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Growing Apart

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Growing Apart

by Thorvaldur Gylfason*

It is obviously true that there are many countries, not essentially different either in the degree of security which they afford to property, or in the moral and religious instruction received by the people, which yet, with nearly equal natural capabilities, make a very different progress in wealth.[1]

Thomas Malthus

I. Introduction

There was a time, not long ago, when most economists regarded economic growth in the long run as being essentially immune to all but technological progress. Those were the days when technology had captured people's hearts and minds perhaps to a greater extent than ever before or since. The Soviets had launched the first manned sputnik into space. Around the world, Yury Gagarin was a household name and no-one had yet heard of Neil Armstrong. Nikita Khrushchev was thus apparently not in much doubt when, in the late 1950s, he declared: "We will bury you." Privately, however, Khrushchev was slightly more circumspect; in 1961, he told an American visitor that "we are perfectly willing to leave it to history as to which system is the better for mankind and which will survive."[2] Meanwhile, in America, the most influential introductory economics textbook featured a diagram extrapolating

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[1] Thomas Malthus, *Essay on Population*, 5th ed., London, 1817, p. 310.

[2] See Armand Hammer, *Hammer: Witness to History*, Simon and Schuster, New York, 1987.

Soviet and American economic growth into the future, showing how real gross national product (GNP) in the Soviet Union seemed quite capable of overtaking that of the United States by the year 2005, and perhaps even before 1990.[3] Ragnar Frisch went even further, in 1961: "The vast majority of Western economists lives and theorizes with blinders on ... The blinders will fall off towards the end of the 1960s (perhaps earlier). At that time industrial production in the Soviet Union will exceed that of the United States. *However, the day of reckoning will then come too late.*"[4] Throughout the 1970s and 1980s, the writings of many other good and influential economists reflected a similar mood.

Not only did many good economists not fully understand the destructive force of communism until the writing was on the wall in the 1990s,[5] but most also tended to overlook the effects of gross economic mismanagement in many parts of the third world on the growth potential of poor countries by failing to build their experience into mainstream models of economic growth. The adverse effects of political disturbances, like those of natural calamities, were acknowledged, but the effects of bad management were not. After all, the main focus of macroeconomic policy in those years was stabilization and redistribution, and neither inflation nor inequality in the distribution of income and wealth were considered harmful to growth. By the same token, the effects of *good* management on long-run growth were also, for the most part, underrated or overlooked. Worse than that, economic development and economic growth were generally viewed and taught as two separate subjects at universities, development typically as a soft-core, quasi-historical subject

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[3] See Paul Samuelson, *Economics*, 8th ed., McGraw-Hill, New York, 1970, Fig. 42-1, p. 831.

[4] Ragnar Frisch, "Foreword" to Leif Johansen, *Norge og fellesmarkedet* (*Norway and the Common Market*), Oslo, 1961, p. 9. Author's translation from Norwegian. The italics are in the original.

[5] But some did, and said so. Friedrich von Hayek, in his *Road to Serfdom* (1944), proved prophetic. For another example, Jan Winiecki published several articles in the 1980s explaining why the socialist system was bound to collapse before long. See Jan Winiecki "Are Soviet-Type Economies Entering an Era of Long-Term Decline?", *Soviet Studies*, Vol. 38, No. 3, 1986, pp. 325-348, and "Soviet-Type Economies: Considerations for the Future," *Soviet Studies*, Vol. 38, No. 4, 1986, pp. 543-561.

confined to poor countries, and growth as a hard-core, high-tech branch of macroeconomics reserved for rich countries. Growth theorists, including Robert Solow, felt that development economics showed some signs of "being ripe for text book treatment,"[6] meaning that it needed to be mathematized.

In retrospect, this separation between economic development and growth seems odd. After all, 200 years earlier Adam Smith had explained, in his *Wealth of Nations* (1776), how good governance coupled with free trade, private enterprise, and private property was a source of wealth and, thereby, also of economic growth. In Smith's own words:

> Nations tolerably well advanced as to skill, dexterity, and judgment, in the application of labour, have followed very different plans in the general conduct or direction of it; and those plans have not all been equally favourable to the greatness of its produce.[7]

Smith was a growth theorist, more so than he has commonly been given credit for until quite recently. His main message in *The Wealth of Nations* was, in short, that division of labor enhances efficiency (that is, the amount of output that is produced by given inputs), but is limited by the extent of the market.[8] It follows immediately that, for example, international trade, by enlarging the market, increases efficiency and hence also wealth and, thereby, increases economic growth at least as long as it takes for the efficiency gains so induced to be reaped in full. Presumably, Smith would not have had much difficulty in sizing up the long-run growth effects of the inward-looking economic policies pursued by, say, Kwame Nkrumah in Ghana after independence in 1958 or, to take an extreme example, by Enver Hoxha in

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[6] The phrase is from Solow, who used it in a different context. See W. W. Rostow, *Theories of Economic Growth from David Hume to the Present*, Oxford University Press, Oxford and New York, 1990, p. 373.
[7] Adam Smith, *An Inquiry Into the Nature and Causes of the Wealth of Nations*, Liberty Classics, Indianapolis, 1976, Vol. I, p. 11.
[8] To wit, Chapter III of Book I of *The Wealth of Nations* is entitled "That the Division of Labour is limited by the Extent of the Market."

Albania, where foreign trade and foreign investment were virtually forbidden by the constitution, or of similar tendencies in smaller doses elsewhere, for that matter. After all, it was Adam Smith who first traced the economic stagnation and subsequent decline of China to its policy of virtual isolation and self-sufficiency after 1433, a policy that was not abandoned until 1978. In his words:

> China seems long to have been stationary, and had probably long ago acquired that full complement of riches which is consistent with the nature of its laws and institutions. But this complement may be much inferior to what, with other laws and institutions, the nature of its soil, climate, and situation might admit of. A country which neglects or despises foreign commerce, and which admits the vessels of foreign nations into one or two of its ports only, cannot transact the same quantity of business which it might do with different laws and institutions.[9]

But now is another age. Now that communism has been relegated to the scrap-heap of history, where it belongs, leaving the mixed market economy as the only game in town, it suddenly seems almost obvious that economic systems, policies, and institutions must have played an important role all along in determining the long-run economic performance of countries– that is, in explaining why growth rates differ. How else could we explain the vastly different experience of Finland and Estonia, West and East Germany, Austria and Czechoslovakia, South and North Korea, and Taiwan and China?– adjacent countries that started out in roughly comparable economic circumstances and had much else in common, e.g., similar natural resources and culture, and even shared languages, but adopted diametrically different economic systems and developed so very differently over the past half-century. How else?

The contrast between each of the above-mentioned pairs of countries was not clear to all for a long while, as was mentioned before. In the 1960s, for example, South and North Korea registered comparable economic growth. In both places, national economic output increased rapidly, not least through investment. The difference was that, unlike the profit-oriented investments undertaken in the South, the ideologically motivated investment plans in North Korea did not result in the build-up of productive capital. So, even if large investment expenditures stimulated output for a time from the demand side, the accumulation of unproductive capital was bound ultimately to drag the economy down from the supply side. And now the contrast is clear: for the reason just mentioned and many others, monolithic, all-encompassing communism based on central planning and public ownership of almost all productive resources turned out to be a colossal failure wherever it was put into practice, no less so in Asia than in Europe. In 1998, for example, Russia's GNP per capita was less than one-twelfth of that of the United States.[10] There is no need now to dwell on such comparisons, not any more. There is no exception to this pattern; specifically, China and Vietnam are not, for their rapid growth since 1978 and 1987 can be traced in large measure to their deliberate, albeit selective, departures from planning.[11]

There are, however, other pairs or clusters of countries whose economic development strategies over the past generation or so are, perhaps, more interesting for comparison, because the border lines between their economic systems as such are not as clearly drawn. If the economic systems adopted by

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[9] Adam Smith, *op. cit.*, Vol. I, p. 111-112.

[10] It is useful– and, therefore, by now, common practice– to focus comparisons of national income across countries on differences in the purchasing power of households in order to avoid ascribing too high incomes and living standards to countries with high prices due to domestic inefficiency as well as to avoid exaggerating the income differences between rich and poor countries. When adjusted for purchasing-power differences, Russia's GNP per capita was less than one-seventh of that of the United States in 1998. The reliability of the purchasing-power-parity (ppp) adjustment methods in use is, however, an unsettled issue. The World Bank classifies Russia as "lower-middle-income country," placing its ppp-adjusted GNP per capita roughly on par with that of Guatemala.

[11] See Dwight Perkins, "Completing China's Move to the Market," *Journal of Economic Perspectives*, Vol. 8, Spring 1994, pp. 23-46, and Per Ronnås and Örjan Sjöberg, "Economic Reform in Vietnam: Dismantling the Centrally Planned Economy," *Journal of Communist Studies*, Vol. 7, No. 1, 1991, pp. 7-19.

two countries are not completely different, is it nonetheless possible to trace the differences in their economic performance to their different economic policies? Or does technology dictate growth differentials in such cases? Or perhaps geography? Or history? Or all of the above?

In this article, we consider the growth performance of seven such pairs or clusters of countries in different parts of the world since the early 1960s. The intention is to demonstrate that not only economic systems, but also economic policies, arrangements, and institutions seem relevant for economic growth. Economic laws, like the laws of nature, are essentially the same everywhere: demand is inversely related to price almost as surely as rivers flow downstream by the force of gravity. So, even if our brief examples are fetched mostly from low- and middle-income countries around the world, most of the points to emerge from what follows apply also to high-income countries, *pari passu*.

All seven pairs or clusters of countries that we shall consider have one main thing in common: their economies have developed quite differently over the past 30-40 years despite roughly comparable initial conditions. We begin our journey in Asia by comparing the economic development of Thailand and Burma (renamed Myanmar by the governing military junta some years ago). We then continue to Africa and provide three comparative sketches of (a) Kenya, Tanzania, and Uganda, (b) Botswana, Nigeria, and Ghana, and (c) Tunisia, Morocco, and Egypt. Thence we move on to South America and discuss the economic record of Uruguay and Argentina and compare it with that of Spain. We then make a brief excursion to the Caribbean where we visit the Dominican Republic, Haiti, and Barbados. At last, we set sail for the Indian Ocean, and compare and contrast Madagascar and Mauritius.

II. Burma and Thailand

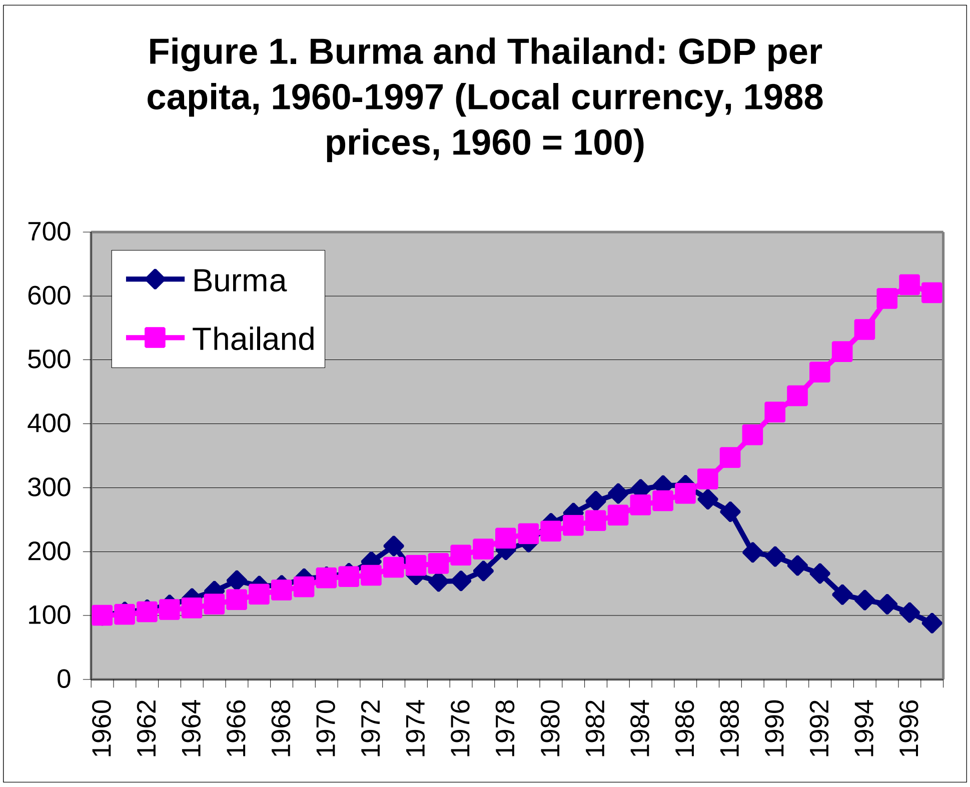
We start our journey in Southeast Asia.

Earlier in this century Burma was the rice basket of Southeast Asia, and was considered well ahead of Thailand in economic affairs. Since 1962, however, when General Ne Win came to power in a coup d'état, 14 years after the country gained independence from Britain in 1948, Burma has continued its "victorious march towards socialism"– this is approximately how it was put in those days, and still is in Burma. The hallmark of the Burmese way has been self-reliance, without, however, going so far as isolating the country completely and deliberately from the rest of the world. Thus, Burma was long an active client of international organizations such as the International Monetary Fund (IMF) and the World Bank, unlike, for example, the former Soviet Union and several of its satellites in Central and Eastern Europe in the communist period. Moreover, unlike their colleagues in communist countries, many Burmese officials had been trained at some of the best universities in Britain.

In the 1970s, many outside observers still thought that Burma was doing all right, for those were the years when many good economists still thought that, in the long run, central planning was capable of producing more rapid growth than a market economy, not least in developing countries, even if most had by then admitted that human rights were grossly neglected under socialism. The available national income statistics seemed to confirm this impression by indicating adequate economic growth in Burma, roughly on par with Thailand (Figure 1).[12] Investment proceeded apace, rising from 12 per cent of gross domestic product (GDP) in the early 1960s to over 20 per cent around 1980, a respectable ratio by world standards. The poor quality of much of this centrally planned investment, however, was not yet a matter of general concern. Not much either was made of the fact that exports were stagnant: they amounted to only 9 per cent of GDP in 1980, down from 20 per cent in 1960, while, in Thailand next door, the export ratio had risen from 16

[12] Because of recent problems with Burmese national income statistics, the World Bank does not report Burma's GNP per capita in U.S. dollars in its 1999 issue of *World Development Indicators*. This is why the format of Figure 1 differs from that of the remaining figures in the article. In Figure 1, an attempt is made to describe the comparative per capita growth performance of Burma and Thailand 1960-1997 based on the *World Development Indicators 1999*, without, however, indicating the relative

per cent to 24 per cent over the same period. Economics, as we know it, was not taught at the University of Rangoon; to be on the safe side, the economists at the university lectured on stochastic processes and such instead. Little by little, Burma began to show more and clearer signs of decay. The difference between Burma and Thailand began to feel more and more like the border between the Soviet Union and Finland: to many travellers from faraway places, returning to Bangkok from Rangoon was like coming home.



And thus, from the mid-to-late 1980s onwards, it began to sink in that something had gone seriously wrong in Burma. While Thailand surged forward, Burma remained stagnant. Depressed investments of low quality (i.e., without adequate regard having been paid to commercial profit), plummeting exports, and deteriorating education, including the virtual evaporation of up-to-date economic expertise from public service and from the universities, jointly produced this outcome, which was compounded by

level of GNP per capita, which is arbitrarily set equal to 100 in 1960 in both an excessive reliance on political control of economic affairs. In 1990, Burma's military junta refused to abide by the general election victory of the opposition, led by Aung San Suu Kyi, who remained under house arrest in Rangoon until 1995. In 1996, the universities were shut down.

Thailand made few of these mistakes, even if the military has played an active, intermittent role in the country's politics over the years. Thailand's saving and investment performance has been strong, with investment around 35 per cent of GDP in 1997 (down from 42 per cent the year before), compared with 13 per cent in Burma. Even so, the quality of some of this investment has proved questionable, partly because Thailand's banking system has been strongly influenced by politicians preferring votes to profits. Thai exports have surged: in 1997, they amounted to 47 per cent of GDP, compared with only 1 per cent in Burma– the latter, the lowest export ratio on record anywhere. In education, the Thai record is also quite strong: for example, secondary and tertiary school enrolment rates increased by a third to a half from 1980 to 1993, even if they are still far below the enrolment rates typical of high-income countries. Specifically, the gross secondary and tertiary enrolment rates in Thailand were 56 per cent and 21 per cent in 1996, compared with 30 per cent and 6 per cent in Burma. Moreover, in Thailand, public expenditure on education has been twice as large relative to GNP as in Burma since 1960 (Table 1). Thus, if investment, exports, and education are important sources of economic growth, in accordance with the basic principle that everything that increases economic efficiency is also good for growth, then there is little wonder why Thailand has surged past Burma.

From 1960 to 1997, GNP per capita increased by a factor of six, or by 5 per cent per year on average, in Thailand while Burma was stagnant (Figure 1). Yet, Thailand's population grew more rapidly than Burma's over this period, or by 2.3 per cent a year on average compared with Burma's 1.9 per cent. So, if GNP per capita was the same in 1960, as the figure shows, Thailand had become six times as rich as Burma by 1997. This is what happens with a

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countries.

growth differential of 5 percentage points over 37 years. Moreover, with considerable scope for (a) improved quality of investments (through better banking, as advised, e.g., by the IMF already in 1997), (b) further expansion of exports, and (c) further progress in education, among other things, it would seem that Thailand's growth prospects continue to look bright. The crash in stock-market and currency values in 1997-1998 does not look likely to dim these long-run prospects. All things considered, Thailand's economy seems basically sound. Exports and the quality of investment seem likely to benefit from the slump as time passes. The experience of Thailand and several other Asian countries shows that rapid growth over the long haul does not always have to be smooth.

III. Tanzania, Kenya, and Uganda[13]

After gaining independence shortly after 1960, both Tanzania and Kenya experienced fairly steady economic growth for almost two decades, until about 1980 (Figure 2).[14] Their roughly parallel development was generally taken as confirmation of the widely held view that central planning, as practiced in Tanzania, was no less capable of delivering economic progress than a market economy, as practiced in Kenya. The comparison is relevant, because the two countries are closely related and quite similar in most other respects, almost like identical twins. Kenya, it is true, started out a little richer and grew a little faster, but the differences were not large. There were many who argued all along that Tanzanian socialism was bound to fail, just as all-encompassing socialism in other parts of the world was also headed for a disaster, but the empirical evidence from the first 20 years after independence did not seem to support their view.

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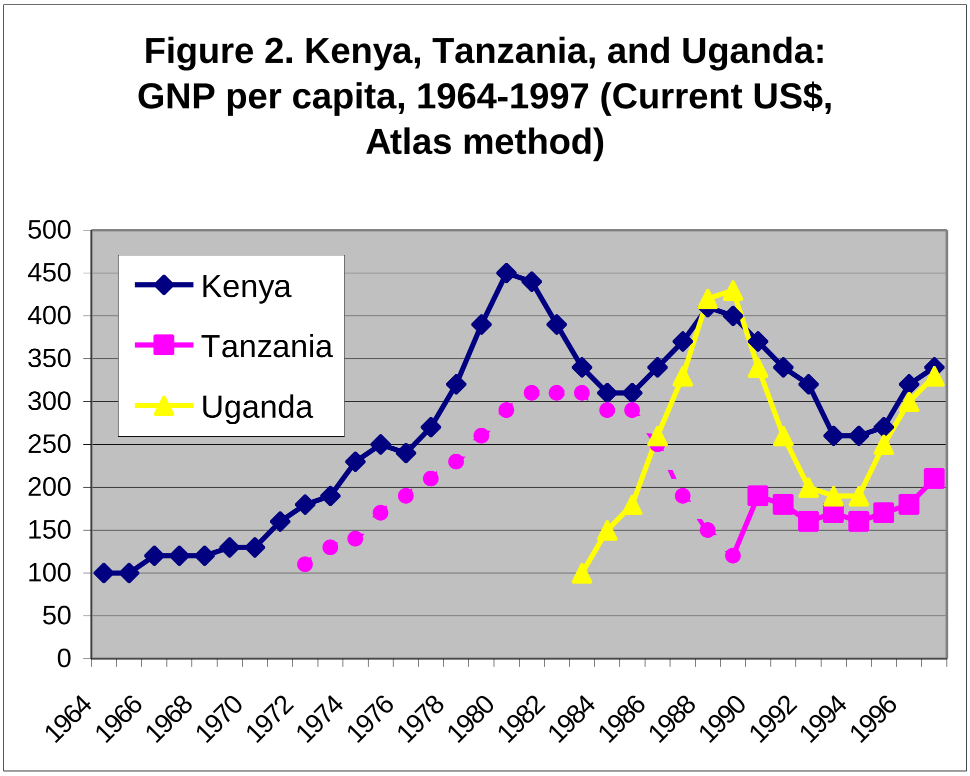
[13] This section is adapted from Thorvaldur Gylfason, Torben M. Andersen, Seppo Honkapohja, Arne Jon Isachsen, and John Williamson, *The Swedish Model under Stress: A View from the Stands*, SNS Förlag, Stockholm, 1997, Ch. 1.

[14] The GNP data for Tanzania are sliced together from two series: GNP per capita in current dollars for 1972-1989 from the *World Tables* of the World Bank (1994) and the rest from the *World Development Indicators* (1999). Hence the break in the data in 1990.

And then? As Figure 2 shows, the economy of Tanzania declined dramatically in the 1980s, so that living standards are now far below those in Kenya.[15] In retrospect, this outcome was inevitable. It can be traced to a confluence of many forces. For example, ambitious, politically motivated investments generated booming incomes and better living standards for a while, as always, but when they failed to turn a commercial profit, the economy was bound to weaken and ultimately collapse under the increasing weight of unproductive capital, physical and human, just as in Eastern Europe and the former Soviet Union.[16]



The economy of Kenya also declined after 1980, which shows that a

[15] The three curves in Figure 2 would be flatter if GNP per capita were measured in U.S. dollars at constant rather than current prices, but their relative positions would not change. The same applies to Figures 3-7 later in the article. U.S. dollar values are obtained from domestic currencies by using a three-year weighted average of official exchange rates or an alternative conversion factor if necessary (i.e., if official exchange rates do not reflect the effective exchange rates applied to foreign transactions).

market economy is not a sufficient condition for economic success, especially if it is marred by excessive state intervention in economic affairs and by pervasive corruption. Even so, Tanzania has lagged far behind Kenya, and is now also far behind Uganda, which suffered from crippling internal warfare (Table 1).

What can we conclude from this?

The unwavering attachment of those donor countries that sustained Tanzania's socialist system through generous financial support for decades was misplaced.[17] The economic policies of President Julius Nyerere, a sophisticated intellectual and translator of two plays by Shakespeare into Swahili, inflicted more lasting damage on the Tanzanian economy than even Idi Amin managed as president in Uganda. The sorry tale of Tanzania is a classic reminder of the destructive force of gross economic mismanagement. All-encompassing socialism has always and everywhere resulted in disaster; there is no example of a successful centrally planned economy, neither in the developing world nor elsewhere. Central planning has proved to be incompatible with economic efficiency, stability, and lasting growth, and with the rule of law. In particular, state socialism and central planning curtailed the need of the individual to exert his ability and intelligence for socially fruitful purposes, and thus hampered the development of productive human capital. Little by little, the virtual absence of economic incentives led to what social psychologists call "learned helpnessness." Ultimately, despite an initial upswing, socialism laid a paralyzing hand on economic progress. It makes no difference in this context whether the socialist system is said to have a "human face" or not.

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[16] See William R. Easterly and Stanley Fischer, "The Soviet Economic Decline," *World Bank Economic Review* 9, No. 3, 1995, pp. 341-371.

[17] For example, Sweden's aid to Tanzania increased gradually from the equivalent of less than 1 per cent of Tanzania's gross domestic product (GDP) in 1970 to about 2 per cent around 1980, and it peaked at more than 4 per cent of Tanzania's GDP in 1989-1990. Since then, however, as part of general government expenditure restraint in Sweden, foreign aid has been reduced sharply, bringing aid to Tanzania in 1994-1995 down to about a fourth of its peak level. Source: SIDA (The Swedish International Development Agency).

It is sometimes said that economics differs from chemistry in that laboratory experiments are impossible in economics. However, central planning was an economic experiment on a huge scale, with one-fourth of the earth's land surface as laboratory and almost a third of the world's population as guinea pigs. The results are now in: the experiment was a colossal failure.

There is, therefore, no denying that those, like Friedrich von Hayek in his controversial book *The Road to Serfdom* (1944), who warned against all-encompassing socialism all along, were clearly right. And Hayek was not the first. Listen, for example, to Alfred Marshall:

> There is therefore strong *primâ facie* cause for fearing that the collective ownership of the means of production would deaden the energies of mankind, and arrest economic progress; … And, … , it might probably destroy much that is most beautiful and joyful in the private and domestic relations of life.[18]

Many of those who discounted such warnings on ideological or other grounds insisted on empirical proof of the inferiority of central planning. Clearly, based on Figure 2 for the East African case, for example, no such proof could have been given in the 1960s, or even in the 1970s. By the 1980s the writing was on the wall; in the 1990s the matter was settled once and for all. But even if empirical verification is an integral part of economic science, the road to successful economic reforms is paved more with careful analysis, clear insight, and intuition; econometric evidence, let alone proof, can only come later. As far as is known, President Roosevelt did not insist on proof, when he received John Maynard Keynes in the White House in 1934 to hear his prescription for lifting the world economy out of the Great Depression.[19] Nor did the Labour government of New Zealand demand proof of its advisers before embarking on its ambitious– and ultimately successful, as

[18] Alfred Marshall, *Principles of Economics*, 8th ed., Macmillan, London, 1920, p. 593.
[19] See John Kenneth Galbraith, *The Age of Uncertainty*, 1977, André Deutsch, London, p. 214.

now seems clear– structural reform programme in the mid-1980s. Nor did the Solidarity-led government of Poland demand proof of Jeffrey Sachs in 1989, when Sachs helped to devise Poland's jump to a market economy.[20] No proof was possible in any of those cases. Insistence on proof in such situations is a prescription for inaction.

At last, and this is perhaps the most important point, some waves are quite long in the economic life of nations. Tanzania is still paying dearly for decisions that were made just after independence in the early 1960s. A 180-degree reversal of the misguided policies of the past would not be enough to turn Tanzania around. What is required is also a radical transformation of several social institutions, and of some firmly ingrained popular attitudes and beliefs– that is, of mentality. This process has now begun.

IV. Nigeria, Botswana, and Ghana

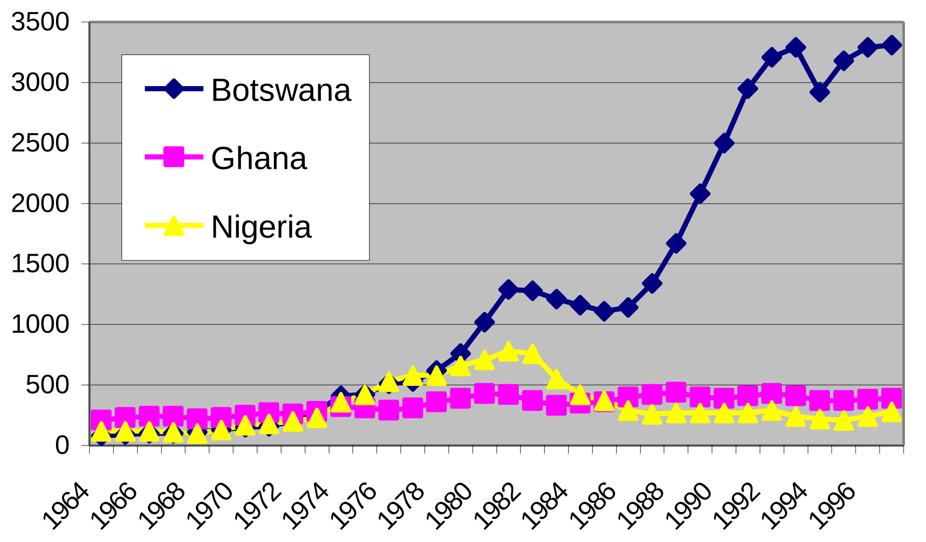
Let us continue with Africa, which is home to the country holding the current world record in economic growth over the past quarter century: Botswana. The story of Botswana merits consideration, because Africa still tends to be synonymous with destitution, even despair, in the minds of many people.

But begin in Nigeria, where, in 1973-1974, the first oil price increase in world markets triggered an unprecedented economic boom. National income per capita in this oil-producing nation increased almost fourfold from 1972 to 1981. Imbued with ambition and optimism, the Nigerian government built 31 universities throughout the country at huge expense. This was not a good investment, however, in a country where a half of all adults still is illiterate and where only a fifth of young people go to secondary school. Many other investment decisions in the wake of the oil boom were of a similar caliber. To make a long story short, this is why national economic output was bound to collapse after a while under the weight of unproductive capital. Now, 25 years later, Nigeria is basically back to square one (Figure 3). Almost all the

[20] See Jeffrey D. Sachs, *Poland's Jump to a Market Economy*, MIT Press, Cambridge, Massachusetts, 1994.

windfall earnings from oil exports have gone with the wind. Investment, which averaged 12 per cent of GDP in the 1960s, before the upswing, rose to 23 per cent of GDP on average in the 1970s, peaking at 31 per cent of GDP in 1976 before collapsing below 10 per cent of GDP in the mid-1980s. Investment rose again above 20 per cent of GDP in the early 1990s, and then fell to 15 per cent of GDP in 1997. To compound the problem, oil exports crowded out non-oil exports, which, in 1970, before the boom, amounted to more than 40 per cent of total exports, but fell to 4 per cent of the total in 1980 and to 3 per cent in 1990. The example of Nigeria demonstrates how, without adequate economic policies and political safeguards, abundant natural resource wealth can turn out to be, at best, a mixed blessing.

Figure 3. Botswana, Ghana, and Nigeria: GNP per capita, 1964-1997 (Current US$, Atlas method)



Ghana has done slightly better, especially since the mid-1980s, when the country became a model client of the IMF and the World Bank, taking their advice on many aspects of economic policy and revising, or rather reversing, Nkrumah's economic development strategy by opening up the economy to increased foreign trade and investment. Over the period under review, 1960-

1997, Ghana's GNP per capita fell by almost ½ per cent per year on average (Table 1), but since 1990, it has grown by 1½ per cent per year on average. In keeping with this, exports of goods and services first collapsed from 28 per cent of GDP in 1960 to 3 per cent in 1982, and then rose to 24 per cent in 1997. Investment displayed a similar pattern: it fell from 13 per cent of GDP in 1966 to 4 per cent in 1982, and then rose again to 24 per cent in 1997. Net foreign direct investment flowing into Ghana amounted to 1.9 per cent of GDP in 1997, up from 0.4 per cent in 1980.

This brings us to Botswana, whose GDP per capita has increased by 6½ per cent per year on average since 1960 (Table 1). This means that, in real terms, income per head is now ten times as high as in 1960. Until the late 1970s, Botswana and Nigeria developed roughly in tandem, as shown in Figure 3, but then their ways parted. Both countries depend heavily on their natural resources: Nigeria on oil, Botswana on diamonds. Oil now accounts for 90 per cent of Nigeria's total exports and 80 per cent of government revenue, whereas diamonds make up 80 per cent of Botswana's total exports and 50 per cent of GNP. Botswana is democratic, even if the same political party has ruled the country without interruption since independence in 1966, whereas Nigeria has been ruled by its military for the most part since 1966, but now has a democratically elected president. A crucial part of the explanation for their diverging economic performance appears to be this: Botswana has managed its resource wealth judiciously, using it, for example, to reduce illiteracy[21] to a quarter of the population in 1997, compared with 40 per cent in Nigeria, and to increase the secondary school enrolment rate to two-thirds in 1996, compared with one-third in Nigeria. Yet, Botswana's national income per capita was less than that of Nigeria in 1964. This is how fast things can change.[22]

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[21] And so did Cuba, which remains utterly poor after 40 years of central planning. Increased literacy is a necessary, but not sufficient, condition for economic success.

[22] Yes, fast indeed. Botswana has been hit particularly hard by the aids epidemic, so that life expectancy has decreased from 60 years to 47 over the past few years. Even so, all three, Botswana, Ghana, and Nigeria, had the same population growth in 1985-1995, or 3 per cent per year on average. The population of Botswana in 1997

And then there is this: the rapid economic development of Botswana has been the most stable of the three, whether stability is measured by the standard deviation of economic growth from year to year in proportion to average growth over the whole period or, more simply, perhaps, by average inflation over the period. The former measure of instability is 1.3 for Botswana, 4.4 for Ghana, and 7.4 for Nigeria, based on the growth paths for 1964-1997 displayed in Figure 3. The average annual rate of increase of GNP per capita from 1960 to 1997 was 6.5 per cent in Botswana compared with 0.3 per cent in Nigeria and -0.4 per cent in Ghana. This is, of course, a small sample, but in this group of three, at least, the country with the least instability (Botswana) is the one with the highest rate of economic growth since 1960. A comparison of inflation in the three countries conveys a similar message. From 1960 to 1997, the average annual rate of inflation was 9 per cent in Botswana compared with 17 per cent in Nigeria and 27 per cent in Ghana. In this small group, the country with the least inflation (Botswana) is again the one with the highest rate of economic growth. Experience seems to show that price stability is good for growth and vice versa.[23]

If the numbers shown in Figure 3 are adjusted for purchasing power, the World Bank's estimate of GNP per capita in Botswana in 1997 rises from US$ 3,310 to IUS$ 7,430; in Ghana, from US$ 390 to IUS$ 1,610; and in Nigeria, from US$ 280 to IUS$ 860 (Table 1). By one international dollar (IUS$) is meant the amount of goods and services in the home country that one dollar would buy in the United States.[24]

V. Morocco, Tunisia, and Egypt

Next we compare the economic growth record of three North-African countries: Morocco, Tunisia, and Egypt. The three are closely related by language, culture, and religion, even if Casablanca is farther from Cairo than

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was 1.5 million, Ghana 18 million, and Nigeria 118 million.

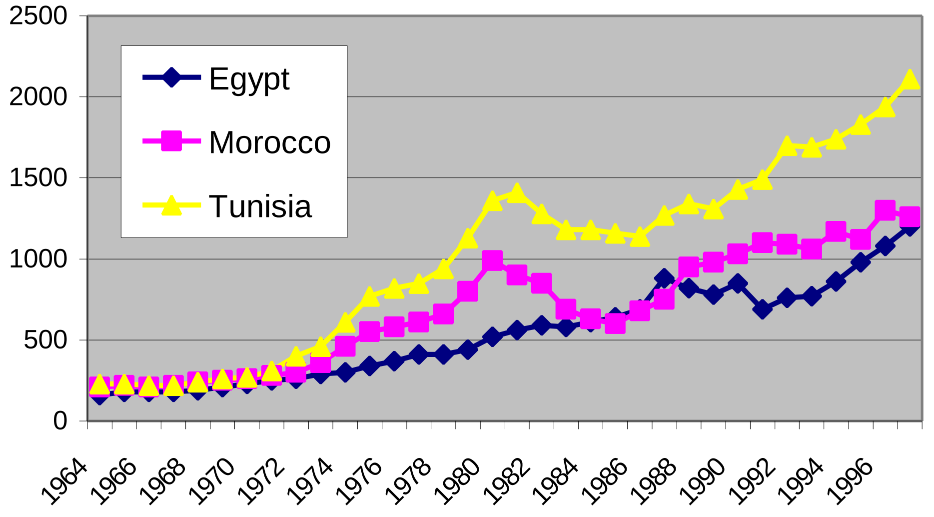
[23] See, for example, Stanley Fischer, "The Role of Macroeconomic Factors in Growth," *Journal of Monetary Economics* 32, December 1993, 485-512.

Reykjavík from Rome.

Figure 4 reviews the development of GNP per capita in the three countries from 1964 to 1997. They were all in a roughly similar situation from 1964 until the 1970s. Since 1970, however, economic growth has been considerably more rapid in Tunisia than in the other two, so that in 1997 Tunisia's GNP per capita was more than half as large as those of Morocco and Egypt.

Economic growth has been less even in Morocco than in Egypt and much less rapid in recent years, as Egypt is now reaping the results of various economic reforms that were implemented following the collapse of the Soviet Union and the attendant realization that central planning is incapable of generating lasting economic growth. Both Morocco and Tunisia took deep dives for other reasons in the 1980s. Instability is an important feature of the economies of the Arab world: their economic development tends to be a bit unstable mainly because many of these countries depend on natural resources, especially oil, whose price fluctuates widely in world markets. Economic instability tends to impede economic growth.

Figure 4. Egypt, Morocco, and Tunis: GNP per capita, 1964-1997 (Current US$, Atlas method)



[24] See footnote 10.

How can we explain the divergent growth paths shown in Figure 4? Let us review a few potential explanations.

Investment. Domestic investment has been larger in Tunisia than in the other two countries, or 26 per cent of GDP in Tunisia on average 1960-1997 compared with 22 per cent in Morocco and Egypt. However, foreign investment has been larger in Morocco in recent years than in the other two, or 3.6 per cent of GDP in Morocco compared with 1.7 per cent in Tunisia and 1.2 per cent in Egypt (1997). Investment, both domestic and foreign, is good for growth, provided that the investment is of good quality.

Exports. The economy of Tunisia is more open to external trade than the other two economies. Exports were equivalent to 32 per cent of GDP in Tunisia on average 1960-1997 compared with 22 per cent in Morocco and 20 per cent in Egypt. Other measures of openness point in the same direction. The ppp-adjusted sum of exports and imports relative to GDP in 1997 was 27 per cent in Tunisia, 14 per cent in Morocco, and 9 per cent in Egypt. These numbers show that the three countries are quite closed vis-à-vis the rest of the world, as are many other Arab countries. Tunisia, the most open of the three, levies a 30 per cent tariff on imports on average, a high rate by international standards. Protectionism seems likely to hinder growth, not least because Tunisia is a small country with a population of 9 million (compared with 27 million in Morocco and 60 million in Egypt). Small countries are especially sensitive to foreign trade restrictions.

Education. Here, again, Tunisia leads the pack. Tunisia's expenditure on education amounted to 7 per cent of GNP in 1995 compared with 6 per cent in Morocco and 5 per cent in Egypt. Yet, secondary-school enrolment rates are higher in Egypt (75 per cent) than in either Tunisia (65 per cent) or Morocco (39 per cent). As far as education is concerned, however, it is especially important to distinguish between quantity and quality. The Arab nations devote more time to religious studies in their schools than many other nations, thereby reducing the time available for other subjects.

Primary production. The level and composition of exports matter for growth. The share of primary production in merchandise exports is smaller in Tunisia than in the other two countries, or 59 per cent in Tunisia on average 1960-1997 compared with 71 per cent in Morocco and 74 per cent in Egypt. Thus, Tunisia has managed a bit better than the other two countries to diversify its economy and to export manufactures and services. This makes a difference because empirical evidence seems to show that natural-resource-based exports tend to be less conducive to economic growth than the exports of manufactured goods and services.[25] Morocco is the world's greatest exporter of phosphates (which are used to produce fertilizer), and Tunisia exports both phosphates and oil, while Egypt produces oil for domestic use and export in roughly equal proportions. In all three countries, however, services have become the most important economic activity, accounting for 51 per cent of GDP in Egypt and Morocco and 58 per cent in Tunisia (1997).

Inflation. Inflation was similar in Tunisia and Morocco 1960-1997, or 6 per cent per year on average in both places, and 9 per cent in Egypt. It seems unlikely, however, that such a small difference can have much to do with the economic growth differential between Egypt and the others. Recent research seems to indicate that high inflation hurts growth, but how high the inflation rate must be to hurt growth is not yet known. A reasonable guess is that the borderline between inflation that is high enough to hurt growth and inflation that is low enough to leave growth unaffected lies somewhere between 10 per cent and 20 per cent per year. Further research might lower this threshold.

Government spending. Of the three countries, Egypt has the largest public sector. In Egypt, government expenditure amounted to 42 per cent of GDP on average 1970-1996 compared with 31 per cent in Morocco and 33 per cent in Tunisia. Moreover, state-owned enterprises have played an important

[25] See Jeffrey D. Sachs and Andrew M. Warner, "Natural Resource Abundance and Economic Growth," HIID Development Discussion Paper No. 517a, 1995, and Thorvaldur Gylfason, Tryggvi Thor Herbertsson, and Gylfi Zoega, "A Mixed Blessing: Natural Resources and Economic Growth," *Macroeconomic Dynamics* 3, June 1999, 204-225.

role in all three countries, especially in Egypt, where state-owned enterprises stood behind two thirds of all domestic investment 1985-1990 compared with 20 per cent in Morocco and 30 per cent in Tunisia. Of the three, Egypt also devotes most resources to national defence, or 6 per cent of GNP compared with 4 per cent in Morocco and 2 per cent in Tunisia. It is hard to assess the efficiency of military expenditures. Even so, empirical evidence seems to indicate that military expenditure retards economic growth through its adverse impact on capital formation and resource allocation.[26] Anyhow, it seems clear that Tunisia has been able to use the resources that would otherwise have been absorbed by the military to improve education, health care, transport and communications, and other public services. Thus, for example, 80 per cent of all roads in Tunisia are paved compared with 50 per cent in Morocco and less than 20 per cent in Egypt. Good roads are good for growth as long as the cost of constructing and maintaining them does not outweigh the benefits.

Tourism. In 1997, Tunisia received 4.3 million tourists from abroad compared with 3.7 million in Egypt and 3.1 million in Morocco. Yet, Egypt's earnings from tourism, at 24 per cent of exports in 1997, are larger than those of Morocco (13 per cent) and Tunisia (19 per cent). The share of tourism has been unchanged in Morocco and Tunisia since 1970, while it has doubled in Egypt (from 12 per cent in 1970).

To summarize, then, it does not seem to be a coincidence that living standards in Tunisia have improved more rapidly over the past generation than those in Morocco and Egypt. More investment in Tunisia than in the other two countries, more trade with the rest of the world, and more expenditure on education (and less on defence) seems consistent with the observed growth differential. This fits a familiar pattern: high-quality investment, exports, and education stimulate economic growth in the long run, even if other factors such as high inflation, excessive dependence on

[26] See Malcolm Knight, Norman Loayza, and Delano Villaneuva, "The Peace Dividend: Military Spending and Economic Growth," *IMF Staff Papers* 43, No. 1,

natural resources, and unproductive government expenditure tend to impede growth, other things being equal.

VI. Uruguay, Argentina, and Spain

Let us move on, to South America. Earlier in this century, Uruguay, like Argentina, was among the richest countries in the world, ahead of Spain, for example. Blessed by fertile farmland, its agriculture flourished, and, due to its dedication to social security and social services, Uruguay became known as a South American welfare state. The government played an active role in economic affairs. Little by little, however, Uruguay's economy lost its forward thrust. The government's attempts to protect the *status quo* reduced the economy's adaptability. Protectionism laid a paralyzing hand on economic activity, not only domestic protectionism, but also foreign, because Uruguay's farm exports suffered considerably from agricultural protection in Europe. By 1970, Uruguay's GNP per capita had declined to the equivalent of 60 per cent of that of Spain, and it fell further to about 40 per cent of Spain's in 1997 (Figure 5). By comparison, Argentina's GNP per capita still exceeded that of Spain in the early 1970s, but since then has declined to about 60 per cent of the Spanish level. Meanwhile, having got rid of General Franco in 1976, democratic Spain made rapid progress, joined the European Union in 1986 and opened up its economy, expanding its exports from 14 per cent of GDP in the mid-1970s to 26 per cent in 1997.

The point of this comparison is that economic growth is relative. National economies rise and fall compared with others. From 1960 to 1997, the average annual growth rates of GNP per capita (at constant prices in local currencies) were 1.2 per cent in Argentina and Uruguay compared with 3.3 per cent in Spain. Notice, in particular, that the decline of Argentina and Uruguay has coincided with *rising* per capita incomes, i.e., positive per capita growth, in most years– specifically, in two of every three years in Argentina since 1970. The arguments of those who persistently warned against Argentina's decline

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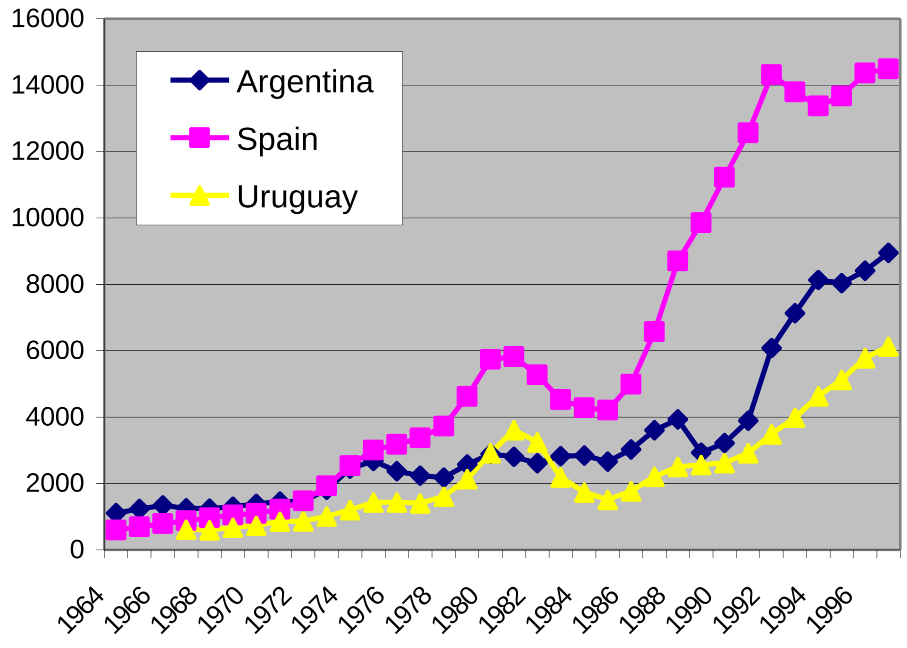
March 1996, 1-37.

and urged a change of economic policies to reverse the trend in the 1970s and 1980s, and also earlier, could more often than not be countered by pointing to positive economic growth. Many were thus blinded to the gradual relative decline that was taking place. If two nations have the same income per head initially and their annual rates of per capita growth differ by 3 percentage points, then, in sixty years, the one with the faster growth will be six times as rich as the other. This is essentially what happened in Argentina and Uruguay.[27]

Figure 5. Argentina, Uruguay, and Spain: GNP per capita, 1964-1997 (Current US$, Atlas method)



What went wrong? There is no shortage of explanations.[28] Let us mention just three here.

[27] Not quite, because the income differences among the three countries may be exaggerated by not adjusting their national incomes for purchasing power parity. In 1997, Spain's ppp-adjusted GNP per capita was IUS$ 15,690, Argentina's IUS$ 10,100, and Uruguay's IUS$ 9,110 (Table 1).

First, Argentina's political development lagged behind its economic progress. A grossly uneven distribution of land holdings with monopolistic and protectionist proclivity to match set their mark on Argentina under Spanish rule, which ended in 1816. This situation did not improve much after Argentina gained independence. In effect, a small class of landowners ruled the country with an iron fist, and used its hold on power to block political decentralization, democratization, and economic diversification away from agriculture, which had been the driving force behind the economic upswing from 1895 to 1930. In Europe, by contrast, industry, trade, and services were given adequate elbow room in time to replace agriculture gradually as the mainstay of the masses. The political and gradually also economic development of Argentina, on the other hand, was marked by a hardening conflict between landowners and the emerging urban classes. Democratically elected leaders sometimes behaved like dictators. The gradual deterioration of living standards, triggered by the collapse of farm exports to Europe after 1930 and exacerbated by political underdevelopment, created the conditions for the election of Juan Perón as president in 1946, on a platform of higher wages, more public spending, and the nationalization of private industry. Not surprisingly, the result was high inflation and a rapid escalation of external debt. The military intervened in 1955 and drove Perón into exile.

The second explanation follows directly from the first. The economic policies followed by Argentina after 1930 were consistently flawed, despite frequent changes of government, sometimes by democratic means. Import substitution, overvaluation of the currency, and insufficient competition directed economic resources into unproductive channels, reduced foreign trade, and dragged down the living standards of the people. Civil disorder, inflation, corruption, and a massive exodus of professionals from the country all contributed to slow and uneven economic growth. Yet, it would be unwise to blame it all on Perón, even if his government caused considerable harm.

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[28] See, for example, David Rock, *Argentina 1516-1987*, University of California Press, Berkeley, California, 1987.

No, one needs to wonder why Perón was elected by a landslide in the first place, not only in 1946, but then again in 1973. Perón's popularity was a direct consequence of political underdevelopment and of the wrong-headed economic policies of those who ruled Argentina before him. Perhaps the most serious mistake was the attempt to erect protective walls around domestic industries after 1930, when it had become clear that economic diversification away from agriculture was inevitable. Loss of foreign markets due to the Great Depression played a part in this, to be sure, but the protectionism remained in place even after the depression was over. To this day, Argentina is still a strikingly closed economy, with exports amounting to only 9 per cent of GDP in 1997 (up from 5 per cent in 1980), compared with an (unweighted) average export ratio of 36 per cent in the world as a whole.[29] Uruguay is also quite closed, for such a small country with only 3 million people: its export ratio in 1997 was only 13 per cent.

The third possible explanation has to do with the long history of rampant inflation in both countries. In 1960-1997, the average annual inflation rate was 111 per cent in Argentina and 55 per cent in Uruguay. Since 1994, however, following radical economic reforms undertaken by the government of President Carlos Menem, inflation in Argentina has subsided, at least for the time being. Anyhow, it seems likely that rapid inflation over long periods, coupled with overvalued currencies and negative real interest rates, distorted trade and investment in both countries and thus hindered economic growth. In Uruguay, the inflation problem was virtually institutionalized by the co-existence of *two* central banks: one of the usual kind, operating on the time-honored theory that excessive money creation leads to inflation, while the other, also a state bank with authority to issue money, went by the so-called real bills doctrine, which holds that printing money for productive purposes will not lead to inflation. The idea is simple: if the borrowers' enterprises are

[29] The weighted average export ratio of the world as a whole, where each country is weighted by the size of its economy, is lower, or 21 per cent (1997), due to the weight of large countries which export relatively little, especially the United States and Japan.

productive enough, the money issued to them will increase the supply of goods and services at least as much as demand, so that no extra inflation will ensue. As you would expect, the latter bank followed a more generous monetary policy than the former, with unsurprising consequences.

The moral of this short and selective account is this: history matters for economic growth, and so does politics, even if their exact contribution in a given case may be hard to measure, let alone prove. Inflation may also matter for growth, not just inflation as such, but also the structure and functioning of the banking system and of public finances that produce the inflation.

VII. Haiti, the Dominican Republic, and Barbados

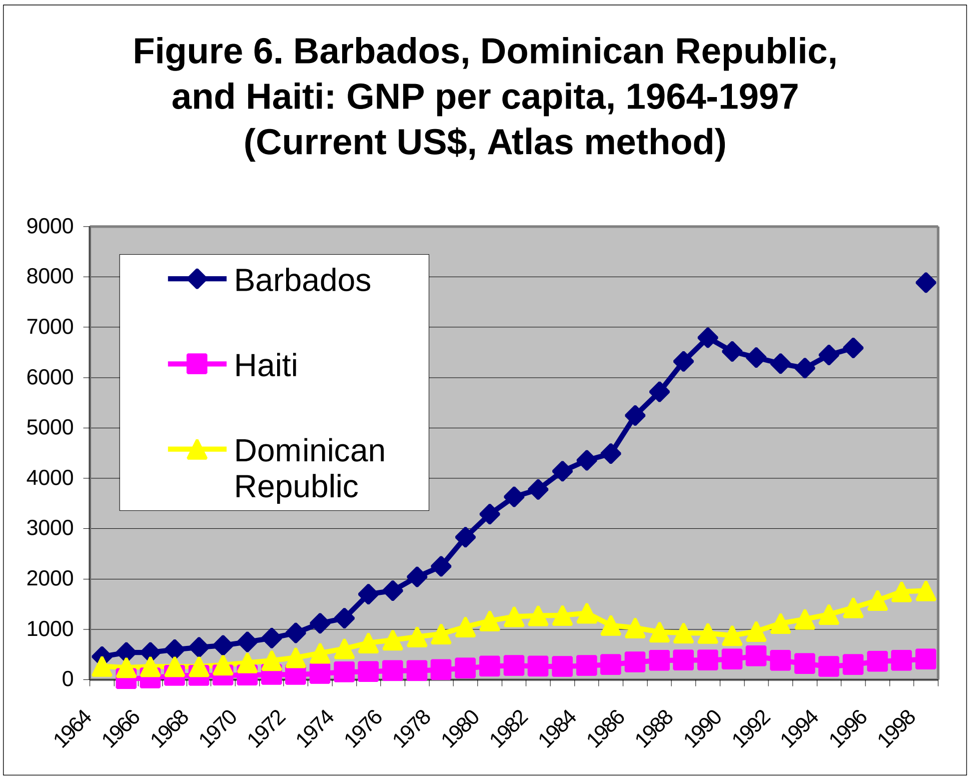
When the African nations were beginning to break loose from foreign colonial rule after the middle of the last century, it was a widely held view, not only in Africa but also elsewhere, that perennial poverty in Africa could be blamed in large measure on colonial mismanagement and oppression and that national freedom and independence, once acquired, would greatly improve the lot of the African peoples. This, however, did not materialize. On the whole, the African nations have not managed their economic and financial affairs very well since independence.

It is only now, a generation after the gain of independence of most African nations– now that the Soviet Union and its satellite states belong to the past whence they no longer send their economic advisers *en masse* to Africa– that a new beginning seems within reach in Africa, empowered by sound economic and institutional reforms in the spirit of a market economy rather than central planning. But it will not be easy.

Haiti. Those who blamed incompetent or malevolent colonial rulers for everything that went wrong in Africa or elsewhere might have let their minds wander across the ocean, to Haiti. Haiti was first governed by Spain and then by France, but became independent in 1804. Yet, almost 200 years later, Haiti remains one of the poorest countries of the world. Predatory behavior remains the most profitable economic activity. A wealthy elite applies its political and military might to keep the common people in poverty and ignorance.

The lowest curve in Figure 6 describes economic development in Haiti since 1964. GNP per capita in 1998 was US$ 410, or only little more than a dollar a day. Purchasing-power-parity adjusted GNP per capita is three times as high (Table 1), but even so Haiti remains close to the bottom of the world league. Only 22 countries are poorer than Haiti by this ppp-adjusted measure (World Bank Atlas 1999), while 107 countries are richer. Other economic and social indicators tell a similar story: life expectancy, literacy, access to safe water, you name it.

Let us now, once more, look at three important determinants of economic growth around the world: investment, exports, and education, in an attempt to illuminate the abysmal growth record of Haiti and its prospects for the future. The numbers speak in one voice: investment in Haiti amounted to 12 per cent of GDP on average 1960-1997, exports were equivalent to 14 per cent of GDP in the same period (and have been on a declining trend, amounting to 8 per cent of GDP on average 1992-1997), and expenditure on education was 1 to 2 per cent of GNP on average 1980-1990. All these ratios are extraordinarily low compared with most other countries. And when all three, investment, exports, and education, are undernourished over long periods, then economic stagnation is the inevitable consequence, if not outright decline.



This is not all. Economic policy in Haiti is unsound: inflation was 25 per cent per year on average 1990-1997. Foreign investment in Haiti is next to none (0.1 per cent of GDP in 1997). Transport and communications are poor: only one-fourth of the road system is paved. The environment has also been neglected: the country's forests have all but disappeared, covering only 1 per cent of the country's area in 1995. This list could be extended. This is a sorry state of affairs in a country whose people have made a major contribution to world art, through painting.

Dominican Republic. Haiti shares the island of Hispaniola with the Dominican Republic, the most popular tourist destination in the Caribbean (2.2 million tourists in 1997 compared with 90,000 in Haiti). The population is about the same in both countries, or 7 million. The Dominican Republic has been independent since 1865, but was a Spanish colony before. The standard of life is much higher than in Haiti. Illiteracy is 20 per cent in the Dominican Republic compared with 50 per cent in Haiti.

The curve in the middle of Figure 6 describes the development of GNP per head in the Dominican Republic since 1964. GNP per capita (ppp-adjusted) was US$ 4,690 in 1997, almost four times that in Haiti (Table 1). Investment was 21 per cent of GDP on average 1960-1997. Exports amounted to 26 per cent of GDP on average over the same period and have been on an increasing trend. More investment and more external trade probably help explain why the Dominican Republic has done so much better than Haiti. Yet, the export ratio in the Dominican Republic is far below the world average for small countries, which are more dependent on trade than larger countries. Moreover, education has been neglected: expenditures on education in the Dominican Republic were around or below 2 per cent of GNP 1980-1996, but even so, the state of education is better than in Haiti, because almost a half of all youngsters go to school in the Dominican Republic compared with less than a quarter in Haiti. Public and private expenditure on health care amounted to 6 per cent of GDP in the Dominican Republic in 1994 compared with 4 per cent in Haiti. Not surprisingly, therefore, people live longer on the average in the Dominican Republic (71 years) than in Haiti (54 years).

Barbados. For comparison, the curve at the top of Figure 6 shows how GNP per capita has developed in Barbados since 1964. A former British colony, Barbados became independent in 1966. The economy of Barbados has grown rapidly since independence. Investment was actually only about one-fifth of GDP on average 1960-1997 and has been declining in recent years: here there is room for improvement. Exports, however, amounted to 57 per cent of GDP on average 1960-1994 and have been increasing. This ratio, 57 per cent, is a bit above the average export ratio of countries of similar size (with population of about 300,000).

The strongest link in the economic growth chain in Barbados is the education of its people: expenditure on education has increased from 3 per cent of GNP in 1960 to 7-8 per cent 1989-1994. Illiteracy is only 1 per cent compared with 20 per cent in the Dominican Republic and 50 per cent in Haiti, as said before. Almost all youngsters in Barbados (97 per cent) attend secondary school compared with 45 per cent in the Dominican Republic and

24 per cent in Haiti, and 30 per cent of each cohort in Barbados attend colleges and universities compared with 26 per cent in the Dominican Republic– and 1 per cent in Haiti! It also helps that economic management has been strong in Barbados: inflation was 1 per cent on average 1990-1997 compared with 12 per cent in the Dominican Republic and 25 per cent in Haiti. Transport and communication are also in pretty good shape: almost all roads are paved compared with a half of the roads in the Dominican Republic and a quarter in Haiti.

All in all, it is, therefore, not surprising that living standards in Barbados have improved a great deal since independence in 1966. Barbados was, it is true, better off than the other two countries at the outset, as Figure 6 shows, but is was nevertheless very poor. In 1997, GNP per head in Barbados had become almost 20 times as large as in Haiti, or US$ 7,900 in Barbados against US$ 400 in Haiti (and US$ 1,800 in the Dominican Republic). When the figures are ppp-adjusted, the income differential decreases, but nevertheless remains substantial: IUS$ 10,220 per capita in Barbados (in 1995) against IUS$ 1,260 in Haiti (in 1997, and IUS$ 4,690 in the Dominican Republic).

VIII. Madagascar and Mauritius

For our last example, we now set sail for the Indian ocean, where, off the east coast of Africa, there are two magnificent islands, among others.

Madagascar, which lies about 400 kilometers from the coast, is not exactly a household name in the annals of economics, but it is a huge place, the world's fourth largest island, the size of Texas, larger than France. Mauritius, which lies a bit farther east, is tiny, only about 2,000 square kilometers in area. Madagascar is sparsely populated, with 14 million people against 1 million in Mauritius. Madagascar was earlier a French colony, and gained independence in 1960. Mauritius was first under Dutch control, then French, then British, before gaining independence in 1968.

Figure 7. Madagascar and Mauritius: GNP per capita, 1964-1997 (Current US$, Atlas method)

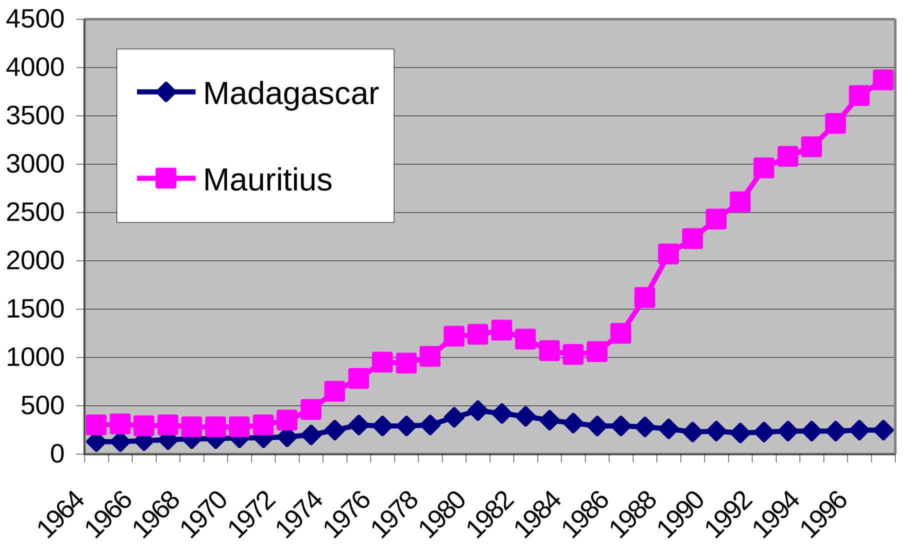


Figure 7 shows the path of GDP per capita in the two countries since 1964. In Mauritius, GNP per capita has increased by more than 3 per cent per year on average since 1960, while in Madagascar, GNP per capita has *decreased* by almost 1½ per cent a year on average (Table 1). In 1964, income per head in Mauritius was about twice as large as in Madagascar. Until the early 1970s, the centrally planned economy of Madagascar (the rulers themselves called it "radical socialism") seemed perhaps to produce adequate results, even if they paled in comparison with the mixed economy of Mauritius, but then the two paths diverged, especially after the mid-1980s. Since 1980, income per head in Madagascar has actually fallen, while income per head in Mauritius has increased by leaps and bounds. With an adjustment for differences in purchasing power, the income gap between the two becomes larger: by this measure, income per head in Mauritius in 1997 was more than ten times as high as in Madagascar, or IUS$ 9,230 against IUS$ 900. The growth differential between the two countries has persisted in the 1990s, with almost

4 per cent annual per capita growth in Mauritius on average in 1990-1997 compared with -2 per cent in Madagascar.

If this grossly different growth performance were all you knew about these two island states, what would you think about other aspects of their economic life?

- Which of the two has had more inflation? The answer is: Madagascar. Its inflation rate measured by the GDP deflator was close to 20 per cent per year on average from 1980 to 1997, compared with 7 per cent a year in Mauritius. More inflation went hand in hand with less growth.
- Which of the two is more dependent on exports of raw materials? Again, the answer is Madagascar. There raw materials account for almost 50 per cent of total exports of goods and services compared with about 20 per cent in Mauritius, which has managed to diversify its economy away from its once overwhelming sugar industry. This rhymes with the idea that abundant natural resources may be a mixed blessing, like in Nigeria, if, for example, the natural resource abundance bestows too much economic and political influence on a single dominant resource-based industry. Yet, its natural resources have clearly benefited Botswana, among others.
- Which of the two is more indebted abroad? Again, Madagascar, whose foreign debt relative to exports of goods and services in 1997 was four times as high as that of Mauritius, or 370 per cent against 92 per cent. Borrowed funds were allocated via public authorities to inefficient enterprises in Madagascar, thereby gradually reducing the productivity of capital and growth.
- Which of the two countries is more open to foreign trade and investment? The answer is now Mauritius, whose exports amounted to 62 per cent of GDP in 1997 against 22 per cent in Madagascar. The difference was even larger earlier in the period. Moreover, net foreign direct investment in Mauritius amounted to US$ 46 per inhabitant in 1997 compared with US$ 1 per person in Madagascar. Foreign trade is good for growth, said Adam Smith; no surprise here.

- Which country invests more? The answer is again Mauritius, where investment equalled 28 per cent of GDP in 1997 compared with only 12 per cent in Madagascar. Productive, market-oriented investment is a major source of economic growth, no less in remote islands than elsewhere.
- Which country is farther along on its way from agriculture to industry, trade, and services? The answer is still Mauritius, where agriculture accounts for only 9 per cent of GDP compared with almost a third in Madagascar. Mauritius received more than half a million foreign tourists a year compared with about 80,000 in Madagascar. Both countries are attractive tourist destinations, not least because of their exotic and varied nature.
- Which of the two sends more girls to school? Again, Mauritius. There almost all girls go to primary school compared with 62 per cent in Madagascar. This is relevant, because good education for girls improves health, increases longevity, and reduces population growth, and is, therefore, probably a prerequisite for growth in poor countries. More education goes hand in hand with less agriculture.
- In which country does the banking system lend more to the private sector? Mauritius. Domestic bank credit to the private sector in Mauritius amounted to 50 per cent of GDP in 1997 compared with 10 per cent in Madagascar. In Mauritius, the private sector stood behind three-fourths of total investment against less than a half in Madagascar.

IX. Conclusion

It hardly needs to be said that the above comparisons must not be taken too literally, for they are merely intended to highlight some of the aspects of economic growth that are under intense scrutiny in current research. For one thing, it may be difficult to distinguish cause from effect in some cases. More and better education and extensive trade are both a cause and consequence of growth, for example. Moreover, it clearly takes more than just a few pairs or clusters of countries to reach firm conclusions about economic growth across countries. Even so, the examples reviewed above clearly have one thing in common: they all point to economic factors, including the economic system and economic policy and institutions, rather than exogenous technology as crucial determinants of economic growth. This is the fundamental message of the theory of endogenous growth. By 'endogenous' growth is meant that long-run growth depends at least in part on economic as opposed to technological factors, including some that can be influenced by economic policy. 'Exogenous' growth, by contrast, is immune to economic influences in the long run. A good theory of economic growth must be able to explain why some countries grow apart while others grow together.

Economic growth is a complex and controversial phenomenon. Even so, both ancedotal evidence and econometric research seem to show that, in theory and practice, economic growth, far from being beyond the reach of human control, depends crucially on choices that people make, individually and collectively. Sir Arthur Lewis got it right:

> Since the second world war it has become quite clear that rapid economic growth is available to those countries with adequate natural resources which make the effort to achieve it.[30]

[30] W. Arthur Lewis, *Some Aspects of Economic Development*, Ghana Publishing Corporation, Accra and Tema, 1968. Recent research shows, morover, that economic growth is available also to countries *without* natural resources, perhaps even more so. See references in footnote 25.

Table 1. Selected Countries: Economic Growth, Income Per Capita, Investment, Exports, Education, and Inflation, 1965-1997

	Annual average growth of GNP per capita 1960-1997 (in percent)	GNP per capita 1997 (US$, adjusted for purchasing power)1/	Investment as percentage of GDP 1960-1997 (average)2/	Exports of goods and services as percentage of GDP 1960-1997 (average)2/	Public spending on education as percentage of GNP 1960-1996 (average)2/	Annual average inflation 1960-1997 (in percent) 2/
Burma	...	...	14	7	2	11
Thailand	5.1	6,490	29	24	4	5
Kenya	1.4	1,160	21	29	6	8
Tanzania	0.7	620	22	15	3	25
Uganda	2.4	1, 160	11	16	3	56
Botswana	6.5	7,430	27	42	7	9
Nigeria	0.3	860	18	22	2	17
Ghana	-0.4	1,610	13	17	4	27
Morocco	1.6	3,210	22	22	6	6
Tunisia	2.8	5,050	26	32	6	6
Egypt	3.2	3,080	22	20	5	9
Uruguay	1.2	9,110	16	19	3	55
Argentina	1.2	10,100	22	8	2	111
Spain	3.3	15,690	24	16	3	9
Barbados	2.4	10,220	20	57	7	6
Dominican Republic	2.5	4,690	21	26	2	11
Haiti	-1.0	1,260	12	14	2	11
Madagascar	-1.3	900	10	16	3	12
Mauritius	3.3	9,230	23	49	4	8

Source: World Bank, *World Development Indicators 1999*, Oxford University Press, Oxford, 1999, and associated compact disc.

1/ The figure for Barbados refers to 1995.
2/ Some averages refer to shorter periods for lack of data.

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