What exactly is economic growth and why do some parts of the world grow more rapidly than others?

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Economic growth refers to an increase in the real[1] GDP per capita of an economy and is reflected by an overall improvement in the quality of life in a given country. Such a growth occurs exponentially meaning that the "new growth" builds on the past growth through the process of compounding [Dar15]. Small differences in the economic growth rates can create substantial differences in the value of GDP over time.

Economic growth is said to be "actual" when the market value of all goods and services produced in a country increases over time. However, this cannot be achieved by employing more physical capital or accumulating more units of labor. The (Cobb Douglas) aggregate production function (which relates GDP to the physical capital accumulation, total efficiency units of labor and the level of technology) is subject to the law of diminishing marginal product [Dar15]. In other words, the marginal contribution of a factor of production to the GDP diminishes when the quantity used of that factor is increased, ceteris paribus.

On the other hand, "potential" economic growth occurs when a country is potentially capable of producing a larger amount of goods and services. Technological change is a particularly important factor because when the level of technology is higher, the same amount of inputs can create a larger output. According to the Solow–Swan model, if productivity increases through technological progress, then output per worker increases even when the economy is in the steady state[2] [Swa56]. Interestingly, as evident in Moore's Law[3], technological development occurs at a constant rate rather than at a constant increment, causing economic growth to be exponential [Moo75]. The capital and labor become more productive when there is access to modern technology. As productivity increases, economic growth increases.

[1] Real value of money means that it is adjusted for inflation.

[2] A steady state equilibrium is an economic equilibrium in which the physical capital stock remains constant over time because the depreciation is equal to the investment. Savings are zero.

[3] Moore's law states that the number of transistors in a dense integrated circuit (IC) doubles about every two years. Moore's law is an observation and projection of a historical trend.

The reason why the growth rates differ between countries depends on a plethora of factors. One of the reasons is the quality of governance and the type institutions in a country. Governance is the process through which decisions are made and power is exercised. For a country to experience high levels of growth, the country's government must be effective, peaceful, stable, accountable, must follow the rule of law and must not be extremely corrupt. The function of the government is to correct market failure, protect property rights and provide a well-defined legal system which facilitates free trade [Rob04]. More liberal and capitalistic institutions such as those in the USA and Singapore, have performed much better than conservative and socialist institutions such as those in Russia and Venezuela.

A great way to demonstrate this is the large difference in growth rates of North and South Korea. This is an instructive example because they don't have many cultural or geographic differences.In 1991, South Korea had a economic growth rate of 13.2% while the north had a negative growth rate of -3.5%. South Korea shed its military dictatorship and opened up to the world, while the North remained isolated and authoritarian [**Rich18**]. It endured a devastating famine that killed an estimated 2 million people. South Korea ranks high in economic freedom, and the nation depends heavily on exports, which account for about 40% of GDP [Fun20]. Kim Jong-un's military dictatorship, on the other hand, keeps tight control of the economy, including almost all aspects of production and distribution. Their government institutions explain the disparity in their growth rates [WA05].

Differences in current growth rates also depend on the nominal income levels. Economic convergence, or catch-up growth, is a pattern of growth, which shows that low-income and middle-income economies grow faster than high-income economies. Two prominent members of the fast-growth club are China and India, and some high-income countries with low growth rates include the United States, France and Germany. This higher rate of growth in "Less Economically Developed Countries" (LEDCs) is due to low levels of human and physical capital employed. Every additional unit of input, therefore, creates a larger effect. High income countries on the other hand experience diminishing returns due to greater number of factors of production employed. LEDCs also have "a benefit of backwardness," as economist Alexander Gerschenkron said, low income countries can benefit from technologies that have already been discovered. They don't have to necessarily invest in research and development but can still experience higher growth rates.

Another factor that influences economic growth rate is the geography. Just like individuals, countries also specialize in the production of good in which they have a comparative advantage[4]. If countries specialize in the production

[4] A country has a comparative advantage when it can produce the same goods and services

of a particular good, they increase their economic growth rate [Bad18]. If they do not, they will have to produce goods with a greater degree of inefficiency. According to the world bank, Saudi Arabia had a growth rate of 58.6% in 1970. This high rate of economic growth was fuelled by enormous revenue from oil exports and resulted due to Saudi Arabia's comparative advantage. Out of the country's GDP of $779.2 billion, the petroleum sector currently accounts for 42% of GDP and 90% of export earnings [Sta20]. On the other hand, countries that do not have such a "natural gift" grow at slower rates. For instance, Lesotho's growth rate was only 1.1 % in 2018. The economy is agriculture based with water and grazing lands as the main natural resources; due to lack of resources and opportunities, the country is also an exporter of excess labor [Sch12].

History of a country has a huge impact on economic growth rates. Britain's colonialism for 200 years stunted India's economic growth in the past, by reducing India's share of GDP in the world economy from 24% to below 2% after independence. Indians were not allowed to have any political say and were forced to purchase British goods at a high price. While a small white minority enjoyed the country's wealth, millions of peasants and craftsmen had to surrender their earnings to the British [Tha16].

Economic growth is driven by a variety of factors. Since different countries are subjected to different conditions, they have a range of growth rates. Military security, law and order, lack of corruption, good institutions, low amounts of red-tape around employment, legislation and taxation. A well-educated, well-incentivized, mobile, and flexible labour-force. High-grade infrastructure, good telecommunications, fair, transparent, and competitive markets, reliably enforceable contracts, low corporation tax and countless more factors come together to grow a country.

References

[Bad18] Kurt Badenhausen. *Best Countries for Business*. Dec. 2018. URL: https://www.forbes.com/places/saudi-arabia/#259f20534e5c (cit. on p. 3).

[Dar15] John List Daron Acemoglu David Laibson. *Economics*. second. Pearson, 2015 (cit. on p. 1).

[Fun20] International Monetary Fund. *IMF Data Mapper*. 2020. URL: https://www.imf.org/external/data (cit. on p. 2).

[Moo75] Gordon E. Moore. "Cramming more components onto integrated circuits". In: *Electronics* (1975) (cit. on p. 1).

[Rob04] Xavier Sala-i-Martin Robert J. Barro. *Economic Growth*. Vol. Second Edition. The MIT Press, 2004 (cit. on p. 2).

at a lower opportunity cost as compared to other countries. Economic theory suggests that under free trade, the combined output increases if countries apply this law.

[Sch12] Andy Schmitz. 2012 (cit. on p. 3).

[Sta20] General Authority for Statistics. *Gross Domestic Product*. July 2020. URL: https://www.stats.gov.sa/en/823 (cit. on p. 3).

[Swa56] T. W. Swan. "Economic Growth and Capital Accumulation". In: *Economic Record* (Nov. 1956) (cit. on p. 1).

[Tha16] Shashi Tharoor. *An Era of Darkness: The British Empire in India*. Aleph (India) C. Hurst & Co. (UK), 2016 (cit. on p. 3).

[WA05] Charles Wolf and Kamil Akramov. "Size, Growth, and Structure of the North Korean Economy. In North Korean Paradoxes: Circumstances, Costs, and Consequences of Korean Unification". In: *The Journal of East Asian Affairs* Vol. 9.No. 1 (2005), pp. 9–20 (cit. on p. 2).