work and improving social conditions, will tell if NGO's are a significant factor in the CCTP adoption process. Finally, further studies should note if countries had full plates or empty plates before adopting their CCTP's. Countries with existing social welfare programs and poverty reducing schemes, which have a full plate, are less likely to invest in a radically new strategy. Although my literature review mentions how past social programs had an influence in Mexico and Colombia, there should be more focus on generalizing the effect of existing social programs on the likelihood of CCTP adoption throughout the entire region.

CONCLUSIONS

The existing literature points to seven factors that affect the likelihood of CCTP adoption. Macroeconomic instability, poor bureaucratic quality, governing party weakness, disproportionately high rural poverty, high rural population density, high inequality, and disproportionately high national poverty are all supposed to increase the likelihood of program adoption. These economic and political factors are thought to have accelerated the proliferation of CCTP's in Latin America. At first glance, it seems natural that these factors accelerate

program adoption. In the 1990's, Latin America embodied terms such as underperforming bureaucracies, unstable economic cycles, and desperate governments seeking to recuperate political strength. Observed from a regional level, poverty in Latin America in the 1990's was rampant—both urban and rural poverty rates were among the highest in the world. Inequality was increasing along with both rural and national poverty levels. Latin American governments faced macroeconomic instability as well as alarming social problems. However, this study suggests that the growth of CCTP's is not caused by any of the stated factors. The stated explanatory factors actually show no significant bearing on the likelihood of program adoption. Statistical tests using Cox regressions and survival analysis show that none of these political and economic variables affect the expansion of CCTP's.

The Familias en Accion case study shows that there are internal governing factors that truly push CCTP adoption. CCTP's were adopted in countries with weak governments and strong governments, high rural poverty and low rural poverty, high levels of economic growth and contracting economic growth, and high levels of bureaucratic quality as well as low levels of bureaucratic quality. It seems that the growth of CCTP's is accredited more to the fact that they are successful. There is evidence that shows that CCTP's were adopted at first, at high political risk. As the program showed success in the five largest Latin American democracies, smaller regimes emulated the programs even though their economic and political conditions differed from the first adopters. This leads to another question: are programs and policies emulated simply because they are successful and not because they are applicable? This study brings forth the possibility that the international community of CCTP's, which developed informally after 2002, helped diffuse CCTP's throughout Latin America even when countries did not face the economic and social problems that the first programs addressed. Furthermore, this thesis proves

that a successful track record is an important determining factor that influenced central government cabinets to adopt CCTP's. Latin America shows that the possibility that previous success is a major reason for policy diffusion should not be ignored.

CODEBOOK

cowcode: List that gives a specific number identification to each country. A system of quantitative identification for each observation helps with statistical analysis.

CountryName: Full name of each observed country.

Year: The years being observed for each country are 1990-2010. Each of the 19 countries has 20 terms.

snow: Captures a snowball effect, or domino effect, in programs that were adopted after 2002. *Snow* sums every program on a yearly basis from 1990-2010. For example, from 1990 to 1996 the variable is "1", because only one program had been adopted in those years. In 1997, another program was added, so from 1997 to 1999 the number increased to "2". This same sequence was repeated for all 19 countries under observation.

CCTP: Captures the exact year that each program was adopted. CCTP is divided into 0's and 1's, in which 0's indicate when the program has not been adopted and 1's indicate the year of adoption. After 1, the observation "fails", so it is not accounted for after every "1". This method is necessary to perform survival analysis and Cox regression models.

CCTPName: Full name of each CCTP. The project covers 19 Latin American countries, including every Spanish and Portuguese speaking country.

GDPNetGrowth: Percentage growth in GDP for each country. GDP growth is taken on a yearly basis from 1990-2010.

gdppercap: GDP per Capita for each country. GDP per Capita is taken on a yearly basis from 1990-2010 and is measured in US dollars, kept constant to 2000 currency.

totalpop: Total Population for each country. The total population of each country is taken on a yearly basis from 1990-2010 and is measured in millions.

rupop: Percent of total population residing in rural areas.

rupov: Poverty headcount ratio at rural poverty line. The rural poverty headcount, also referred to as the rural poverty rate, is the percentage of the rural population living below the rural national poverty line. Rural poverty measures were not available for Argentina and Cuba, so these two countries were dropped when rural poverty was being tested.

natpov: Poverty headcount ratio at the national poverty line. The national poverty rate is the percentage of the population living below the national poverty line. National estimates are based

on population-weighted subgroup estimates from household surveys. National poverty measures were not available for Argentina and Cuba, so these two countries were dropped when rural poverty was being tested.

Gini: The Gini index was observed for every country in Latin America. Gini index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality⁴⁹. The Gini of each country was taken from 1990 to 2010.

Burqual: *Burqual* stands for bureaucratic quality, a measure that is taken from the International Country Risk Guide. The ICRG gives every country in the world a monthly ranking based on bureaucratic quality. Since ICRG only gives monthly values for bureaucratic quality, I merged twelve month periods into yearly values from 1990 to 2010 to receive a yearly composite rating. The ICRG rating goes from 0 to 4. 0 is the lowest possible bureaucratic rating and 4 is the highest.

President: President of each Latin American country from 1990 to 2010. I included President in the analysis as additional information because the government safety variable is interested in the executive branch.

Ruling Party: In this project, ruling party is the party of the executive. It could also be seen as the party that is in charge of the government. In this context, ruling party does not necessarily mean the party that has the most seats in the legislature. In presidential systems, the party that controls government does not necessarily have a simple majority in either legislative chamber. This variable was taken for each government in Latin America from 1990 to 2010.

govsafety: This variable measures the safety of government by noting the net gain or loss of seats in the lower legislative chamber. Every legislative election is accounted for each of the 19 countries from 1990 to 2010.

NetOfficialDevelopmentAssista: Net official development assistance is disbursement flows (net of repayment of principal) that meet the DAC definition of ODA and are made to countries and territories on the DAC list of aid recipients. Net official aid refers to aid flows (net of repayments) from official donors to countries and territories in part II of the DAC list of recipients: more advanced countries of Central and Eastern Europe, the countries of the former Soviet Union, and certain advanced developing countries and territories. Official aid is provided under terms and conditions similar to those for ODA. Part II of the DAC List was abolished in 2005. The collection of data on official aid and other resource flows to Part II countries ended with 2004 data. Data are in constant 2009 U.S. dollars⁵⁰.

Foreigndirectinvestmentnet: Foreign direct investment, net inflows (BoP, current US\$). Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10

⁴⁹ Definition retrieved from World Development Indicators databank.

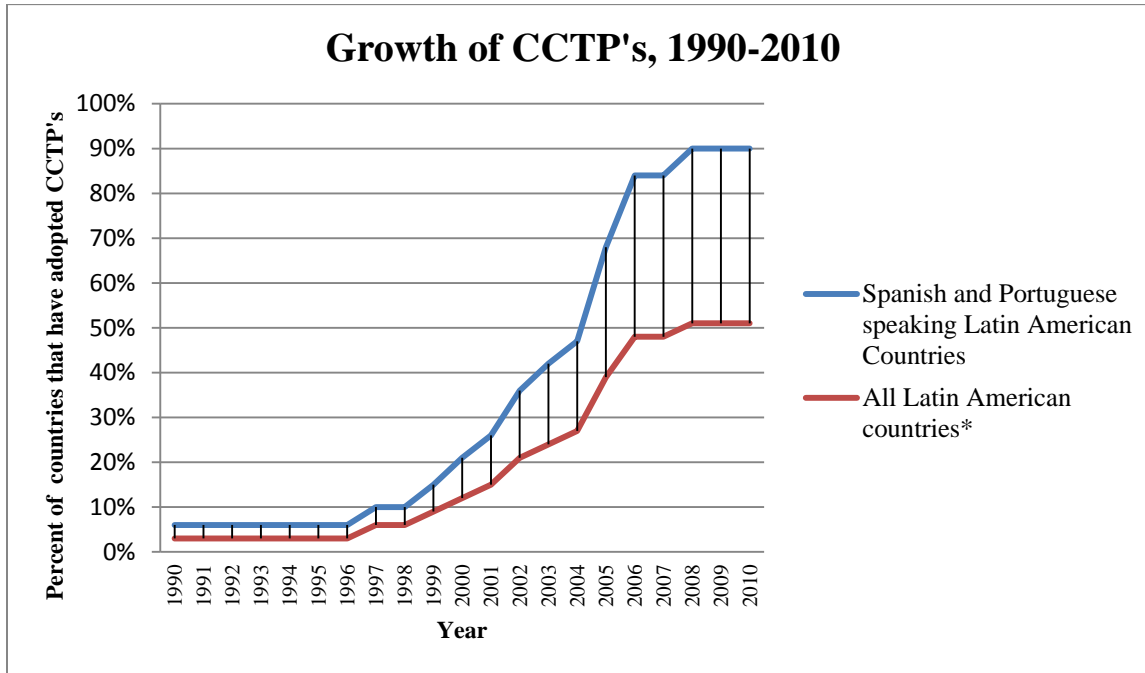
⁵⁰ Definition retrieved from World Bank Economic Policy & Debt database.

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. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors. Data are in current U.S. dollars⁵¹.

⁵¹ Definition retrieved from the International Monetary Fund Balance of Payments database.

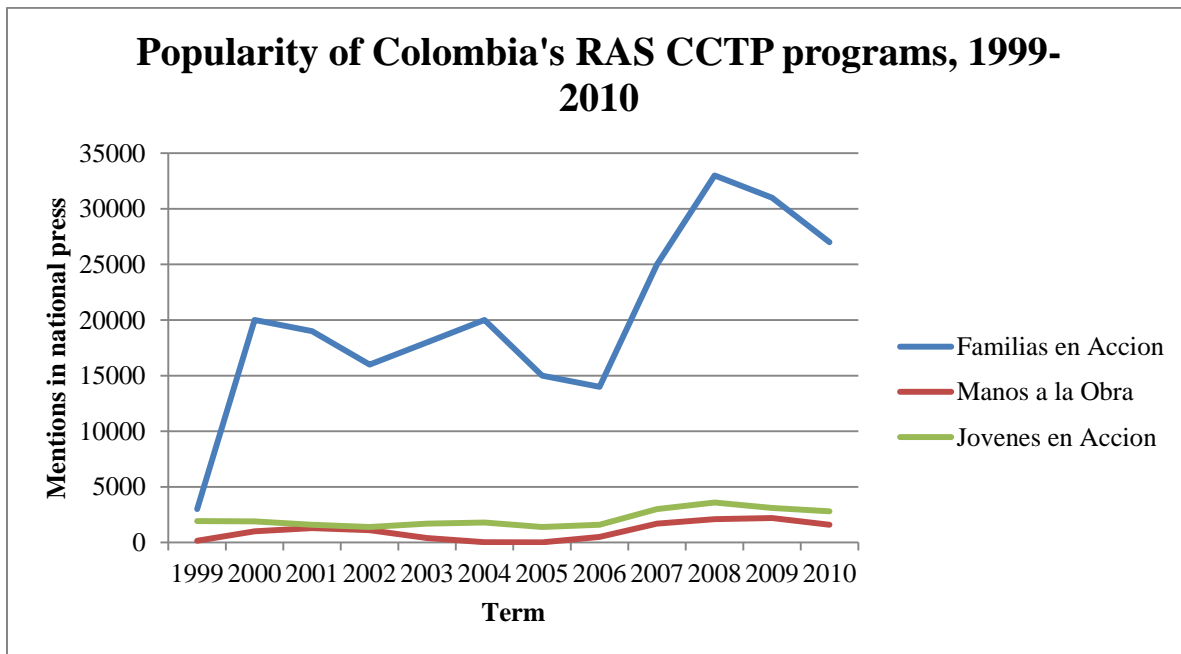
APPENDIX (I): GENERAL CCTP ADOPTION INFORMATION

Illustration 1.1



*Includes colonies and dependencies.

Illustration 1.2



Source: El Tiempo

Table 1.1

General CCTP Information

Country	Program Name	Adoption Year ⁵²	Population in Adoption Year (Millions)	Is Program still in use ⁵³
Honduras	PRAF-I	1990	4.88	No
Mexico	Progresa-Oportunidades	1997	93.92	Yes
Guatemala	Mi familia Progresa	2008	10.72	Yes
El Salvador	Red Solidaria	2004	6.59	Yes
Nicaragua	Red de Proteccion Social	1999	4.99	No
Costa Rica	Avancemos	2006	4.38	Yes
Panama	Red de Oportunidades	2006	3.29	Yes
Cuba	NA	NA	NA	NA
Dominican Republic	Solidaridad	2005	9.26	Yes
Colombia	Familias en Accion	2000	39.76	Yes
Venezuela, RB	NA	NA	NA	NA
Ecuador	Bono de Desarrollo Humano	2003	12.98	Yes
Peru	Juntos	2005	27.55	Yes
Chile	Chile Solidario	2002	15.78	Yes
Argentina	Jefes de Hogar Desocupados	2002	37.65	No
Paraguay	Tekopora	2005	5.89	Yes
Bolivia	Juancito Pinto	2006	9.3	Yes
Uruguay	PANES	2005	3.3	No
Brazil	Bolsa Escola/Familia	2001	176.87	Yes

Sources: World Development Indicators, World Bank.

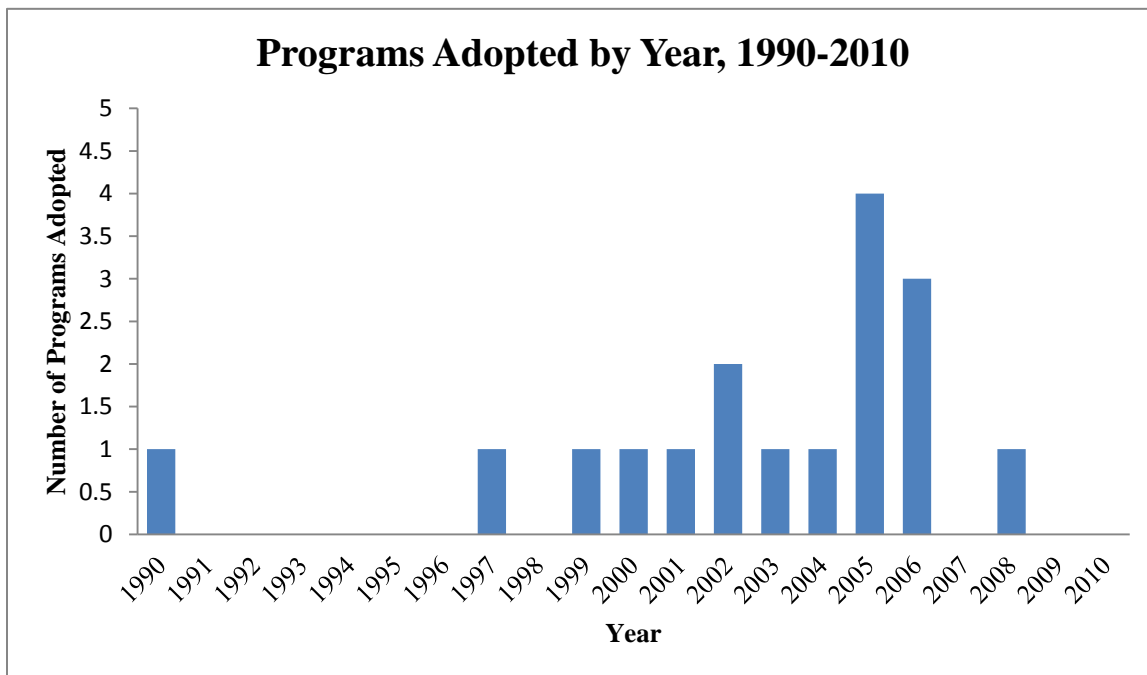
⁵² Adoption year refers to the year that the first national consolidated CCTP was adopted. Many countries had adopted smaller provincial CCTP's funded and administered by local governments. This project is only concerned with national programs.

⁵³ Most programs have been modified over time.

Illustration 1.3



Illustration 1.4



World Bank, Social Safety Nets

Table 1.2

Country	Adoption Year	Ruling Party/Coalition in CCTP Adoption Year	+/- Legislative Seats* Lost by Governing Party in elections preceding CCTP adoption	% of Legislative Seats* held by the governing party in elections preceding CCTP adoption
Argentina	2002	Justicialist Party	2	47%
Bolivia	2006	Revolutionary Nationalist Movement	10	22%
Brazil	2001	Brazilian Social Democratic Party	37	12%
Chile	2002	Concert of Parties for Democracy	-7	51%
Colombia	2000	Conservative Party	-23	17%
Costa Rica	2006	National Liberation Party	8	43%
Cuba				
Dominican Republic	2005	Dominican Liberation Party	1	46%
Ecuador	2003	Partido Sociedad Patriótica	0**	16%
El Salvador	2004	Nationalist Republican Alliance	-2	32%
Guatemala	2008	National Unity of Hope	16	30%
Honduras	1990	National Party of Honduras	13	59%
Mexico	1997	Institutional Revolutionary Party	-61	47%
Nicaragua	1999	Nicaraguan Liberal Alliance	0**	45%
Panama	2006	Partido Nacionalista	0**	30%
Paraguay	2005	Colorado Party	-8	46%
Peru	2005	Possible Peru	0**	15%
Uruguay	2005	Broad Front	-23	10%
Venezuela, R.B.				

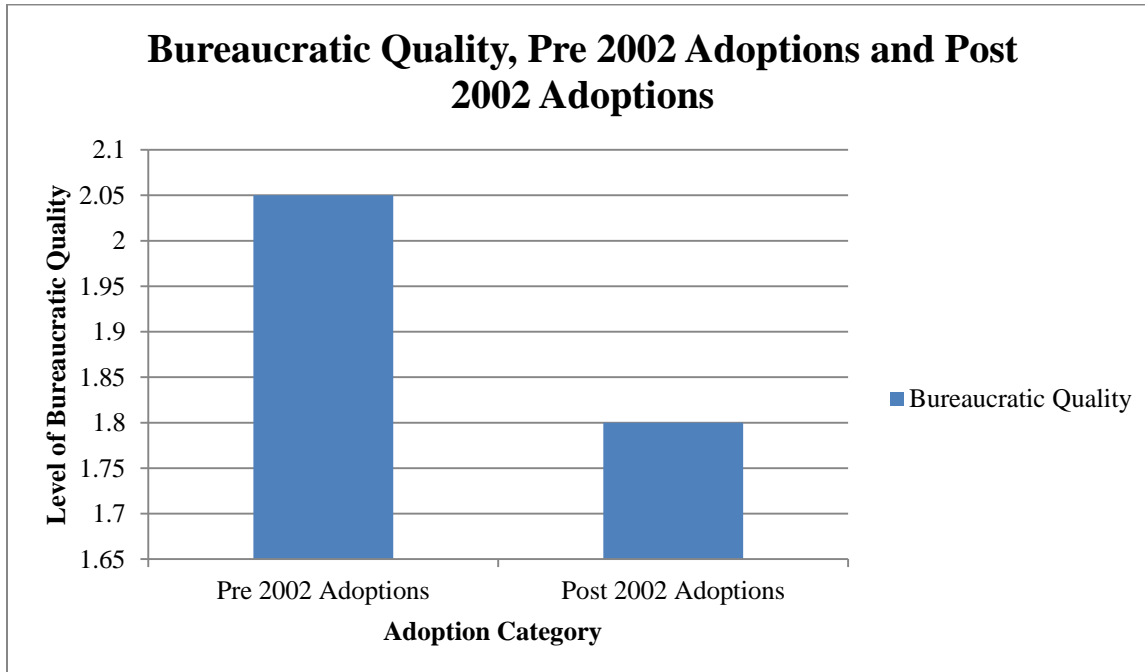
Sources: Adam Carr's election archive, Elections in the Americas, National Election Agencies

*Legislative seats refer to seats lost or gained in the lower house. Peru, Ecuador, Venezuela, Cuba, and the Central American Countries have unicameral legislatures. Unicameral legislatures will be treated the same as the lower

house in bicameral legislatures.

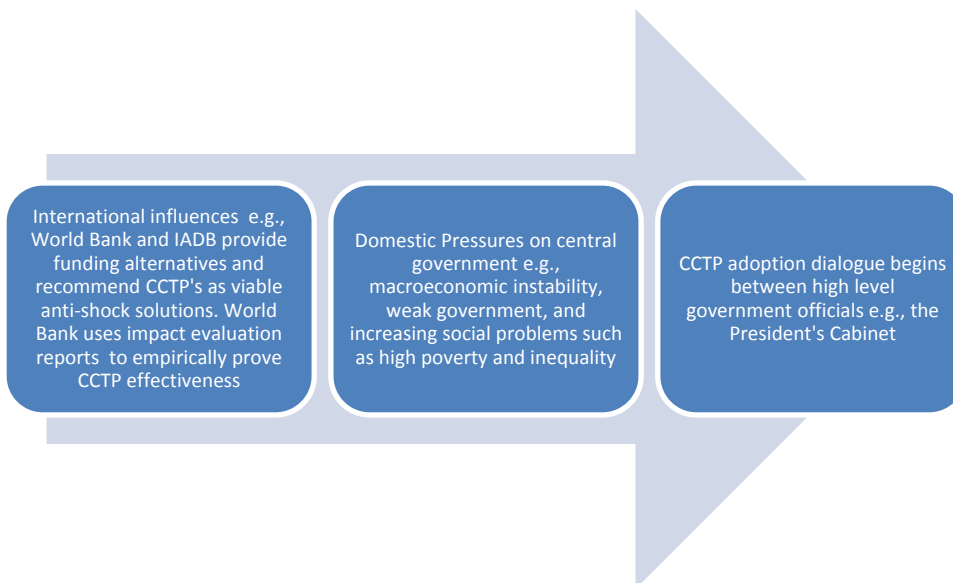
**0 indicates a new party or coalition, so it does not gain or lose legislative seats.

Illustration 1.5



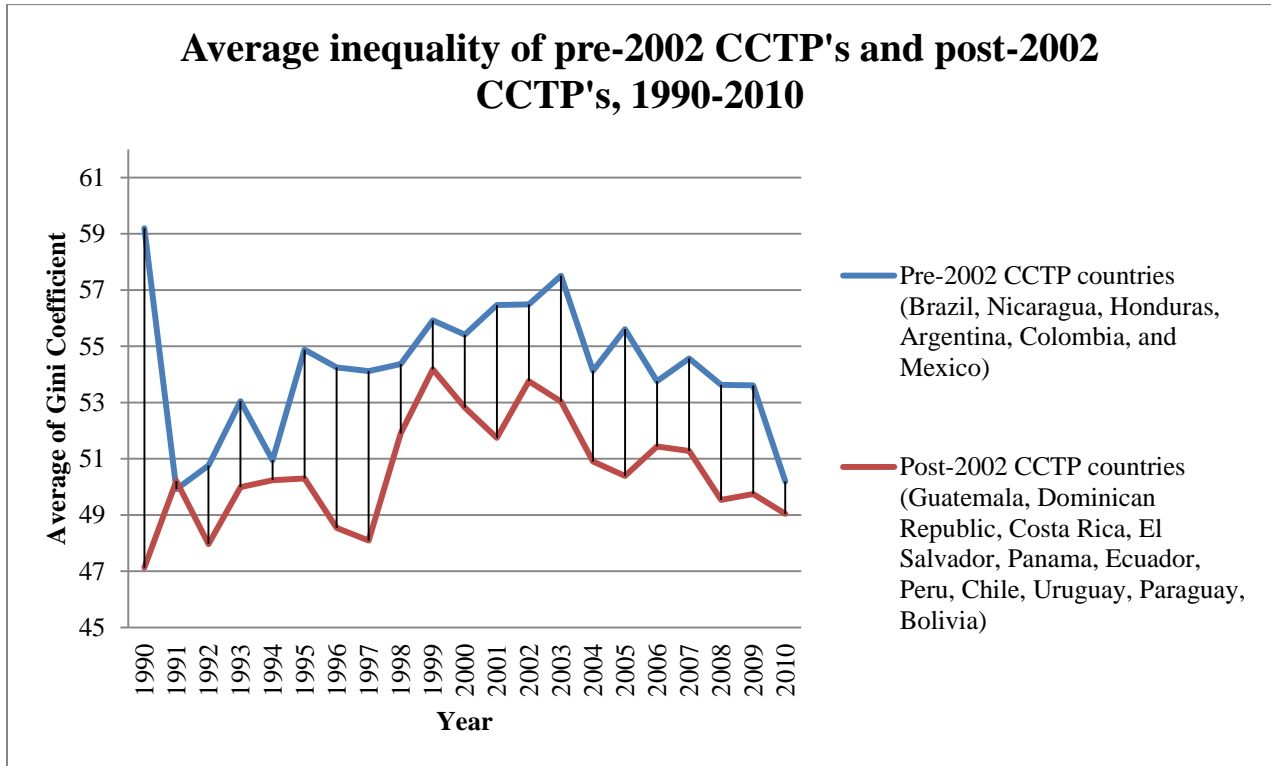
Source: International Country Risk Guide Rating

Illustration 1.6: Domestic and International factors that lead to CCTP dialogue



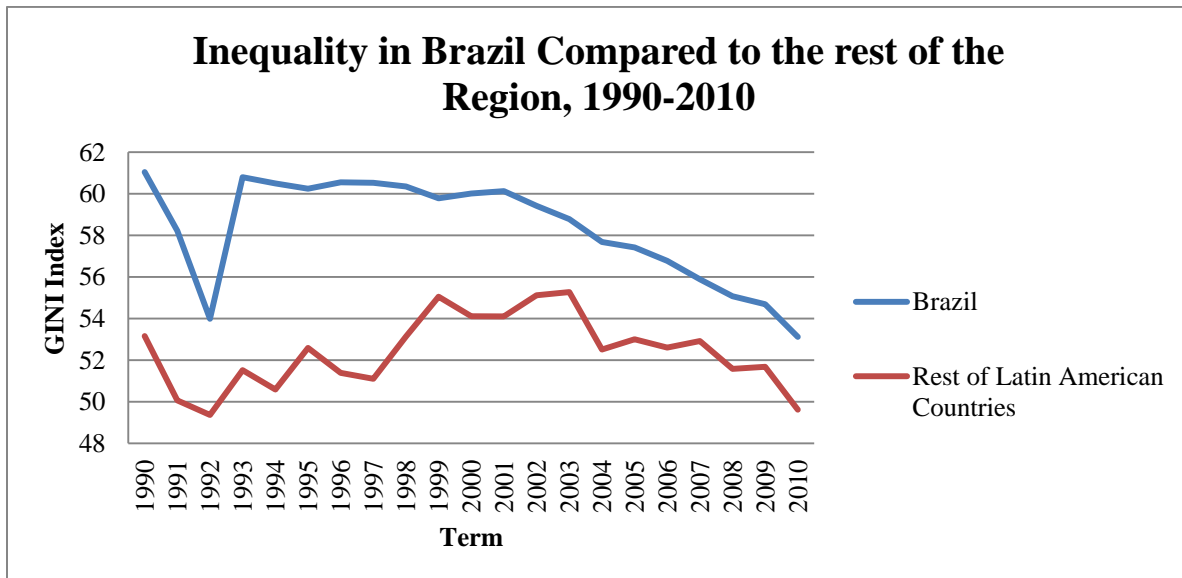
APPENDIX (II): INEQUALITY IN LATIN AMERICA, 1990-2010

Illustration 2.1



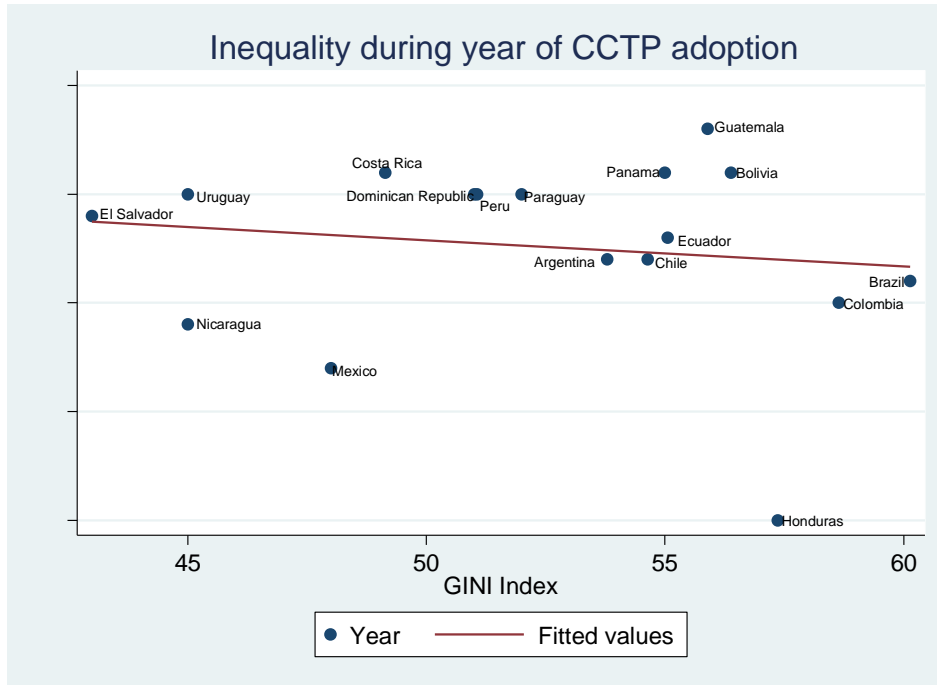
Source: World Development Indicators

Illustration 2.2



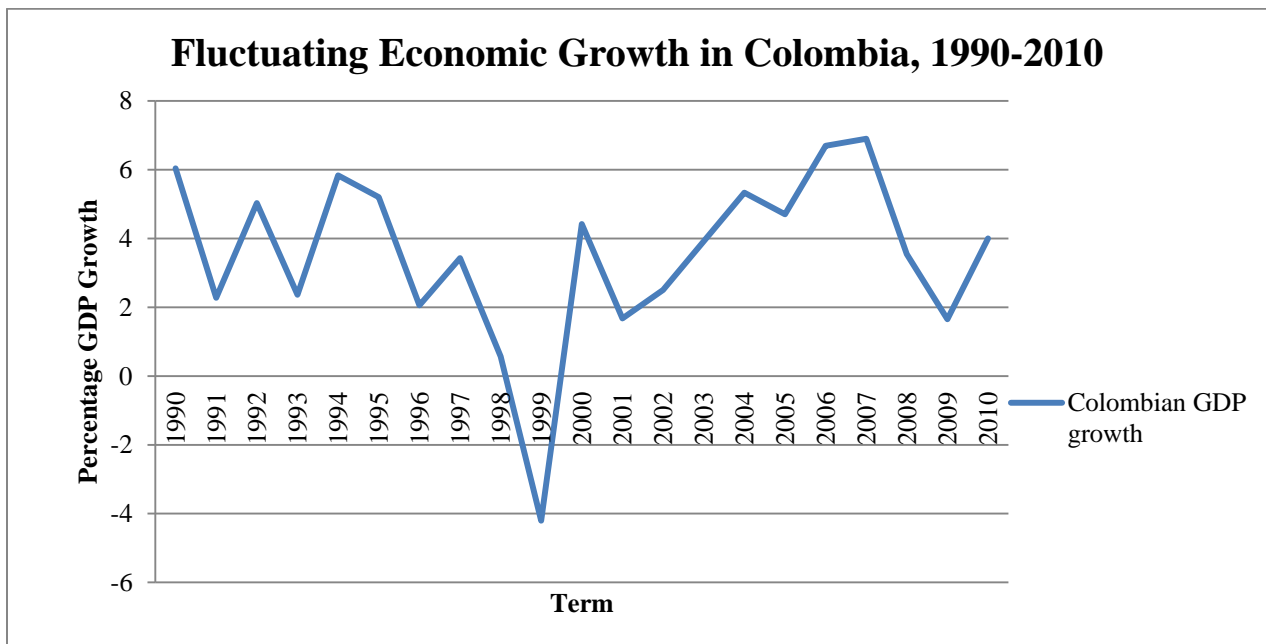
Source: World Development Indicators

Illustration 2.3



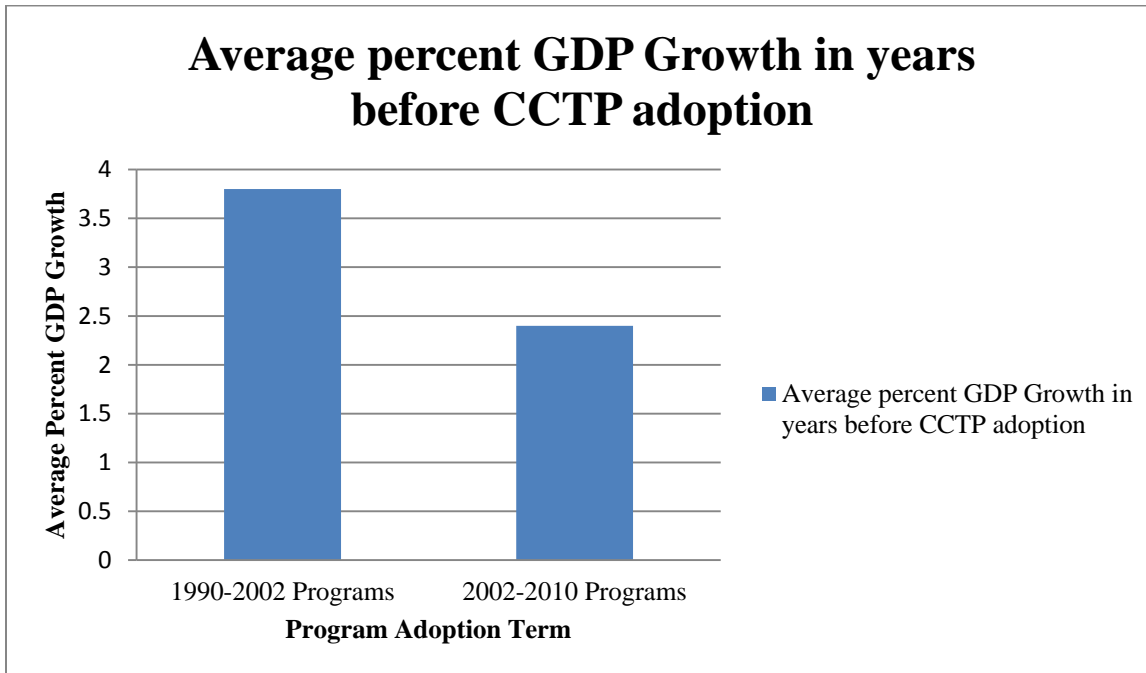
APPENDIX (III): ECONOMIC GROWTH IN LATIN AMERICA, 1990-2010

Illustration 3.1



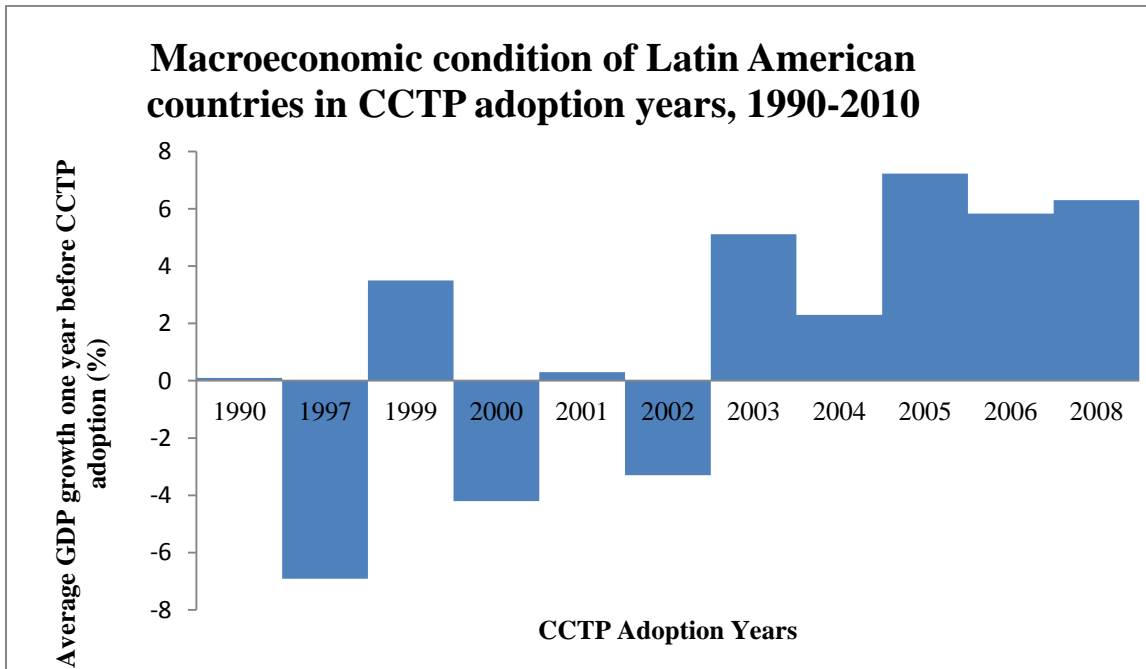
Source: World Development Indicators

Illustration 3.2



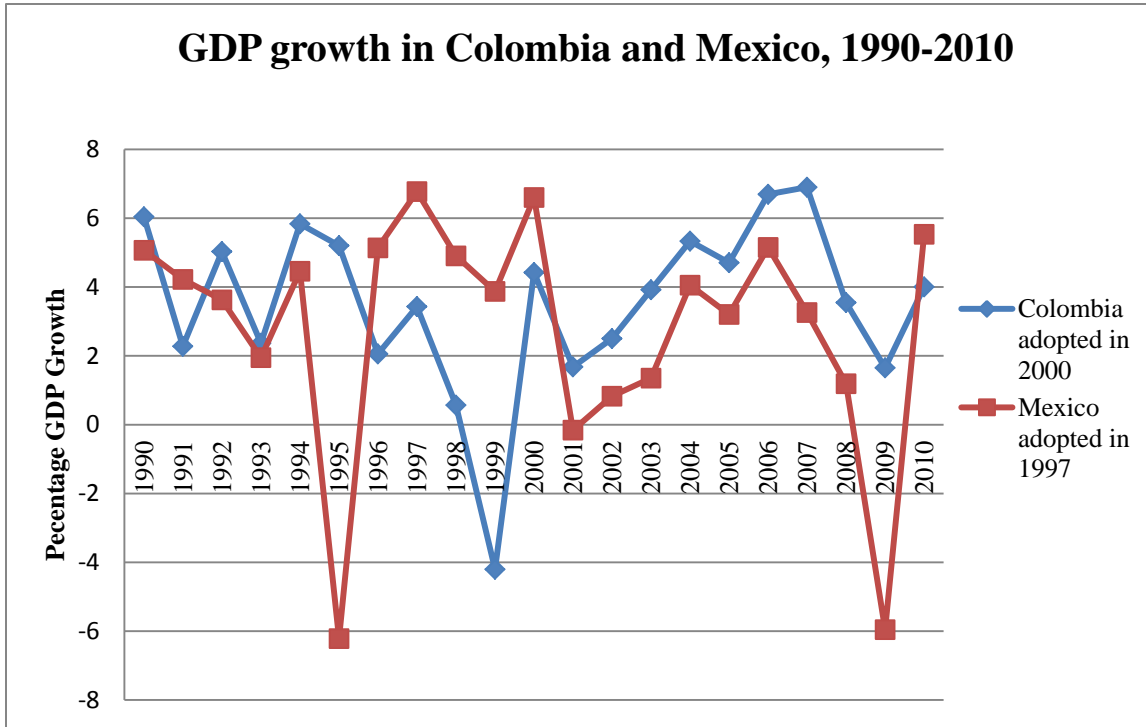
Source: World Development Indicators

Illustration 3.3



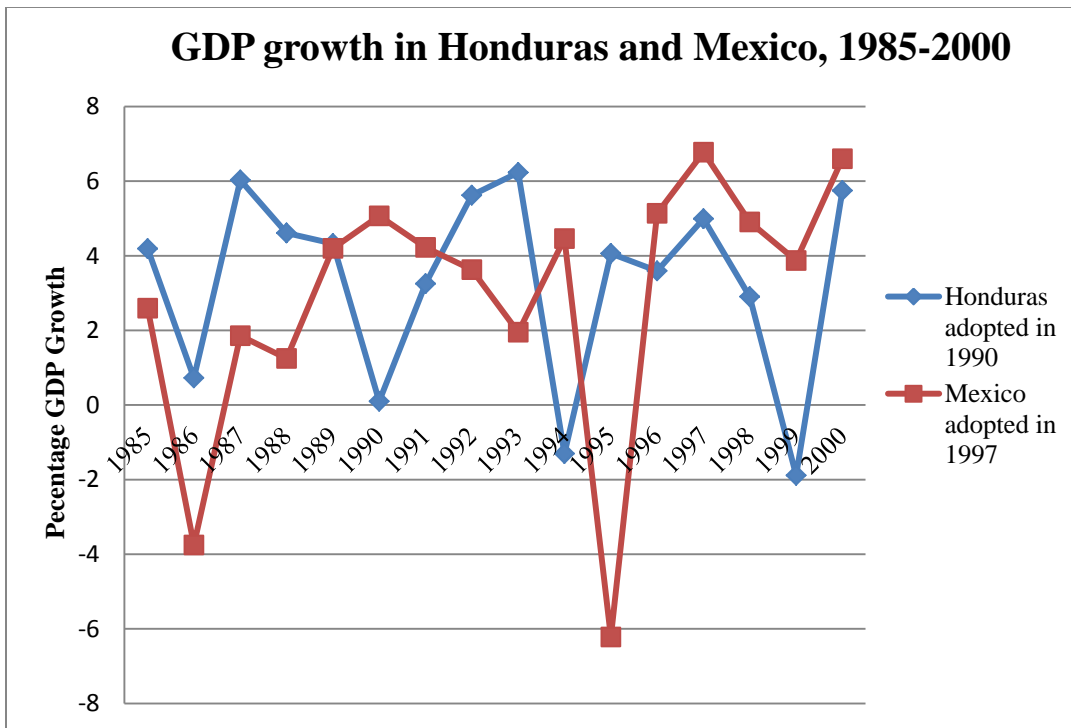
Source: World Development Indicator

Illustration 3.4



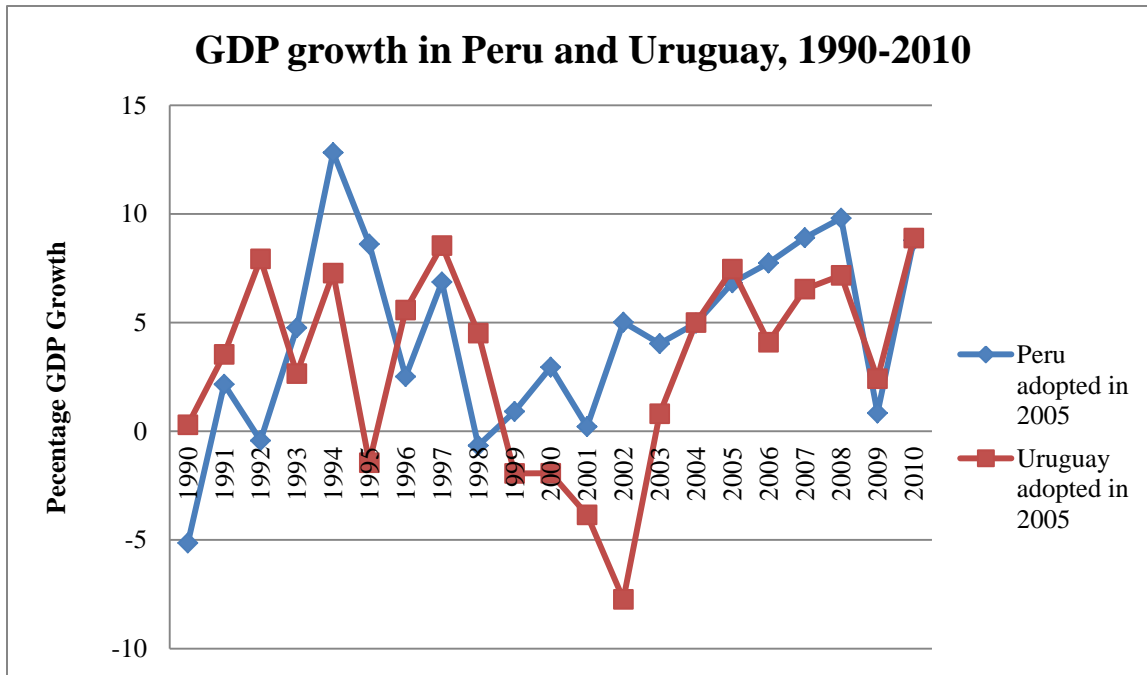
Source: World Development Indicators

Illustration 3.5



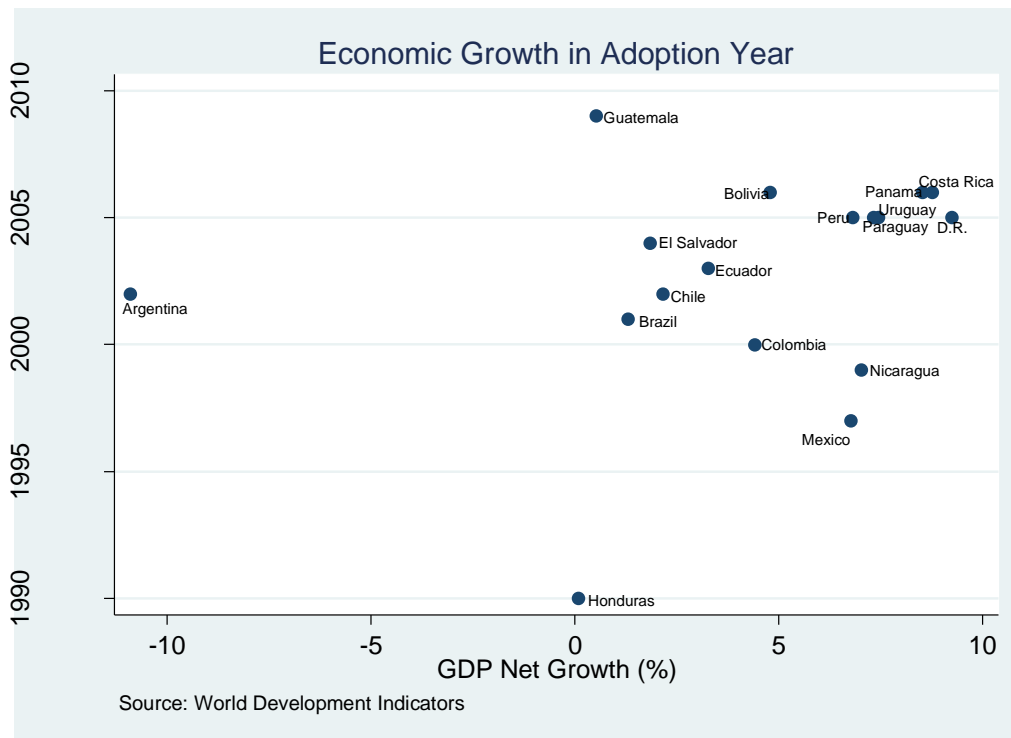
Source: World Development Indicators

Illustration 3.6



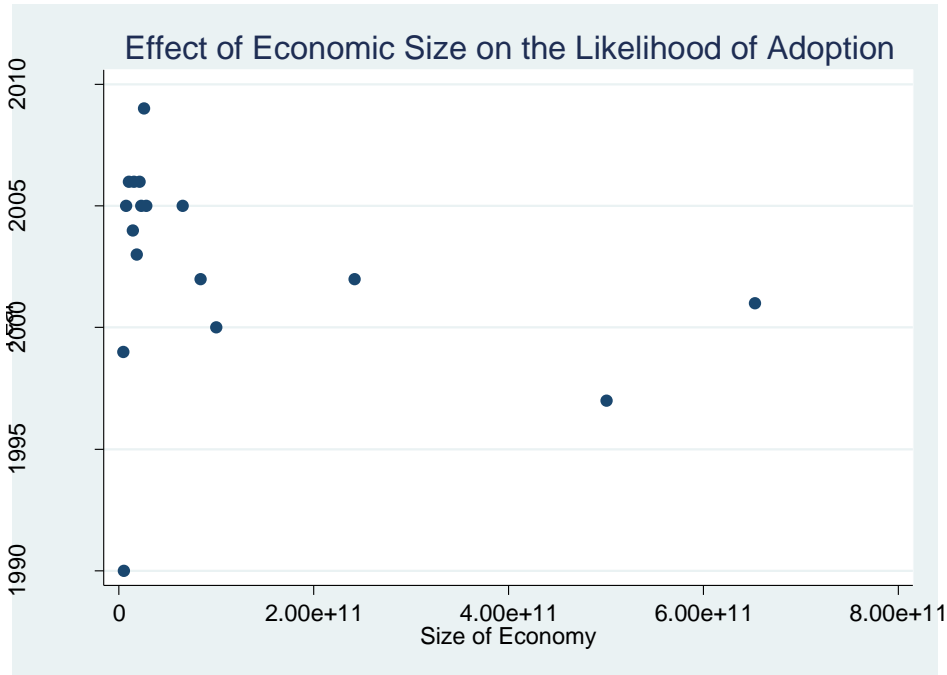
Source: World Development Indicators

Illustration 3.7



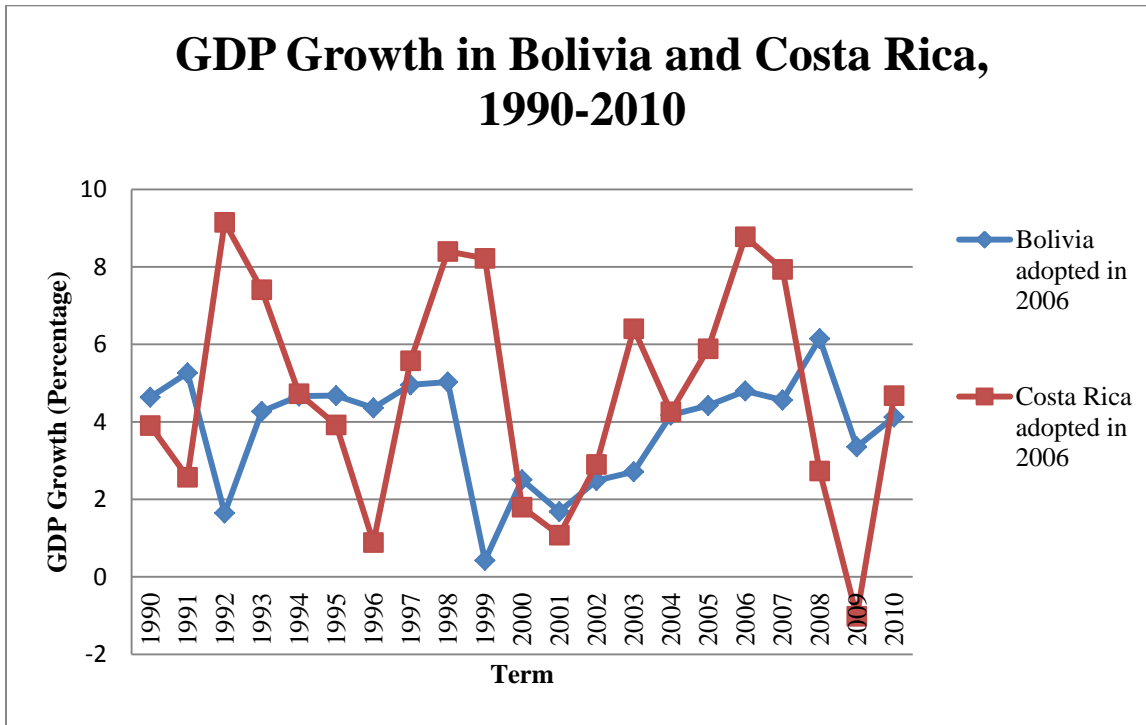
Source: World Development Indicators

Illustration 3.8



Source: World Development Indicators

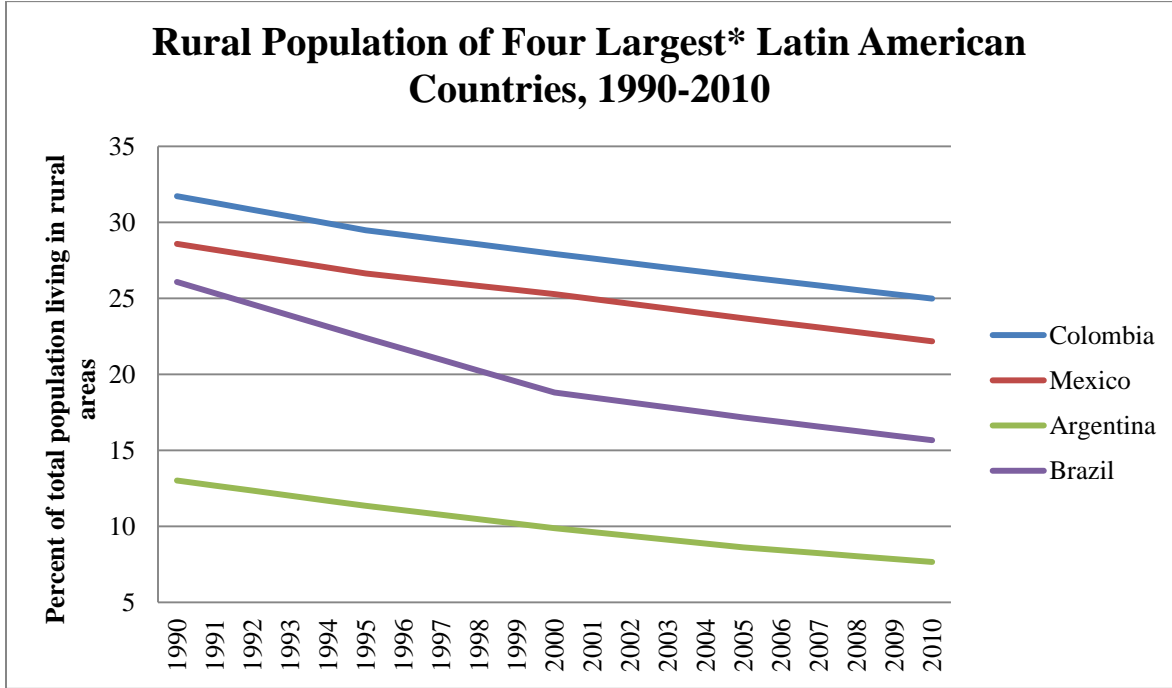
Illustration 3.9



Source: World Development Indicators

APPENDIX (IV): POPULATION MEASURES IN LATIN AMERICA, 1990-2010

Illustration 4.1



*Largest refers to population size.

Source: World Development Indicators

Illustration 4.2

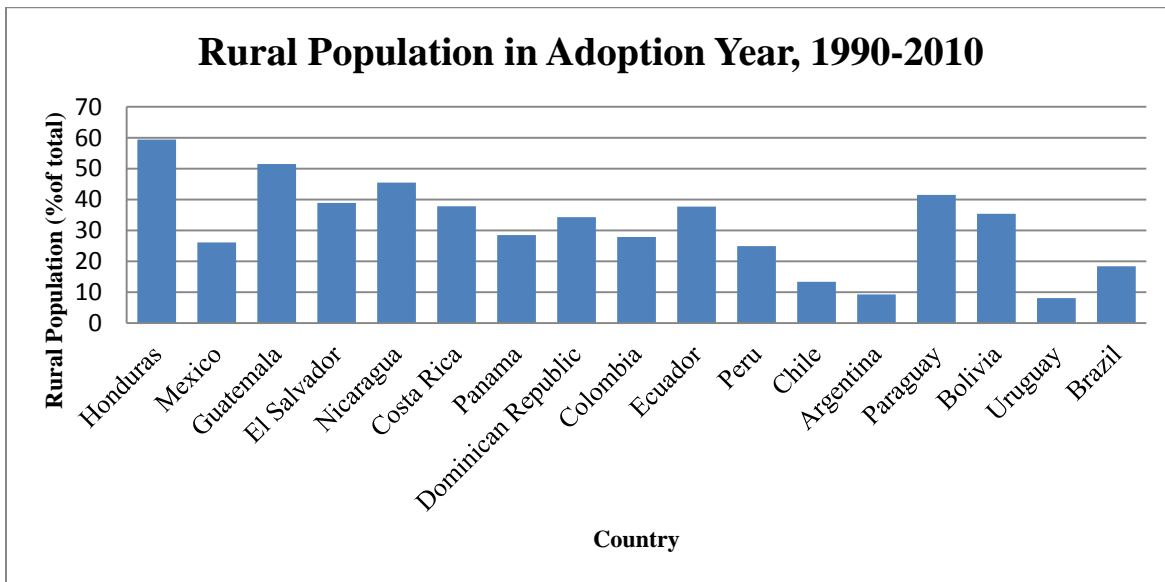
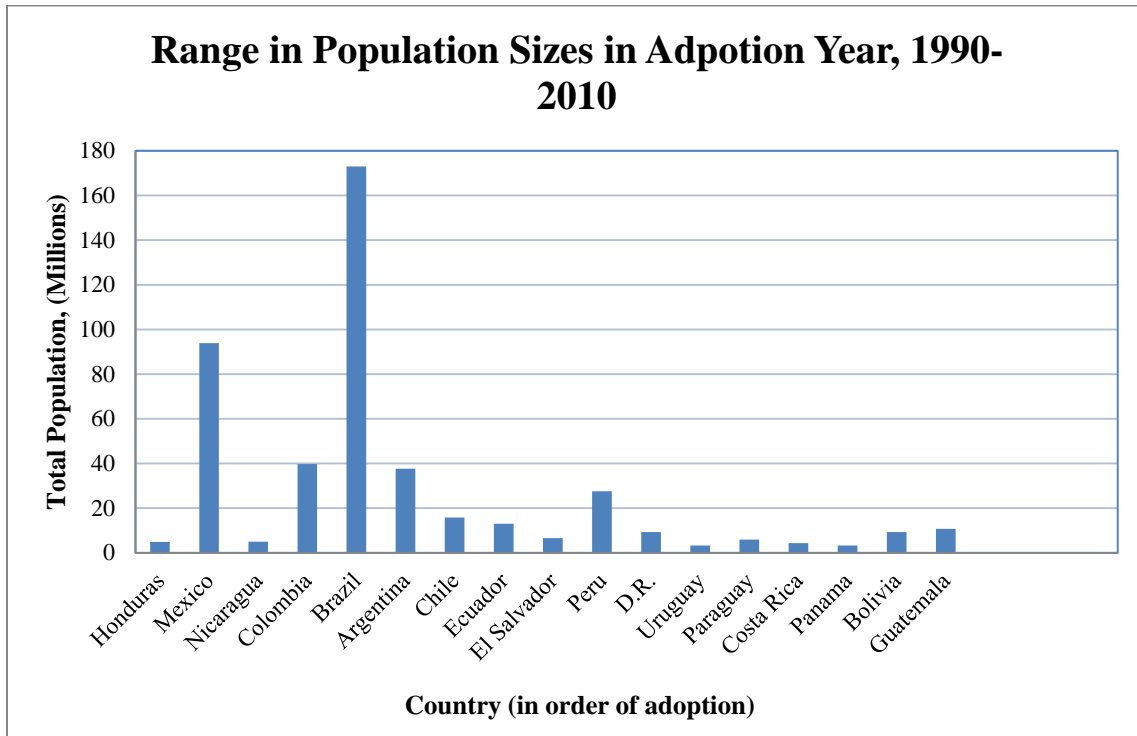


Illustration 4.3



Source: World Development Indicators.

APPENDIX (V): QUANTITATIVE RESULTS

I. Illustrations of tests with imputations for poverty and inequality measures

Table 5.1: Effect of GDP growth on the likelihood of adoption

_t	Coefficient	Std. Err.	t	P> t 	[95% Conf. Interval]	
GDPNetGrowth	.1409821	.1230072	1.15	0.252	-.1001355	.3820997
Gdpcap	-.0002593	.0004025	-0.64	0.520	-.0010514	.0005329
Totalpop	1.24e-08	8.18e-09	1.52	0.128	-3.59e-09	2.85e08
Rurpop	-.0022544	.0374837	-0.06	0.952	-.0757711	.0712624
Rurpov	-.0364069	.0480434	-0.76	0.451	-.1321863	.0593725
Gini	.0524583	.1108358	0.47	0.637	-.1666581	.2715746
Natpov	.0255925	.0678408	0.38	0.708	-.1110772	.1622621
Gini	.5031363	.5872772	0.86	0.392	-.6481618	1.654434
govsafety	-.0195459	.0285439	-.068	0.494	-.0755011	.0364093

N = 240

Illustration 5.1: Cox hazard curve for the effect of GDP growth on the likelihood of CCTP adoption.

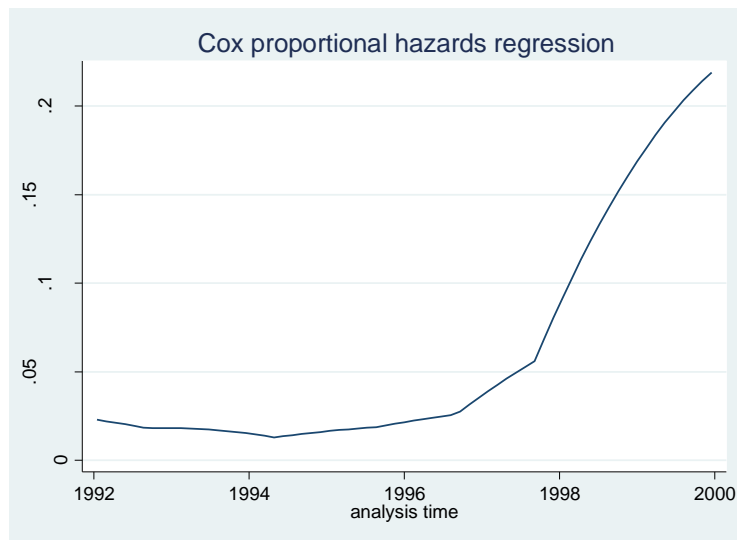


Table 5.2: Cox Regression results for the Effect of further confounding Variables on the Dependent Variable

Variables	Coefficient	P value	Coefficient with controls	P value with controls	[95% Conf. Interval]	
Snow—captures a possible domino effect for programs adopted after 2002.	.0015904	.066	.0754020	0.614	-.4201100	.1120665
GDPNetGrowth—measures percentage GDP growth.	1.244825	.9704964	.1409821	.252	-.1001355	.3820997
N= 240						

Table 5.3: Cox Regression result of GDP per capita's effect on likelihood of adoption

_t	Haz. Ratio	Std. Err.	z	P> z	[95% conf. interval]	
gdpcap	.9999197	.0001989	-0.40	0.686	.9995299	1.00031
rp	.997373	.0219609	-0.12	0.905	.9552461	1.041358
N=239						

Table 5.4: Cox Regression results for the Effect of Each Independent Variable on the Dependent Variable

I.V.'s⁵⁴ effect on DV (likelihood of CCTP adoption)	Coefficient	P value	Coefficient with controls	P value with controls	[95% Conf. Interval]⁵⁵	
I.V. (I)—GDP per Capita	-.0000776	0.813	-.0002075	0.615	.0004741	.0003189
I.V. (II)—Government Safety	-.0224854	0.427	-.0219686	.439	-.0776664	.0337293
I.V. (III)—Bureaucratic Quality	.4883227	0.289	.4067122	.459	-.6694155	1.48284
I.V. (IV)—Rural Population Density	.0056783	0.745	-.0044744	0.9067	-.0796349	.0706861
I.V. (V)—Rural Poverty⁵⁶	.0032215	0.848	-.0376476	0.441	-.1346146	.0593194
I.V. (VI)—National Poverty	.0079717	0.712	.0288512	0.667	-.105511	.1632536
I.V. (VII)—Inequality	.052561	0.400	.0379595	0.725	-.1751259	.2510449

N= 389

⁵⁴ Independent variables are GDP per Capita, Bureaucratic Quality, Government Safety, Total Population, Rural Population, inequality, national poverty and rural poverty.

⁵⁵ Controlling for GDP per Capita, Bureaucratic Quality, Government Safety, Total Population, Rural Population, inequality, national poverty and rural poverty.

⁵⁶ Missing data points for Rural Poverty, National Poverty, and Gini Coefficient were imputed.

Illustration 5.2: Cox proportional hazard regression of GDP per Capita's effect on likelihood of adoption

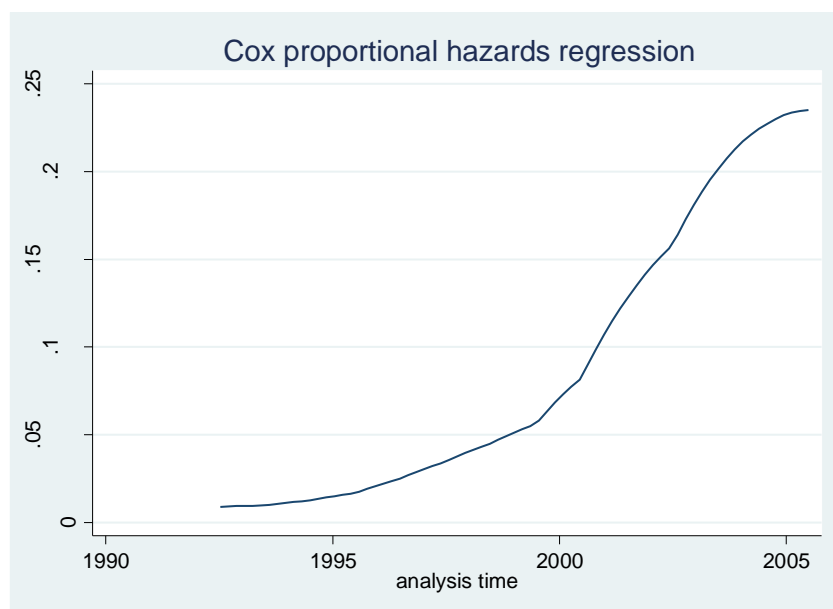


Table 5.6: Cox Regression result of GDP per Capita's effect on likelihood of adoption, controlling for rural poverty, total poverty, inequality, national poverty, bureaucratic quality, and government safety

_t	Coef.	Std. Err.	t	P> t 	[95% conf. interval]
Gdpcap	-.0002075	.0004122	-0.50	0.615	-.0010205 .0006054
Rurpov	-.0376476	.0486143	-0.77	0.441	-.1346146 .0593194
Totalpop	1.13e-08	8.07e-09	1.41	0.160	-4.48e-09 2.72e-08
Rurpop	-.0044744	.0382972	-0.12	0.907	-.0796349 .070686
Gini	.0379595	.107917	0.35	0.725	-.1751259 .2510449
Natpov	.0288512	0.666464	0.43	0.667	-.1055511 .1632536
Burqual	.3364288	.574476	0.59	0.558	-.79026 1.463117
govsafety	-.0219686	.0284143	-0.77	0.439	-.0776664 .0337293
N=238					

Illustration 5.3: Cox Proportional Hazard Regression of GDP per Capita's effect on likelihood of adoption, controlling for rural poverty, total poverty, inequality, national poverty, bureaucratic quality, and government safety

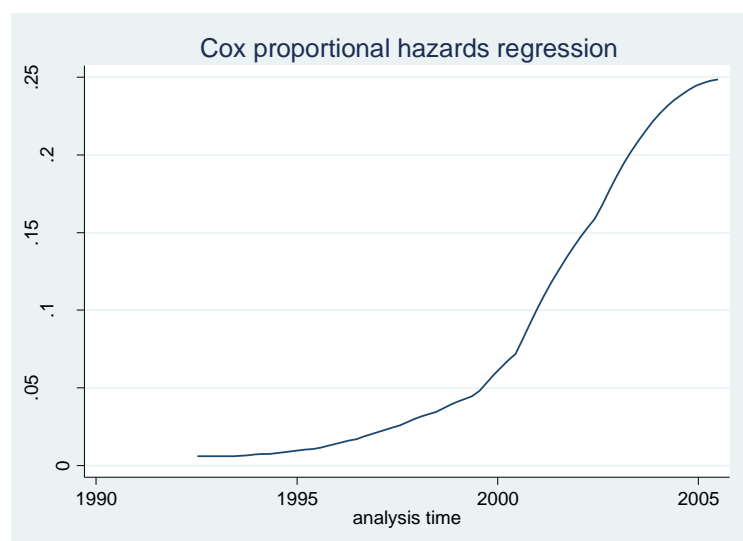


Table 5.7: Effect of GDP growth on likelihood of CCTP adoption, controlling for total population, rural population, rural poverty, inequality, national poverty, bureaucratic quality, and government safety for programs adopted before 2002

_t	Coef.	Std. Err.	t	P> t 	[95% Conf. Interval]	
GDP Growth	.240	.264	0.91	0.362	-.279	.761
GDP per capita	.0003	.0009	0.43	0.672	-.001	.002
Total Population	1.02e-08	1.17e-08	0.88	0.380	-1.27e-08	3.31e-08
Rural Population	.0188	.074	0.25	0.799	-.127	.164
Rural Poverty	.011	.099	0.11	0.911	-.186	.209
GINI	.192	.240	0.80	0.427	-.290	.675
National Poverty	.011	.116	0.10	0.918	-.222	.247
Bureaucratic Quality	.022	1.03	0.02	0.983	-2.008	2.052
Government Safety	-.057	.062	-0.9	0.358	-.182	.066

Table 5.8: Effect of economic growth on likelihood of CCTP adoption without controls

_t	Coef.	Std. Err.	t	P> t 	[95% Conf. Interval]	
Economic Size	3.36e-12	1.65e-12	2.03	0.042	1.23e-13	6.60e-12

N=273

II. Illustrations of tests without imputations

Table 5.9: Effect of GDP per Capita on likelihood of program adoption, controlling for total population, rural poverty, inequality, bureaucratic quality, and government safety

_t	Haz. Ratio	Std. Err.	z	P> z 	[95% Conf. Interval]	
gdpcap	1.00011	.0003358	0.33	0.744	.9994516	1.000768
totalpop	1	1.17e-08	1.24	0.214	1	1
rurpop	1.017548	.0380405	0.47	0.642	.945656	1.094906
Gini	1.041287	.1209735	0.35	0.728	.8292403	1.307556
burqual	1.013849	.6928982	.02	0.984	.2646032	3.870017
govsafety	1.024128	.0312045	0.78	0.434	.9647585	1.087151
N= 144						

Table 5.10: Effect of inequality on likelihood of program adoption, controlling for rural poverty, national poverty, GDP per Capita, and government safety

_t	Haz. Ratio	Std. Err.	z	P> z 	[95% Conf. Interval]	
Gini	.2949028	.2761394	-1.30	0.192	.0470582	1.848086
Rurpov	1.034001	.144184	0.24	0.811	.786732	1.358985
Natpov	.9767154	.2157102	-0.11	0.915	.6335457	1.505768
Gdpcap	.9979991	.0016559	-1.21	0.227	.9947589	1.00125
govsafety	1.02177	.05154	0.43	0.669	.9255866	1.127949
N= 68						

Table 5.11: Effect of economic growth on likelihood of program adoption on countries that adopted CCTP's after 2002, controlling for total population, rural population, bureaucratic quality, government safety, FDI, and development assistance

_t	Haz. Ratio	Std. Err.	z	P> z 	[95% Conf. Interval]	
GDPNetGrowth	1.244825	.1823446	1.50	1.35	.934163	1.65801
gdpcap	.999727	.0005279	-0.52	0.605	.9986929	1.000762
totalpop	.9999999	8.78e-08	-1.67	0.095	.9999997	1
 rurpop	.975788	.0604201	-0.40	0.692	.8642704	1.101695
burqual	1.321227	1.080727	0.34	0.733	.2658997	6.565034
govsafety	1.005961	.0351725	0.17	0.865	.9393327	1.077314
Foreigndirectinvestmentnet	2.16e-11	1.33e-10	0.16	0.871	-2.40e-10	2.83e-10
NetOfficialDevelopmentAssista	1.45e-09	1.45e-09	1.00	0.318	-1.41e-09	4.31e-09
N=206	206					

Table 5.12: Effect of economic growth on likelihood of program adoption on countries that adopted CCTP's before 2002, controlling for total population

_t	Haz. Ratio	Std. Err.	z	P> z 	[95% Conf. Interval]	
Gdpcap	.9994256	.0004389	-1.31	0.191	.9985657	1.000286
GDPNetGrowth	1.20479	.3247076	0.69	0.489	.7103959	2.043252
totalpop	1	1.26e-08	-0.54	0.587	1	1

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