Developing Countries and the Middle-Income Trap: Predetermined to Fall?

by

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Abstract

In the post-World War II era, economies have tended to experience stagnating or declining growth after reaching middle-income. This phenomenon is known as the middle-income trap. There has been a recent fascination with this subject because China is projected to reach the precipice of the trap in the next few years. But there is a lack of research available on this topic. In this thesis, I develop a systematic analysis of all the factors surrounding the middle-income trap. I identify many cases in which a low-income economy is able to sustain high growth, but only a handful of economies that have been able to transition from middle- to high- income. I also seek to explain what separates the economies that reach high-income from those that get stuck in the middle-income trap. I find evidence to suggest that social capital plays an important role during the middle-income transition. My analysis implies that policy-makers should be careful when implementing wealth redistribution and affirmative action programs during the transition. When implementing policies to sustain growth during the middle-income transition, governments should consider if the efficacy of these policies will be affected by such programs.

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Introduction

In recent decades, an overwhelming amount of development economics research has been devoted to explaining episodes of sustained high growth among developing nations. The Four Asian Tigers: Hong Kong, Singapore, South Korea and Taiwan astounded the world in the mid to late 20th century by maintaining extraordinarily high growth rates. Fascination with rapid economic growth continues today, as China develops at an unprecedented rate. Other large countries, like India and Brazil, are also entering into phases of rapid growth. Combined, these countries represent almost 40 percent of the global population.[1] Their rapid development will surely have an immense effect on the global economy as we know it. Many studies by government, business and academic leaders have strived to explain this first stage of development: from low- to middle-income.

The Asian Tigers progressed from middle-income, to become high-income advanced economies. But in the post-World War II era, we have also seen a number of economies stagnate or decline after a sustained high growth period, like Brazil in the 1980s. After economies graduate from low- to middle-income, their supply and demand realities begin to shift rapidly. They are no longer as competitive in low value-added industries, like manufacturing. Labor intensive jobs begin to move to lower-wage countries, and economic growth tends to stagnate or decline. This phenomenon is known as the middle-income trap.

The trap has two possible outcomes: in a success story, growth is sustained at a lower rate as the economy reaches high-income. In the alternative, growth stagnates, or even declines, and the economy remains stuck in the middle-income phase of development.

[1] World Bank. (2012). [Population]. World Development Indicators. Retrieved April 21, 2012 from http://databank.worldbank.org/.

In this thesis, I will attempt to explain what separates the successes from the failures. What characteristics or actions allow an economy to avert the trap? Very little research has been devoted to explaining the middle-income trap.[2] Existing studies suggest that governments can avert the trap by making certain policy changes to reflect the evolving realities of an economy in transition. In the literature review that follows, I will specify these policy decisions by referring to some relevant studies. After identifying the set of economies that sustained high growth in the post-World War II era, I will separate those that have successfully reached high-income, from those that stagnated or declined. By comparing these two sets, I will examine whether these policy decisions did, in fact, separate the successes from the failures.

I hypothesize that policy decisions alone will not sufficiently explain the divide between successes and failures. The analysis section of this thesis will explore whether a country can be predetermined to fall into the middle-income trap. I will consider whether the amount of social capital in a nation can play a role in predetermining its success or failure. If policy decisions are the key to averting the middle-income trap, can governments successfully enact the necessary policies if they lack the trust of their constituents? Will members the population be willing to make sacrifices in the name of future growth if they feel alienated and do not trust each other? The possibility that an economy may be predetermined to fall into the middle-income trap is one that has not been explicitly examined in any prior research.

[2] World Bank., & Commission on Growth and Development. (2008). *The growth report: Strategies for sustained growth and inclusive development.* Washington DC: World Bank on behalf of the Commission on Growth and Development. p 82.

Literature Review

This section compiles existing research to identify:

- Circumstances that allow an economy to transition from low- to middle-income
- Causes of the middle-income trap
- And, according to traditional reigning theory, how policy leaders can avert the trap

Reaching the Middle-Income Transition

The World Bank has identified five similarities among cases of sustained high growth in the post-World War II era. Each case fully exploited the world economy, maintained macroeconomic stability, sustained high investment and savings rates, allowed markets to allocate resources and had capable governments.[3]

Each case took advantage of the ever-expanding global economy by importing knowledge and exploiting demand. Some economies got up-to-speed with global technology and innovation through foreign direct investment. While others, like South Korea, imported and improved upon the technology domestically. Global demand provided an opportunity for these economies to specialize in areas of manufacturing where they held comparative advantages, and increase productivity to sell to the wider pool of global consumers.[4]

These economies avoided macroeconomic instability by keeping prices steady, even in the face of high inflation. South Korea and China both experienced bouts of high inflation. But investors maintained confidence because the governments curbed inflation and stabilized prices

[3] World Bank., & Commission on Growth and Development. p 21.
[4] World Bank., & Commission on Growth and Development. pp. 21-23.

in a timely manner. Governments also ensured that the economies were growing faster than the public debt.

Growth and capital accumulation remained the first priority for these economies, even when it meant curbing consumption. Some of this phenomenon can be explained naturally, since macroeconomic stability led to an environment more conducive to saving. And given underdeveloped financial systems, it was difficult to borrow. Some economies even used policies to encourage or force saving. For example, Singapore and Malaysia had mandatory savings programs.[5]

Regardless of the extent of government intervention, all high growth economies relied on decentralized markets. Resources were allocated by market forces. Governments allowed resource mobility and did not stop the structural transformation of these economies, even if it meant discontinuing policies that had worked in the past.

In all these cases, governments made a long-term commitment to supporting growth. They understood their role in the path toward high economic growth. Political leaders remained forward-looking in spite of party divides and election campaigning. They were able to convince citizens that delaying consumption today would allow for a better tomorrow.[6]

Another, more controversial, theory suggests that governments should take an active role in industrialization to prompt rapid growth. Some believe that this must be true since all the Asian tigers utilized this strategy—and they were obviously successful in transitioning to high-

[5] World Bank., & Commission on Growth and Development. p 24.
[6] World Bank., & Commission on Growth and Development. p 25-28.

income. Other studies have suggested that this type of government intervention actually slows potential growth.[7]

Causes of the Middle-Income Trap

The term middle-income trap describes the phenomenon when an economy reaches middle-income levels on a per capita basis, and is unable to transition to high-income. The transition from low- to middle-income, the circumstances of which were described in the previous section, leaves an economy dependent upon low value-added activities, like labor-based manufacturing. These activities expand as the underemployed rural population moves to urban areas as low-cost labor. Once the majority of the rural population has been employed and production continues to increase, wages begin to increase. The economy begins to lose its comparative advantage to lesser developed areas that can offer cheaper labor.[8]

Ideally, economies replace this loss by gaining a new competitive advantage in a higher value-added activity. The focus shifts to capital- and skill-intensive activities, and the service sector flourishes. In order to catch up with competitors, these economies must make advancements in human capital and technology.[9] Economies become trapped when they are unable to find a new competitive advantage in a higher value-added activity.

Existing Strategies for Averting the Trap

Past studies have attempted to analyze countries that have successfully reached high-income to provide generalized strategies for averting the middle-income trap. The World Bank

[7] Zagha, R., Nankani, G. T., & World Bank. (2005). *Economic growth in the 1990s: Learning from a decade of reform*. Washington, D.C: World Bank. p 85.
[8] Vandenberg, P. & Zhuang, J. (2011). *How can China avoid the middle-income trap?*. Presented Asian Development Bank. p 2.
[9] World Bank., & Commission on Growth and Development. p 83.

suggests that governments should be proactive in anticipating and planning for the middle-income transition. For example, the South Korean government anticipated this shift in its economy in the 1980s and 90s. It allowed foreign direct investment, joined the Organization for Economic Cooperation and Development (OECD) and privatized industries. The government also refrained from intervening as labor-intensive manufacturing moved to other regions. In order for an economy to experience a successful middle-income transition, the government must be willing to relinquish some policies that worked for the first stage of growth. Keeping outmoded policies in place will stunt the economy's natural restructuring.[10]

The chief economist at the Asian Development Bank identifies four similarities among countries that have fallen into the middle-income trap. He suggests they exhibit low investment ratios, slow manufacturing growth, limited industrial diversification and poor labor market conditions. His analysis of Indonesia suggests that governments must focus on a structural transformation in order to avert the trap. In order to reduce income inequality between a nation's rural and urban areas, governments should create more jobs in manufacturing. He also calls for investment in both "hard" and "soft" infrastructure to prepare the economy for the advanced stage of development.[11]

A study by the Vietnam Development Forum suggests that countries must adopt a "proactive industry policy" to avert the middle-income trap. This strategy is comprised of seven facets. Firstly, market forces must take control of development. Certain industries should be privatized. The government must remain strong, enacting policies that will further development and encourage private industry to strive for the national goal of economic growth. But it is crucial that the government times these policies carefully, waiting for the appropriate amount of

[10] World Bank., & Commission on Growth and Development. p 83-84.
[11] Rhee, C. S falling into the middle-income trap. *Jakarta Globe*.

global market pressure. Although it is important to import skills from abroad, the focus should be developing human capital domestically. The public and private sectors must mutually cooperate, so that a strong government presence will not distort market forces. And the government must be extremely informed before choosing to intervene in any industries.[12]

[12] Rhee, C.

Quantifying the Middle-Income Trap

This section thoroughly outlines my methodology for:

- Identifying cases of sustained high growth in the post-World War II era
- Classifying stages of income, and the middle-income transition period
- Separating these high-growth cases into sets that transitioned to high income, remain stuck in the trap, and those that are in the beginning stages of the middle-income transition

Identifying Sustained High Growth Cases

I utilized three different methods to identify cases of sustained high growth post-World War II:

- The method used in the World Bank's "Growth Report"
- A method that takes into account "catch-up growth"
- The method used in "Growth Accelerations," which identifies shorter-term growth spurts

"Growth Report" Classification

The "Growth Report" classifies cases of sustained high growth as economies that have maintained a growth rate of seven percent or higher over at least 25 years in the period from 1950 to 2006.[13] Based on this criterion, the report identified 13 instances of sustained high growth, listed in Table 1.[14]

[13] World Bank., & Commission on Growth and Development. p 20.
[14] World Bank., & Commission on Growth and Development. p 19.

Table 1: "Growth Report" Cases of Sustained High Growth			
Economy	**Period of High Growth**	**Income Level**	
		Before	**After**
Botswana	1960-2005	Low	Upper Middle
Brazil	1950-1980	Low	Upper Middle
China	1961-2005	Low	Lower Middle
Hong Kong, China	1960-1997	Upper Middle	High
Indonesia	1966-1997	Low	Lower Middle
Japan	1950-1983	Upper Middle	High
Republic of Korea	1960-2001	Lower Middle	High
Malaysia	1967-1997	Low	Upper Middle
Malta	1963-1994	Lower Middle	High
Oman	1960-1999	Lower Middle	High
Singapore	1967-2002	Lower Middle	High
Taiwan, China	1965-2002	Lower Middle	High
Thailand	1960-2007	Low	Lower Middle

Of the 13 cases of sustained high growth, seven have successfully transitioned to become high-income economies today.

Catch-up Growth Method

An alternate way to describe economic development is through consideration of catch-up growth. If the United States represents a growth frontier, as an advanced high-income economy, then developing countries must grow at a faster rate than the United States in order to eventually converge.

In this method, I identified cases that closed the gap between themselves and advanced economies through long-term sustained growth. This meant identifying developing economies that exceeded the United States' average per capita income growth over five periods: 1960-1969, 1970-1979, 1980-1989, 1990-1999 and 2000-2009.[15] In order to classify as sustained high

[15] World Bank. (2012). [GDP per capita, (constant 2000 US$)]. World Development Indicators. Retrieved April 2012 from http://databank.worldbank.org/.

growth, a case must have met this criterion for at least 3 consecutive decades. I identified 21 such cases listed in Table 2.[16]

Table 2: Catch-up Growth Method Cases of Sustained High Growth			
Economy	**Decades Exceeded USA Growth**	**Income Level**	
		Before	**After**
Belize	1960s-2000s	Lower Middle	Upper Middle
Bhutan	1980s-2000s	Low	Lower Middle
Botswana	1960s-2000s	Low	Upper Middle
Cape Verde	1980s-2000s	Low	Lower Middle
Chile	1980s-2000s	Upper Middle	Upper Middle
China	1960s-2000s	Low	Lower Middle
Republic of Congo	1960s-1980s	Lower Middle	Lower Middle
Egypt	1970s-2000s	Low	Lower Middle
Hong Kong, China	1960s-2000s	Upper Middle	High
India	1980s-2000s	Low	Lower Middle
Indonesia	1960s-2000s	Low	Lower Middle
Japan	1960s-1980s	Upper Middle	High
Republic of Korea	1960s-2000s	Lower Middle	High
Malaysia	1960s-2000s	Lower Middle	Upper Middle
Malta	1970s-2000s	Lower Middle	High
Mauritius	1970s-2000s	Lower Middle	Upper Middle
Portugal	1960s-1990s	Lower Middle	High
Singapore	1960s-2000s	Lower Middle	High
Sri Lanka	1960s-2000s	Low	Lower Middle
Thailand	1960s-2000s	Low	Upper Middle
Vietnam	1980s-2000s	Low	Lower Middle

Of the 21 identified cases, less than 30 percent are classified as high-income today. Almost half of these economies began their periods of high growth with low-income status, and all have at least reached lower middle-income status. In general, all of these economies have transitioned into a higher income class since the beginning of their growth periods, except Chile and the Republic of Congo.

[16] Taiwan was not included due to lack of data; Economies with populations less than 200,000 were excluded.

"Growth Acceleration" Method

In order for an economy to have achieved sustained high growth in the post-World War II period, it must have experienced at least one period of growth acceleration. Here a period of growth acceleration is defined as sustaining a per capita income growth rate of at least two percent for a minimum of eight consecutive years. Additionally, the post-acceleration growth rate must be at least three and a half percentage points.[17] This method yields a much larger set of 47 economies[18], listed in Table 3.

Table 3: Growth Accelerations

Economy	Latest Growth Acceleration	Income Level		
		Before	After	Today
Algeria	1975	Lower Middle	Lower Middle	Lower Middle
Argentina	1990	Upper Middle	High	High
Botswana	1969	Low	Lower Middle	Upper Middle
Brazil	1967	Lower Middle	Upper Middle	Upper Middle
Cameroon	1972	Low	Lower Middle	Lower Middle
Chile	1986	Upper Middle	Upper Middle	Upper Middle
China	1978	Low	Low	Lower Middle
Colombia	1967	Lower Middle	Lower Middle	Upper Middle
Republic of Congo	1969	Lower Middle	Lower Middle	Lower Middle
Costa Rica	1967	Lower Middle	Upper Middle	Upper Middle
Dominican Rep.	1969	Lower Middle	Lower Middle	Upper Middle
Ecuador	1970	Lower Middle	Lower Middle	Lower Middle
Egypt	1976	Lower Middle	Lower Middle	Lower Middle
Gabon	1969	Upper Middle	Upper Middle	Upper Middle
Ghana	1965	Low	Low	Low
Guinea-Bissau	1969	No Data	Low	Low
India	1982	Low	Low	Lower Middle
Indonesia	1967	Low	Low	Lower Middle
Japan	1958	Upper Middle	High	High
Jordan	1973	No Data	Lower Middle	Upper Middle
Kenya	1967	Low	Low	Low

[17] Hausmann, R., Pritchett, L., Rodrik, D., & National Bureau of Economic Research. (2004). *Growth accelerations*. Cambridge, Mass: National Bureau of Economic Research.
[18] I excluded economies that were not recently developed or developing.

Table 3: Growth Accelerations				
Economy	**Latest Growth Acceleration**	**Income Level**		
		Before	**After**	**Today**
Republic of Korea	1962	Lower Middle	Lower Middle	High
Lesotho	1971	Low	Low	Low
Malaysia	1988	Lower Middle	Upper Middle	Upper Middle
Mali	1972	Low	Low	Low
Mauritius	1971	No Data	Lower Middle	Upper Middle
Morocco	1958	No Data	Lower Middle	Lower Middle
Nicaragua	1960	Lower Middle	Lower Middle	Lower Middle
Nigeria	1967	Low	Low	Low
Pakistan	1962	Low	Low	Lower Middle
Panama	1959	No Data	Lower Middle	Upper Middle
Papua New Guinea	1987	Lower Middle	Lower Middle	Lower Middle
Paraguay	1974	Lower Middle	Lower Middle	Lower Middle
Peru	1959	No Data	Lower Middle	Upper Middle
Poland	1992	Upper Middle	Upper Middle	Upper Middle
Portugal	1985	Upper Middle	High	High
Romania	1979	No Data	Lower Middle	Upper Middle
Rwanda	1975	Low	Low	Low
Singapore	1969	Upper Middle	Upper Middle	High
Syrian Arab Republic	1969	Lower Middle	Lower Middle	Lower Middle
Taiwan, China	1961	No Data	Lower Middle	High
Thailand	1957	Low	Low	Upper Middle
Trinidad and Tobago	1975	Upper Middle	Upper Middle	High
Tunisia	1968	Lower Middle	Lower Middle	Upper Middle
Uganda	1977	Low	Low	Low
Uruguay	1974	Upper Middle	Upper Middle	High
Zimbabwe	1964	Low	Low	Low

Of cases where data was available, about 20 percent transitioned into the next stage of income by the end of the growth acceleration period. About 55 percent of these economies advanced to the next income level, from their growth acceleration periods to today. Only 18 percent of these cases can be classified as high-income today. 34 percent of these cases began

growth acceleration as low-income economies, and only 44 percent of these have at least transitioned to lower middle-income status.

Income Classifications

For my analysis, I deferred to the World Bank's income classification method. The World Bank separates economies into different income categories based on gross national income (GNI) per capita, with an Atlas conversion factor.[19] The Atlas factor is used to reduce the impact of exchange rate fluctuations for the purpose of comparing incomes across countries.[20] These income classifications are:[21]

- Low-Income: Less than $756
- Lower Middle-Income: Between $756 and $2,995
- Upper Middle-Income: Between $2,996 and $9,265
- High-Income: Greater than $9,265

Sets of Economies for Analysis

In the previous section, I identified a total of 55 developing or recently developed economies that have experienced sustained high growth, catch-up growth or at least one episode of growth acceleration. For the purposes of this thesis, I will analyze those economies that are currently classified as upper middle- or high-income. This criterion narrows the set of interest to

[19] Historical World Bank income classifications are only available from 1987 to present. Since I am analyzing data from as early as 1960, I sometimes used GDP per capita as a proxy for GNI with Atlas conversion factor.
[20] World Bank. (2012). *World Databank*. Retrieved Apr 28 2012 from http://data.worldbank.org/about/country-classifications.
[21] Amounts are in current USD.

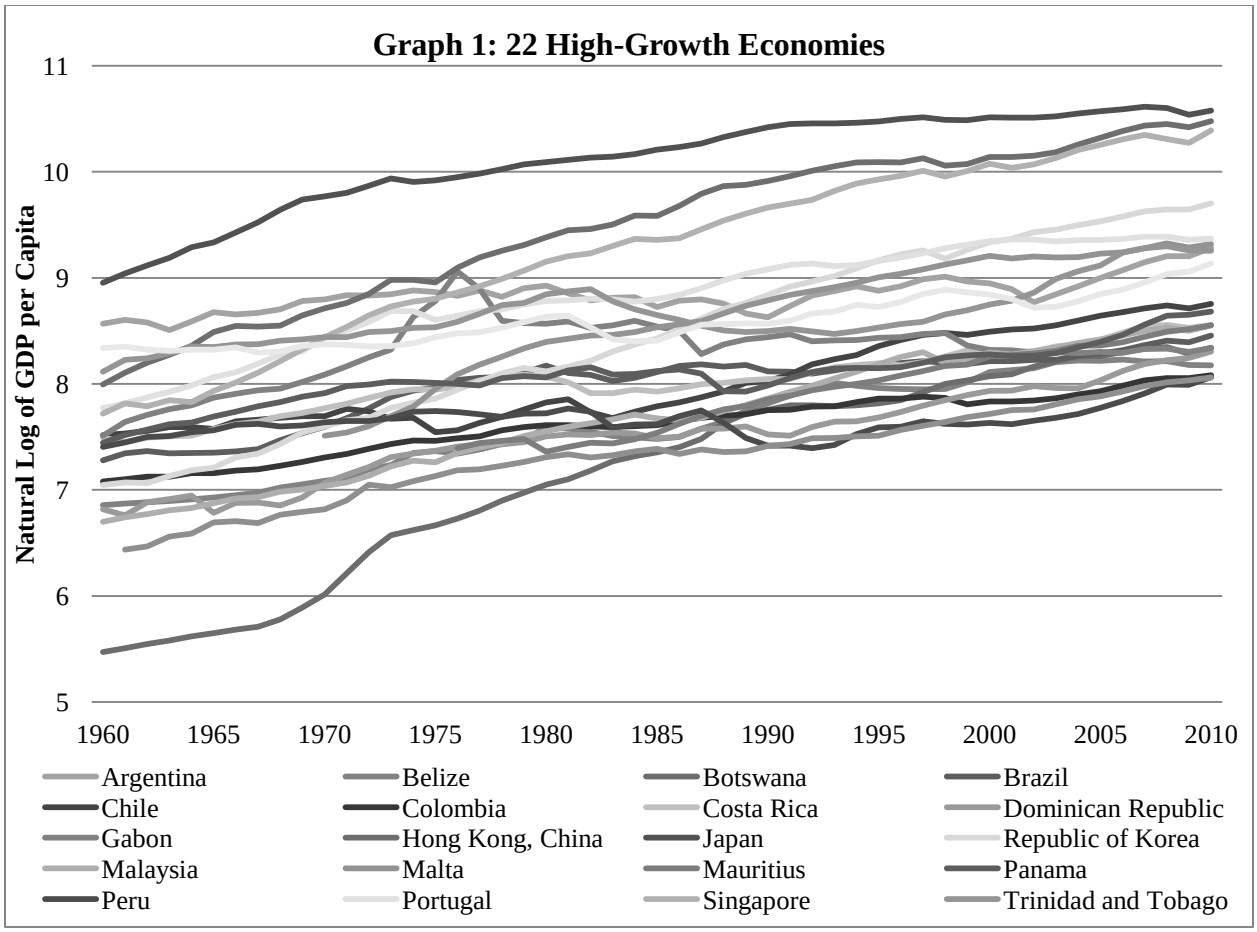
22 economies.[22] These 22 economies are listed in Table 4 below, categorized by their current income classification.

Table 4: Economies in or Past Middle-Income Transition		
Current Income Class	**Country**	**Current GDP per Capita[23]**
Upper Middle	Argentina	10,749
	Belize	3,549
	Botswana	4,188
	Brazil	4,699
	Chile	6,334
	Colombia	3,237
	Costa Rica	5,189
	Dominican Republic	4,049
	Gabon	4,176
	Malaysia	5,185
	Mauritius	5,175
	Panama	5,901
	Peru	3,180
	Tunisia	3,165
	Uruguay	9,284
High	Hong Kong, China	35,537
	Japan	39,309
	Republic of Korea	16,372
	Malta	11,148
	Portugal	11,745
	Singapore	32,538
	Trinidad and Tobago	10,477

Point of Divergence

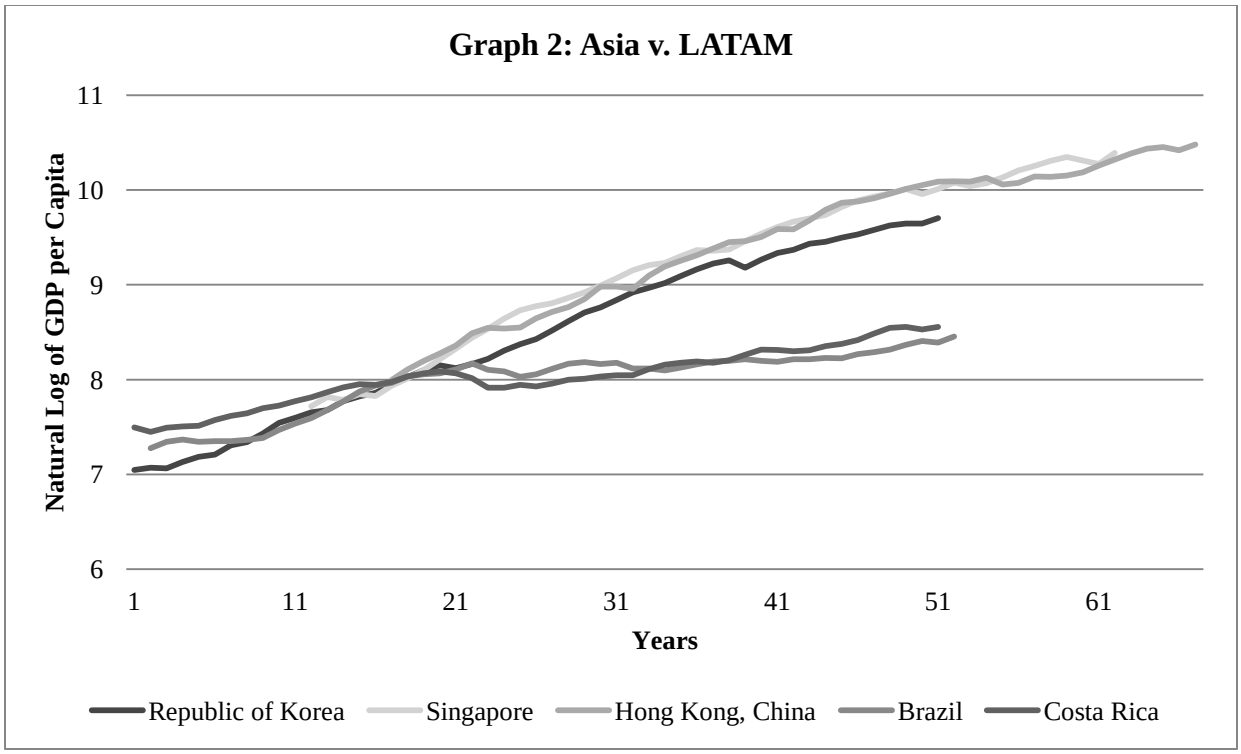
Graph 1 tracks the natural log of GDP per capita for each of the 22 economies from 1960 to 2010.

[22] Taiwan and Poland were excluded due to lack of data. Oman was excluded because it is oil-producing.
[23] Amounts are shown in constant 2000 USD.

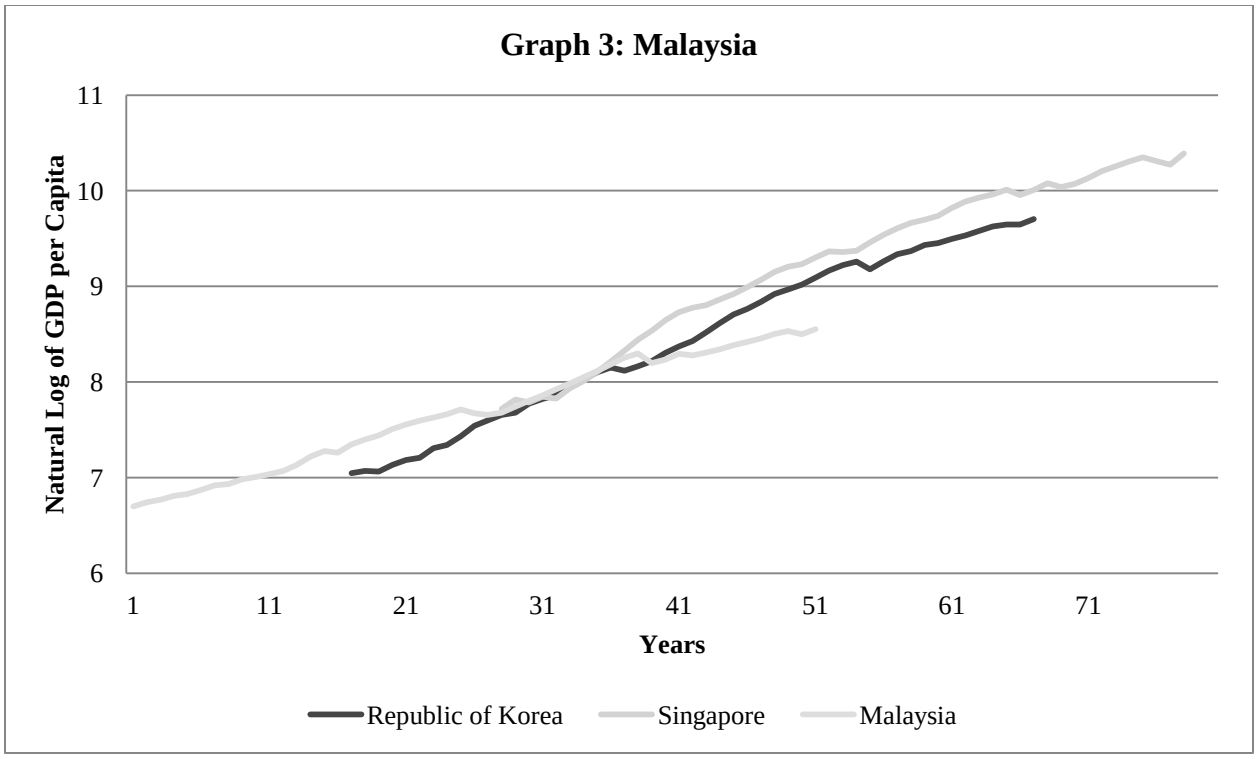


There seem to be no obvious patterns in GDP per capita growth when examining the 22 economies over time.

In Graphs 2 and 3, I have indexed the economies based on which year they reached the middle-income transition point. The graphs show all economies converging on this point, where they transitioned into upper middle-income. The years before this convergence illustrate the growth path of the 22 economies before they reached upper middle-income. The years after the convergence show the growth trajectories during and after the middle-income transition.



Graph 2 illustrates the striking difference in the growth trajectories of Asian countries, the Republic of Korea, Singapore and Hong Kong, that successfully reached high-income, and Latin American countries, Brazil and Costa Rica, which have been stuck the middle-income trap for decades. Before the middle-income transition, these countries experienced fairly uniform growth trajectories. These sets of economies begin to clearly diverge within the first five years of the middle-income transition.



Graph 3 compares Malaysia, an economy stuck in the middle-income trap, to two other Asian countries, the Republic of Korea and Singapore, which have successfully transitioned to high-income. Their growth paths also begin to diverge within the first five years of the middle-income transition, becoming even clearer after the first eight years.

The Middle-Income Transition Period

A recent study by the National Bureau of Economic Research suggests that countries reach the middle-income transition when their per capita income climbs to $17,000.[24] Evidence showed that economies tend to slow down by at least two percentage points when they reach the transition. [25]

[24] Amounts are shown in 2005 constant international prices.
[25] Eichengreen, B., Park, D., & Shin, K. (2011). *When Fast Growing Economies Slow Down: International Evidence and Implications for China*. Presented National Bureau of Economic Research, Cambridge http://www.nber.org/papers/w16919.

For my analysis, I will assume that the middle-income transition period begins when economies enter the upper middle-income status, as defined by the World Bank. This assumption acts as a close proxy to the NBER paper's assertion. Although the growth trajectory among economies transitioning from lower middle- to upper middle-income seems fairly uniform, this trajectory begins to diverge during the transition from upper-middle to high-income. This divergence separates the economies that have successfully averted the trap from those that remain trapped.

The 22 economies can be divided into four categories, based on their current orientation relative to the middle-income trap:

- *Economies that have successfully averted the trap* are those that have reached high-income status.
- Of the success stories, the economies that took 30 years or more to transition from upper middle- to high-income *were stuck in the trap*, but eventually transitioned out of it.
- Economies that have been classified as upper middle-income for 10 years or less are considered to be *at the beginning of transition*.
- And, the economies that have been classified as upper-middle income for more than 10 years are considered to be *stuck in the middle-income trap*. As seen in Graphs 2 and 3, the point of growth trajectory divergence becomes clear within the first decade of transition. So after 10 years, it is reasonable to determine whether an economy is stuck in the middle-income by comparing its growth trajectory to success cases.

The 22 economies-of-interest are separated into these four categories in Table 5.

Table 5: Economies Relative to Middle-Income Transition		
		Economy
Successfully Transitioned	**29 years or less**	Hong Kong, China Japan Republic of Korea Malta Singapore
	30 years or more	Portugal Trinidad and Tobago
Beginning of Transition Period		Colombia Dominican Republic Peru Tunisia
Stuck in Middle-Income Trap		Argentina Belize Botswana Brazil Chile Costa Rica Gabon Malaysia Mauritius Panama Uruguay

Seven of the 22 economies successfully transitioned to high-income. Of these seven, two took 30 years or more to complete the transition, so were stuck in the middle-income trap. Four of the 22 cases are still at the beginning of their middle-income transition periods. And the remaining 11 countries are currently stuck in the middle-income trap.

Table 6 illustrates how many years these economies spent in the middle-income transition between 1960 and 2010.

Table 6: Years in Middle-Income Transition between 1960 and 2010				
		Economy	**Years in Income Status to Date**	
			Upper Middle	**High**
Successfully Transitioned	**29 years or less**	Hong Kong, China	16	34
		Japan	3	48
		Republic of Korea	18	16
		Malta	23	12
		Singapore	14	31
	30 years or more	Portugal	30	16
		Trinidad and Tobago	46	5
Beginning of Transition Period		Colombia	4	
		Dominican Republic	6	
		Peru	1	
		Tunisia	3	
Stuck in Middle-Income Trap		Argentina	51	
		Belize	12	
		Botswana	12	
		Brazil	35	
		Chile	22	
		Costa Rica	34	
		Gabon	42	
		Malaysia	18	
		Mauritius	16	
		Panama	20	
		Uruguay	51	

Foundation of Hypothesis

Many of the studies I reviewed in the previous section overlapped in their policy prescriptions. Most agreed that in order for an economy to avert the middle-income trap:

- Industries should be privatized
- The market should be left to determine resource allocation
- The government must anticipate and plan for the transition
    - Be willing to let go of policies that are no longer appropriate for this stage of the economy
    - Support the development of human capital and technology in the private sphere
    - Be willing to carefully experiment with policy at the appropriate time

The existing analysis seems incomplete because many of the economies in question had to satisfy the majority of these requirements to achieve sustained high growth in the first place. These factors seem to match the requirements from the first part of the literature review, which described how economies positioned themselves to transition from low- to middle-income. The only difference in these two lists of requirements seems to be that governments should make privatization a priority during the middle-income transition. Existing studies suggest the main requirement for success in both transitions is a government that has placed economic growth as its first priority, sometimes sacrificing in the present to allow for a better tomorrow.

If a forward-looking, responsible government is the foremost necessity for escaping the middle-income trap, why can some sustained high growth economies complete the transition to high-income status, while others stagnate or decline?

Through the case study of Malaysia that follows, I will demonstrate the relevance for this question.

Case Study: Malaysia

Malaysia managed to sustain high growth for 30 years, allowing it to transition from low- to upper middle-income in less than a generation (see Table 1). Since 1960, the Malaysian government has remained ambitious in its pursuit of economic growth. The government took advantage of global opportunity with its policies. And Malaysia transitioned from a raw commodity exporter to a manufactured goods exporter, allowing it to move up the value chain—facilitating a transition from low- to middle-income.[26]

In Vision 2020, the Malaysian government outlined its goal for Malaysia to become a fully developed nation by the year 2020. In the mid-1990s, when the country's growth began to slow, the Malaysian government realized it was at the precipice of the middle-income transition. In its Seventh Plan, the government announced intentions to shift economic growth from input-driven, to productivity-driven. It planned to enact policies and initiatives that would allow Malaysia to become a knowledge-based economy, the feature that would allow it to avert the middle-income trap.[27]

The 1997 financial crisis slowed the government's plans, so it renewed its commitment to make Malaysia a knowledge-based economy in the Third Outline Perspective Plan, released in 2001. It seems the government understood all of the policy prescriptions necessary to avert the trap. It stated, "The knowledge-based economy provides a means to maintain sustainable rapid economic growth and competitiveness in the medium and long term…The private sector will

[26] Hazri, H. & Merchant-Vega, N. Malaysia's Middle-Income Trap. *In Asia*. [In the News].
[27] Malaysia. (2001). *The third outline perspective plan, 2001-2010*. Putrajaya, Malaysia: Economic Planning Unit, Prime Minister's Dept. p 120.

continue to be the engine of growth in the knowledge-based economy, while the public sector will provide the enabling and supporting environment."[28]

The government proposed the following plan to position Malaysia as a knowledge-based economy:[29]

- Review the education and training system
- Intensify research and development, to promote innovation
- Rapidly develop information infrastructure
- Make it easier to attain financing for knowledge-based ventures
- Foster knowledge about and innovation in agriculture, manufacturing and service sectors
- Incentivize the private sector to make this transition
- Transform how the public sector manages knowledge
- Foster ethical utilization of knowledge
- Decrease the "digital divide" that exists within the population

Based on prior research, it would seem that Malaysia was perfectly positioned to avert the middle-income trap. Its government was vigilant about the middle-income transition, and eager to foster this economic transformation. The government understood that Malaysia must become a knowledge-based economy in order to reach high-income. And it seemed to understand its role in this transition.

But Malaysia has remained in the upper middle-income classification for 18 years. Its average GDP per capita growth rate from 2001 to 2010 was less than three percent.[30] Why is Malaysia stuck in the middle-income trap?

[28] Malaysia. p 120.
[29] Malaysia. pp. 132-133.

Some research suggests that Malaysia's stunted growth is actually due to a social affirmative-action restructuring program, called the New Economic Policy (NEP).[31] This policy was announced in 1970 as a response to the race riots that resulted from a 1969 election. It listed two main goals: "poverty eradication regardless of race" and "restructuring society to eliminate the identification of race with economic function".[32] In reality, the policy was mostly used to benefit the Bumiputera, Malaysia's indigenous population. The government wanted to reduce "interethnic disparities", mostly between the Bumiputera and Chinese Malaysian groups.[33]

The government aimed to increase Bumiputera share of corporate wealth by creating quotas. The policy also created "ethnic quotas on bank loans, business licenses, government contracts, and employment".[34] Essentially, the NEP heavily favors the Bumiputera, even though they only represent about half of Malaysia's population.[35]

Wing Thye Woo presents six ways that the NEP is keeping Malaysia caught in the middle-income trap. Firstly, the NEP emphasizes quantity over quality. Quotas in education and employment do not allow for meritocracy, as a large portion of Malaysia's talent pool is restricted from innovating. The corporate ownership structure incentivizes Chinese Malaysian firms to leave Malaysia, hampering growth. The quotas on loans and contracts cause corruption in Malaysia courts. The policy focuses on redistributing income, rather than creating income. And, in reality, the policy has created more tension between ethnic groups, creating a cause for concern among investors.[36]

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[30] World Bank. (2012). [GDP per capita, (constant 2000 US$)].
[31] Hazri
[32] Jomo, K. S., & United Nations Research Institute for Social Development. (2004). *The new economic policy and interethnic relations in Malaysia*. Geneva: United Nations Research Institute for Social Development.
[33] Jomo.
[34] Woo, W. (2009). *Getting Malaysia Out of the Middle-Income Trap*. Presented University of California, Davis. p 5.
[35] CIA. (2012). The World Factbook: Ethnic Groups.
[36] Woo. pp. 4-5.

The Malaysian government seems to acknowledge the notion that unequal opportunity among its population has contributed to the economy's stunted growth. Two of the main ideas in the Tenth Malaysia Plan are leveraging Malaysia's diversity, and ensuring equal opportunities. The Report specifically acknowledges that the objectives of NEP are no longer prudent, and notes that new strategies "will need to be market friendly, merit based, transparent and needs based".[37]

In the remainder of this thesis, I will examine whether Malaysia's experience can be broadly generalized to explain why other economies remain stuck in the middle-income trap. Is inequality or lack of social capital in general to blame for trapping economies?

Considering Social Capital

Governments should certainly remain forward-looking while making policy decisions to allow for a successful middle-income transition. I intend to explore why some governments can successfully facilitate this transition, while others refuse to or are unable to make the necessary policy changes. *I hypothesize that an economy can be predetermined to fall into the middle-income trap by a lack of social capital, both amongst the population of the state and between the population and the government.*

The World Bank defines social capital as, "the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions."[38] The Bank even goes on to suggest that "social cohesion is critical for societies to prosper economically and for development to be sustainable."

[37] Malaysia. (2011). Tenth Malaysia plan, 2011-2015. Kuala Lumpur: Govt. Pr. p 19.
[38] World Bank. (n.d.). What is Social Capital. *The World Bank*. Retrieved Apr 30 2012 from http://go.worldbank.org/K4LUMW43B0.

Zak and Knack show that economic growth tends to be less in environments that lack trust. They posited that heterogeneity of a population could cause an increase in social distance between its members, leading to a lack of trust. They found that ethnic heterogeneity and income inequality reduce trust among a population.

The case study of Malaysia presents an example where ethnic fragmentation has led to a lack of social capital. In turn, this lack of social capital has inhibited Malaysia from reaching the next stage of development, keeping it in the middle-income trap. In the following section, I will analyze the ethnic makeup of other trapped economies. And I will consider whether ethnic fragmentation has inhibited growth in any of the other trapped economies. To account for cases where a state is fragmented not by ethnicity, but by religion, I will also analyze the religious makeup of the trapped economies.

Many of the Latin American trapped economies are almost ethnically homogenous, but have been experiencing extremely high income inequality. Income inequality can also cause a lack of social capital. So in the next section, I will analyze the income distributions of the 22 economies-of-interest.

Analyzing Social Capital

Many facets of a state's social environment shape its social capital. But within the scope of this thesis, I will consider the following factors:

- Ethnic and religious fragmentation
- Income distribution

My hypothesis would suggest that successfully-transitioned economies should be less ethnically and religiously fragmented, and have a more equal income distribution when compared to economies that have been stuck in the trap.

Ethnic and Religious Fragmentation

Data and Methodology

I will use two metrics to analyze ethnic fragmentation:[39]

- Percentage of the population represented by the largest ethnic group
- Number of ethnic groups represented[40]

And I will use two metrics to analyze religious fragmentation:[41]

- Percentage of the population represented by the largest religious group
- Number of major religious groups represented

[39] CIA.
[40] Ethnic groups that represent less than 0.1% of the population will not be included. If multiple ethnic groups represent less than 0.1% of the population, but represent at least 0.1% when combined, they will be combined and classified as "other".
[41] CIA. (2012). The World Factbook: Religions.

My analysis will be fairly qualitative because I faced severe data limitations. The sample size is small, so I will not ascertain statistical significance. And I was unable to obtain historical data, so I will be unable to analyze the difference in religious and ethnic fragmentation before, during and after the middle-income transition.

Analysis

The impact of ethnic and religious fragmentation will be analyzed separately across the economies that are in the middle-income transition, or have transitioned to high-income. Table 7 illustrates the ethnic fragmentation of these economies-of-interest.[42]

[42] Gabon was not included due to lack of data

Table 7: Ethnic Makeup			
Economy	**Largest Ethnic Group as Percentage of Population**	**Second Largest Ethnic Group as Percentage of Population**	**Number of Ethnic Groups**
Argentina	97.00%	3.00%	2
Belize	48.70%	24.90%	5
Botswana	79.00%	11.00%	4
Brazil	53.70%	38.50%	6
Chile	95.40%	4.00%	3
Colombia	58.00%	20.00%	6
Costa Rica	94.00%	3.00%	5
Dominican Republic	73.00%	16.00%	3
Hong Kong, China	95.00%	1.60%	4
Japan	98.50%	0.50%	4
Republic of Korea	100.00%	0.00%	1
Malaysia	50.40%	23.70%	5
Malta	100.00%	0.00%	1
Mauritius	68.00%	27.00%	4
Panama	70.00%	14.00%	4
Peru	45.00%	37.00%	4
Portugal	100.00%	0.00%	1
Singapore	76.80%	13.90%	4
Trinidad and Tobago	40.00%	37.50%	5
Tunisia	98.00%	1.00%	3
Uruguay	88.00%	8.00%	3

It is interesting to note that four out of the five countries that transitioned to high-income in less than 30 years, Hong Kong, Japan, the Republic of Korea and Malta are at least 95 percent ethnically homogenous. Singapore is an outlier with 76.8 percent of its population represented by its largest ethnic group.

Next I will compare these metrics across the three subsets of economies: those that transitioned in less than 30 years, those that transitioned in 30 years or more, and those that remain stuck in the middle-income trap. Table 8 shows the average percentage of the population represented by the largest ethnic group for each of these subsets.

Table 8: Average Percentage of the Population Represented by the Largest Ethnic Group		
Successfully Transitioned		**Stuck in Middle-Income Trap**[43]
Less than 30 Years	**30 Years or More**	
94.06%	70.00%	74.42%

On average, economies that transitioned to high-income in less than 30 years are much more ethnically homogenous than those that transitioned in 30 years or more and those that are stuck in the middle-income trap. This is consistent with my hypothesis.

Table 9 lists the average number of ethnic groups represented across the three subsets of economies.

Table 9: Average Number of Ethnic Groups		
Successfully Transitioned		**Stuck in Middle-Income Trap**[44]
Less than 30 Years	**30 Years or More**	
2.80	3.00	4.10

On average, economies that transitioned to high-income have fewer ethnic groups than those that are stuck in the middle-income trap. This is also consistent with my hypothesis.

Table 10 shows the religious breakdown of all 22 economies-of-interest.

[43] Gabon was not included due to lack of data.
[44] Gabon was not included due to lack of data.

Table 10: Religious Makeup					
Economy	**Largest Group as Percentage Population**	**Largest Religious Group**	**Second Largest Group as Percentage Population**	**Second Largest Religious Group**	**Number of Major Religions**
Argentina	92.00%	Roman Catholic	2.00%	Protestant	4
Belize	49.60%	Roman Catholic	25.50%	Protestant	5
Botswana	71.60%	Christian	20.60%	None	5
Brazil	73.60%	Roman Catholic	15.40%	Protestant	7
Chile	70.00%	Roman Catholic	15.10%	Evangelical	6
Colombia	90.00%	Roman Catholic	10.00%	Other	2
Costa Rica	76.30%	Roman Catholic	13.70%	Evangelical	6
Dominican Republic	95.00%	Roman Catholic	5.00%	Other	2
Gabon	65.00%	Christian	34.00%	Animist	3
Hong Kong, China	90.00%	Mixture of local religions	10.00%	Christian	2
Japan	83.90%	Shinto	71.40%	Buddhist	4
Republic of Korea	49.30%	None	26.30%	Christian	4
Malaysia	60.40%	Muslim	19.20%	Buddhist	7
Malta	98.00%	Roman Catholic	2.00%	Other	2
Mauritius	48.00%	Hindu	23.60%	Roman Catholic	7
Panama	85.00%	Roman Catholic	15.00%	Protestant	2
Peru	81.30%	Roman Catholic	12.50%	Evangelical	4
Portugal	84.50%	Roman Catholic	9.00%	Unknown	5
Singapore	42.50%	Buddhist	14.90%	Muslim	8
Trinidad and Tobago	26.00%	Roman Catholic	25.80%	Protestant	8
Tunisia	98.00%	Muslim	1.00%	Christian	3
Uruguay	47.10%	Roman Catholic	23.20%	Non-denominational	6

Once again, I will compare these metrics across the three subsets of economies. Table 11 shows the average percentage of the population represented by the largest major religious group for each of these subsets.

Table 11: Average Percentage of the Population Represented by the Largest Major Religious Group		
Successfully Transitioned		**Stuck in Middle-Income Trap**
Less than 30 Years	**30 Years or More**	
72.74%	52.25%	67.15%

On average, economies that transitioned to high-income in less than 30 years are slightly more religiously homogenous than economies that are stuck in the middle-income trap. The variance is minimal, and this is not consistent with my hypothesis. But the economies that transitioned in less than 30 years are significantly more religiously homogenous than those that took 30 years or more to transition. This is consistent with my hypothesis.

Table 12 lists the average number of major religious groups represented across the three subsets of economies.

Table 12: Average Number of Major Religious Groups		
Successfully Transitioned		**Stuck in Middle-Income Trap**
Less than 30 Years	**30 Years or More**	
4.00	6.50	5.27

On average, economies that successfully transitioned in less than 30 years have fewer major religious groups than those that that transitioned in 30 years or more, and those that are stuck in the middle-income trap. This is consistent with my hypothesis.

This analysis suggests that it is worth considering the role of ethnic and religious fragmentation in the middle-income trap.

Income Distribution

Data and Methodology

I will use the GINI index to analyze income distribution.[45] The GINI index measures difference between a perfectly equal income distribution and the actual income distribution. The index scale is between zero and 100. A lower GINI index implies income equality, while a higher index implies income inequality. In terms of my hypothesis, I would expect economies that have transitioned to high-income to have a more equal income distribution than those that are stuck in the middle-income trap.

Once again the sample size is small, so my analysis will be fairly qualitative. In this case I also faced data limitations because the GINI index is not recorded every year. This made it impossible to do a historical analysis of the GINI index, and how it changed before, during and after the middle-income transition.

Analysis

Table 13 lists the most recently calculated GINI index for each of the economies-of-interest.

[45] World Bank. (2012). [GINI index]. World Development Indicators. Retrieved April 21, 2012 from http://databank.worldbank.org/.

Table 13: Most Recently Recorded GINI Index			
Group		**Economy**	**Latest GINI Index**
Successfully Transitioned[46]	**18 years or less**	Hong Kong, China	43.44
		Japan	24.85
		Republic of Korea	31.59
		Singapore	42.48
	19 years or more	Portugal	38.45
		Trinidad and Tobago	40.27
Stuck in Middle-Income Trap[47]		Argentina	44.49
		Belize	53.13
		Botswana	60.96
		Brazil	54.69
		Chile	52.06
		Costa Rica	50.73
		Gabon	41.45
		Malaysia	46.21
		Panama	51.92
		Uruguay	45.32

Four of the six economies that transitioned to high-income, Japan, the Republic of Korea, Portugal and Trinidad and Tobago have lower GINI indexes than each of the economies stuck in the middle-income trap. Hong Kong and Singapore have high GINI indexes when compared within their own subset. But their indexes, of 43.44 and 42.48 respectively, are still relatively low when compared to the set of economies stuck in the middle-income trap.

Next I will compare the income inequality across all three subsets. Table 14 illustrates the average GINI index of each subset.

[46] Malta was not included due to lack of data.
[47] Mauritius was not included due to lack of data.

Table 14: Average Most Recently Recorded GINI Index		
Successfully Transitioned[48]		Stuck in Middle-Income Trap[49]
Less than 20 Years	20 Years or More	
35.59	39.36	50.10

On average, economies that transitioned to high-income have a more equal income distribution than those that are stuck in the middle-income trap. This is consistent with my hypothesis, and suggests that it is worth considering the impact of income distribution on the middle-income transition.

Causality

It is unclear whether income equality allows an economy to transition to high-income, or if income equality is an effect of reaching high-income. I was unable to perform a historical analysis because of data limitations.

Table 15 lists the most recently recorded GINI index for high-income economies. The set consists of all economies for which this data was available.

[48] Malta was not included due to lack of d
[49] Mauritius was not included due to lack of data.

Table 16: Most Recently Recorded GINI Index for High-Income Economies	
Economy	**GINI Index**
Australia	35.19
Austria	29.15
Belgium	32.97
Canada	32.56
Croatia	33.65
Czech Republic	25.82
Denmark	24.70
Estonia	36.00
Finland	26.88
France	32.74
Germany	28.31
Greece	34.27
Hungary	31.18
Ireland	34.28
Israel	39.20
Italy	36.03
Luxembourg	30.76
Netherlands	30.90
New Zealand	36.17
Norway	25.79
Poland	34.07
Qatar	41.10
Slovak Republic	26.00
Slovenia	31.15
Spain	34.66
Sweden	25.00
Switzerland	33.68
United Kingdom	35.97
United States	40.81

The average GINI index across these economies is relatively low at 32.38. This could suggest that income equality is a symptom of being high-income. But the GINI indexes of two of the economies that successfully transitioned to high-income, Hong Kong and Singapore, are 10 points higher than the average across high-income economies. And these economies have

been high-income for 34 and 31 years respectively. South Korea, an economy that has only been high-income for 16 years, has a GINI coefficient of 31.59, which is even lower than the average across high-income countries. This implies that income equality is not necessarily a symptom of high-income.

Conclusion

When analyzing cases of high growth, it becomes evident that the growth trajectories of transitioning economies tend to diverge when they reach upper-middle income. After about a decade in the middle-income transition, it becomes clear whether an economy is on the path to high-income, or stuck in the middle-income trap.

I identified 55 cases of high-growth in the post-World War II era using three different methods. This implies that many economies have experienced high-growth in the past 60 years. But very few have been able to transition from middle- to high-income. I sought to explain what separated those economies that reached high-income, from those that remained trapped in middle-income.

Existing research suggests that a low-income economy experiences high growth when its government is competent and committed to achieving that growth. This means that the government must understand its role in achieving growth, and make certain policy decisions to make that growth feasible. Research also suggests that this economy can then transition into high-income if the government remains forward-looking, understands the new role it must play during this second transition, and enacts appropriate policy decisions at the appropriate times.

If a government is competent enough to lead an economy to the middle-income transition by achieving high growth, why is this government then unable to avert the middle-income trap?

Malaysia managed to sustain high growth for three decades, going from low- to upper middle-income during this period. The government remained committed to bring Malaysia through the middle-income transition. It followed the policy prescriptions listed in existing research in order to make Malaysia a knowledge-based economy.

But in the case of Malaysia, ethnic fragmentation kept it caught in the middle-income trap. I aimed to examine whether the case of Malaysia could be generalized to explain why other economies were stuck in the middle-income trap. I hypothesized that an economy can be predetermined to fall into the middle-income trap by a lack of social capital, both amongst the population of the state and between the population and the government.

Research suggests that ethnic heterogeneity and income inequality can cause a lack of social capital. I analyzed the ethnic and religious fragmentation and income distribution of those economies that surpassed the middle-income trap and those that are stuck in the trap.

Although I was limited by a lack of data, my analysis suggests that ethnic and religious fragmentation and income distribution do have an effect on the middle-income transition.

Past research has already made the link between a lack of social capital and stunted economic growth. My analysis suggests that this relationship is particularly crucial during the middle-income transition period. It implies that policy-makers should be careful when implementing wealth redistribution and affirmative action programs during the transition. When implementing policies to sustain growth during the middle-income transition, governments should consider if the efficacy of these policies will be affected by such programs.

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