CONGO AND KOREA: A STUDY IN DIVERGENCE

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Abstract: The growth experiences of the Democratic Republic of the Congo and South Korea over the last several decades have been polar opposites. Despite this divergence in economic outcomes, the two countries shared some initial similarities including very low income, high population growth rates, harsh colonial regimes, military coups and Cold War politics. There were also important initial differences in population density, ethnolinguistic diversity, natural resource endowments and geography. Given its enormous mineral wealth, economic prospects initially appeared brighter in the Congo than in Korea to most contemporary observers. This paper explores the possible causes of divergences in the two countries by examining initial conditions, economic and demographic trends, geography and governance. Copyright © 2007 John Wiley & Sons, Ltd.

Keywords: economic growth; Asia; Africa; comparative study

1 INTRODUCTION

It is hard to find an example of economic divergence more extreme than that of the Democratic Republic of the Congo (formally Zaire) and South Korea. This divergence is illustrated in Figure 1. Both countries entered the second half of the 20th century very poor: GDP per capita PPP (chain-weighted 1996 dollars) in 1953 was $1328 in South Korea and $897 in the Democratic Republic of the Congo. Over the next several decades South Korea transformed itself from an impoverished agricultural economy into a globally competitive, modern industrial state. By 1997 income per capita had reached $14,786 in South Korea, an 11-fold increase from 1953. The country’s enormous economic progress was symbolised by its membership in the OECD in 1996. After some modest initial growth with income per capita peaking in 1970, the Democratic Republic of the Congo entered a long period of economic decline. By 1997 income per capita in the Democratic Republic of the Congo had fallen to $281, only one-third of its 1953 level. Average annual per capita growth rates
from 1953 to 1997 were 5.6 per cent for South Korea and −2.6 per cent for the Democratic Republic of the Congo, a difference of 8.2 per cent!

Yet in some ways, to an observer in the 1950s, future economic prospects may have looked more promising for the Democratic Republic of the Congo than for South Korea. Although the Democratic Republic of the Congo was still under Belgian rule (independence came in 1960), substantial progress had been made in basic infrastructure provision, health and education. The primary education system was relatively good compared to many underdeveloped countries of the day, although secondary and higher education was limited. Most promising of all perhaps, at the time, was the vast amount of natural resource wealth with which the country was endowed. According to Reader (1997, p 651), ‘No other colony in Africa could boast of such riches, so profitably exploited’. In 1959 the Democratic Republic of the Congo was producing 9 per cent of the world’s copper, 49 per cent of its cobalt and 69 per cent of its industrial diamonds. South Korea’s economic situation, on the other hand, seemed more daunting. Most of the major industries and natural resources of the Korean peninsula were located in North, with which economic ties were cut following the devastating Korean War. With a shattered infrastructure, a small industrial base, limited goods to trade on international markets and a hostile and well armed neighbour to the north, chances for economic progress must have seemed difficult to say the least. Referring to South Korea in the 1950s Belassa (1988, p 275) writes, ‘Cut off from industry in the North, saddled with abject poverty, it was considered a hopeless basket case in the writings of the time, including World Bank reports’.

The apparent economic advantages that the Democratic Republic of the Congo possessed over South Korea in the early years of the post-WWII era fit a broader pattern. In

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1In 1960 there were an estimated 30 African university graduates in the Congo and only 136 children completed secondary schooling that year (Meredith, 2005, p 101). This out of a population of some 15 million.
the 1950s other nations in sub-Saharan Africa had similar or better income per capita and infrastructure, and substantially higher natural resource endowments than future fast growing East Asian countries like South Korea and Taiwan. By examining some of the specifics of the Congolese and Korean economic experiences, which represent two extremes, some additional light may be shed on this broader question of why (relatively) resource poor East Asia has grown so much faster than (relatively) resource rich Africa.

Why, then, did South Korea grow so rapidly and the Democratic Republic of the Congo fall into economic decline? Do differences in investment rates or schooling explain most of the divergence? Was there a natural resource ‘curse’? How much can plausibly be attributed to differences in trade shares? Foreign aid? Disease environments? Perhaps most importantly, why did military coup and authoritarian regimes in South Korea not lead to destructive economic policies and poor economic governance as occurred in the Democratic Republic of the Congo? The evidence examined in this paper suggests that the Democratic Republic of the Congo’s historical and natural ‘endowments’ were significant obstacles to the emergence of effective economic governance, which was not the case for South Korea. And without effective economic governance, successful sustained economic development is not likely to occur.

The rest of the paper proceeds as follows. Section 2 highlights the initial similarities and differences between the two countries and examines economic and demographic trends. Section 3 explores two competing fundamental reasons for divergence: geography and governance. Section 4 concludes.

2 INITIAL CONDITIONS AND TRENDS

What makes any comparison of two countries with divergent economic outcomes potentially useful is the examination of similarities and differences in initial conditions and in subsequent experiences. Similarities can help rule out, and differences be a source of, possible causes of divergence. For the case of the Democratic Republic of the Congo (referred to hereafter as the Congo) and South Korea (referred to hereafter as Korea) there are compelling similarities and differences in the countries’ political history, initial income, geography and demographics. This section first highlights initial characteristics shared by both the Congo and Korea, then discusses some notable ways in which they differed.

2.1 Initial Similarities

2.1.1 Low income
As noted in the introduction, GDP per capita in both countries was very low in the 1950s. Out of the 110 countries with data reported in the Penn World Table for 1960, Korea ranked 72nd and the Congo ranked 90th in terms of GDP per capita, both being below countries such as Niger, Honduras, the Philippines, Senegal and Ecuador. A pure income poverty trap is an unlikely reason for the Congo to have grown so much slower than Korea. It is worthwhile to note that the Congo had a higher GDP per capita in 1960 than Botswana, China, India and Indonesia, countries which have since experienced sustained periods of high growth.
2.1.2 High population growth
Following the Korean War, annual population growth in Korea jumped to over 3 per cent from 1956 to 1960. The average population growth rate in Korea in the 1960’s was 2.5 per cent. This was only somewhat below an average population growth rate of 2.8 per cent in the Congo during the same time period. Although the population growth rate in Korea peaked in 1956 and subsequently showed a decreasing trend, the population growth rate remained above 2 per cent until 1971.

2.1.3 Harsh/exploitative colonial regimes
Korea was under Japanese occupation from 1910 (the date of formal annexation) to 1945. The Congo was under Belgian rule from 1885 to 1960, first as the private domain of King Leopold II, then after 1908 as a colony of the Belgian state. Although both the Japanese and the Belgians expanded basic infrastructure like railways and roads, the harsh nature of their rule is well documented. The Korean economy was managed in order to meet Japanese interests and needs. Korean culture and identity was continually suppressed by the Japanese, and the Korean people suffered greatly as a result of the demands placed on them by Japan’s wartime requirements. In the Congo, under King Leopold II, it is estimated that several million people died in the scramble to produce rubber to meet growing world demand (Meredith, 2005, p 96). Even when the Belgian government assumed control of the colony, obligatory labour requirements on the population continued and access to higher education was extremely limited. Of the two countries, Korea was able to overcome this legacy of exploitative colonial rule and embark on the path of sustained growth.

2.1.4 Military coups and authoritarian regimes
Both countries experienced military coups followed by repressive authoritarian regimes. South Korean armed forces staged a coup in 1961 which brought General Park Chung Hee to power. General Park’s regime established tight control over the country and sharply restricted civil liberties and political freedoms. Park remained in power until 1979 when he was assassinated. After Park’s death another military figure, General Chun, governed the country until 1987. In the Congo, Colonel Joseph Mobutu dissolved the civilian leadership of the country in 1965 and subsequently proclaimed himself President of the nation. Political freedoms in the Congo were repressed and a one party state emerged with Mobutu as the perpetual leader. A personality cult of ‘Mobutuism’ was established to promote his leadership. Mobutu was finally driven from power in 1997 and died the same year. Freedom House, which rates countries by political and civil liberties, describes both countries as not free in 1972, the first year for which ratings were reported.

2.1.5 Cold War politics and aid
The Cold War was a pivotal factor in both countries history. The Korean peninsula became a critical battleground in the struggle between East and West. South Korea was an important ally of the United States in East Asia and received considerable amounts of military and economic aid. Economic aid and political support was particularly crucial in
1950s as Korea recovered from the war, with aid as a percentage of Gross National Income still close to 10 per cent in the early 1960s. The Congo was also an important country in the United States’ global efforts against communism. The vast size, central location and natural resource wealth of the Congo made keeping the country in the Western camp a vital part of Washington’s strategy for fighting communist expansion in Africa. ‘Since Congo’s chaotic debut at independence in 1960, Washington had been determined above all to ensure that the country remain a pro-Western bulwark against Soviet ambitions in Africa’ (Meredith, 2005, p 294). The first Prime Minister of the country, Patrice Lumumba, made the mistake of appealing to the Soviet Union for aid in putting down the Katanga secession. With Western backing, Lumumba was deposed and later murdered. Starting in 1963 the Congo began to receive millions of dollars in U.S. military grants and loans. Mobutu was able to skillfully exploit his country’s Cold War prominence in extracting Western aid and support (see Meredith, 2005, p 307 and Wrong, 2001, pp. 195–215). As a percentage of Gross National Income (and in absolute terms), Korea initially received more aid than the Congo (see Figure 6). As Korea grew richer and the Congo poorer, aid became relatively more important in the Congo.

2.2 Initial Differences

2.2.1 Ethnolinguistic diversity

With respect to ethnic and linguistic diversity, Korea and the Congo represent two extremes, with Korea being one of the most homogenous of nations and the Congo being very diverse. A measure of ethnolinguistic fractionalisation (ELF) developed by sociologists that has been frequently used in the growth literature gives the probability that any two randomly selected individuals from a given country would belong to different ethnic and/or linguistic groups. The ELF score for Korea in 1961 was 0.003, for the Congo it was 0.902. This high ELF score for the Congo represents over 200 separate ethnic groups, with the four largest groups, the Mongo, Luba, Kongo and the Mangbetu-Azande accounting for slightly less than half of the population.

In and of itself ethnic and linguistic diversity does not probably have significant direct negative effects on economic growth. After all there are high income countries that are linguistically and ethnically diverse, for example Canada and Switzerland. But there is historical and statistical evidence that a high degree of diversity can indirectly affect growth through poor governance. Work by Easterly and Levine (1997) has shown that a high degree of ethnolinguistic diversity is correlated with poor economic outcomes. Greater diversity can lead to worse public policies in schooling, infrastructure investment and government deficits. As documented by Mauro (1995), a high ELF score also tends to be associated with more corruption. The mismanagement and corruption that has characterised the Congolese economy, as documented in Section 3, is certainly consistent with these findings. In 1959 in the run-up to independence most of the political parties that emerged in the Congo represented specific ethnic groups (Meredith, 2005, p 99). The years immediately following independence were marked by conflict over provincial secession and political disorder. Although Mobutu after coming to power tried to establish a sense of national identity focused on ‘Mobutuism’, ethnic differences and tensions remained, as was sadly seen in the conflict that erupted in the 1990s. Korea on the other hand has not had to deal with these sorts of problems, although the peninsula has been divided based on ideology rather than ethnicity.
An ethnically and linguistically divided country can thus be one obstacle, among many, to the establishment of good governance. That said, not all ethnically homogenous countries have good governance (North Korea for example), and as noted above diversity does not necessarily imply bad governance. A common characteristic of high income and relatively high diversity countries like Canada or the United States is the presence of an institutional apparatus, like the rule of law/equality before the law, that mitigates some of the potential detrimental effects of diversity. In a cross-country study, Easterly (2001) finds that a high ELF score is not associated with poor economic outcomes in countries with sufficiently good institutional quality. Greater diversity, however, can make it more difficult for these types of good institutions to emerge.3

2.2.2 Population density
Korea was, and still is, much more densely populated than the Congo. In 1961 the population density in Korea stood at 261 persons per sq km, with a total population of about 26 million. For the Congo the density was 7 persons per sq km with a total population of about 16 million. Population density can affect the availability of natural resources per person, especially in agricultural and mining based economies. Population density can affect the viability of local economies and networks. Population density can also affect the political development of the state. For example Herbst (2000) argues that the low population densities that have historically prevailed in much of Africa have impeded the development of European-style nation-states.4 An effective state that can establish law and order and provide needed public investment, something that has been chronically lacking in the Congo, is necessary for sustained development.

2.2.3 Natural resource endowments
By any measure, the Congo possesses much more natural wealth than Korea. As previously noted in the introduction, the Congo was a major supplier to world markets of several important minerals including diamonds, copper, zinc and cobalt. According to Meredith (2005, p 97), ‘The mineral riches of Katanga [province], when first discovered, were memorably described as “a veritable geological scandal”. In addition to these resources, the major river systems of the Congo present enormous potential for hydroelectric power production and provide for inland transportation. The Congo also has the ability to be a major producer of tropical agricultural products. South Korea on the other hand lacks major natural resource endowments. Most of the coal and iron ore on the peninsula is found in the North.

Natural resource abundance can be a blessing, but in many instances it turns out to be more of a curse. Sachs and Warner (1995) note that countries that have a high ratio of natural resource exports to GDP tend on average to grow slower than resource poor countries. This can occur because of the so-called ‘Dutch Disease’ where capital and labour tend to leave the tradable manufacturing sector, with the additional assumption of

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3In the case of Canada and the United States it could be argued that their ‘good’ institutional framework was established early on in the countries’ histories, when diversity was relatively low. Then, as they became more diverse over time, their public institutions and political traditions allowed them to avoid some of the poor economic and political outcomes that are potentially associated with diversity. Since the Congolese state began its political existence with a very high degree of ethnolinguistic diversity, this path of ‘institutions first, then diversity’ was not a possibility.

4Herbst (2000, pp. 146–147) writes that the Congo is ‘perhaps the classic case of an extremely challenging population distribution. ... It is no wonder that Kinshasa [the capital] has had such an extraordinarily difficult time consolidating power’.
some form of externalities associated with the manufacturing sector. The slow growth can also be a result of rent-seeking, corruption and possibly civil conflict that can occur as groups pursue the relatively easy to capture wealth associated with the natural resources. The latter reason seems historically to have been a major problem in the Congo. Mineral wealth, along with foreign aid, propped up a corrupt and economically ineffective regime and facilitated the rewarding of political loyalty. Moore (2001) argues persuasively along these lines that the governments of countries wealthy in natural resources do not face the same incentives as resource poor countries to create well functioning bureaucracies or taxable non-resource based markets. The revenue from natural resource exports can thus provide a ‘crutch’ to governments that hinders the emergence of a modern state apparatus focused on broad based economic development, as occurred in the Congo. The government(s) of Korea did not have the option of relying on natural resource wealth. Instead, with a hostile armed neighbour to the North and a rapidly developing Japan to the East providing incentives to develop, the government could only increase its revenues and regional power by broadly expanding the economic base. The interrelations between geographic and historical endowments and economic governance are addressed in more detail below.

2.2.4 Trade shares
What may be surprising is that international trade was initially relatively more important for the economy of the Congo than for Korea. This can be seen in Figure 4. The average trade share (imports + exports) of GDP from 1953–1959 was 33 per cent for the Congo and 12 per cent for Korea. For 1960–1969 the average trade share of GDP was 42 per cent for the Congo and 26 per cent for Korea. Only in the late 60s did the trade share for Korea surpass the Congo’s. Other African countries, in addition to the Congo, also had higher initial trade share of GDP than Korea. This reflects the importance of natural resource exports to many African economies and the lack of such a natural resource export base in Korea. When Korea’s trade share did begin to rise it was because of an expanding manufacturing base for the export market. An economy based on manufacturing exports can require a far different style of economic governance than one geared to exporting natural resources.

2.2.5 State formation and capacity
Korea has a long history with a sense of national identity, an organised state and a professional skilled bureaucracy. The existence of a centralised state on the Korean peninsula dates back to the first millennium BCE. The Joseon Dynasty, dating from 1392 to 1910 (the date of Japanese occupation), was among the longest lived political dynasties in all of East Asia. The state established by this dynasty was well organised and bureaucratic for its time, conducting extensive population and land censuses for military and tax purposes. In modern times when, in the Park government, a political regime arrived that was focused on economic growth, this history with the corresponding state institutions facilitated its ability to effectively implement a national development strategy.

On the other hand, the boundaries of the modern Congo state, like those of many other sub-Saharan African nations, are a more or less arbitrary creation of European colonial powers in the late 19th century and tend not to be based on natural ethnic or cultural divisions. That is not to say that there were no political entities in central Africa before the European colonisation. The kingdom of Kongo, of which the western portion of the current Democratic Republic of the Congo was a part, lasted almost 5 centuries from 1400 to the
latter part of the 19th century. From the 16th century to the 19th century there also existed the significant Luba empire. This political entity, roughly corresponding to the modern Congolese province of Katanga, was based on agriculture and metal working and had extensive trade networks. But the empire, lasting for about 3 centuries, lacked the historical depth of the Korean state and in any case the political traditions of the empire played little role in the administration of the new country. The capital Kinshasa was located far from the original territory of the empire and the Congolese ruler Mobutu was not of that area. The Katanga province actually tried, unsuccessfully, to secede from the Congo following independence. In addition, the Congo state of the 20th century, being much larger, was not geographically and ethnically similar to the original Luba state (or for that matter the earlier Kingdom of the Kongo). Contrast this with the two Korean states created after WWII which (together) more or less correspond geographically and ethnically with the historic Korean state.

Since the Belgian regime relied almost exclusively on Europeans for state administration, there was a critical lack of skilled personal in the Congo at independence,\(^5\) which was not the case in Korea following the end of the Japanese occupation. After independence, the ability of the Congolese central administration to govern was substantially reduced and a political breakdown quickly materialised.\(^6\) State capacity in the Congo is still very weak.

The ‘artificialness’ of the Congo state and the ‘naturalness’ of the Korean state contributed to the formation of bad governance in the former and relatively good governance in the latter. More generally, the ‘artificialness’ of a country tends to be associated with poor economic and political outcomes as has recently been shown empirically in work by Alesina\textit{ et al.} (2006). In that paper the authors construct two measures of how ‘artificial’ a country’s political boundaries are. The first is geographical and measures quantitatively how ‘straight’ a country’s borders are, the assumption being that borders that are mostly straight lines are more likely to have been set recently in a more or less arbitrary manner, whereas ‘squiggly’ borders that follow natural landmarks are more likely to arisen over a long historical process. The second is ethnicity based and captures whether ethnic groups are divided by political boundaries. They find using these measures that countries with relatively artificial borders tend to have lower current income per capita and lower institutional quality.

#### 2.2.6 Geography

There are at least three major differences in the geography, beyond natural resources, of the two countries: latitude, coastline and neighbouring countries. The Congo is located in the tropics (with the geographic centre of the country being on the equator) while Korea is in the northern temperate zone. Most of the world’s poorest nations tend to be in the tropics. The Congo has a very narrow stretch of coastline at the mouth of the Congo River measuring 37 km in length, which may places limits on easy access to the ocean for trade. Korea on the other hand, has a very long coastline, at 2413 km, with population and industry centres having relatively easy access to the sea. The neighbouring countries that

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\(^{5}\)In the top ranks of civil service no more than three Congolese out of an establishment of 1,400 held posts and two of those were recent appointments’ (Meredith, 2005, p 101).

\(^{6}\)According to Mokoli and Binswanger (1998, p 29), ‘The Belgians never really anticipated the end of their colonial rule and their centralised and coercive apparatus had prevented them from preparing the country for self-rule and a successful transition’. The authors go on to argue that ‘the transfer of formal political power from the Belgian colonisers to the newly independent republic induced a general and thorough weakening in the state’.
surround the Congo tend to be very poor, and competition between countries in the classic nation-state sense has been limited. Korea has existed in a more competitive international political environment and had a geographically close example of successful economic development in Japan. The role of these geographic differences in the comparative development of the two countries is discussed in more detail in Section 3.

In summary, initial similarities include low income per person, high population growth rates, harsh colonial experiences, military coups followed by repressive political regimes and the influence of Cold War politics and foreign aid. These factors, by themselves, are unlikely to be important sources of the economic divergence between the two countries. More likely sources may be found in the initial differences. These include ethnolinguistic diversity, population densities, natural resource endowments, state formation and capacity and geography.

2.3 Economic and Demographic Trends

Figures 1–6 document the major economic and demographic trends in the Congo and Korea from the early 1950s up to 1997 when the DRC descended into conflict and chaos. Table 1 gives averages by decade for GDP per capita growth, investment shares of GDP and population growth. Some of these trends have already been noted above. As can be clearly seen in Figure 1, the divergence in GDP per capita between the two countries began in earnest in the early 1960s, which corresponds politically with the Congo’s independence from Belgium and the ascension of General Park’s regime in Korea. Although Figure 1 presents data only until 1997, GDP per capita (PPP) data from the World Bank’s World Development Indicators show that the divergence in incomes continues.
Figure 2 presents data on investment shares from 1953 to 1997. Investment as a fraction of GDP has always been higher in Korea than in the Congo, although the difference was initially much smaller. The average investment share in the Congo from 1953 to 1997 was a very low 5.8 per cent, the corresponding number for Korea was nearly five times higher at

Figure 3. Population growth rate (Penn World Table)

Figure 4. Trade/GDP ratio (Penn World Table)
27.3 per cent. Clearly, this very large discrepancy in investment rates must play some role in the subsequent divergence in income. How much of income gap can be attributed to these differences in investment rates? Standard development accounting techniques would assign most of the current difference in income per capita between the two countries to

Figure 5. Government consumption/GDP ratio (Penn World Table)

Figure 6. Aid/GDP (World Development Indicators)
‘productivity’ differences, rather than differences in physical and human capital.\(^7\) This is consistent with the results of Devarajan et al. (2003), who argue that low investment rates are not the binding constraint on growth in sub-Saharan Africa since the measured productivity of investment tends to be so low.

Figure 3 shows that although Korea had a higher population growth rate than the Congo for most of the 1950s, the Korean population growth rate shows a clear decreasing trend while the Congo’s has a slight upward trend. The relationship between population and income is complex, with causality flowing in both directions. Higher average income can decrease fertility rates as the opportunity cost of raising children increases and as human capital investment becomes more important. Higher population levels may decrease income per capita if there are important natural resource constraints. Higher population levels could also potentially increase income if economies of scale are present. Higher population growth rates may decrease income by diluting the amount of capital per worker.

Do higher population growth rates in the Congo (at least since the early 60s) contribute significantly to the differing growth performances? Considered alone, population growth rates are not likely to be a major reason for the income divergence. Korea was able to achieve high income growth in the 60s despite having an average population growth rate only slightly below the Congo’s. Also, since population density in the Congo was (and is) so much lower than in Korea, the relevance of natural resource constraints driving down income in the Congo but not in Korea is questionable. A capital dilution effect is a possibility, but the cross-country growth regression literature offers little support. For example Levine and Renelt (1992) state that, ‘one should not feel very comfortable assuming that population growth...

\(^7\)Of course, since productivity is calculated as a residual (the part of income difference that cannot be attributed to physical or human capital), development accounting gives no insight into why productivity is so low in the Congo. It could be that existing capital is not used efficiently and/or the data is overstating how much effective capital actually exists in the country, as is more generally argued by Pritchett (2000).

Table 1. Growth rates by decade

<table>
<thead>
<tr>
<th>Years</th>
<th>Average GDP/cap PPP growth (%)</th>
<th>Average investment share of GDP (%)</th>
<th>Average population growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>53–97</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Congo, Dem. Rep.</td>
<td>−2.6</td>
<td>5.8</td>
<td>2.9</td>
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<tr>
<td>South Korea</td>
<td>5.6</td>
<td>27.3</td>
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<td>53–59</td>
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<tr>
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<td>1.3</td>
<td>8.9</td>
<td>2.3</td>
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<tr>
<td>South Korea</td>
<td>1.7</td>
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<tr>
<td>60–69</td>
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<td></td>
<td></td>
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<tr>
<td>Congo, Dem. Rep.</td>
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<td>4.0</td>
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</tr>
<tr>
<td>South Korea</td>
<td>6.1</td>
<td>19.2</td>
<td>2.5</td>
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<td>70–79</td>
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<tr>
<td>Congo, Dem. Rep.</td>
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<td>6.3</td>
<td>2.9</td>
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<tr>
<td>South Korea</td>
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<td>80–89</td>
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<tr>
<td>South Korea</td>
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<td>90–97</td>
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<tr>
<td>South Korea</td>
<td>5.8</td>
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<td>1.0</td>
</tr>
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Source: Penn World Table 6.1.
growth is negatively associated with per capita growth’. Sala-i-Martin et al. (2004), in a Bayesian averaging of classical regressions, find that a country’s 1960–1990 population growth rate is weakly or not at all related to income growth.

As previously noted, international trade was initially more important for the Congo than for Korea. This reflected the importance of primary goods exports (minerals) in the Congolese economy. Beginning in the 1960s, exports rose rapidly for Korea and international trade became relatively more important. According to the widely used Sachs–Warner measure of openness, both the Congo and Korea were closed economies during the 50s and 60s, with Korea being classified as open beginning in 1968 and the Congo remaining closed. Differences in trade shares are not large enough to explain much of the gap in GDP per capita between the two countries. According to the Frankel and Romer (1999) gravity model of trade, a 1 per cent increase in the trade share is associated with, on average, a 2 per cent increase in income per person. The average trade share from 1990 to 1997 for the Congo was 44 per cent, for Korea it was 60 per cent. Using the Frankel/Romer estimate, if the Congo’s trade share were instead 60 per cent during this time period, income per person would have been about 28 per cent higher, or an increase of a little over $100. This clearly would be an insignificant portion of the income gap with Korea. Of course, this in no way diminishes the importance of an export-oriented development strategy to Korea’s growth. It just illustrates the limitations of using the trade share of GDP to capture how a country does or does not take advantage of the opportunities associated with integration into world markets. Korea has taken advantage of these opportunities, especially with regards to manufactured goods, while the Congo largely has not.

Government consumption, that is spending not associated with public investment and schooling, can in some cases represent resources that are misused or wasted and that are financed by distorting taxation. It is one of the variables that Sala-i-Martin et al. (2004) find to be significantly, and negatively, related to growth. As can be seen from Figure 5, government consumption, as a share of GDP, has been consistently and substantially higher in the Congo than in Korea. As will be discussed in Section 3, this is consistent with the corruption and mismanagement of the economy that has characterised much of the politics in the Congo.

Finally, as Figure 6 documents, foreign aid as a per cent of Gross National Income was higher in Korea than in the Congo until the early 1970s. Can this plausibly help explain the countries’ divergent economic growth records? The answer is most likely no. First, as Easterly et al. (2004) and Rajan and Subramanian (2005) document, it is difficult to find cross-country evidence that aid systematically raises growth rates. Second, it is evident that the substantial amount of aid that the Congo has received over the years has not led to sustained improvements in the country’s economic infrastructure. Thus while aid may have helped keep the Korean economy from collapsing after the Korean War, the corruption surrounding Mobutu’s regime makes it difficult to argue that more aid would have enabled the Congo to avoid economic decline.

3 FUNDAMENTALS: GEOGRAPHY AND GOVERNANCE

3.1 Geography

As noted in Subsection 2.2, the Congo and Korea differ in natural resource endowments, latitude, coastlines and their general political ‘neighbourhood’. The potentially negative
effects of natural resource endowments on governance and economic outcomes were discussed above. The possible adverse effects of being located in the tropics on economic development have received increasing attention from economists in recent years. Bloom and Sachs (1998) and Sachs (2001) represent two important papers in this area. Challenges facing tropical countries can include a poor health/disease environment, poor soil quality and lack of ecology-specific agricultural technology. In particular, diseases can have potentially large impacts on income both by directly reducing the labour productivity of the sick and indirectly by shortening life expectancy. Weil (2007) estimates that about 23 per cent of the cross-country variation in the log of income per worker can be attributed to variation in health. A paper by Lorentzen et al. (2005) argues that a high adult mortality rate can reduce investment and growth by shortening time horizons. In their regressions they find that the high adult mortality rates that exist in Africa explain almost all of Africa’s slow growth. Consider the case of malaria, a warm climate disease that some researchers have argued has a large negative impact on income in tropical countries. The World Health Organization estimates that there were over 4 million cases of malaria in 2003 in the Congo, out of a population of about 53 million. The number of cases was up sharply from 141 000 reported in 1998. The rise in malaria cases corresponds with the civil war that erupted in the Congo in the late 1990s which displaced millions of people and increased the risk of exposure. Malaria used to be endemic in Korea but was successfully eradicated in the 1960s. Malaria returned to Korea in the early 1990s, but only a little over 1000 cases were reported in 2003. How much of an impact has malaria had on the countries’ divergence? First, it is important to note that the divergence took place before the recent upsurge in cases in the Congo. In fact, using data from the year 1988 for the Congo, McCarthy et al. (2000) estimate an increase of only 0.08 per cent in GDP per capita growth if malaria was completely eliminated. It is also important to recognise that the Korean government in the 1960s made a commitment to implement a national malaria control programme, which required a modicum of effective governance, something that has been lacking in the Congo. This is not to say that malaria is not a current problem in the Congo, simply that malaria is unlikely to be a major source of the Congo’s persistently slow growth.

The Congo’s small length of coastline may impact income if it hinders substantially international trade. As discussed in Subsection 2.3, the trade share of GDP was initially higher in the Congo than in Korea, suggesting that the access to international markets does not present an insurmountable obstacle for the Congo. To take advantage, like Korea did, of the opportunities that can come from export-led growth depends on having a stable macroeconomic framework, a relatively corruption-free trade regime and above all, as Westphal (1990, p 56) writes of Korea, ‘an atmosphere—rare in the Third World—in which businessmen could be certain that the economic system would respond to and adequately reward their efforts aimed at expanding and upgrading exports’. The corruption and poor governance that has plagued the Congo since independence would have had to been improved dramatically before an attempt could be made to pursue an export-led growth strategy.

Korea’s political ‘neighbourhood’ was an important contributor to its development. Korea benefited substantially from the example of Japan’s successful development. Japan’s model of (initially) low wage, manufacturing-led export growth was extremely influential in the formation of Korea’s growth strategy. For whatever reason, perhaps cultural or political, successful models of development seem to have the most impact on neighbouring countries. In the case of Korea, ‘South Korean business people, in particular,
adopted Japanese idioms and mannerisms. Japanese corporate cultural practices could be found in various South Korean settings, ...It is not surprising that Park, despite his anti-Japanese rhetoric, eventually sought the help for the South Korean economy in the industrial might of Japan’ (Lie, 1998, p 59). The 1965 Normalization Treaty with Japan opened the door to the flow of investment, managerial practice and technology diffusion, facilitated by links developed during the colonial period.8 ‘The incorporation of South Korea into the Japanese economic zone marked the turn of its fortunes’ (Lie, 1998, p 60). In addition to providing the ‘road to follow’, industrialising Japan also provided some of the motivation to develop. In the initial post-war era, according to Lie (1998, p 58), ‘despite expressions of Korean superiority, most South Koreans recognised that Japan was years, perhaps decades, ahead of South Korea. The sense of inferiority, combined with anticolonial, nationalist sentiments, undoubtedly motivated many South Koreans to do all they could to catch up’. This sense of falling behind potential competitors can be a powerful motivating force for countries to pursue growth enhancing policies.9 According to Benjamin (1982, p 1112) ‘South Korea made this choice [export-led growth] because it was overshadowed by its giant neighbour Japan, desperate for foreign earnings, and weak economically in the face of North Korea—a determined enemy’. The Congo, on the other hand, had no immediate neighbouring examples of successful development and also did not have the same international competitive pressures to ‘keep up’ with rival countries.

An interesting and provocative paper by Spolaore and Wacziarg (2006) can be interpreted as capturing some of these ‘neighbourhood’ effects. Population based genetic studies have allowed measures of ‘genetic distance’ between populations to be calculated, where the ‘distance’ corresponds biologically to how long the respective populations have been separated. Spolaore and Wacziarg (2006) find, in pairwise comparisons, that this measure of genetic distance is positively and significantly correlated with differences in income per capita, both current and historical. This remains true even if a wide array of relevant geographical and historical factors are controlled for. That is two countries that are genetically close to one another are, on average, more likely to have similar income per capita than countries that are genetically distant. The authors interpret these results as evidence for some sort of cultural barriers to the diffusion of development, although it could be capturing political competition effects as well. Countries that are close together in a cultural sense tend to develop together (over the long run). One implication of this research, that seems to fit historical patterns, is that a ‘leader’ country begins to develop first, then development spreads to its (geographical and cultural) ‘neighbours’. For example the Industrial Revolution that began in Great Britain, initially spread first to other Western European countries and the so-called neo-Europes like the United States. In the second half of the 19th century Japan, as a ‘leader’ country in its geographical and cultural neighbourhood, began to industrialise. Eventually, in the second half of the 20th century, this development began to spread to other areas of East Asia. Sub-Saharan Africa has

8‘The founder of Samsung, Lee Byung-chull, for example, was educated in Japan and made frequent and extended visits to Japan in order to see his mistress in Tokyo, to sustain business contacts and to observe the Japanese economy firsthand. As the president of Samsung’s trading company told an American reporter in the late 1980’s: “When [Lee] returned from Japan, he would gather directors of relevant companies and tell them about his ideas”, including Japanese management techniques’. (Lie, 1998, p 61).
9See Chaudhry and Garner (2006) for historical examples and a model of competition between states creating incentives for pursuing growth enhancing policies.
lacked an industrialising ‘leader’ like an England or a Japan that could have been a catalyst for regional development.10

Of the three aspects of geography examined in this section, the case is strongest for these ‘neighbourhood’ effects being an important factor in the economic divergence of the two nations. The Congo began its political existence in a less conducive regional environment for sustained development than did Korea.

3.2 Governance

Politically, both countries went through decades with limited political participation and sharply curtailed civil liberties. As is well known, the correlation between democracy and short or medium run economic growth is weak. Clearly, Korea was able to grow rapidly despite the repressive political climate that existed until free parliamentary elections were held in 1988. What is more important for economic growth (at least in the medium run, if not the long run) is proper economic governance which can include the rule of law, limited corruption and contract enforcement. In the simplest terms, economic growth requires that proper incentives exist to invest in physical capital, human capital and technology and to use these resources efficiently. This usually means that it must be profitable to do so for individuals and businesses. When the most profitable activities are rent-seeking through governmental power, then much of the talent and resources of the country are employed to this end. In this regard Korea and the Congo represent an interesting contrast in economic governance.

In Korea in the 1950s, under President Syngman Ree, corruption was rampant. The bureaucracy became a vehicle for rewarding political allies so much so that, ‘the patronage system under his control became a defining characteristic of the 1950’s South Korean State’ (Lie, 1998, p 31). What makes this type of corruption so damaging to an economy is that it makes rent-seeking the most profitable activity, rather than productivity enhancing investment. ‘As Chi-Young Pak wrote: ‘Politics and government were the main source of personal advancement in and disadvantage in [South] Korea. Therefore if one loses politics, one loses all’’ (Lie, 1998, p 31). In light of this, it is perhaps no surprise that economic growth during the 50s was tepid (see Table 1).

When Park assumed power in 1961 there was an effort made to curtail this culture of corruption. As Haggard (1989, p 138) notes, ‘Park was able to cut through the rent-seeking that had characterised the presidency of his predecessor, Syngman Ree’. This effort is illustrated by two examples, the first described by Westphal (1990, p 58), ‘Prior to reforms, rent-seeking in relation to import licensing and tariff exemptions had provided a major source of revenue for businessmen and government officials alike. To redirect the focus of their activities, President Park had a number of pre-eminent businessmen arrested shortly after he came to power and then threatened them with the confiscation of their ill-gotten wealth. They were restored to grace only after effectively agreeing to employ their wealth

10For political and cultural reasons historically white minority dominated South Africa perhaps could not have played this role even though it developed a broad industrial base. With the end of apartheid, however, this may change. Botswana, which is often pointed out as an example African economic success, has had one of the world’s fastest growing economies over the last several decades and also has had reasonably good governance. But since the base of Botswana’s prosperity has been diamond mining rather than manufacturing, and because of its relatively small population and economy, it could not have played the role of a regional industrialising ‘leader’ like Japan arguably did for East Asia.
in socially productive development activities’. The other example comes from the bureaucracy where, in an attempt to rein in corruption, nearly one-sixth of civil servants were fired under the new regime (Lie, 1998, p 53). Economic incentives were shifted away from rent-seeking and towards economically productive activities like investment and export growth through various subsidies and trade policies. The combination of a leadership that was committed to real outward-oriented development and favourable external economic circumstances helped Korea achieve high sustained growth.

The Congo’s record of economic governance is more troubling. Corruption and economic mismanagement has been rampant. A substantial portion of the country’s revenues were routinely channelled toward Mobutu and a relatively small group of political elites.11 Mobutu built lavish palaces throughout the Congo, including a $100 million complex in the rain forest at Gbadolite. He also amassed a sizeable collection of foreign properties, including a villa on the French Riviera, a farm in a Swiss village, an estate in Portugal, a sprawling apartment in Paris and numerous buildings in Brussels. His personal fortune in the 1980s was estimated to be $5 billion (Meredith, 2005, p 299), this in a country with average per capita income (PPP) of less than $700 at the time.

But, as Wrong (2001, p 101) writes, ‘no one could accuse Mobutu of hogging it all to himself’. Mobutu used his control over the country’s finances to ensure the loyalty of the political class. High administrative posts represented an opportunity to enrich oneself. Government supplied cars and furniture, control over job allocations and government contracts, outsized travel allowances and bank loans that were never repaid were all part of the perks of office. For example according to Meredith (2005, p 301), ‘it was estimated that two-thirds of the country’s 400 000 civil servants who were paid regularly each month were in fact fictitious; their wages were merely pocketed by senior officials’. Constant reshuffling of these posts was a way to ensure that all the relevant players had their chance at personal enrichment. This use of the government as a way to accumulate wealth is consistent with the high ratio of government consumption to GDP documented in Figure 5, with average government consumption representing between one-quarter and one-third of national income. A particularly large windfall to the political class, with disastrous results for the economy, occurred with ‘Zaireanisation’ in 1973. Foreign owned businesses, worth an estimated $1 billion, were expropriated and redistributed to Mobutu and the elite.12 Due to a lack of experience and skills in operating these businesses, productivity plummeted and foreign investment naturally evaporated. In an attempt to salvage the deteriorating economic situation Mobutu tried to invite foreign investors back to the country in 1977, but the damage had already been done.

The prevailing atmosphere of corruption is perhaps best captured in the words of Mobutu himself, speaking at a party congress in 1977:

‘In a word, everything is for sale, anything can be bought in our country. And in this traffic, he who holds the slightest cover of public authority uses it illegally to acquire money, goods, prestige, or to avoid all kinds of obligations. Even worse, the citizen who simply asks for his most legitimate rights to be respected is subjected to an

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11 During the 1970s it was estimated that one-third of total national revenues was in one way or another at his [Mobutu’s] disposal . . . “The budget and the mining revenues are really the private pool of funds for Mobutu and his friends”, an official from the International Monetary Fund observed” (Meredith, 2005, p 298).

12 One Congolese woman, who was 17 at the time, remembers having a surreal conversation with the father of a schoolfriend, who was helping to distribute the seized businesses: “Would you like a shop?” he asked me. When I said “no”, he insisted. “Go on, take one, I’ll give you the staff.” When I still said I wasn’t interested, he said: “Look, if you don’t want it for yourself, you can always give it to your mother”” (Wrong, 2001, p 97).
invisible tax, which is then openly pocketed by officials. Thus the right to be heard by a public servant, to register one’s children in school or to obtain report cards at the end of the year, to obtain medical care, a seat on an airplane, an import license, a diploma—and I could go on—are all subject to this tax’ (quoted in Meredith, 2005, p 302).

Mobutu, of course, did not try to stop this corruption in any meaningful way; it was the means by which he controlled the country and kept the elites content. Instead, his advice to the party delegates was, ‘If you steal, do not steal too much at a time’. This was followed by an ineffectual, ‘You may be arrested’ (Meredith, 2005, p 303).

Large scale development projects pursued by the regime also floundered. A $250 million steel mill that opened in 1975 was designed to produce 250,000 tons a year. At its peak it produced only a tenth of that amount of low grade steel, at eight times the world price. In 1986 it shut down. A $1 billion hydroelectric project ended up producing only at about 20 per cent of capacity (Meredith, 2005, pp. 300–301).

Under pressure from foreign creditors, a former German bank official, Erwin Blumenthal, was put in charge of the Congo’s central bank in 1978. After witnessing the pervasive political corruption and the mismanagement of the Congo’s finances, Blumenthal wrote the following:

‘The corruptive system in Zaire, with all its wicked and ugly manifestations, its mismanagement and fraud will destroy all endeavors of international institutions, of friendly governments, and of the commercial banks towards recovery and rehabilitation of Zaire’s economy... There was, and still is, one sole obstacle that negates all prospects: the corruption of the team in power’ (quoted in Meredith, 2005, p 305).

Unlike Korea, economic incentives in the Congo were not shifted towards productivity enhancing investments. Instead rent-seeking through government power remained the primary means of accumulating wealth.

4 CONCLUSION

What were the principal causes of the economic divergence of the Congo and Korea? Population growth rates, trade shares, initial income, foreign aid, military coups and authoritarian rule in and of themselves are unlikely to be plausible candidates. Although investment in capital was significantly greater in Korea than in the Congo, investment alone probably cannot account for the bulk of the current income gap. In spite the Congo’s abundant natural resources, physical and human capital have very low productivity. There is little reason to believe that higher investment rates would have led to significantly greater income growth in the Congo given the pervasiveness of corruption and economic mismanagement.

At the more fundamental level, is the Congo poorer than Korea because of the Congo’s geographic characteristics or because of differences in governance? Evidence for any significant direct effects of geography on the income divergence is limited. Any direct geographical disadvantages of the Congo relative to Korea, like tropical climate or limited coastline, must be weighed against the Congo’s large natural resource endowments.
Perhaps the strongest case for direct effects can be made for the nearby presence of Japan to Korea as a partner for trade and investment. Geography can also affect income indirectly through the quality of governance. Here the evidence is stronger. The presence of significant natural resource endowments in the Congo provided easily appropriated rents to the government that contributed to poor governance and waste. The lack of such resources gave Korea's government added incentive to pursue broad based economic development. Unlike Korea, the Congo faced limited political and economic competition from neighbouring states to spur development and lacked the close development model that Korea had in Japan. These 'neighbourhood' effects played an important role in the economic divergence of the two countries. It is important to keep in mind, however, that it was the combination of a political regime that was committed to development, namely the Park regime, and the opportunity presented by the growing Japanese economy that contributed to the emergence of sustained growth in Korea. Without appropriate governance in Korea it would have been difficult to take advantage of any 'neighbourhood' associated opportunities. After all, under the corrupt and ineffective Ree regime in the 1950s, Korea's economic performance was not outstanding.

Governance thus played a critical role in both the growth success of Korea and the growth failure of the Congo. Proper economic governance enabled Korea to take advantage of the opportunities associated with international trade, achieve high levels of productive investment and employ the country's resources efficiently. Poor economic governance and corruption caused the Congo to squander the advantages of its natural resource wealth and severely curtailed domestic and foreign investment.

But governance is itself endogenous (or ideally should be) and needs to be explained. As Moore (2001) argues, understanding why political underdevelopment, or the lack of good governance, occurs is an essential step to understanding economic underdevelopment. This paradigm is especially useful for coming to grips with the divergent experiences of the Congo and Korea. In hindsight, the supposed initial advantages that the Congo had over Korea were more than outweighed by geographical and historical disadvantages. Some of these factors, or 'initial conditions', that contributed to the emergence of good governance in Korea and bad governance in the Congo include the degree of ELF, natural resource endowments, the 'artificialness' of the nation, the history of state rule and the geographical (and perhaps cultural) 'neighbourhood' in which the country exists. The formation of good economic institutions in a country can be hindered by a high degree of fractionalisation, the presence of easily exploitable natural resource wealth, an artificial state lacking significant political and historical foundations and the lack of a regional industrialising 'leader'. By all of these measures the Congo faced a far more difficult environment for the creation of good economic institutions and successful development than Korea did. This also holds true for a comparison of many other African nations vis-à-vis the successful developers of East Asia.

None of the above should be taken to suggest that these 'initial conditions' are inevitably destiny or that individual leaders do not matter. More attention, however, can be placed on why many states have had such difficulty in establishing good economic governance. A successful development strategy for a country like the Democratic Republic of the Congo cannot be simply 'do what South Korea (or China, Taiwan, etc.) did'. A successful development strategy must also address the historical and geographical obstacles that have made it very difficult for a development oriented state to come into being. Whether these obstacles can soon be overcome, or whether the Congo must continue to go through a prolonged stage of struggle and state consolidation, like other more 'naturally' formed...
nations have in the past, remains to be seen. More research certainly needs to be done on how, in practice, good governance can emerge from a legacy of state failure and corruption.

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REFERENCES


