The Panama Canal as a Determinant of FDI in Panama

Review of Integrative Business & Economics Research

Robert A. Lloyd
Fort Hays State University

ABSTRACT

This paper examines the Panama Canal as a determinant of FDI in Panama since the Panamanians took sole control over the ownership and operation of it in early 2000. The innovation of this article lies in isolating the ownership of the Panama Canal as a determinant of FDI. A two-part analysis was conducted to analyze the data. First, a multivariable regression was used to determine the factors that affected FDI prior to the change of ownership: GDP, government spending, and external debt were identified as determinants of FDI during this period. These factors were used as covariates in an ANCOVA analysis, using canal ownership as the treatment condition and FDI as the independent variable. The results of the ANCOVA, $F(4, 23) = 16.75$, $p < .001$ indicate that the change in ownership has impacted FDI in Panama since change of ownership.

Keywords: FDI, Panama Canal, economic analysis, political factors, ANCOVA.

Received 7 August 2017 | Revised 13 October 2017 | Accepted 11 November 2017.

1. INTRODUCTION

A nation's economic growth can be attributed in part to its ability to attract capital from foreign investors. While the impact of this cash inflow is readily acknowledged as beneficial, the method by which countries pursue and attract foreign investors is often varied. Some of these attraction factors are explicitly managed by a nation's politicians and economists, and others are inherent in the geographic, economic, or political makeup of that country.

Several studies have been conducted on FDI in Latin America which include Panama. A notable study conducted by Nasser (2010) used the Granger-causality and found that FDI inflows in fourteen Latin America countries positively contributed to tremendous economic growth, which were heavily influenced by local conditions. This paper examines the factors that affect foreign direct investment (FDI) in the country of Panama. None of the previous studies used statistical modelling to isolate and analyze the economic impact of Panama's defining commercial asset – the Panama Canal. Much debate exists in the literature regarding the economic impact of the canal. Some argue that the canal afforded the United States limited economic benefit during its operation of the canal (Lebergott, 1980), while others found the canal to be immensely successful in return on investment for both the United States and Panama (Hutchinson & Ungo, 2004).

It is important to note that limited economic analysis has been conducted on Panama, and none on the canal as an independent variable. Most of the literature provides commentary on the strategic and political importance of the canal (Maurer &

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

Yu, 2010). This absence of statistical modelling represents a noteworthy gap in the literature. This paper makes a unique contribution to the literature by utilizing an analysis of covariance to demonstrate the significance of the Panama Canal on the economic welfare of the country.

The value of the Panama Canal was acknowledged from the start. Huebner (1915) predicted the role it would play in savings of transportation costs as well as enhancing the strategic naval capabilities of the U.S. fleets in both the Atlantic and the Pacific. Benea (2009) argues that the Panama Canal has even served to influence world affairs by allowing the U.S. and allies increased naval maneuverability. Furthermore, the canal served a critical role in the recovery after WWII as it facilitated international trade between North America, Asia, and Europe (Manfredo, 1993). Today, the commercial relevance of the canal can be noted in the sheer volume of cargo that passes through each year, particularly by the U.S. and neighboring Latin American countries. In 2013, the U.S. passed 137,000 tons of cargo through the canal which represents one third of total volume. Since being built in 1914, over one million ships have passed through the canal and it currently generates over two billion dollars per year in revenue (AS/COA, 2013). Given the tremendous importance of the canal in connecting the transportation shipping lanes of the Atlantic to the Pacific, military positioning, and the integral role it plays to the national welfare of Panama, this gap in the research needs to be address.

From 1977 until 2000, the canal was operated jointly between the U.S. and Panama, after which Panama took over the full operation through the Panamanian Canal Authority. An interesting occurrence took place once Panama began running the canal themselves – net inflows of foreign direct investment increased dramatically over the first decade of Panamanian control. FDI in 2000 was $620 million, while in 2012 FDI had grown to $3.2 billion, a five-hundred-percent increase.

Scholars have regularly cited FDI as an important driver of economic prosperity as new access to capital, transfer of knowledge, and the impact on job growth. Panama is no different. Understanding whether or not the Panama Canal impacts the inflows of FDI is the first step in the economic analysis of the country, and can provide key insights into how Panama can more functionally operate the canal as a commercial asset. The purpose of this paper is to study this upward trend in FDI.

H1 = The change of operations to sole Panamanian control in 2000 affected FDI inflows from 2000 to 2012.

To properly understand if change of canal ownership to Panamanian control affected FDI, I have broken my analysis into two steps – 1) multivariable regression analysis to determine the impact factors that could be correlated to FDI in Panama prior to the change in ownership and 2) analysis of covariance which allows for a control of the factors that affected FDI prior to the change in ownership in order to determine if the canal is itself a new determinant of FDI inflows in Panama.

1.2 Background

Panama is considered as having the strongest economy in Central America, boasting the highest economic growth rate (10.6% in 2012) among the seven countries that make up the region (Panama, 2013). Credit ratings have improved over the last several years with the major rating companies (Moody’s and S&P) changing the status

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

from "stable" to "positive." Several factors contribute to the economic growth of Panama, most importantly the Panama Canal, the Colon Free Zone (CFZ), and their trade agreements with other countries in the region.

Panama has controlled the Panama Canal since 1999, as a condition in the Torrijos-Carter Treaty of 1977 (Thurston, Hackney, & Boggs, 2013). Controlling this asset is a main driver of GDP as the country generates more than two billion in annual toll revenues. Panama established the CFZ in 1948 which allows foreign goods to be shipped and re-exported free from import and export tariffs. It is the second-largest free trade zone in the world (Panama, 2013). Panama has signed trade agreements with El Salvador, Taiwan, Singapore, Chile, Costa Rica, Honduras, Guatemala, Nicaragua, Peru, and in 2012 signed a trade agreement with the United States. These agreements have strengthened trading ties between these nations and Panama, and bolstered the nation's economy.

Panama is noted as having a solid port infrastructure and a sophisticated banking sector and regulatory body. Panama uses the U.S. dollar as currency, which helps curb inflation impact on the economy (Panama, 2013). Predominant industries include tourism, services, and banking. While the Panamanian government is generally categorized as allowing a free market, they actively participate in several sectors, including agriculture, hydroelectric power, oil pipeline, housing, and transportation (PRS, 2013).

The positive direction of the Panamanian economy over the last two decades has been stifled in part by the history of corruption and political instability (Thurston, Hackney, & Boggs, 2013). Politically, Panama still struggles with issues regarding rule of law, lack of judicial independence, shortage of skilled labor force, and immense government bureaucracy (Panama, 2013). While Panama is classified as an upper-middle income country, they still struggle with wide income disparity within the country (Porter & Schwab, 2009). Panama was rated 0.26 on the entrepreneurship ratings, as measured by new limited liability firms per working age population (World Bank, 2011). This ranking is the equivalent of a low-income country.

In 1903, the U.S helped Panama gain independence from Colombia, and in exchange for protecting Panama's newly established political sovereignty, the U.S. could build and operate a canal across the central part of the country (Gribar & Bocanegra, 1999). Amid the rancor of a national debate, in 1977, President Carter signed the rights of the operation back to Panama that would take place after a transition period until 2000. Some thought the Panamians would run the canal inefficiently once they operated it by themselves (Maurer & Yu, 2010), while others thought the absence of U.S. control would allow the Soviets and the Cubans to thrust an immediate military presence into the region (Hollihan, 1986). As part of the agreement, the U.S. and Panama would jointly operate the canal from 1977 until 2000; over the course of the transition the Panamanians would play an increasingly larger role in operations and the U.S. would help prepare them for complete ownership (Manfredo, 1993). Since the transition, the U.S. and Panama have fostered strong ties both politically and economically, characterized by "extensive counternarcotics cooperation, support to promote Panama's economic, political, and social development, and bilateral free trade agreement" (Sullivan, 2012).

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

2. LITERATURE REVIEW

The research on FDI is exhaustive and a complete discussion on the subject would be beyond the scope of this paper. Scholars have continued to probe the causes and effects of FDI as a result of global markets becoming more integrated during the 1980's and 1990's. More specifically, corruption levels, legal system, access to human capital, host country advertising, national culture, and protectionism all influence a foreign investor's decision on where to invest.

For the purpose of this paper the term FDI needs to be operationalized so that a common definition can be assumed throughout. FDI is defined by the International Monetary Fund (IMF) as "an investment that is made to acquire a lasting interest in an enterprise operating in an economy other than that of an investor, the investor's purpose being to have an effective voice in the management of the enterprise" (1977, p 136). In more practical terms, FDI is when investors of a country outside the host country acquire an equity interest in a business within the host country (Ramasamy & Yeung, 2010). The terms "domestic" and "foreign" need to be clarified for this paper as well. Domestic will refer to the host country - that is, the country receiving FDI. Foreign will refer to the country sending FDI to the target country.

FDI includes a transfer of cash to the host country for the foreign investor to secure that equity in a domestic business, and implies an investor's fiduciary interest in the welfare of the domestic business. It is this cash inflow that countries seek to spur economic growth and to maintain prolonged prosperity (Azémar & Desbordes, 2010; Bonito, Daantos, Mateo, & Rosete, 2017).

Countries that wish to increase FDI inflows can take measures to do so. The research on determinants of FDI is exhaustive and supports the claims that reducing political corruption, strengthening rule of law, decreasing the number of market regulations, and providing fiscal incentives to foreign firms positively impact FDI inflows (Azémar & Desbordes, 2010). Policymakers that understand this relationship can manage these factors to attract more FDI or to maintain current levels. FDI decisions tend to be long-term, which provide domestic economies with access to long-term capital (Dutta & Roy, 2009). This factor provides the host country with more economic stability. Additionally, host country benefits from a transfer of new technology, increased tax revenues, and improvement of institutions.

While most of the research affirms the positive relationship between FDI inflows and economic growth, some debate exists on the subject. Studies have found contradictory results on the size, magnitude and scope of FDI's impact on domestic economies. A study conducted by Alfaro et al (2010) found FDI to have varying results on economic growth (positive impact in some countries and a negative impact in others). Moreover, some of the positive effects can be difficult to measure and quantify, such as transfer of new technologies and managerial knowledge (Sánchez-Martín, de Arce, & Escribano, 2014). Notwithstanding this disagreement in the literature on the impact of FDI on economic growth, domestic countries can benefit from understanding the relationships most scholarly works on the subject indicate are valid. The topic of FDI is therefore relevant to the discussion on economic and political policy-making.

The concept of FDI transcends a simple exchange of resources (cash and equity) between two nations or individuals therein. FDI is a connection of human relations crossing international borders and therefore must be considered in an ethical framework (Primorac & Smolji, 2011). Even in the case where the foreign investor is

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

a corporation, that corporation has a responsibility as a citizen of the international community to respect the welfare of the host country. This connection across borders requires attention be given to the ethical implications contained therein. An underlying assumption in the literature is that economic growth is a positive trend for a host country (Subasat & Bellos, 2013). However, this growth needs to be understood in light of two ethical considerations – the negative effects of accelerated economic growth on the host country's environment (Kirchner, 2012) and the "crowding out" effect (Al-Sadig, 2013). As the increase in FDI inflows leads to greater economic growth, the host country consumes more of its natural resources to supply that growth. Typically, this results in an increase in use of fossil fuels and consequentially more pollution (Kirchner, 2012). Moreover, foreign investors have a tendency to choose countries that have less restrictive environmental standards because it is cheaper to operate in these countries. This phenomenon, known as the pollution haven hypothesis, was supported with theoretical evidence in a study conducted by Markusen, Morey, & Olewiler (1993).

The effects of FDI became a heavily researched topic following the increased globalization of the world economy (Subasat & Bellos, 2013). One effect that has been debated by scholars is whether this economic growth following FDI inflows was a result of FDI contributing to greater private investment in the domestic country, or FDI preventing domestic businesses from capitalizing on private investments in the domestic country. The latter is a term known as the "crowding out" effect and research has yielded contradictory results. However, a study conducted by Al-Sadig (2013) provided clarity on the subject by separating gross domestic investment into both public and private investment categories, something previous researchers did not do. This allowed the study to isolate and measure the trends in private investment, which is a better indication of whether or not FDI was crowding out domestic business. They found that FDI contributes to greater private investment.

Seminal works on the study of FDI emerged following the Great Depression and the passage of the subsequent protectionist legislation by the United States and other world powers. Mundell (1957) argued for sustaining protectionism (i.e. increased trade barriers to support domestic firms) because domestic workers benefit and markets can still operate efficiently through mobility of capital. While Mundell made the case in his research for why countries should restrict trade, Tinbergen (1962) developed the gravity model analysis to better understand the flows of FDI themselves. The gravity model found that countries are more likely to trade with those countries in closer geographic proximity to each other and that the relative sizes of the countries mattered as measured by gross domestic product (GDP).

Beginning in the early 1980's, developing countries began to realize the immense benefits that FDI could bring to their domestic economies (Ramasamy & Yeung, 2010). They began to lift trade restrictions in an attempt to attract FDI inflows. The seminal work on FDI during this timeframe was the eclectic paradigm model (Dunning 1981). Dunning created a decision making framework for international firms to decide on a form of market entry – licensing, export, or FDI. Globalization of world economies led to substantial growth in FDI during the 1990's. FDI levels in 1998 were ten times greater than levels in 1984 (Hemphill, 2008). It was during this time period and thereafter that scholars began to study the effects of FDI in more depth. More recently, the literature has discovered the importance of attracting FDI in the services sector (Saksonova, 2014) and e-commerce markets (Liargovas & Skandalism, 2012).

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

Over the last twenty years, the literature in the field of FDI has grown tremendously. Spurred by the globalization of markets and increase in FDI around the world, scholars began to research the factors that affected an investor's decision to choose a country as an investment site (Khan & Banerji, 2014). A country's market size and growth, labor costs, and proximity to neighboring markets affect that country's FDI inflows (Groh & Wich, 2012). However, these factors cannot be easily managed by policy makers, so scholars have focused on factors that can be more easily changed by a host country. Six identifiable factors emerged as a result of this research - corruption, national culture, legal system, advertising conducted by host country, availability of human capital, and the extent to which the host country engages in protectionism. Protectionism would include tax, employment, and trade policies.

The connection between corruption and FDI is heavily substantiated by both empirical and theoretical research. Corruption is a deviation from normal and accepted behavior by public officials for personal gain (Quazi, 2007). Most research acknowledges that a negative relationship exists between corruption and a country's attractiveness as an FDI site (Wilson & Baack, 2012). Brouthers, Gao, & McNicol (2008) further explored this relationship and found that corruption affected FDI differently for those investors that were seeking cheaper resources for production (labor, land, inputs) and for those investors seeking the host country as an attractive market into which to sell goods and services of the FDI investment. FDI in resource seeking investments does not have as strong a correlation as the market seeking FDI.

Most of the research on corruption and FDI focuses on the host country. However, recent research has found the relationship between FDI and corruption in the home country of the investor (Brada, Drabek, & Perez, 2012). A significant finding is that FDI is higher between countries with similar levels of corruption (Habib & Zurawicki, 2002). The models that are used to analyze FDI do not include national culture as a contributing factor. National culture is a difficult factor to measure, which makes empirical study of this area challenging. For this reason, the regression and panel data models exclude it. However, several studies have isolated this variable in an attempt to understand its impact. Hill (2002) found that countries initially engaging in FDI seek out those countries with cultures similar to the home country. Several cultural characteristics have been identified as determinants of FDI trade flows between two countries – uncertainty avoidance, power distance, focus on collectivism or individualism, and the presence of masculinism (Hemphill, 2008). Moreover, Blanton and Blanton (2007) found that FDI investor also consider respect for human rights as a cultural aspect that affects FDI decision making.

Decisions about where and how much FDI to invest come with inherent risks that the foreign investor must consider, the first of which are the normal market risks that any investor or entrepreneur assumes in a business transaction. However, unique to a foreign investor is the consideration that must be given to the risk presented by the legal system of the host country. Investors seek countries that offer more "protection, predictability, continuity and transparency that foreign governments and legal systems provide" (Czinkota & Skuba, 2014, p. 2210). Respecting property rights from both private and public (government) infringement through a strong court system greatly enhances the FDI attractiveness of a host country. Much of the literature supports the connection between rule of law and FDI inflows; however Wang, Xu, and Zhu (2012) developed a model that partially contradicts this notion. They examined various markets in China and found that areas with weak rule of law but with solid economic fundamentals could still attract FDI.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

The increase in global FDI over the last two decades has fostered competition among countries for that foreign capital (Papadopoulos & Heslop, 2001). In an effort to increase their competitive position for FDI, countries have used advertising to attract investors. The literature on this factor is sparse, but findings are clear that advertising does impact FDI decisions. A study conducted by Wilson and Baack (2012) found that most advertisements were directed at major multination corporations (MNC's) in developed nations and incorporated the factors presented by Dunning's (1981) eclectic model.

Attracting FDI is an important strategy for countries wishing to bolster economic growth. However, just as important is making sure that the domestic economic environment can sustain the long-term effects of FDI inflows (Te Velde, 2002). One such aspect of the economic environment is the availability of human capital. Human capital consists of both the size of the labor force and the education thereof (Dutta & Osei-Yeboah, 2013). FDI impacts the size of the work force through increased demand and on the education of the labor force through transferal of technology. "FDI is a vehicle for the adoption of new technology, and therefore, the training required to prepare the labor force to work with new technologies suggest that there may also be an effect of FDI on human capital accumulation" (Borenszein, De Gregorio, & Lee, 1998, p. 134). Technologies in the processes to produce goods create a demand for more highly skilled laborers. The labor force is prompted to acquire more "general education" and develop skills learned on the job (Dutta & Osei-Yeboah, 2013).

A study conducted by Co and List (2004) suggests that FDI investors are attracted to countries labeled as "knowledge creators." They claim that areas of the world, referred to as clusters, contain the intellectual capacities that FDI investors seek, and consequentially attract more FDI inflow. Griffith (2005) found that the education of a knowledge-based labor force must be technologically based and be substantive in nature in order to gain the skills sought by FDI investors.

An important trend to note in global FDI flows is the shift to developing nations. Annual FDI inflows to developing nations nearly tripled (278% increase) from 1999 to 2009 (Jackson & Markowski, 1996). As a result, one focus for scholars has been the connection between FDI and developing countries. A study conducted by Noorbakhsh, Paloni, and Youssef (2001) determined that human capital is an important factor for these developing nations ability to attract FDI. More importantly, there exists a minimum threshold that countries must have to attract investors and have the ability to adopt new technologies (Jackson & Markowski, 1996).

Various forms of protectionism exist in the marketplace, as countries enact policies that attempt to protect domestic producers and laborers from foreign competition. The research on protectionism is extensive and covers a wide scope of sub-topics – most notably tax policies, employment, and trade policies. The degree to which a country makes these variables favorable or unfavorable to foreign investors is the degree to which they will attract FDI to stimulate the domestic economy (Adams, Régibeau, & Rockett, 2014). The following discussion will explore the impact these variables and their impact.

Research suggests that countries that impose favorable tax policies for foreign investors will see an increase in FDI inflows. FDI dollars are limited, so this will take away FDI from other nations, and a competition between nations ensues (Dunning, 1988). Demand for labor will increase in the nation with the favorable tax policy which leads to higher wage rates while the nations with the less favorable tax policy will see a decline in wage rates. This forces the nation with less favorable tax policy to

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

change their terms to attract FDI. This phenomenon is identified in the literature as a "race to the bottom," and supported with robust empirical evidence.

In a similar manner, countries compete with each other on employment policies. A study conducted by Olney (2013) supports the hypotheses that nations in fact compete fiercely with each other in this regard and that creating favorable labor standards for FDI leads to an increase in FDI inflows. Glass and Saggi (2014) suggest that countries can implement less favorable policies (for the investor) if they work together as regions or collection of nations. Bhaumik and Dimova (2009) refute the notion that favorable tax and employment policies result in increased FDI inflows with empirical evidence suggesting FDI flows are path-dependent. More simply stated, countries invest in the countries they have previous experience investing in, without much deviation.

Trade policies that implement regional subsidies and import tariffs can greatly influence FDI inflows, as evidenced heavily in the literature. Following the 2008 global financial crisis, many countries reverted to trade policies that protected domestic industries (Evernett, 2011). Gorg and Labonte (2012) studied the effect that this trend had on subsequent FDI inflows of those countries. They found that foreign investors shied away from countries that implemented trade protection policies following crises, as evidenced by a 40-80% reduction in FDI inflows to those countries. Most research on trade policies and FDI suggests that prohibitive trade policies (those intended to limit trade and imports) actually succeed in preventing FDI inflows. However, some scholars contend that foreign firms create affiliates in countries with high trade barriers to take advantage of tariffs afforded to domestic firms, thus increasing FDI inflows.

Several models have been developed that 1) analyze country specific political and economic factors that affect FDI inflows and 2) predict future trends in global FDI inflows. The two most prominent models in FDI study are the gravity model developed by Tinbergen (1962) and the eclectic paradigm created by Dunning (1977). Tinbergen's gravity model asserts that FDI flows are directly related to the size of economies and the proximity to trading partners. Dunning discovered in his research that FDI could be explained using three components – ownership, location, and internalization.

This literature review provides the theoretical framework for understanding determinants of FDI. Previous studies can inform discussion on FDI in Panama, but are limited in scope in that none of them explore the impact of a single, national asset. Certainly no other country in the world except for Egypt (with their ownership of the Suez Canal) has the distinctive geographic makeup that separates two continents and owns a canal that connects commercial interest between two major oceans. The Panama Canal is unique in several ways. Aside from the aforementioned geographic uniqueness, the canal is state run. Research on the impact of state ownership on FDI is limited to the joint ownership with private industry, as in, how do state run enterprises attract or repel FDI? Hou, Chang, Wang, & Li (2013) found that state owned businesses in China enhance allocative efficiency, but not technical efficiency. State ownership supports export behavior by implementing policies, grants access to public financial resources, and established a legitimacy in the international market (Wu & Zhao, 2015). The drawbacks to state ownership include dependency on domestic resources and a constant battle against public perceptions of political affiliation and influences (Cui & Jiang, 2012).

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

3. METHODOLOGY

This research study used national economic data as reported by the World Bank in 2013. Several variables were identified as potential determinants of FDI in Panama, including GDP, external debt as a percentage of GNI, government spending, value added in manufacturing, agriculture, and mining, trade balance, unemployment rate, education rates, energy consumption, corruption index, rule of law index, and corporate tax structure. These factors served as the independent variables that determine FDI as the dependent variable. The most recent year data was reported for this data was 2012. To effectively analyze a similar period prior to and post ownership change, the data was separated into two equal time periods of twelve years each – Data set one consisted of 1989 to 2000, and data set two consisted of 2001 to 2012.

These factors were analyzed using a multivariable regression analysis of the first data set (1989-2000) to identify the variables that impact FDI. Variables that returned a p-value of less that 0.05 were considered statistically significant and later used as covariates in the ANCOVA of the second data set (2001-2012). This methodology allowed me to control the determinants of FDI in the second data set to determine if change in ownership impacted FDI independently. The ANCOVA used the covariates of FDI determinants and control of the canal as the treatment condition.

4. RESULTS

Multivariable regression analysis for data set one (1989-2000) was used to determine the impact the identified variables had on FDI as the dependent variable. Using a 95% confidence interval, only three variables were identified as statistically significant – Gross domestic product ($p < .001$), government spending ($p < .001$), and external debt as a percentage of gross national income ($p = .02$). This three-variable model accounted for 89% (adjusted R2) of the variance in the dependent variable of FDI.

A One-way ANCOVA was conducted to determine a statistically significant difference between Panama Canal ownership (pre and post 2000) and FDI, controlling for GDP, government spending, and external debt as a percentage of GNI. There is a significant effect of the canal changing hands from U.S. and Panama joint control to sole Panamanian control on the FDI inflows into Panama, after controlling for the covariates, $F\ (4, 23) = 16.75$, $p <.001$. The results of this ANCOVA indicate the change in ownership is statistically significant in determining FDI in Panama.

5. DISCUSSION

The results of the multivariable regression analysis were guided by the literature review. GDP is an indicator of economic growth and attractiveness as a growth market. The external debt as a percentage of GNI is an indicator of how dependent Panama is on foreign capital. Government spending is an indicator of Panama's infusion of capital into the private sector and a vehicle for economic stimulus. In a study on FDI in Latin America, Fukumi, Atsushi, & Nishijima (2010) found that in some emerging countries FDI creates a "virtuous cycle" (p. 1863) whereby institutional quality improves, which increases the attractiveness of the country for more FDI inflows. It seems possible that a critical mass in Panama of GDP growth and consistent FDI inflows have contributed

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

to the growth since 2000 in their own right as suggested by these authors. This affirms what Tinbergen (1962) might identify in the gravity model – a large influx of FDI feeds GDP, which begets more commercial attention from neighboring nations.

These findings beg an important question – we know the canal is impacting FDI, but what are the characteristics of Panamanian control that affect this inflow? Despite the apparent monopoly the Panama Canal presents as a conduit between the Atlantic and Pacific, competing routes could be spurring the Panamanians to improve their product. The most significant threat is from Hong Kong, who is proposing a $40 billion plan to build a new canal across Nicaragua (Arcega, 2014). In addition, a canal crossing southern Mexico, land transportation across Colombia, and the waning sea levels in the arctic are ameliorating conditions for a route through the Northwest Passage (Baril et al, 2013). In response to these growing pressures, Panama announced in 2006 a $5 billion plan to expand the throughput capacity of the canal and to construct a third set of locks that would allow for larger cargo ships to pass through. This project is projected to be complete by 2016 and will allow 97 percent of all container sizes to pass through their canal (Arcega, 2014). The proposal outlined the economic benefits the expansion would bring to Panama - an estimated 1.2 percent of additional annual economic growth and 10 to 15 percent employment increase (ACP, 2006). The expansion was ratified by public vote and was marketed as a vehicle for growth: "What yesterday was the consolidation of our territorial integrity with the transfer of the Canal to Panama, tomorrow will be the strengthening and development of the country by way of better utilization of its resources" (p. 68). Panama owns and operates the canal on their own and this has fueled the innovative initiatives such as the expansion of the canal. Bogliacino, Perani, Pianta, and Supino (2012) found that exposure to international competition fuels significant innovation for private firms. In the case of the Panama Canal, the growth of international alternatives undoubtedly has pushed Panama to take steps towards reinvention of the service they provide to international commercial, despite its asset that is seemingly difficult to duplicate.

Without question, the Panamanians are running the canal as a commercial asset. In 1977, detractors thought Panama would run the asset into the ground, but they have proved otherwise in their actions to expand, and the impact this has had on attracting foreign investment. The project is being designed and executed by a consortium of foreign and domestic companies referred to as Grupo Unidos por el Canal (ACP, 2015). This includes business partners from Western Europe, U.S. and Panama. Half of the project was funded by external sources, with the three largest financers including the European Investment Bank ($500 million), the Japan Bank for International Cooperation ($800 million), and the Inter-American Development Bank ($400 million) (Deloitte, 2009).

The complexity of FDI factors would make it unlikely that one determine would drive most of FDI decisions by foreign investors. What else could be in play since Panama took control of the canal in 2000? One ostensible way they are doing this is by an intentional reduction of corruption and increased transparency. In 2009, the Panama Canal Authority published a document outlining the process for tender evaluation and contract selection. This was done as an explicit effort to address these issues. The literature suggests that lower levels (or perceived levels) of corruption can positively impact FDI. This could be a factor affecting the increase in FDI since 2000.

Panama has liberalized trade policies since that time as it has attempted to change from a logistical ship through point to a global commercial hub (USCS, 2011). Another way they are attempting to do this through increased attention to the Colon

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

Free Trade Zone and expansion of regional free trade agreements. Another explanation for the increased attention on Panama as an FDI target is the absence of the U.S. authority. Mendrel (2000) suggests that Eastern countries have seen the canal and Panama as an opportunity. A Hong Kong shipping firm signed a twenty five year lease in 2000 to operate the port cities of Balboa and Cristobol. Mais and Amal (2011) found that institutional framework contributes to the internationalization strategy of foreign firms. As such, Panama's improvement in institutional framework will likely beget more attraction from foreign investors.

6. CONCLUSION

This study examined whether or not a change in ownership from joint U.S. and Panama control to sole Panamanian control impacted FDI. This analysis addresses an important gap in the research in that it isolated the canal as a determinant of FDI in and of itself. While the data show that the change in ownership is significant, this analysis is only the first step in understanding the economic impact of the canal. The results do not provide insights into how the canal is contributing to the inflow of FDI, only that it is contributing in some way. Another limitation is that the canal changed hands only fifteen years ago. More years of data would be allowed for a more comprehensive analysis of its impact. More research needs to be conducted on the competing avenues for trans-ocean transportation. The Egyptians are currently seeking funding to expand the Suez Canal (Lee, 2015). This expansion presents competing interests for international shippers and additional challenges for the Panamanians as capacity and transits time through the Suez Canal avenue continue to improve.

The future for Panama promises continued economic growth. Amal, Raboch, and Tomio, (2009) conducted a case study of FDI in Latin American where they found FDI outflows from these countries increased as did the economic growth. The returns from these FDI outflows fuel additional prosperity and consequentially make the country more attractive as and FDI inflow target (Stal & Cuervo-Cazurra, 2011). In short, prosperity begets prosperity and the changes implemented by Panama will continue to push the country in a positive direction.

REFERENCES

[1] ACP. (2006). Proposal for the expansion of the Panama Canal: Third set of locks project. Autoridad del Canal de Panama. Retrieved from http://www.pancanal.com/eng/plan/documentos/propuesta/acp-expansion-proposal.pdf

[2] ACP. (2009). Explicative document of the process for the tender evaluation and contractors selection for the design and construction of the third set of locks. Autoridad del Canal de Panama. Retrieved from http://www.pancanal.com/eng/expansion/gral-info/selection-process/selection-process-document.pdf

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

[3] ACP. (2015). What is the Panama Canal expansion program? Autoridad del Canal de Panama. Retrieved from http://micanaldepanama.com/expansion/faq/
[4] Adams, L., Régibeau, P., & Rockett, K. (2014). Incentives to create jobs: Regional subsidies, national trade policy and foreign direct investment. Journal of Public Economics, 111, 102-119.
[5] Alfaro, L.; Chanda, A.; Kalemli-Ozcan, S.; & Sayek, S. (2010). Does foreign direct investment promote growth? Exploring the role of financial markets on linkages. Journal of Development Economics 91(2): 245-256.
[6] Al-Sadig, A. (2013). The effects of foreign direct investment on private domestic investment: evidence from developing countries. Empirical Economics, 44(3), 1267-1275.
[7] Amal, M., Raboch, H., & Tomio, B. (2009). Strategies and determinants of foreign direct investment (FDI) from developing countries: Case study of Latin America. Latin American Business Review, 10(2-3), 73-94.
[8] Arcega, M. (2014). Panama Canal turns 100 amid growing pains, competition. Voice of America. Retrieved from http://www.voanews.com/content/panama-canal-turns-100-amid-growing-pains-competition/2412671.html
[9] AS/COA. (2013). The Panama Canal: Get the numbers. Americas Society, Council of the Americas. Retrieved from http://www.as-coa.org/articles/panama-canal-get-numbers
[10] Azémar, C., & Desbordes, R. (2010). Short-run strategies for attracting foreign direct investment. World Economy, 33(7), 928-957.
[11] Baril, M., Becker, T., Hilaire, C., Sophie Meyer, A., Millán, E., Strom Pederson, L.,
[12] Powers, J., & Recas Pardo, A. (2013). The Panama Canal: Cluster analysis and recommendations for future growth and competitiveness. Microeconomics of Competitiveness.
[13] Benea B. C. (2009). Geopolitics and transportation. United States And Panama Canal. Annals of the University of Oradea : Economic Science, 1(1), 82.
[14] Bhaumik, S., & Dimova, R. (2009). Economic reforms as a tool to attract foreign direct investment: Is it a chimera? Applied Economics Letters, 16(9), 951-957.
[15] Blanton, S., & Blanton, R. G. (2007). What attracts foreign investors? An examination of human rights and foreign direct investment. Journal of Politics, 69(1), 143-155.
[16] Bogliacino, F., Perani, G., Pianta, M., & Supino, S. (2012). Innovation and development: The evidence from innovation surveys. Latin American Business Review, 13(3), 219-261.
[17] Bonito, J. D., Daantos, F. J., Mateo, J. C., Rosete, M. A. (2017). Do Entrepreneurship and Economic Growth Affect Poverty, Income
[18] Inequality and Economic Development?, Review of Integrative Business and Economics Research, 6(1), 33-43.
[19] Borenzstein, E., De Gregorio. J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth? Journal of International Economics, 45(1), 115-135.
[20] Brada, J. C., Drabek, Z., & Perez, M. (2012). The effect of home-country and host-country corruption on foreign direct investment. Review of Development Economics, 16(4), 640-663.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

[21] Brouthers, L., Yan, G., & McNicol, J. (2008). Corruption and market attractiveness influences on different types of FDI. Strategic Management Journal, 29(6), 673-680.
[22] Co, C. Y., & List, J. A. (2004). Is foreign direct investment attracted to 'knowledge creators'? Applied Economics, 36(11), 1143-1149.
[23] Cui, Lin, & Jiang, Fuming. (2012). State ownership effect on firms' FDI ownership decisions under institutional pressure: A study of Chinese outward-investing firms. Journal of International Business Studies, 43(3), 264.
[24] Czinkota, M. R., & Skuba, C. J. (2014). Contextual analysis of legal systems and their impact on trade and foreign direct investment. Journal of Business Research, 67(10), 2207-2211.
[25] Deloitte. (2009). Panama Canal Authority: Independent auditor's report. Deloitte, Inc.Retrieved from https://www.pancanal.com/eng/expansion/gral-info/selection-process/independent-auditor-report.pdf
[26] Dunning, J. H. (1977). Trade, location of economic activity and the MNE: A search for an eclectic approach. The International Allocation of Economic Activity, 395-418. London, England. Macmillan
[27] Dunning, J. H. (1981). Explaining the international direct investment position of countries: Towards a dynamic of developmental approach. Weltwirtschaftliches Archiv, 117, 30-64.
[28] Dunning, J. H. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. Journal of International Business Studies, 19(1), 1-31.
[29] Dutta, N., & Osei-Yeboah, K. (2013). A new dimension to the relationship between foreign direct investment and human capital: The role of political and civil rights. Journal of International Development, 25(2), 160-179.
[30] Dutta, N., & Roy, S. (2009). What attracts foreign direct investment: A closer look. Economic Affairs, 29(3), 81-86.
[31] Evernett, S. J. (2011). Tensions contained – For now: The 8th GTA Report. London, England. Global Trade Alert and CEPR.
[32] Fukumi, Atsushi, & Nishijima, Shoji. (2010). Institutional quality and foreign direct investment in Latin America and the Caribbean. Applied Economics, 42(14), 1857.
[33] Glass, A., & Saggi, K. (2014). Coordination of tax policies toward inward foreign direct investment. International Journal of Economic Theory, 10(1), 91-106.
[34] Görg, H., & Labonte, P. (2012). Trade protection during the crisis: Does it deter foreign direct investment? World Economy, 35(5), 525-544.
[35] Griffith, W. H. (2005). Can Caribbean education attract knowledge-based foreign direct investment? Journal of Economic Issues, 39(4), 973-993.
[36] Groh, A., & Wich, M. (2012). Emerging economies' attraction of foreign direct investment. Emerging Markets Review, 13(2), 210-229.
[37] Gribar, J., & Bocanegra, J. (1999). Passage to 2000. Civil Engineering - ASCE, 69(12), 48-53
[38] Habib, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. Journal of International Business Studies, 33(2), 291-307.
[39] Hemphill, T. A. (2008). The political economy of globalism in South America: Strategic implications for foreign direct investment. Competition & Change, 12(3), 287-303.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

[40] Hill, C. (2002). Global Business, 2nd Edition. New York, NY. McGraw Hill Irwin.
[41] Hollihan, T. (1986). The public controversy over the Panama Canal treaties: An analysis of American foreign policy rhetoric. Western Journal of Speech Communication, 50(4), 368-387.
[42] Hou, X., Chang, K., Wang, Q., & Li, C. (2013). State Ownership, Foreign Minority Shareholders, and the Efficiency of Chinese Commercial Banks. Emerging Markets Finance & Trade, 49, 70-90.
[43] Huebner, G. (1915). Economic Aspects of the Panama Canal. The American Economic Review, 5(4), 816-829.
[44] Hutchinson, W, Ungo, R. (2004). Social saving of the Panama Canal. Vanderbilt University Department of Economics Working Papers.
[45] IMF. (1977). Balance of Payments Manual. 4th Edition. International Monetary Fund. Washington D.C.
[46] Jackson, S., & Markowski, S. (1996). The attractiveness of countries to foreign direct investors. Australian Journal Of Management, 21(2), 113.
[47] Khan, M., & Banerji, l. (2014). A study of drivers, impact, and pattern of foreign direct investment in India. Journal of Developing Areas, 48(4), 327-348.
[48] Kirchner, S. (2012). Foreign direct investment in Australia following the Australia-US free trade agreement. Australian Economic Review, 45(4), 410-421.
[49] Lebergott, S. (1980). The Returns to U.S. Imperialism, 1890-1929. Journal of Economic History,40(2), 229-252.
[50] Lee, I. (2015). Egypt hopes Suez Canal expansion will see cash flood in. CNN. Retrieved from http://www.cnn.com/2015/06/15/middleeast/egypt-suez-expansion/
[51] Liargovas, P. G., & Skandalis, K. S. (2012). Foreign direct investment and trade openness: The case of developing economies. Social Indicators Research, 106(2), 323-331.
[52] Mais, I., & Amal, M. (2011). Determinants of export performance: An institutional approach. Latin American Business Review, 12(4), 281-307.
[53] Manfredo Jr., F. (1993). The future of the Panama Canal. Journal of Interamerican Studies & World Affairs, 35(3), 103.
[54] Markusen, J. R., Morey, E. R., & Olewiler, N. D. (1993). Environmental policy when market structure and plant locations are endogeneous. Journal of Environmental Economics and Management 24, 69-86.
[55] Maurer, N., & Yu, Carlos. (2010). The big ditch: How America took, built, ran, and ultimately gave away the Panama Canal. Princeton: Princeton University Press.
[56] Mendrel, W. W. (2000). Under new ownership: It's Panama's Canal. Military Review
[57] Mundell, R. A. (1957). International trade and factor mobility. American Economic Review, 47(3), 321.
[58] Nasser, O. (2010). How does foreign direct investment affect economic growth? The role of local conditions. Latin American Business Review, 11(2), 111-139.
[59] Noorbakhsh, F., Paloni, A., & Youssef, A. (2001). Human capital and FDI inflows to developing countries: New empirical evidence. World Development, 29, 1593-1610
[60] Olney, W. W. (2013). A race to the bottom? Employment protection and foreign direct investment. Journal of International Economics, 91(2), 191-203.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

[61] Papadopoulos, N., & Heslop, L. (2001). A Review, Analysis, and Consolidation of Research on the Business Image of Canada among Investors and Others Abroad. Ottawa, ON. Branding Secretariat.
[62] Panama. (2013). Political Risk Yearbook: Panama Country Report, 2-12.Political Risk Services (PRS). (2013). Panama: Country Forecast, Political Framework. PRS Group
[63] Porter, M. E., & Schwab, K. (2009). The Global Competitiveness Report 2008-2009. The World Economic Forum.
[64] Primorac, D., & Smoljić, M. (2011). Impact of corruption on foreign direct investment. Megatrend Review, 8(2), 169-199.
[65] Quazi, R. M. (2007). Investment climate and foreign direct investment: A study of selected countries in Latin America. Global Journal of Business Research, 1(2), 1-13.
[66] Ramasamy, B., & Yeung, M. (2010). The determinants of foreign direct investment in services. World Economy, 33(4), 573-596.
[67] Saksonova, S. (2014). Foreign direct investment attraction in the Baltic states. Business: Theory & Practice, 15(2), 114-120.
[68] Sánchez-Martín, M., de Arce, R., & Escribano, G. (2014). Do changes in the rules of the game affect FDI flows in Latin America? A look at the macroeconomic, institutional and regional integration determinants of FDI. European Journal of Political Economy, 34, 279-299.
[69] Stal, E., & Cuervo-Cazurra, A. (2011). The investment development path and FDI from developing countries: The role of pro-market reforms and institutional voids. Latin American Business Review, 12(3), 209-231.
[70] Subasat, T., & Bellos, S. (2013). Governance and foreign direct investment in Latin America: A panel gravity model approach. Latin American Journal of Economics, 50(1), 107-131.
[71] Sullivan, M. (2012). Panama: Political and Economic Conditions and U.S. Relations. Congressional Research Service
[72] Te Velde, W. D. (2002). Do workers in Africa get a wage premium if employed in firms owned by foreigners? Journal of African Economics, 12 (1), 41-73.
[73] Thurston, D., Hackney, K., & Boggs, D. J. (2013). Discrepancies in entrepreneurship ratings: A search for answers in Costa Rica, Dominican Republic, and Panama. Journal of Management Policy & Practice, 14(4).
[74] Tinbergen, J.. (1962). Shaping the World Economy; Suggestions for an International Economic Policy. New York, NY. Twentieth Century Fund.
[75] USCS. (2011). Sell through Panama's Colon Free Trade Zone to the Region. A U.S. export opportunity. International Trade Administration. Retrieved from http://export.gov/panama/doingbusinessinpanama/exportingtolatinamericathroughpanama
[76] Wang, X., Xu, L., & Zhu, T. (2012). Foreign direct investment under a weak rule of law. Economics of Transition, 20(3), 401-424.
[77] Wilson, R., & Baack, D. (2012). Attracting foreign direct investment: Applying Dunning's location advantages framework to FDI advertising. Journal of International Marketing, 20(2), 96-115.
[78] The World Bank. (2011). Entrepreneurship Snapshots 2010: Measuring the Impact of the Financial Crisis on New Business Registration, Washington D.C. The International Bank for Reconstruction and Development.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

[79] Wu, J., & Zhao, H. (2015). The dual effects of state ownership on export activities of emerging market firms: An inducement–constraint perspective. Management International Review, 55(3), 421-451.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)