Crossing Over: Development & Inequality in Panama’s Dual Economy

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Executive Summary

For thousands of years the Isthmus of Panama has served as a crossroads of the Americas. Throughout that time the region’s geography, ecology, and peoples have all been defined by the coming together of different worlds – sometimes peacefully, sometimes not. In the century since Panama transformed from a landmass to a sovereign nation, it has become a crossroads of another sort: a vital strategic and economic passage between Atlantic and Pacific and a key locus of global trade. Now Panamanians find themselves at a new crossroads – one of national development. A range of possible futures lie ahead, and the decisions made today will determine the path that the nation ultimately takes as well as the destination that it will reach.

Panama’s recent history has been one of turbulence as well as progress. Political instability and repression, economic collapse and foreign invasion, democratization and national development have all played a role in creating the modern Panamanian state and society. Panamanians today enjoy high average per capita GDP and solid growth rates. The reorientation of the economy towards the international services sector has borne fruit for some, but many still lag behind, isolated from the vibrant Canal Zone and its related industries. Inequality remains stubbornly high and shows little sign of abating, even as economic prosperity is expected to increase through the coming decades. Panama’s economy is akin to two countries: one touched by development and another left behind. Uniting the two will be a great but necessary challenge for the nation’s leaders in the 21st century.

Inequality among Panamanians is most stark when viewed through the lens of human capital development. Urban citizens are among the most educated in Central America and enjoy long, healthy lives, while rural and indigenous populations lack education and health amenities and engage in a daily struggle to provide for themselves and their families. This gaping disparity hurts not only individual Panamanians but the nation as a whole, since human capital is a key component in the creation of sustainable economic growth and development. If combined with existing economic infrastructure, effective governance, improved information and communications infrastructure, and prudent leadership, an investment in this underutilized resource has the potential to drive Panama’s development to greater heights than ever before. At the same time, growing environmental challenges will need to be addressed to ensure that the nation’s economic livelihood remains viable in the face of new ecological challenges.

Merging Panama’s two economies will require a bold and focused set of policies that play on the nation’s existing strengths while aggressively tackling its problems. The rural and urban poor have yet to benefit from their country’s assets and growing wealth, and must be brought into the fold. The adoption of innovative, pro-poor initiatives such as conditional cash transfers holds the promise of improving livelihoods and strengthening human capital simultaneously, and improvements to infrastructure and governance will solidify Panama’s position in the global trading system. With determination and focus, Panama’s leaders can take advantage of the unique opportunities that exist at this stage of their country’s history to it into a new stage of national development – one that works for everyone.
Introduction

For nearly a century, the political and economic fortunes of the nation of Panama have been inexorably tied to what is perhaps the greatest engineering marvel of the modern world – the Panama Canal. Constructed between 1907 and 1913 by the U.S. Army Corps of Engineers\(^1\), the Canal transformed Panama nearly overnight from a rebellious backwater province of Colombia to a key strategic asset and crossroads of global trade. Yet despite this stark reversal, the benefits of the Panama Canal’s presence have, even to this day, not been felt equally by citizens of the isthmian nation. Rather, Panamanians have far too often both figuratively and literally watched enormous wealth pass through their country on its way to more prosperous shores, leaving little in between. As Panama moves forward in the 21\(^{st}\) century and endeavors to develop both its canal and the nation as a whole, the challenge of bridging the gap between the two must finally be addressed. Success will require a concerted effort by the government as well as a willingness to make bold policy decisions for the good of all Panamanians.

Economic Growth – But For Whom?

There is little question that the presence of the Panama Canal and its accompanying infrastructure has had a major impact on the shape of Panama’s economy over the course of the past 50 years and will continue to do so for the foreseeable future. This is not to say, however, that the Panamanian state has always received the full direct benefit of the massive project that bisects its sovereign territory. In fact, until the implementation of the Carter-Torrijos Treaties in 1979, the state of Panama was entitled only to an annual rental fee that started at $250,000 in 1903 and increased gradually over time to reach approximately $2.5 million by 1979.\(^2\) These miniscule payments, even when combined with the lump sum of $10 million given by the US to Panama at the signing of the 1903 treaty, represent only a small fraction of the tolls collected by the United States while operating the Canal. For example, in 1978 total toll revenues exceeded $195 million, of which less than $3 million went to Panama.\(^3\)

Even in light of this pecuniary imbalance throughout its history, Panama has nonetheless experienced solid economic growth since 1960. During the 1960s the country produced solid annual GDP growth rates of between 5% and 10% before experiencing a period of relative stagnation during the mid-1970s which led to outright catastrophe under the kleptocratic regime of General Manuel Noriega in the 1980s. In the wake of 1989’s US military invasion and the subsequent transition to democracy, growth rates once again became positive and by the mid-1990s had leveled out to between 2.5% and 4.5% annually.\(^4\) World Bank data indicates that since 2004, GDP growth had once again surpassed 5% annually – peaking in 2007 at over 12% and even weathering the global recession well at 10.5% in 2011.\(^5\)

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\(^1\) Harding 2006, 35-37
\(^2\) Zimbalist & Weeks 1991, 49-51
\(^3\) Zimbalist & Weeks 1991, 50
\(^4\) International Futures Version 6.64
\(^5\) World dataBank
Panama’s turbulent growth rates notwithstanding, the country’s economy has shown steady improvement overall between 1960 and the present. Real GDP has grown from $2 billion in 1960 to over $26 billion today, placing the country’s economy roughly on par with that of neighboring Costa Rica (if still below that of larger Guatemala). Viewed through the often more telling lens of GDP per capita, Panama clearly outperforms its Central American peers, pulling roughly even with its closest competitor Costa Rica in 1975 and opening a lead of more than $2,500 between 2005 and 2012. Both trends are projected to continue in the coming decades, with Real GDP expected to surpass $132 billion by 2050 and GDP per capita to reach nearly $32,000 that same year. If accurate, this will significantly widen Panama’s existing GDP per capita lead over Costa Rica to more than $10,000 by mid-century and even place it ahead of Chile, considered by many to be the most developed nation in Latin America today.
While these forecasts are cause for optimism, employing a Gini coefficient to gauge economic inequality within Panama paints a more ambiguous picture. Historic data indicates despite the Panamanian economy’s steady growth over the past thirty years, during this period the nation’s level of inequality has seen no significant improvement. Indeed, the figure is almost unchanged between its 1979 measure of .4874 and its 2010 level of .5192. While future rates of inequality are very difficult to accurately predict, it seems unlikely that a “business-as-usual” policy will produce any significant changes in the current trends of entrenched inequality. This scenario should be cause for alarm on the part of Panamanian leaders and development professionals alike, who risk seeing the nation’s future gains unevenly shared among the populace.

![Gini Coefficient in Panama, 1979-2010](image)

**Source:** World Bank via Google Public Data Explorer

### Poverty & Development in a Dual Economy

The marked disconnect between Panama’s historic and projected patterns of GDP growth and income inequality are largely explained by the nation’s unique economic structure and role in the global economy. Panama can be described as a ‘dual economy’ – one in which a “dynamic services export sector has few linkages with the rest of the economy.” While the Panama Canal is by far the most prominent feature of the country’s economic landscape, it provides less than 1% of the country’s employment, so the small number of individuals who earn wages ten to twenty times the national average are not a significant portion of the total population. Of course the Canal does not operate in total isolation: related sectors like finance, banking, and the Colón Free Trade Zone provide income to large segments of the population, and it has been estimated that more than 30% of annual economic growth is the result of port activities alone. In total, the internationally-focused services sector

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10 World dataBank  
11 Bussolo et al. 2012, 79  
12 Bussolo et al. 2012, 80  
13 Llacer 2006, 493
accounted for upwards of 60% of annual GDP in 2001. Yet at the same time some 21% of the population still makes its living through agriculture – a sector that accounts for only 8% of total value-added each year. These rural individuals, including the isthmus’ indigenous groups, see little direct benefit from the Canal’s presence in their country. The $5.25 billion canal expansion project currently underway will likely do nothing to change this situation, and studies indicate that national income inequality actually stands to increase along with the anticipated rise in Canal traffic from 2014 onward. For Panama to close its income gap it will be necessary to bridge this divide, whether by boosting agriculture’s profitability or by transitioning farmers into the more globalized services sector that drives the nation’s economy. How best to accomplish this goal is open to debate.

In the past some attempts have been made to spread the Canal’s wealth-generating potential more broadly across the population, but none have met with much success. Under the rule of dictator Omar Torrijos, a significant investment was made in social services, largely as a means of engendering support for the regime among the urban and rural poor. At the time of Torrijos’ ascent to power, some 38% of Panamanians were living in poverty and 50,000 of those were engaged in subsistence agriculture. By increasing government spending on social programs by 700%, Torrijos was able to double the number of schools in the country, boost literacy, decrease infant mortality, and expand social security coverage to 60% of the population. These and similar initiatives were disproportionately targeted at rural areas, which received new infrastructure, health services, and agricultural cooperatives designed to redistribute land to those who lacked it. Yet despite these efforts, the rural poor made few concrete gains during the 1970s and 1980s. Land reform affected a paltry 4% of farmers, and throughout the 1970’s land ownership actually became more concentrated in the hands of large holders than it was previously. Real agricultural output fell during this same period. While it could be argued that the government’s initiatives helped to create a strong human capital base for future growth, in the short term they seem to have made an insignificant dent in Panama’s persistent inequality, much of which continues to this day.

A different set of the Torrijos regime’s policies might hold more potential for improving the lot of Panamanians in the coming decades. At the same time that Torrijos targeted the rural poor for development he simultaneously pushed for a general reorientation of the Panamanian economy towards the international services sector. A series of banking reforms were enacted in 1970 which helped to transform Panama City into a major hub for financial transactions (legal and otherwise) and that within the decade led to an increase in the banking sector from $1 billion held by 23 banks to more than $50 billion in 130 banks. This development, along with an expansion of the Colón Free Trade Zone and a focused investment in infrastructure and human capital, constituted an effort on the part of the

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14 US State Department 2001
15 Bussolo et al. 2012, 80
16 Bussolo et al. 2012, 104
17 Harding 2006, 70-71
18 Harding 2006, 71-72
19 Harding 2006, 73; Zimbalist & Weeks 1991, 40
20 Zimbalist & Weeks 1991, 40
21 Harding 2006, 73
Torrijos government to increase the economy’s emphasis on the service sector. This goal was largely achieved, as the percentage of the economy devoted to services increased steadily from 59.6% in 1950 to just over 80% by 1988. \(^{22}\) In 2011 it was estimated that services accounted for more than 79% of total GDP. \(^{23}\) Thus Panama is the rare Central American country that finds itself more dependent on trade, banking, and services than on agricultural exports – a fact which it can potentially use to the advantage of the nation’s poor. \(^{24}\)

**Bridging the Divide**

It is self-apparent that Panama will remain highly invested in the services sector for the foreseeable future, as the government’s ongoing $5.25 billion canal expansion project readily attests. The question is whether the nation’s economy will maintain its ‘dual’ status or move towards a more equal sharing of the Canal’s benefits among the population. One way to accomplish this latter goal is for the rural poor to transfer their economic focus from agriculture to the modern industrialized economy centered in Panama City and the former Canal Zone. Evidence indicates that they have already begun to do so – the World Bank reports that rural to urban migration has increased dramatically between 2003 and 2008 as a result of the booming services and industrial sectors. \(^{25}\) One important caveat is that those currently migrating towards these economic opportunities are predominately the “moderate poor”, rather than the “extreme poor” who may lack the resources even to move. \(^{26}\) It is likely to be the plight of these individuals that will be most difficult for Panama to resolve.

Initiatives to do just that are currently underway. One novel approach is that of Conditional Cash Transfers, or CCTs, which the government has been employing since 2006. \(^{27}\) Panama’s CCT program, called Red de Oportunidades (“Network of Opportunities”), provides cash payments to poor families in exchange for ensuring their children’s school attendance, vaccinations, and developmental monitoring. \(^{28}\) As of 2008, 28.8% of Panama’s extreme poor (or approximately 5.5% of the total population) were receiving CCTs, whose well-publicized successes in Brazil and Mexico government leaders are hoping to replicate. \(^{29}\) The use of CCTs fits well into Panama’s overall emphasis on building human capital as a means of modernizing its workforce and economy. The nation already boasts the highest levels of education and human capital in the Central American region, and its continued dominance in this area will likely constitute a key asset as the economy further solidifies its focus on the international service sector. \(^{30}\) It is calculated that Panama’s human capital currently contributes .07% to the nation’s annual growth rate – as opposed to its social, physical, and knowledge capital, each of which acts as a drag on

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\(^{22}\) Zimbalist & Weeks 1991, 27  
\(^{23}\) CIA World Factbook 2011  
\(^{24}\) Harding 2006, 4  
\(^{25}\) World Bank 2011, i  
\(^{26}\) World Bank 2011, 64  
\(^{27}\) World Bank 2011, iii  
\(^{28}\) World Bank 2011, 48  
\(^{29}\) World Bank 2011, 55  
\(^{30}\) World Bank 2011, 37
growth. An increase in the state’s existing commitment to building human capital has the potential to reap even greater economic and developmental gains for all levels of Panamanian society.

Environmental Dividends & Deficits

Centuries before human beings carved a monumental canal from one ocean to another, engineered a sophisticated mechanical system to control the flow of millions of gallons of water, and constructed the gleaming skyscrapers of a sprawling capital city, the Isthmus of Panama was endowed with a tremendous amount of natural wealth. Panama’s geographic location gives it incalculable economic value and its natural environment enhances the operation of the Panama Canal and consequently all sectors of the economy which rely upon it. The nation’s extreme biodiversity is likewise an economic boon – but, importantly, one which has yet to be exploited to its full potential. Unfortunately, to the present day environmental protection has not been made a priority by the Panamanian state. Environmental degradation has accelerated in parallel to national development and now threatens to hamper future progress. Luckily there is still time for the government to change course and embrace sound environmental management policies for the good of the ecosystem, economy, and people of Panama.

It is easy to conceive of the Panama Canal as the ultimate example of man-made infrastructure, and this is obviously true to some extent. What is less appreciated is the fact that the operation of the Canal is utterly dependent on “environmental infrastructure” as well. Each transit of the Canal requires the release of approximately 52 million gallons of fresh water, which is roughly equivalent to the daily consumption needs of 500,000 Panamanians. This water is derived from two artificial reservoirs, Lake Gatún and Lake Alajuela, created in 1913 and 1934 respectively. Of course these reservoirs are not used exclusively for Canal operations. Lake Alajuela also provides the entire water supply for Panama City and its population of more than a half million people. The waters of Lake Gatún and Lake Alajuela are naturally replenished by the surrounding watershed, a massive area that sits in the country’s most heavily populated and developed region between the terminal cities of Panama City and Colón. In addition to providing for Canal passages and human nourishment, the watershed has other demands placed upon it ranging from the maintenance of fisheries and farmlands to the production of hydroelectric power. In all, some 2.8 billion gallons of fresh water are extracted from the watershed daily, making it a vital component of the national economy at all levels of society.

Unfortunately for Panamanians, in recent years a number of factors have combined to threaten the long-term sustainability of the watershed and its dependent activities. Population growth has increased

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31 International Futures Version 6.64
32 Carse 2012, 540
33 Heckadon Moreno 1993, 130; Carse 2012, 540
34 Heckadon Moreno 1993, 129
35 ibid
36 Carse 2012, 541
37 Heckadon Moreno 1993, 130
38 ibid
the level of human consumption while the industrialization of the former Canal Zone has led to declining water quality in the surrounding lakes and rivers.\(^{39}\) Increased transit of the Canal, while good for the economy, has elevated demands placed on the fresh water supplies of the reservoirs, and this is only expected to grow with the completion of the canal expansion project in 2014.\(^ {40}\) The creation of new reservoirs to accommodate increased water needs is not a viable option given the massive displacement of people that it would require in what is an increasingly urbanized region of the country.\(^ {41}\) In addition to increased demands on the watershed, deforestation of the surrounding area has led to soil erosion and sedimentation of the lakes, a process which ultimately decreases their capacity and the overall efficiency of the Canal.\(^ {42}\) Lake Alajuela has already lost 5% of its capacity as a result of sedimentation.\(^ {43}\) Considering that 5% of world trade currently passes through the Canal, environmental threats to its continued hydrological reliability (the ratio of available water volume to water volume demanded) should be a legitimate concern for leaders at both the domestic and international levels.\(^ {44}\)

The Panamanian government has been aware of these issues for decades. In 1977, as a facet of the Torrijos-Carter treaties, the government began a program of integrated watershed management designed to ensure the long-term viability of the Canal and prevent water shortages like the one that occurred in that same year.\(^ {45}\) The threat of deforestation was subsequently countered by laws placing forests within the watershed under state protection and a banning of “slash and burn” farming techniques in virgin forest areas, but in many areas deforestation has continued irrespective of these measures.\(^ {46}\) To some extent this is the result of self-defeating policies within the state. Cattle pastures now account for 90% of formerly forested areas, despite their negative environmental effects but in part because it is a form of land use that has received encouragement from the government.\(^ {47}\) Environmental protection efforts have, on the whole, been based on convenience to an unfortunate degree, as illustrated by recent claims on the part of the Panama Canal Authority that the expansion of infrastructure in the Canal Zone will have “no immitigable or permanently aversive impacts” despite claims to the contrary by the very consulting firm hired to complete the PCA’s environmental impact assessment.\(^ {48}\) Yet conservation of the Canal Zone’s natural environment remains both crucial and ultimately economical task. The UNDP calculates that the economic benefits produced by erosion control through reforestation are approximately $9 per hectare, whereas the economic benefits produced by existing forests are $277 per hectare.\(^ {49}\) Perhaps a similar institutional revaluation of nature

\(^{39}\) Heckadon Moreno 1993, 131-132
\(^{40}\) Ongel 2012, 3
\(^{41}\) ibid
\(^{42}\) Heckadon Moreno 1993, 131
\(^{43}\) ibid
\(^{44}\) Carse 2012, 540 & 548
\(^{45}\) Carse 2012, 545
\(^{46}\) Carse 2012, 545; Heckadon Moreno 1993, 138
\(^{47}\) Heckadon Moreno 1993, 138-139
\(^{48}\) Ongel 2012, 3-4
\(^{49}\) UNDP 2010, 254
in terms of its economic benefits would encourage greater consistency in environmental protection on the part of the Panamanian state and society.\textsuperscript{50}

Unfortunately one of the principle impacts of environmental regulations in Panama has been to constrain the livelihood of the rural poor. In the early part of the 20\textsuperscript{th} century, the pursuit of water for the Canal’s operation indirectly led to the displacement of thousands of Panamanians living in the valley of the Chagres River.\textsuperscript{51} With the onset of conservation policies in the 1970s, farmers came to be viewed in the eyes of scientists and engineers as a threat to the water needs of the Canal rather than partners in watershed management.\textsuperscript{52} During the 1980s, water management schemes became increasingly coercive, and even since the end of authoritarian government the negative impacts of such policies have been disproportionately borne by the poor as the benefits of international trade accrue to the wealthy.\textsuperscript{53}

Laws against the clearing of forested lands have made it difficult for farmers to acquire plots, contributing to a shortage in basic grains that can lead to malnutrition, while at the same time infrastructure and services are slow to reach even those who live in relative proximity to the Canal.\textsuperscript{54} In short, the poor have yet to see any significant benefit of improved environmental management but are nonetheless required to absorb the negative consequences that result from government policies that have primarily served to exacerbate social and economic inequalities.\textsuperscript{55} If true progress is to be achieved for the benefit of both trade and the rural poor, the government will need to develop new, cooperative strategies for ecosystem management which account for the needs of all groups and are consistently enforced.\textsuperscript{56} A more egalitarian division of Canal-generated wealth and infrastructure will go a long way in this process by incentivizing conservation for all levels of Panamanian society as well as building a base for future economic development throughout the country.\textsuperscript{57}

**Population Progress & Challenges**

All developing nations must sooner or later address the issue of population. As a relatively small nation of just over 3.5 million people, Panama does not face the same sort of population challenges as many Asian and African nations, but nevertheless it is inevitable that population patterns will have an impact on all areas of the country’s future development. It is therefore critical that Panamanian leaders account for population trends and demographic shifts as they design the programs and policies intended to achieve sustainable development. Population forecasts will be a useful tool in this process.

The past 50 years of Panamanian history have been tumultuous in many ways, yet population trends for the same period have been improving steadily. Between 1960 and 2010, Panama’s population increased...
from 1.1 to 3.5 million and is expected to peak around 4.8 million by mid-century.\textsuperscript{58} Longer-term projections indicate that population will plateau at this point before very gradually beginning to decline during the last quarter of the 21\textsuperscript{st} century.\textsuperscript{59} This flattening out of population is likely the result of Panama’s rapidly falling Total Fertility Rate, which has declined sharply from 5.9 children per woman in 1960 to 2.5 in 2010 and is expected to reach replacement rate by about 2020.\textsuperscript{60} In keeping with this decreasing TFR, population growth rates have declined dramatically as well, dropping from a high of 2.98\% annually in the late 1960s to just less than 1.77\% by 2005.\textsuperscript{61} Taken together, these population trends indicate a country moving towards development and modernization and largely untroubled by excessive demographic growth.

This is not to say that Panamanian leaders need not concern themselves with population. Declining Total Fertility Rates do not mean an immediate halt in population growth; rather the momentum of increasing population takes decades to dissipate.\textsuperscript{62} Clearly these trends must be monitored in order to deal with any significant changes that might arise in the future. Even if patterns develop as forecast above, there are subsections of the demographic picture that merit increased attention. One of these is the ripple effects caused by a youth bulge – commonly defined as an abnormally high percentage of the population being between the ages of 15 and 29. Youth bulges have the potential to affect a society in both positive and negative ways. A nation with a high percentage of its population in their prime working years may experience a boost in its productivity that speeds national development – a so-called “demographic dividend”. Conversely, a country with large numbers of young people that lacks a productive outlet for their energies and ambitions might become less stable, both politically and socially.\textsuperscript{63} It is important, therefore, that youth be managed in a conscious manner that maximizes their benefits and minimizes whatever negative side effects they may produce.

\textsuperscript{58} International Futures Version 6.64  
\textsuperscript{59} International Futures Version 6.64  
\textsuperscript{60} International Futures Version 6.64  
\textsuperscript{61} International Futures Version 6.64  
\textsuperscript{62} Todaro & Smith 2012, 277-278  
\textsuperscript{63} Hughes & Hillebrand 2006, 86
Panama appears unlikely to face a significant youth bulge challenge in the near future. The percentage of the population under 15 years of age has been in steady decline since the early 1970s and this trend is forecast to continue well into the 21st century.\(^6\) While Panama’s current population pyramid is clearly skewed towards its younger cohorts, the imbalance is not enough to constitute a true youth bulge as classically defined. As of 2010, approximately 35.5% of Panama’s population fell between the ages of 16 and 29, but this figure is forecast to decline steadily as the century progresses, falling to 22.5% by 2050 and settling under 20% by the year 2100.\(^5\) Population pyramids tell a similar story, showing a normal pyramidal distribution in 2010 that shifts to a distinct bulge for the 16-29 age groups by 2030.\(^6\) Thus it appears that so long as Panama is able to successfully accommodate its current demographic imbalance through 2030, additional stresses should not be forthcoming. The key to doing so will be ensuring that the economy is able to absorb these individuals in a productive manner that spreads the wealth and keeps young men content and off of the streets. If this can be accomplished not only will Panama reduce the potential for short-term instability, it will also bolster its long-range economic prospects by producing a passionate and productive workforce that will drive future growth and development for decades to come.

**Human Capital: Improvement, Inequality, & Opportunity**

Ensuring that Panama’s citizens have the opportunity to make a productive contribution to the nation’s future economic growth will rely in large part on their individual capacities and skills. The improvement of human capital is therefore both a goal and a means of national economic development, and an area in which Panama’s performance over the past half-century has been decidedly mixed. As with the economy as a whole, the state has made significant improvements in terms of both education and

\(^{64}\) International Futures Version 6.64
\(^{65}\) International Futures Version 6.64
\(^{66}\) International Futures Version 6.64
health indicators, becoming in some regards a leader in the Central American region. Yet just as Panama’s increasing wealth has not been evenly shared by all sectors of the population, nor have the benefits of an improved health and education system reached the country’s poor and marginalized populations. This is a significant failure not just in terms social injustice but also because it constitutes a missed opportunity for potential economic growth for the country as a whole. It has been demonstrated repeatedly by scholars that sustained economic growth is impossible without concurrent improvements in human capital on a national scale, and therefore the human capital disparity that exists within Panamanian society must be considered a significant drag on economic performance. Until this problem is corrected, Panama will remain unable to perform to its full potential and societal inequality will persist. If, however, the government and people of Panama are able to successfully redress this issue, the nation as a whole stands to gain greatly through increased economic performance and improved human development.

**Health**

As in many areas of development, Panama has seen a steady improvement in terms of national health indicators over the course of the past decades. This is perhaps most clearly seen in the country’s changing life expectancy. In 1960, life expectancy at birth in Panama was 60.79 years, a figure roughly on par with neighboring Costa Rica at 61.6 years but well below the United States’ level of 69.7 years. Five decades later in 2009, this indicator had improved greatly to 75.8 years in Panama. As a result of this change, Panamanians in 2009 trailed Americans in life expectancy by only three years, as opposed to nine in 1960. While certainly worth celebrating, this accomplishment, like many others in Panama’s recent history, is colored by the fact that in this same time period the disparity between life expectancies in Panama and Costa Rica has slightly increased. Panama’s life expectancy has risen, but Costa Rica’s has done so faster, which implies that the full of potential of the Panamanian health care system has yet to be achieved. Rather than a cause for dismay, Costa Rica’s relative success should be taken as a challenge and inspiration for continued improvement in the coming years. It should also serve as a reminder of the important role that economic inequality in determining health outcomes and an injunction to treat the source, and not merely the symptoms, of national health problems.

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67 Suri et al. 2011, 506
68 International Futures Version 6.64
69 International Futures Version 6.64
70 International Futures Version 6.64
A similar story is told by another key health indicator, that of infant mortality rate. As in the case of life expectancy, Panama’s overall performance in this area has improved gradually but substantially over time, falling from 64.9 deaths per 1000 live births in 1960 to just over 17 per 1000 in the year 2010.\textsuperscript{71} Once again this has significantly narrowed the gap between Panama’s performance and that of the United States (a hemispheric leader in this regard) while failing to reach the rate of 8.7 per 1000 achieved by Costa Rica. In this case the lapse is even starker than for life expectancy given the fact that Costa Rica’s infant mortality rate was actually significantly higher than Panama’s in the mid- to late-1960s before declining precipitously over the course of 15 years and settling more recently.\textsuperscript{72} As before, this difference in outcome between broadly similar Central American nations implies that Panama’s full potential has yet to be achieved and should encourage government leaders to redouble their efforts to improve health throughout the country.

\textsuperscript{71} International Futures Version 6.64  
\textsuperscript{72} International Futures Version 6.64
Panama’s advances in the health arena are due in large measure to the improved economic outlook of most citizens over the past decades and to a lesser extent to concerted investments on the part of government leaders in the nation’s health care system. As of 2004, Panama’s government spent a modest 5.2% of GDP on health care, with amounts to approximately $632 per capita. 73 This figure places it well below the average for the World Health Organization’s Region of the Americas, which was more than $3,000 per capita by 2010.74 While it is true that higher spending does not necessarily equate to superior health outcomes, the fact that Panama consistently underperforms the regional average in measures like under-five mortality, maternal mortality, HIV prevalence, and prevalence of tuberculosis should serve as an indication that more could be done.75 Studies have in fact shown a correlation between increased government spending on primary health care and improved health outcomes, particularly in terms of child and infant mortality rates.76 While other factors are important as well, boosting health expenditures is a logical first step for Panamanian leaders hoping to improve conditions in the country.

Those pursuing such a goal would be wise to note the existing disparities in the health care sector and work to eliminate them via future initiatives. The most fundamental of these is the dichotomy between urban and rural standards of living in Panama. As of 2010, 25.2% of Panamanians resided in rural areas, and of this group some 60% were living in poverty.77 This compares with a national poverty rate of 40%, illustrating an imbalance between rural and urban sectors of the country.78 Within this already polarized system is another “striking disparity” between the fortunes of indigenous and Latino citizens—one in which 86% of the indigenous population lives below the poverty line.79 Such extreme poverty, combined with physical remoteness from medical infrastructure, has a powerful and negative impact on health outcomes within indigenous communities. For example, infant mortality rates among indigenous groups are four times those of urban Latino populations.80 Malnutrition is also a serious health issue for rural and indigenous citizens, with nearly three-quarters of Panama’s malnourished children residing in rural areas.81

This overall level of inequality combines with the fact that Panama has is now experiencing a “dual burden” of disease, meaning that both communicable and non-communicable diseases are prevalent throughout all areas of the country.82 HIV/AIDS in particular has grown in prevalence over time, concentrated in and around urban areas and near the country’s borders.83 As with other major health problems in Panama, indigenous populations are disproportionately hard-hit, having double the

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73 Waters 2010, 688
74 WHO 2012, 1
75 ibid
76 Gupta et al. 2002, 732
77 International Futures Version 6.64; Asia News Monitor 2008, 1
78 WHO 2007, 1
79 World Bank 2011, 46; Wickstrom 2003, 45
80 Waters 2010, 681
81 Franklin et al. 1985, 69
82 WHO 2007, 1
83 World Bank 2006, 3
prevalence rate of the general population. At the same time, the increasing urbanization and development of the country has forced planners to reorient themselves towards an impending non-communicable disease challenge. Rates of high-blood pressure, blood glucose, and obesity in women are already above the regional average, and non-communicable diseases now account for a greater percentage of life years lost than communicable ones. At present only 6.5% of the nation’s population is over 65, but this is expected to rise to over 19% by the year 2050 – likely placing an added non-communicable disease burden on the health care system in the coming decades. Panamanian leaders will need to tackle the combined challenges of an aging population, persistent communicable disease threats, and increasing lifestyle-based health risks all while seeking to close the health care gap that already exists within their country.

![HIV/AIDS Prevalence in Panama by Region](image)

**HIV/AIDS Prevalence in Panama by Region**
*Source: World Bank 2006, 3*

**Education**

Unfortunately for Panamanians, health is not the only aspect of national development in which positive trends are dampened by persistent inequality and well-entrenched obstacles. Likewise education poses unique challenges in terms of simultaneously pushing the country forward and ensuring that the poor and marginalized are not left behind. There is little question that the national education system has made great strides in past decades. Adult literacy rates risen steadily from approximately 79% in 1970 to almost 94% in 2009, while in the same period gross primary school enrollment rates increased from 86% to over 102%. Figures for gross secondary education enrollment rates are lower but also showed significant improvements over time, increasing from less than 30% in 1960 to more than 72% fifty years

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84 World Bank 2006, 6  
85 WHO 2012, 1-2  
86 International Futures Version 6.64  
87 International Futures Version 6.64
later.\textsuperscript{88} A great deal of this positive trend is driven by the increase in women’s participation at all levels of education, particularly secondary and tertiary where they have already surpassed men in terms of completion rates.\textsuperscript{89} All in all Panama has one of the most educated populations in Central America, yet despite these successes great disparities remain between regions, classes, and ethnicities throughout the country.\textsuperscript{90}

One reason that these disparities exist is the structure of government funding for education in Panama. In the early 1990s, the Panamanian government made educational advancement a national priority, increasing previously static spending on the education sector to over 5\% of GDP.\textsuperscript{91} However, by 2010 this figure had declined to 3.8\%, signaling a lesser emphasis than previously.\textsuperscript{92} This is unfortunate because large segments of the population seem to be benefitting substantially from the educational opportunities currently available to them.\textsuperscript{93} Moreover, existing investments in education are greatly skewed in a manner that limits their pro-poor potential. For one, a disproportionately large percentage of funding for public education is directed to the tertiary level, allowing for “unnecessarily low” university fees that amount to a subsidy for the already relatively wealthy and educated elites who attend such institutions.\textsuperscript{94} This is in spite of findings that the social rate of return for education spending is highest at the primary level.\textsuperscript{95} Infrastructure and access are also significantly lower in rural areas, where transportation and opportunity costs make school attendance prohibitively expensive for many despite Panama’s legal guarantee of free public education.\textsuperscript{96} In light of the fact that public schools in general are of lower quality than expensive private institutions, these funding and policy choices serve

\begin{itemize}
\item \textsuperscript{88} International Futures Version 6.64
\item \textsuperscript{89} World Bank 2011, 38
\item \textsuperscript{90} World Bank 2011, 37
\item \textsuperscript{91} World Bank 1995, 4-5
\item \textsuperscript{92} International Futures Version 6.64
\item \textsuperscript{93} World Bank 2011, 38-39
\item \textsuperscript{94} World Bank 1995, 4-6
\item \textsuperscript{95} Gupta et al. 2002, 718
\item \textsuperscript{96} Waters 2010, 684; Valderama et al. 2011, 937
\end{itemize}
to prioritize the education of the affluent and urban at the expense of those who are in greater need of support.\textsuperscript{97}

The result is that, as is the case with health care, rural and especially indigenous Panamanians lag behind their urban and Latino countrymen in educational performance. In the year 2000, 37.8% of indigenous adults were illiterate compared to only 5.5% of the non-indigenous adult population.\textsuperscript{98} Student attendance is also significantly worse, with 78.7% of indigenous children in school as opposed to 96.8% of non-indigenous.\textsuperscript{99} Rural schools have a difficult time retaining skilled teachers, who prefer to work in more developed areas.\textsuperscript{100} A digital divide also marginalizes rural students, who have little to no access to information technology and computers in the classroom.\textsuperscript{101} This lack of technological literacy in rural areas constitutes a major disadvantage in an economy in which banking and service jobs account for 80% of employment and a high youth unemployment rate of nearly 15% is attributed to “skill mismatches” by the International Monetary Fund.\textsuperscript{102} As Panama continues its transition from a dual economy to one in which all Panamanians are able to participate in and benefit from a high-value international market, educational disparities such as these will need to be eliminated in order to avoid the creation of a permanent rural-indigenous underclass which is unequipped for the new Panamanian economy.

**Human Capital & Economic Growth**

As illustrated above, improvements in both health and education over Panama’s recent past have been both significant and unevenly shared. This fact should be cause for concern not just for the poor and marginalized segments of society but for the nation as a whole, as the benefits of a more equally developed populace and workforce will accrue to all Panamanians for decades to come. A great deal of research has affirmed the strong, positive correlation between human capital development and overall economic growth, which are said to have a “two-way causal relationship” in which each half feeds on and reinforces the other.\textsuperscript{103} Strengthening the health and educational backbone of the nation’s workforce allows for more efficient and advanced production, which in turn encourages further investment in the populace and gives citizens the tools to grow and innovate.\textsuperscript{104} Human capital development also attracts foreign direct investment (FDI) in a country and increases both the quantity and quality of those investments. Countries with low human capital development may still receive FDI inflows, but they tend to be resource-focused and low value-added, ultimately benefitting the host country much less than other forms of FDI.\textsuperscript{105} Within human capital, education in particular has been found to be the single most influential factor in attracting foreign direct investment to a country.\textsuperscript{106}

\textsuperscript{97} World Bank 2011, 41
\textsuperscript{98} Waters 2010, 681
\textsuperscript{99} ibid
\textsuperscript{100} World Bank 1995, 24
\textsuperscript{101} Valderama et al. 2011, 937
\textsuperscript{102} Heritage Foundation 2012, 331; International Monetary Fund 2012, 19
\textsuperscript{103} Suri et al. 2011, 506
\textsuperscript{104} ibid
\textsuperscript{105} Noorbakhsh et al. 2001, 1603
\textsuperscript{106} Globerman & Shapiro 2002, 1911
Education has the added benefit of being closely correlated with the formation of democratic principles, which apart from their obvious political benefits are additionally associated with stronger economic performance.\textsuperscript{107} Health is also an important component, and therefore investments in health care can be justified not just in terms of equity and morality, but as means of generating “public goods-type externalities” for the nation as a whole.\textsuperscript{108}

To its credit, the government of Panama recognizes the importance of human capital for its economic and social development. The International Monetary Fund reports that in meetings with Panamanian leaders, the government has affirmed its belief that “improvements in human capital and labor productivity are essential to ensure that the benefits of Panama’s economic successes are widely shared by the population and to sustain high growth rates over the medium term”.\textsuperscript{109} To this end, targeted investments have been made in order to improve human capital and access to the educational and health infrastructure that allows for its development. The most dynamic of these initiatives is the Red de Oportunidades conditional cash transfer (CCT) program in existence since 2006, which provides cash payments to poor families in exchange for their children’s school attendance and regular primary health care visits.\textsuperscript{110} In keeping with the landscape of poverty in Panama, roughly 50% of participants in the program are indigenous.\textsuperscript{111} Beneficiaries receive roughly $100 every two months, which in Panama constitutes 26.5% of the national poverty line.\textsuperscript{112} Recipients may use these funds in the manner of their choosing, but reports indicate that they are directed towards four main categories: costs directly related to the education and health requirements of the programs, basic needs not related to program requirements, investments in small business, and emergency savings.\textsuperscript{113} It is therefore apparent that CCTs can potentially accomplish multiple development goals simultaneously – encouraging school attendance and health care, alleviating short-term poverty and malnutrition, and building capital for future investment. Predecessor programs in Mexico and Brazil have proven highly successful in this regard and it is hoped that the Red de Oportunidades will follow in their footsteps.\textsuperscript{114}

The program is not without its problems however. Firstly, there is a limited amount of funding available for CCTs, meaning that even in targeting traditionally marginalized groups for participation the government is excluding others by necessity.\textsuperscript{115} As a result there is a risk of creating a greater disparity within the ranks of the very poor than already exists. Another issue is that not all barriers to educational and health care participation are monetary. Geography continues to restrict some groups more than others, and cultural factors also play an important role as certain health care requirements of the program are contrary to traditional indigenous medical practices.\textsuperscript{116} Other approaches may help to resolve these issues. World Bank loans totaling $75 million were extended in 2008 to fund

\begin{flushleft}
\textsuperscript{107} Booth & Richard 1998, 792-793; Noorbakhsh et al. 2001, 1599
\textsuperscript{108} Globerman & Shapiro 2002, 1915
\textsuperscript{109} International Monetary Fund 2012, 19
\textsuperscript{110} Waters 2010, 680
\textsuperscript{111} ibid
\textsuperscript{112} ibid
\textsuperscript{113} Waters 2010, 686
\textsuperscript{114} Waters 2010, 679
\textsuperscript{115} Waters 2010, 685
\textsuperscript{116} Waters 2010, 686
\end{flushleft}
nontraditional techniques like telephone distance learning and home-based education centers as well as the development of culturally appropriate school curriculums.\textsuperscript{117} A national training program for teachers and administrators in struggling schools and the increased promotion of technological literacy are also positive steps for poor students hoping to participate fully in Panama’s growing economy.\textsuperscript{118} In all, Panama’s leaders have taken important steps towards strengthening their nation’s human capital base in preparation for greater economic growth in the future, but much work remains to be done before all Panamanians have an equal opportunity to share in the benefits of development.

**Infrastructure**

Human capital is a vital component for establishing a foundation of sustainable economic growth, but there are inevitable limitations on its potential alone. Infrastructure development serves as a complimentary factor in that it enables human capital development and also capitalizes on existing human capital resources. As Panama continues to move towards an increasingly service-centered international economy, the extension of infrastructure – and specifically information and communications technology (ICT) – should be a top priority of both business and government. This process has already begun to some extent, but as is the case in the areas of health, education, and economic opportunity, infrastructure access throughout Panamanian society is highly imbalanced. If this trend continues unabated in the future, it will threaten to create ever greater disparities between regions, classes, and ethnicities that complicate Panama’s already difficult campaign to achieve sustainable and wide-ranging national development.

Panamanian leaders are aware of the importance of ICT to their nation’s economic competitiveness, recognizing that it will be a determinant of the country’s capacity to compete on a global scale.\textsuperscript{119} With this in mind the International Center for Technological Development and Open Source Software (Spanish acronym “CIDETYS”) was founded in early 2008 in order to promote the use of ICT and open source software in Panama.\textsuperscript{120} CIDETYS seeks to foster ICT cooperation between government, universities, companies, and nonprofits and has led initiatives to enhance technological literacy among students in addition to creating a “technology incubator” in which entrepreneurs gain access to technologies and expertise that helps their businesses grow.\textsuperscript{121} Panama’s overall focus in the field of ICT is to develop competencies for the service and export sectors, which naturally offer the greatest potential returns given the country’s current economic landscape.\textsuperscript{122} This narrow focus, however, threatens to exclude a large segment of the nation’s population from the social and economic opportunities that ICT can potentially produce – a fact which begs the question of whether information and communications technology can be promoted in a pro-poor manner.

\textsuperscript{117} Asia News Monitor 2008, 1-2  
\textsuperscript{118} Asia News Monitor 2008, 1  
\textsuperscript{119} Mora 2008, 30  
\textsuperscript{120} Mora 2008, 29  
\textsuperscript{121} Mora 2008, 29-30  
\textsuperscript{122} Mora 2008, 30
The link between telecommunications infrastructure and economic growth is well established and naturally follows from the fact that markets rely on information to function.\textsuperscript{123} Whether causality exists between the two, and in which direction, remains unclear.\textsuperscript{124} Indeed, telecommunications rollouts are often associated with an increase in inequality as those who already live in relatively developed areas and enjoy high incomes are also the first with access to new communications technology and infrastructure.\textsuperscript{125} This is certainly the case in Panama, where members of the top quintile in terms of income are 43 times more likely to own a private telephone than those in the bottom quintile.\textsuperscript{126} Ironically, it is in poor and rural areas that telecommunications rollout generally offers the highest returns, yet these same areas that are the most frequently bypassed in the construction of new ICT infrastructure.\textsuperscript{127} If Panamanian society is to benefit from new technologies and their spillover effects on the economy, this trend must be reversed.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{mobile_phone_subscriptions.png}
\caption{Mobile Phone Subscriptions per Hundred People, 1960-2010}
\end{figure}

Source: IFs Version 6.64

The empowerment potential of ICT is real but depends upon access.\textsuperscript{128} Internet connectivity in particular is a potent tool for improving education and creating opportunity, but several obstacles can restrict access for lower-income groups. For one, computers are more costly than phones and tend to require more peripheral equipment.\textsuperscript{129} Likewise they require a greater amount of training to operate, while program interfaces and websites have a tendency to be written in English or other dominant world languages that may not be spoken by indigenous groups.\textsuperscript{130} Lastly, internet connections require a reliable source of electric power that many poorer individuals lack.\textsuperscript{131} The result is that while mobile telephone subscriptions in Panama have increased dramatically in the course of the last decade,

\begin{thebibliography}{99}
\bibitem{Forestier} Forestier et al. 2002, 624-625
\bibitem{Forestier} Forestier et al. 2002, 627
\bibitem{Forestier} Forestier et al. 2002, 625
\bibitem{Forestier} Forestier et al. 2002, 631
\bibitem{Forestier} Forestier et al. 2002, 629-631
\bibitem{Hilbert} Hilbert 2011, 481
\bibitem{Forestier} Forestier et al. 2002, 641
\bibitem{ibid} ibid
\bibitem{ibid} ibid
\end{thebibliography}
reaching a summit of more than 180 subscriptions per hundred people by 2010, broadband internet connections have increased at a slower rate, reaching only 8 connections per hundred people in 2011. While internet usage as percentage of the population is significantly higher at just over 40% in 2011, this figure includes many individuals whose access to computers occurs outside the home and who cannot therefore be considered to be on an equal footing with wealthier individuals with home connections. All of the barriers to ICT access note above may be overcome if sufficient effort and resources are expended, but another perhaps more fundamental impediment is the fact that privately financed ICT infrastructure is often not profitable in the remote and impoverished regions that need it most. This issue is not limited to ICT infrastructure but rather affects all infrastructure development that is handled by the private sector. When government is lacking in resources and private companies are lacking in incentives, rural and economically marginal areas are likely to remain bereft of the key infrastructure and public services that improve livelihoods and allow for upward mobility. Creative initiatives may be needed in order to break this cycle, as in Chile’s successful scheme to auction government subsidies to the lowest bidder in exchange for providing telephone access to underserved, mostly rural communities. A similar program in Mexico bundled highly profitable road-building concessions with less lucrative projects to ensure that private companies served the needs of communities as well as those of shareholders. With sufficient ingenuity and political will, solutions can be found to close the digital divide. Doing so will be a boon not only for those with improved access to ICT infrastructure but to the Panamanian economy as a whole, which can only benefit from the greater equity, education, and innovation that information and communications technologies confer on society.

132 International Futures Version 6.64; World Bank via Google Public Data Explorer
133 World Bank via Google Public Data Explorer
134 Forestier et al. 2002, 642
135 Forestier et al. 2002, 642
136 Vazquez & Allen 2004, 747
Governance: The Linchpin of National Development

Human capital and infrastructure are vital components of sustainable economic growth, but without stable, effective governance they would not translate into equity and development. Governance is the glue that binds the political, economic, and social spheres of a nation and the mechanism by which leaders are able to steer the country towards greater prosperity. States lacking in effective governance are inefficient, unfocused, and unrepresentative of the desires and needs of their citizens, and thus fail to fulfill the obligations placed upon them by the social compact. No analysis of Panama’s present conditions and future prospects would therefore be complete without a discussion of its past governance successes and future governance challenges.

For the majority of the past 50 years, Panama was a state largely defined by poor governance. From Omar Torrijos’ ascent to power in 1968 to Manuel Noriega’s ouster at the hands of the United States in 1989, democracy in Panama was a sham, as characterized by Torrijo’s novel invocation of “democracy without elections”. Corruption and nepotism ran rampant during this era, while leading government officials engaged in narcotics trafficking and encouraged financial transactions of dubious legality. As a result of these negative conditions, growth rates for the country shrank to practically zero in the early 1970s, while at the same time huge deficits were run up by Torrijos’ populist social programs. In the same period foreign direct investment dropped precipitously. Under the Noriega regime, increasing domestic discontent led to a period of violent crackdowns and the ensuing chaos brought on a deep economic depression. In the aftermath of the US invasion of 1989, Panamanians faced $2 billion in damages, 50% unemployment, and enormous uncertainty about what the future would hold for their country.

Two decades later, Panama finds itself a stable representative democracy rated by Freedom House as a “free” country and ranked 55th globally by the Heritage Foundation for economic freedom. The nation’s turnaround was swift and deliberate, with free elections held in 1994 and the disbanding of the military occurring in the same year. Anti-corruption laws have been enacted and legal transparency improved. The vast majority of Panama’s citizens are supportive of democracy, and leaders have proven more responsive to their demands than any time previously in the nation’s history due to a “transactional political culture” in which the preferred method of problem-solving is compromise. Perhaps most fundamentally, “democratic breakdown” is no longer considered a serious threat to the

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137 Harding 2006, 71
138 Harding 2006, 73
139 Zimbalist & Weeks 1991, 36
140 Zimbalist & Weeks 1991, 41-42
141 Harding 2006, 106-108
142 Harding 2006, 116-120
143 Mainwaring & Scully 2008, 118; Heritage Foundation 2012, 331
144 Harding 2006, 121-124
145 Heritage Foundation 2012, 331
146 Pérez 2011, 141-159
state, which is now able to focus on growth and development rather than the viability of its political system.\textsuperscript{147}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{freedom_house_rating.png}
\caption{Freedom House Rating, 1960-2009}
\end{figure}

Source: IFs Version 6.64

However, problems remain. Press freedoms have been slipping in recent years and in September of 2011 President Ricardo Martinelli’s plan to hold a referendum on allowing presidents (including himself) to serve a second consecutive term sent shockwaves through the political sphere.\textsuperscript{148} The court system is inefficient and subject to political interference and the anti-corruption law has yet to be applied in a uniform and universal fashion.\textsuperscript{149} Moreover, state capacity remains weak as a result of the relatively small percentage of GDP that the Panamanian government collects in revenues – 14.6\% of GDP as compared to 25\% in the United States.\textsuperscript{150} It is difficult to maintain effective governance with such small revenues, and quality governance is in turn a key determinant of attracting foreign direct investment as well as fostering the development of industry domestically.\textsuperscript{151} The challenges of improving these flaws in the current governance system are not insurmountable, but leaders and citizens will need to make a focused and concerted effort in order to achieve success.

During Panama’s period of democratization in the early 1990s, the impending transfer of the Canal to Panamanian control in 2000 served as a powerful impetus for political elites to establish good governance.\textsuperscript{152} The current government’s ability to complete the ongoing Canal expansion project may well define perceptions of the Panamanian state’s effectiveness for years to come and therefore should spur a renewed effort to improve governance for the future.\textsuperscript{153} Without effective governance, many of the gains that Panama has already made in economic and human development stand to fall by the wayside, while new programs and initiatives designed to improve existing conditions will fail to meet

\begin{thebibliography}{99}
\bibitem{147} Mainwaring & Scully 2008, 115
\bibitem{148} Freedom House 2012
\bibitem{149} Heritage Foundation 2012, 331-332
\bibitem{150} Mainwaring & Scully 2008, 117-118
\bibitem{151} Globerman & Shapiro 2002, 1900
\bibitem{152} Pérez 2011, 7
\bibitem{153} Pérez 2011, 157
\end{thebibliography}
their full potential. It is therefore imperative that Panamanians continue pushing for the advance of democratization and state capacity as they drive the transition from dual economy to developed modern statehood.

**Smart Investments in Future Prosperity**

As they look ahead to the coming decades and plan for their nation’s future, Panama’s leaders should be mindful of the fundamental challenge of societal inequality that confronts them. This issue more than any other is a threat to Panama’s future stability and prosperity, as evidenced by the fact that inequality is the only indicator listed as critical on the International Futures “Performance and Risk Analysis” page for Panama.¹⁵⁴ State planners should likewise note the importance of investments in human capital, infrastructure, and governance for building sustainable economic growth and equitable national development. While there are many paths that might be selected, choosing a set of policies that combines increased educational funding, expanded ICT infrastructure, strengthened governance, and a renewed commitment to welfare transfers for the rural poor will offer a more balanced and equitable course of development for Panama’s mid-range future.

Forecasting a scenario that incorporates all of these policy initiatives, while simultaneously accounting for the impact of the Panama Canal expansion on the overall economic landscape of the country, requires the manipulation of several separate parameters within the International Futures model. Five of these parameters represent specific policy choices on the part of the government and the sixth is the result of an ongoing infrastructure project coming to completion in 2014. First, an increase in government spending of 15% on both primary and secondary education over the course of the next 15 years as a means of building human capital and expanding opportunities to currently marginalized areas of the country. Second, an increase of 20% in government welfare transfers to unskilled households over the course of the next 10 years as a continuation and expansion of the existing Red de Oportunidades conditional cash transfer program. Third, a goal of improving government effectiveness by 20% over the course of the next 10 years, to be accomplished through new anti-corruption measures, improved training of officials, and improved technical systems. Fourth, a supplementing of government revenues by increasing taxes on business by 20% over the next decade as a means of funding the first three initiatives. Fifth, an increase by one half in fixed and mobile broadband connectivity throughout the country over the course of 10 and 15 years respectively to reflect the increasing availability of technology and the government’s role in promoting access through public-private partnerships and other creative means such as those in Chile. Lastly, a 1% increase in multifactor productivity (MFP) beginning in 2014 to reflect the completion of the major Panama Canal infrastructure expansion project currently underway. Taken together, these interventions constitute a scenario in which a priority is placed upon human capital, poverty alleviation, and good governance as the engines of economic growth and development.

¹⁵⁴ International Futures Version 6.64
### Scenario Components

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<tr>
<th>Parameter</th>
<th>Description</th>
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<th>Time Frame</th>
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<td>15%</td>
<td>15 years</td>
</tr>
<tr>
<td>gdsedm (Sec)</td>
<td>Government expenditures on education by level, multiplier (Sec)</td>
<td>15%</td>
<td>15 years</td>
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<td>10 years</td>
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<td>Government effectiveness (quality) multiplier</td>
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<td>10 years</td>
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<td>Firm tax rate multiplier</td>
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<td>10 years</td>
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Comparing the results of this scenario with the business-as-usual case (essentially a continuation of existing policies) reveals its potential to improve development outcomes in Panama in the next four decades. From a broad economic standpoint, the eight interventions modeled have a positive impact on both GDP and GDP per capita, with the former increasing by $75.14 billion by 2050 and the latter by almost $18,000. The cumulative difference over the forty year period is more than $948 billion in GDP and $242,200 in GDP per capita, which represent a significant amount to be reinvested in the economy and improved quality of life for Panamanian citizens. In addition its output, the economy also stands to benefit in terms of productivity, with multifactor productivity growth rates declining more slowly under the intervention scenario than under the business-as-usual projection.

Source: IFs Version 6.64

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155 International Futures Version 6.64
156 International Futures Version 6.64
157 International Futures Version 6.64
Interestingly, the most influential factor by far in changing the outcomes of the two scenarios seems to be the final parameter’s 1% increase in multifactor productivity growth rate. If this variable is removed and the other parameters are run, the intervention scenario still outperforms that of business-as-usual, but the disparity is not nearly so stark. Rather than a GDP of $207.6 billion and GDP per capita of $49,000 in 2050, the non-MFP interventions produce a GDP of $146.95 billion and a GDP per capita of $35,000.\(^{158}\) While both intervention scenarios enhance economic performance in the coming decades, the one that includes a 1% MFP boost is more than twice as effective. This difference is explained by the fact that while the economy’s multifactor productivity declines gradually under both scenarios, the MFP addition that occurs in 2014 provides a greater cushion for the economy and produces a significant cumulative impact. Likewise, improvements in Gini Index measure of inequality are much greater under the MFP intervention than that of the other parameters without MFP.\(^{159}\) While on the one hand this might seem like cause for optimism about the Panamanian economy’s future prospects, the MFP intervention scenario’s results may also call into question the plausibility of such dramatic changes based on a single factor. Ultimately these results may serve more as an indication of the Panama Canal expansion’s limitations in fostering exceptional development gains over the short-term and a warning against the embrace of silver bullet solutions to complex economic problems.

\(^{158}\) International Futures Version 6.64
\(^{159}\) International Futures Version 6.64
In spite of the questions raised by such stark differences between the two forecasts, both scenarios support the conclusion that targeted government interventions in the areas of education, cash transfers, and infrastructure development, funded by increased tax revenues and facilitated by improved governance, offer a way forward for Panama in its continuing quest for national development. While the long-range effects of the Panama Canal’s expansion are more difficult to model, there seems to be little question that it will remain a central driver of the Panamanian economy for decades to come. Further research will be required to accurately determine the economic impacts of large infrastructure projects such as the Panama Canal expansion and create a more fine-tuned model of Panama’s potential futures, but as it stands this forecast constitutes an important first step. Policymakers and Panamanian citizens would be wise to heed its lessons as they work to shape their nation’s future.
Conclusion

Panama’s history over the past fifty years has been equal parts turmoil and progress. After emerging from decades of repression, corruption, and ultimately invasion, Panamanians have rebuilt their society as a democratic nation with a swiftly developing economy and prospects for continued prosperity. Yet this encouraging picture masks deep inequalities within the country, as many segments of the population are left behind socially, economically, and politically. Rural indigenous groups are the hardest hit, cut off from public services like health care and education as well as the national economy more generally. Modern Panama remains a dual economy in which urban centers are thriving and deeply imbedded in the international marketplace while rural peasants struggle to scrape out a living and provide for their families. This persistent inequality is Panama’s greatest challenge and one that must be surmounted for sustainable and ongoing development to be achieved.

The Panamanian government’s best prospects for building a prosperous, equitable, and sustainable future lies in making smart policy interventions that boost human capital, expand ICT infrastructure, and close the income gap between the nation’s richest and poorest citizens. These initiatives may take many forms and will require boldness and innovation to come to fruition. The Panama Canal will undoubtedly remain a critical national asset for the country, and one whose continued operation will require rigorous environmental management as well as an educated and healthy workforce. As Panama moves further along in its path towards national development, its leaders and citizens must remain cognizant of the challenges yet to be overcome and vigilant in their defense of democracy, inclusiveness, and effective governance. In doing so, they will reinforce the ever-strengthening foundations of a nation ready to reach new heights of prosperity and development as a vibrant global hub for the 21st century.
Bibliography


