CHAPTER 19

Economic Growth

In Jared Diamond's study of human history, *Germs, Guns, and Steel*, he talks about the question that prompted him to study the course of human events. As an avid bird watcher, Diamond took many trips to New Guinea where he befriended a man named Yali. Yali asked Diamond why it was that the European descendants had so much while the people of New Guinea had so little. Diamond's fascinating account of the forces that shaped human history and the distribution of wealth is great reading. However, if Yali's question was answered by an economist, it would have only taken a chapter.

What Growth Means

Economic growth occurs when there is a sustained increase in a nation's real gross domestic product per person over time. In most years the United States real GDP grows at a rate of approximately 2%. This means that on average, the economy doubles in size every 36 years. At the same time, the population increases at a rate of 1%, which means that current real GDP per capita is almost three times greater than in 1960. Economic growth is not guaranteed. Indeed, there are years in which no or negative growth occurs. These periods are associated with recession.

Growth reveals itself in positive and negative ways. Economic growth leads to increases in living standards, nutrition, health care, longevity, and material abundance. The downside is that economic growth often results in environmental destruction and increased income inequality. Economic growth as a goal for society is hotly debated, and both sides offer wellreasoned rationales for their positions.

Why Grow?

Proponents of economic growth focus on the benefits it creates for society. The advances in food production, health care, longevity, and material abundance would not be possible without economic growth. A century ago, most Americans were involved in agricultural production and yet subsisted on far fewer calories than today's Americans, less than 2% of whom are farmers. The average life span has increased from 48 to 78 years in the same period because of the eradication of many diseases and advances in basic sanitation and health care. The quality and quantity of material goods has increased as well, allowing more Americans the things that only the wealthy could acquire in previous generations. The average workweek has decreased in the same period of time, allowing people more leisure. For most, economic growth has been a blessing.

As the economy grows and diversifies, more and more people are able to escape subsistence farming and pursue other areas of interest. This freedom for most everyone to pursue their interest and passion did not exist for most of recorded history. The creative explosion of production that has occurred over the last 150 years has yielded advances in all fields of human endeavor. Where life was nasty, brutal, and short for most, it is now relatively humane, peaceful, and long. If you have ever visited an old cemetery, you might have noticed the number of graves for young children. What was once a common occurrence is now a rare tragedy. The diseases that ravaged the population less than a century ago are for the most part eradicated. All of this is possible because of economic growth.

QUESTION

Can money actually buy happiness?

When economists compare GDP per capita with a country's overall level of happiness, an interesting trend occurs. As GDP per capita increases from $0 to $10,000, the level of happiness increases. This relationship breaks down after that. So to answer the question, the first $10,000 does buy happiness. After that, who knows?

Material abundance is a benefit of growth and is often seen by critics as the driving force behind growth policy. They may be right, but if growth also yields substantive benefits for humanity, an extra iPod or McMansion might be a small price to pay. Material abundance is a natural outflow of humans being set free from subsistence agriculture to think, invent, and create. And even for those who choose to return to the land and farm, that freedom exists as well.

FACT

The average number of children per family has steadily declined over the last 100 years. One reason for this is the reduction in infant mortality. In countries with high infant mortality rates, the average number of children per family is much higher.

As people have become more specialized and more productive, their value to society has increased as well. Consider the amount of time and resources now devoted to raising an American child. The average American child has over $250,000 invested in her human capital. Aid organizations understand that increasing an individual's value to society is important for developing a stable, productive society. Organizations that provide food assistance in the developing world have discovered that delivering families' food rations to the daughters in school increases the value of the daughter to the family, which reduces the incidence of childhood pregnancy and prostitution.

Human Capital

The most important element in economic growth is human capital. **Human capital** consists of the education, skills, and abilities possessed by an individual. Countries that invest heavily in human capital tend to have more economic growth than similarly endowed countries that do not. The United States is one of the world leaders in developing human capital. Compulsory primary and secondary education, mandatory vaccinations, and abundant nutrition have contributed to making America the most productive nation on earth. No nation spends more on educating and developing human capital than the United States.

Individual freedom and the ability to acquire private property are also essential elements in developing human capital. When individuals are free to choose their vocation and enjoy the benefits of private property, their productivity is higher than in places where individual freedom or private property is not valued. By way of comparison, the average German was far more productive in capitalist West Germany than in communist East Germany, and the average South Korean today is far more productive than the average North Korean, because economic freedom provides the incentive to produce more in order to have more.

To have human capital, you must have humans. For economies to develop and grow, it is also important that the population grow as well. Population growth must also occur alongside productivity growth. Larger populations are capable of producing more output as well as more innovation because the greater the population, the greater the number of productive resources. The more people a country has, the more probable entrepreneurs it has. And entrepreneurs are one of the drivers of economic growth.

The presence of immense natural resources can sometimes be a deterrent to developing human capital. The paradox of natural resource wealth is that governments are often so eager to exploit their natural resources for export that they neglect to invest in their population's human capital. At first glance, a comparison of Russia and Japan would lead most observers to believe that Russia is far wealthier than Japan. After all, it has the largest deposits of minerals and natural wealth in the world. Japan on the other hand has few natural resources. However, Japan has enjoyed much greater economic growth because it has invested far more in its human capital.

Physical Capital

Developing human capital alone is not enough to create economic growth. Economies must also invest in developing physical capital. **Physical capital** is the tools, factories, and equipment that are used in the production process. As the stock of physical capital increases, the nation experiences capital deepening. Capital deepening refers to the amount of capital available to each worker. Capital deepening provides for a more productive labor force. The average American worker is backed by $130,000 worth of physical capital. This is one of the reasons for America's productivity edge.

ESSENTIAL

Some capital replaces labor, while other capital enhances it. A robot that welds automobile frames replaces workers, but a pneumatic jackhammer both enhances and replaces workers. One worker with a pneumatic jackhammer can do the work of several workers armed with sledge hammers. Regardless of whether or not it replaces or enhances, capital leads to greater productivity.

Because physical capital is the result of investment, interest rates play a key role in its development. Low, stable interest rates encourage investment. In the short run, investment creates increased aggregate demand, but in the long run it expands the economy's stock of capital. High interest rates or unstable interest rates are injurious to investment decisions and result in the formation of less capital.

Once capital is deployed it must be maintained. Capital needs adequate infrastructure to realize its potential. Roads, waterways, rail systems, and reliable utility systems make capital easier to access and greatly improve the chances that it will be used effectively. One of the failures of the Soviet Union was ineffective use of capital. The Soviets built factories that dwarfed their Western counterparts. But because of inadequate infrastructure, they were often difficult to get to. This made distributing their output more difficult. The developing world lacks steady sources of power and the transportation networks that are necessary for efficient use of factories. Europe, Japan, and the United States, by comparison, have ample infrastructure to facilitate the continuous use and transport of capital's output.

Research and Development

Creativity, innovation, and invention are necessary for economic growth to continue. Western and Japanese firms spend far more on research and development than do firms in the developing world. Research and development requires sacrificing current profits in order to gain even greater profits in the future. For firms to take this risk, incentives must exist and be protected. Patents, which provide legal protection for inventors, provide the protection firms need to realize the profits of their research and development.

If developing countries want to continue economic growth, they must find ways to encourage innovation. China's impressive growth over the last fifteen years has mainly come from the production of goods developed elsewhere. Although China has many capable, intelligent, and innovative people, the laws in China do not adequately protect intellectual property. Very little incentive exists for Chinese manufacturers to spend money on research and development of new products if the factory next door can just copy it and produce it without expending the research dollars. Over time, expect to see China make strides in protecting the intellectual property of its manufacturers.

The Rule of Law

Another condition for growth is the **rule of law**. Government officials should obey the law and should also apply the law uniformly and fairly. Corruption and cronyism discourage domestic and foreign investment by effectively raising the cost of capital. Firms, individuals, and foreign investors must know that their property is protected by law. One reason that capital investment is lacking in the developing world stems from the fact that corrupt governments are far more likely to seize private property in the name of national interests. Venezuela's seizure of foreign-owned oil fields in 2007 most likely deters future foreign investment. Unlike Venezuela, former British colonies such as the United States, Canada, Australia, New Zealand, and Hong Kong inherited the English common law with its emphasis on private property, which makes them safe and attractive to foreign investors. Foreign owners of capital have basically the same rights as domestic investors. As a result, more capital accumulates in these countries than in most others.

How Economic Policy Affects Growth

Government policies also play a role in determining economic growth. Stabilization policies by the central bank affect interest rates and thus capital investment. Fiscal policy impacts capital investment indirectly through the effect of government debt on interest rates. Tax policies that affect consumption and saving decisions influence economic growth by way of their impact on interest rates and work incentives.

FACT

A group of Chilean economists, referred to as the Chicago Boys, who studied under Milton Friedman at the University of Chicago, were instrumental in bringing market reform to the country under the dictator Augusto Pinochet. The reforms they introduced helped to halt inflation and make Chile one of South America's fastest-growing economies. Unfortunately, the association with the dictator gave market economics a bad name on the rest of the continent.

The Fed promotes economic growth when it maintains a predictable, stable interest rate policy. Although monetary policy primarily affects short-term interest rates, it is the Fed's effect on long-term interest rates that influences growth. Firms are unlikely to make long-term investments in capital if they are uncertain about future interest rates and inflation. To avoid uncertainty, the Fed must maintain a firm lid on actual and *expected* inflation. The Fed's policy stance during a recession is to target a lower fed funds rate to encourage borrowing. However, if the Fed keeps interest rates too low for too long, future inflation is more likely. This expected inflation and increased long-term interest rates will discourage capital investment and, ultimately, long-run economic growth. Short-term increases in interest rates to dampen inflation may not please Wall Street, but since the increases reduce expected inflation, they help to keep long-term interest rates low and stable. And low, stable long-term interest rates encourage capital investment.

Fiscal policy that does not lead to a balanced budget impacts long-term interest rates and capital investment. Budget deficits in the absence of capital inflow or increased domestic saving lead to higher long-term interest rates and hinder investment in capital. If capital inflows or domestic savings are enough to offset government borrowing, the interest rate effect of a deficit is negated. Regardless of immediate interest rate effects, budget deficits, if large enough, create uncertainty and may effectively discourage investment. The presence of budget surpluses reduces long-term interest rates and encourages capital investment.

QUESTION

What is a flat tax?

A **flat tax** is one that taxes all households at the same rate regardless of the level of income. Given a flat tax of 15%, a household earning $40,000 would pay $6,000 in taxes, while a household earning $100,000 would pay $15,000 in taxes. The benefit of a flat tax is its simplicity. The downside is that for many households a flat tax would represent an increase in their tax burden. Even though many are in the 20% to 30% marginal tax brackets, their average tax rates are much lower because of exemptions, deductions, and the fact that the marginal tax rate is only on the incremental income and not the total income.

Changes in tax policy affect businesses and are likely to also impact the rate of economic growth. Increasing the tax burden on firms reduces their ability and incentive to invest in capital. Increasing the capital gains tax on financial investors reduces the flow of savings firms use to make real investments in physical capital. Businesses faced with too high a tax burden may choose to produce elsewhere. It is important to understand that capital is free to flow. Placing taxes on business, although politically popular, is a recipe for reduced growth.

Taxes on personal income affect work incentives and can thus also influence the rate of growth. In the United States, the more productive you are, the more income you earn. The more income you earn, the higher your marginal tax rate. This is what economists call a **progressive tax system**. If tax rates are increased on upper incomes, they increase the tax burden of the most productive members of society. Although American tax rates are much lower than in Europe, given a high enough tax rate, the productive worker will either reduce productivity or move to where productivity is not taxed as highly. So far, America has been the beneficiary of high tax rates in Europe. Europe has suffered a brain drain as its best and brightest, thus most highly taxed, move toward countries with lower tax rates. According to the Organisation for Economic Co-operation and Development (OECD), the brain drain is serious enough that European countries are establishing government programs to encourage expatriates to migrate back. Maybe they should try a tax cut. Europe's loss is America's gain as human capital has increased steadily in the United States.

The Downsides to Economic Growth

Economic growth is not without its down sides or its detractors. Economic growth has led to increased **income inequality**, which, if ignored, threatens continued economic growth. Over the last fifty years income inequality in the United States has increased for a variety of reasons. The loss of union power, reduction in marginal tax rates, foreign competition, and meritocracy are some frequently cited reasons. Union membership has steadily declined since the 1980s, and as a result, workers have lost leverage in negotiating wages. This decline has occurred because of structural changes in the economy and as a result of government taking a more adversarial role with unions. Decreases in marginal tax rates have also widened the gap between low- and high-income earners. According to the Census Bureau, from 1980 to 2008, the bottom quintile of households have seen little or no change in average household income, while the top has seen a steady increase in income. Globalization has contributed to income inequality. Much of this country's unskilled manufacturing has moved overseas, leaving unskilled Americans in lower-paying service sector jobs. Another theory of why income inequality has increased has to do with the development of a meritocracy. In a **meritocracy** the best and brightest marry the best and brightest and reproduce more of the best and brightest, leaving the not so best and not so bright in the proverbial dust.

For economic growth to continue, the gains must be more evenly distributed across the population. Whether that is fair or not is irrelevant. America practices both capitalism AND democracy. The more-productive members of society are rewarded by capitalism, while less-productive or less-skilled members of society see their income stagnate. This fact does not sit well with the latter and creates an opportunity for a political solution. Though not all Americans see the direct benefits of capitalism, they do have a vote. Therefore, those who wind up on the short end of capitalism's stick are likely to exercise their right to vote and change the equation. Income redistribution is a fact of life in a society with universal suffrage. Proponents of economic growth must be prepared to share their earned gains with those who may not have earned it.

CHAPTER 20

The Great Recession of 2007–20??

Before 2007, had you ever heard of subprime mortgages, CDOs, or credit default swaps? In 2007, possibly the worst financial crisis in United States' history began. Through 2008 and 2009 the financial crisis became a global recession. The scale of the financial and economic crisis is measured in tens of trillions of dollars. As this is being written, the economy has slowly begun to recover, but no one is sure if the recovery will be sustained. Hopefully, you are reading this as a history of what happened rather than as a tale of what is going on around you.

The Run-Up to the Meltdown

The **Great Recession**, as it is often called, had its beginnings in the twentieth century during a period of deregulation and rampant financial innovation. The Depression-era Glass-Steagall Act, which acted as a barrier between commercial banks and investment banks, was repealed and a new shadow banking industry was created. At the same time Fed and government regulators increasingly relied on business to regulate itself, believing that market forces would lead to self-enforcement of sound practices. While all of this was going on, the stock market was booming, leading to overconfidence by investors.

ESSENTIAL

Consumer and producer expectations are important forces in the economy. Positive expectations tend to boost economic activity while negative expectations tend to suppress economic activity. The president and the Fed Chairman are as much cheerleaders for economic optimism as they are serious policymakers.

On September 11, 2001, terrorists hijacked civilian aircraft and flew them into the World Trade Center and Pentagon while another plane crashed in a Pennsylvania field. The impact of the terrorist attacks created fear in a by-then retreating stock market. This fear helped to send the United States into a shallow recession in 2001 and 2002. The Federal Reserve responded by immediately lowering the fed funds rate and injecting large amounts of money into the banking system.

These injections, along with the Bush tax cuts, two wars, and a deregulated financial sector, led to a pool of money that created a boom in residential and commercial real estate investment. Much of the spending that occurred during the years 2002 through 2005 was fueled by home-equity borrowing at historically low rates of interest. Deregulated banks added fuel to the fire by lending money to pretty much anybody who showed up for a loan. Consumers went on a credit spending binge as the booming housing market created a wealth effect. Interest rates that should have otherwise crept up were unusually low as China, Japan, and the oil producing states continued to save large sums in the United States. Furthermore, faith in the Fed's inflation-fighting capability kept inflation fears at bay. The private, public, financial, and foreign sectors all had a hand in creating the conditions for disaster.

FACT

Asset price bubbles occur when easy credit flows toward a certain class of asset, like stocks, houses, or commodities. Precious metals are currently trading at all-time highs and may be the next bubble to burst. There is a debate among economists as to whether central bankers should raise interest rates to contain asset bubbles or allow them to run their natural course.

In 2006, the overheated housing market began to slow down. Savvy investors soon began pulling away from housing and putting money into commodities like oil and precious metals. In 2007, the housing market went into complete free-fall while oil prices shot up. This combination of events brought the spending party to a halt as consumers saw their wealth