Chapter 17: Institutions, Policies, and Cross-Country Differences in Income and Growth: 17-1 How Large are the Income Differences Across Countries?
Book Title: Macroeconomics: Private and Public Choice
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17-1 How Large are the Income Differences Across Countries?

When different currencies are used, how can incomes be measured across countries? One possibility would be to use the exchange rate to convert the income figures to a common currency. For example, if the income per person in France was 30,000 euros and the exchange rate was 1.2 dollars to the euro, you could multiply the French income in euros by 1.2 to convert it into dollars. In this case, the average French income would be $36,000. However, the exchange rate is influenced by international exchanges of assets like stocks and bonds, and it reflects only goods and services that are traded internationally. Thus, it may not be a good measure of cross-country differences in the cost of purchasing the typical bundle consumed by people in different countries.

Economists generally prefer to use the **purchasing power parity (PPP) method** (Method in which the relative purchasing power of each currency is determined by comparing the amount of each currency required to purchase a common bundle of goods and services in the domestic market. This information is then used to convert the GDP of each nation to a common monetary unit like the U.S. dollar.) when comparing incomes across countries. This procedure is very similar to the use of the consumer price index (CPI) to adjust for differences in the general level of prices across time periods. The cost in domestic currency of purchasing a specific bundle of goods and services that is typically consumed is derived. This bundle would include items like housing, food, electricity, gasoline, automobiles, and other items that are consumed in almost every country. The cost of purchasing this bundle is then used to derive the general level of prices (and the purchasing power of the domestic currency) in each country. Finally, this price index is used to convert the incomes in different countries to a common currency. Most economists believe that the PPP method results in income comparisons that more accurately reflect real income differences across countries and time periods.

Exhibit 1 shows per person GDP for 2014 for various high-, middle-, and low-income countries. The figures were derived by the PPP method. Take a close look at these income data. The three countries with the highest income per person are Singapore ($78,958), Norway ($63,999), and Switzerland ($55,275). Hong Kong and the United States were fourth and fifth, respectively. Ireland, Netherlands, Germany, and Australia all had income levels above $43,000. Incomes in the middle group ranged from Portugal's $26,175 to Thailand's $15,012. The per person income in Greece, Malaysia, Poland, Russia, and Chile was in the $22,000 to $25,000 range. In the lower group, the income levels of China, Egypt, and Indonesia were above $10,000. The income levels of Ukraine, Philippines, India, and Nigeria were even lower. The per person incomes in the five highest-income countries were more than 50 times those of Malawi and Niger.

Exhibit 1

The 2014 per Person GDP Levels of Various High-, Middle-, and Low-Income Countries (measured in 2011 PPP U.S. dollars)

High-Income Countries		Middle-Income Countries		Low-Income Countries	
Singapore	$78,958	Portugal	$26,175	China	$12,599
Norway	$63,999	Greece	$24,570	Egypt	$10,049
Switzerland	$55,275	Malaysia	$24,460	Indonesia	$10,033
Hong Kong	$52,552	Poland	$23,966	Ukraine	$8,267
United States	$52,118	Russia	$23,293	Philippines	$6,649
Ireland	$48,400	Chile	$21,980	Bolivia	$6,325
Netherlands	$45,662	Romania	$19,104	Nigeria	$5,639
Germany	$43,559	Venezuela	$16,751	India	$5,439
Australia	$43,256	Mexico	$16,284	Bangladesh	$2,979
Canada	$42,774	Botswana	$15,359	Uganda	$1,689
United Kingdom	$38,149	Brazil	$15,162	Niger	$895
Japan	$35,635	Thailand	$15,012	Malawi	$784

Source: *World Bank, World Development Indicators 2014.*

Some caution is necessary regarding the precision of the income figures of Exhibit 1, particularly the size of the differences between high- and low-income countries. Remember, GDP excludes productive activities within the household sector because they do not involve a market exchange. Household production will nearly always be a larger share of total output in low- than high-income countries. For example, families in a low-income country like Nigeria or even Mexico are more likely than their U.S. counterparts to make their own clothing, raise and prepare their own food, provide their own child care services, and even build their own homes. These productive labor services, originating in the household sector, are excluded from GDP. Because of this omission, the per person GDP figures will tend to understate the income levels of less-developed countries (LDCs) relative to their richer counterparts.

However, given the size of the income differences between the high- and low-income countries of Exhibit 1, it is clear that the differences are still huge even after taking the omission of household production into account. Data on other quality-of-life factors are highly consistent with this view. For example, the residents of countries with higher per person incomes nearly always live longer and have substantially lower illiteracy and infant mortality rates than those living in countries with lower incomes.

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Chapter 17: Institutions, Policies, and Cross-Country Differences in Income and Growth: 17-2 How do Growth Rates Vary Across Countries?
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17-2 How do Growth Rates Vary Across Countries?

Which countries are growing most rapidly? Which are falling behind? Exhibit 2 presents data on the growth of per person GDP for

(a) high-growth economies,

(b) high-income industrial nations, and

(c) the economies with the worst growth records.

The left side of Exhibit 2 indicates the ten fastest-growing countries in the world during 1990–2014. All of these countries achieved an average annual growth rate of 3.6 percent or more over this lengthy time frame. China, Vietnam, India, Sri Lanka, and South Korea head the list. All of the high-growth countries were classified as LDCs a quarter of a century ago. One-third of the world's population live in the two most populated countries, China and India. Both of these countries are on the high-growth list. Remember, a 4 percent annual growth rate means that per person GDP doubles approximately every 17 years. Clearly, per person incomes in the high-growth economies have increased sharply since 1990, and living standards improved dramatically.

Exhibit 2

The Growth of per Person GDP for High-Growth, High-Income Industrial, and Low-Growth Countries, 1990–2014

High Growth	**Growth of per Person GDP, 1990–2014 (%)**	**High-Income Industrial**	**Growth of per Person GDP, 1990–2014 (%)**	**Low Growth**	**Growth of per Person GDP, 1990–2014 (%)**
China	9.2%	Australia	1.7%	Liberia	–0.3%
Vietnam	5.5%	Norway	1.6%	Kyrgyz Republic	–0.4%
India	4.8%	United Kingdom	1.6%	Madagascar	–0.8%

High Growth	Growth of per Person GDP, 1990–2014 (%)	High-Income Industrial	Growth of per Person GDP, 1990–2014 (%)	Low Growth	Growth of per Person GDP, 1990–2014 (%)
Sri Lanka	4.5%	Netherlands	1.5%	Ukraine	–1.0%
South Korea	4.4%	United States	1.4%	Moldova	–1.3%
Panama	4.2%	Germany	1.4%	Tajikistan	–1.4%
Chile	3.7%	Canada	1.3%	Burundi	–1.5%
Dominican Republic	3.7%	France	1.0%	Zimbabwe	–1.6%
Poland	3.6%	Japan	0.8%	Central African Republic	–2.1%
Malaysia	3.6%	Italy	0.3%	Congo, Dem. Rep.	–2.4%

Source: *World Bank, World Development Indicators 2014.*

Among the high income industrial economies, Australia and Norway grew the most rapidly. The per capita growth rates of the top eight were tightly clustered between 1.0 percent and 1.7 percent. The growth rates of Japan (0.8 percent) and Italy (0.3 percent) were lower.

Unfortunately, LDCs dominate not only the high-growth list but also the group with the worst economic record (see the right side of Exhibit 2). The income levels of this latter group have not only failed to grow, they have regressed. The per capita incomes of these ten LDCs declined at an annual rate of 0.3 percent or more during 1990–2014. Seven of these countries had an annual decline of 1.0 percent or more.

The growth picture of LDCs is clearly one of diversity. The ten fastest-growing countries in the world since 1990, including two with a third of the world's population (China and India), were all LDCs. Income per person in these countries has grown more than twice as fast as in the high-income industrial countries. These countries have not only closed the gap, but in a few cases, they now have higher income levels than many of their historically wealthier counterparts. At the same time, other LDCs are doing very poorly and falling further and further behind.

Chapter 17: Institutions, Policies, and Cross-Country Differences in Income and Growth: 17-3 Economic Freedom as a Measure of Sound Institutions
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17-3 Economic Freedom as a Measure of Sound Institutions

In the last chapter, we discussed the major sources of economic growth: gains from trade, entrepreneurial discovery, and investment. Realization of gains from these sources is largely dependent upon institutions and policies supportive of voluntary exchange, market allocation, freedom to compete, and protection of people and their property from aggressors. These ingredients comprise the foundation of **economic freedom** (Method of organizing economic activity characterized by (1) personal choice, (2) voluntary exchange coordinated by markets, (3) freedom to enter and compete in markets, and (4) protection of people and their property from aggression by others.) .

Economic freedom reflects the concept of self-ownership: the idea that individuals have a right to choose for themselves—to decide how they will use their time and talents, but they do not have a right to the time, talents, and resources of others. Thus, individuals do not have a right to take things from others or demand that others provide things for them. Economic freedom is present when adults are free to consume, produce, and trade with others as long as their actions do not harm the person or property of another party. Use of violence, theft, fraud, and physical invasions are not permissible, but otherwise, individuals who are economically free are free to choose and compete as they see fit.

Economic freedom is complex and multidimensional. Therefore, it is difficult to measure. In the mid-1980s, the Fraser Institute of Vancouver, Canada, began work on a special project designed to measure the consistency of a nation's institutions and policies with economic freedom. Several leading scholars, including Nobel laureates Milton Friedman, Gary Becker, and Douglass North, participated in the endeavor. This eventually led to the development of the *Economic Freedom of the World* (EFW) index that is now published annually by a worldwide network of more than 80 institutes.

The EFW index is designed to measure the degree to which the institutions and policies of a country are consistent with economic freedom. It uses 42 separate components and measures their consistency with personal choice, freedom of exchange, open markets, and protection of private property. The World Bank, the International Monetary Fund (IMF), and similar widely recognized organizations provide the primary data sources for the components of the EFW index. The data for each of the components are placed on a zero to ten scale and used to derive a summary rating as well as ratings in five major areas:

(1) size of government;

(2) legal system and protection of property rights;

(3) access to sound money;

(4) freedom to trade with foreigners; and

(5) regulation of credit, labor, and business.

*

In order to achieve a high EFW rating, a country must provide secure protection of privately owned property, evenhanded enforcement of contracts, and a stable monetary environment. It also must keep taxes low, refrain from creating barriers to both domestic and international trade, and rely more fully on markets rather than governments to allocate goods and resources. In many respects, the EFW index reflects the institutional and policy factors that Chapter 16 indicates are important sources of economic growth.

The EFW data for some countries go back to 1970, and the ratings are available for 113 countries throughout the 1990–2013 period. Exhibit 3 presents data on the ten highest-and ten lowest-rated economies, as well as the ratings of ten other large countries over the 23 years. In order to rank in the top group, a country would have to maintain persistently high ratings. Thus, the countries in the top group might be thought of as those that persistently maintained institutions and policies supportive of economic freedom.

Exhibit 3

The Economic Freedom Rating for the Top-, Middle-, and Lowest-Rated Countries, Average for 1990–2013

Top-Rated Countries			**Middle-Rated Countries**			**Lowest-Rated Countries**		
1	Hong Kong	8.9	13	Germany	7.7	104	Nigeria	5.2
2	Singapore	8.6	15	Japan	7.6	105	Syria	4.8
3	Switzerland	8.4	16	Chile	7.6	106	Burundi	4.8
4	New Zealand	8.3	29	France	7.3	107	Congo, Rep. Of	4.8
5	United States	8.2	40	South Korea	6.9	108	Zimbabwe	4.6
6	United Kingdom	8.2	50	Indonesia	6.7	109	Venezuela	4.6
7	Canada	8.2	56	Mexico	6.6	110	Congo, Dem. R.	4.5
8	Australia	8.0	76	Argentina	6.0	111	Algeria	4.5

Top-Rated Countries			Middle-Rated Countries			Lowest-Rated Countries		
9	Ireland	8.0	90	Brazil	5.7	112	Guinea-Bissau	4.4
10	Netherlands	7.8	94	China	5.6	113	Myanmar	4.0

Source: *James Gwartney, Robert Lawson, and Joshua Hall. Economic Freedom of the World, 2015 Annual Report. Vancouver: Fraser Institute, 2015.*

Hong Kong, Singapore, Switzerland, New Zealand, and the United States headed the list of the most persistently free economies during 1990–2013. At the other end of the spectrum, Myanmar, Guinea Bissau, Algeria, Democratic Republic of the Congo, and Venezuela were the least free economies. Among the large economies, Germany, Japan, Chile, and France were more toward the economically free end of the spectrum, whereas China, Brazil, and Argentina were in the less free range.

Hong Kong is a modern economic miracle. Its real income per person in 2014 was more than nine times its 1960 figure. It is one of the freest economies in the world.

Economic Freedom as a Measure of Sound Institutions

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Chapter 17: Institutions, Policies, and Cross-Country Differences in Income and Growth: 17-4a Economic Freedom, per Capita Income, and Economic Growth
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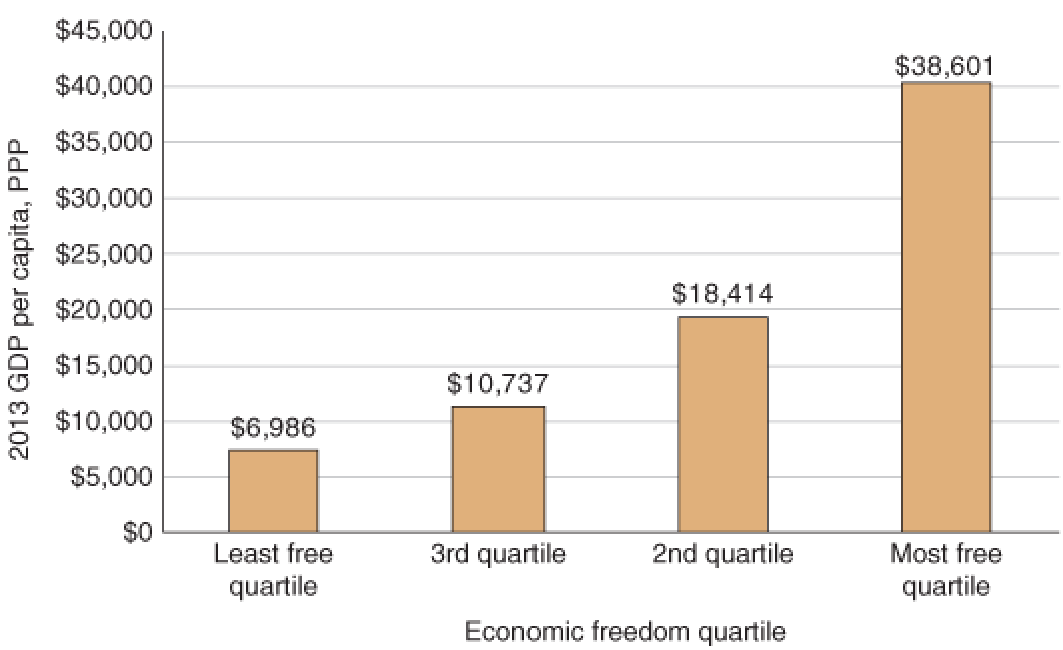
17-4a Economic Freedom, per Capita Income, and Economic Growth

The 113 countries with economic freedom ratings throughout 1990–2013 were divided into **quartiles** (A quarter (25 percent) of a group. The quartiles are often arrayed on the basis of an indicator like income or degree of economic freedom.) . The 28 countries with the highest average economic freedom rating over the period comprise the top quartile, the 28 with the next highest average ratings make up the next quartile, and so on. Exhibit 4 presents data on the 2013 per person income levels of the quartiles, ranging from the least free to the most free. Clearly, the economies with institutions and policies more consistent with economic freedom had substantially higher income levels. On average, the 2013 per capita GDP of the quartile of countries with the highest economic freedom ratings was nearly six times the parallel figure for the countries in the bottom quartile. Although the figures of Exhibit 4 do not adjust for other factors that might influence per capita income, more detailed statistical analysis indicates that the strong positive relation between persistently high levels of economic freedom and income remains after adjustment for other major factors that might influence per capita income.

Exhibit 4

Economic Freedom and Income

The 2013 income per person of countries ordered by economic freedom rating is shown here by quartiles. Note the strong positive linkage. The income per person in countries in the freest quartile was nearly six times the figure for the least free group.



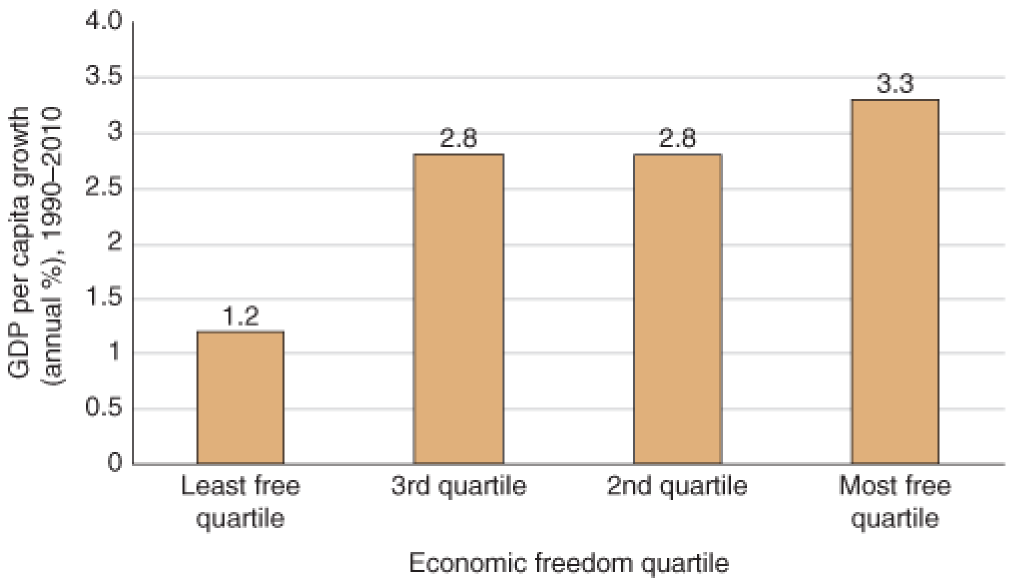
Source: *James Gwartney, Robert Lawson, and Joshua Hall, Economic Freedom of the World, 2015 Annual Report (Vancouver, British Columbia: Fraser Institute, 2015).*

Exhibit 5 uses the quartile analysis to illustrate the relationship between economic freedom and growth. In the freest quartile of economies, per person income grew at an average annual rate of 3.3 percent during the 23 years, compared to 2.8 percent for the second and third quartiles. Countries in the least free group grew at an annual rate of only 1.2 percent. Thus, the income per person of countries in the top quartile grew more than twice the average rate of those in the bottom quartile.

Exhibit 5

Economic Freedom and Growth

The relation between the economic freedom of a country and its growth rate during 1990–2013 is shown here. Countries in the most economically free quartile grew at an annual rate of 3.3 percent compared to 1.2 percent growth for the least free quartile.



Note: The data for growth were adjusted to control for the initial level of income.

Source: *James Gwartney, Robert Lawson, and Joshua Hall, Economic Freedom of the World, 2015 Annual Report (Vancouver, British Columbia: Fraser Institute, 2015).*

The growth figures of Exhibit 5 were adjusted for initial income level, but not for other factors such as location relative to major markets, access to ocean coastline, years of schooling, and degree of democracy. However, more comprehensive analysis indicates that even after these factors are taken into consideration, countries with more economic freedom achieve higher income levels and grow more rapidly. *

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17-4b Economic Freedom and Investment

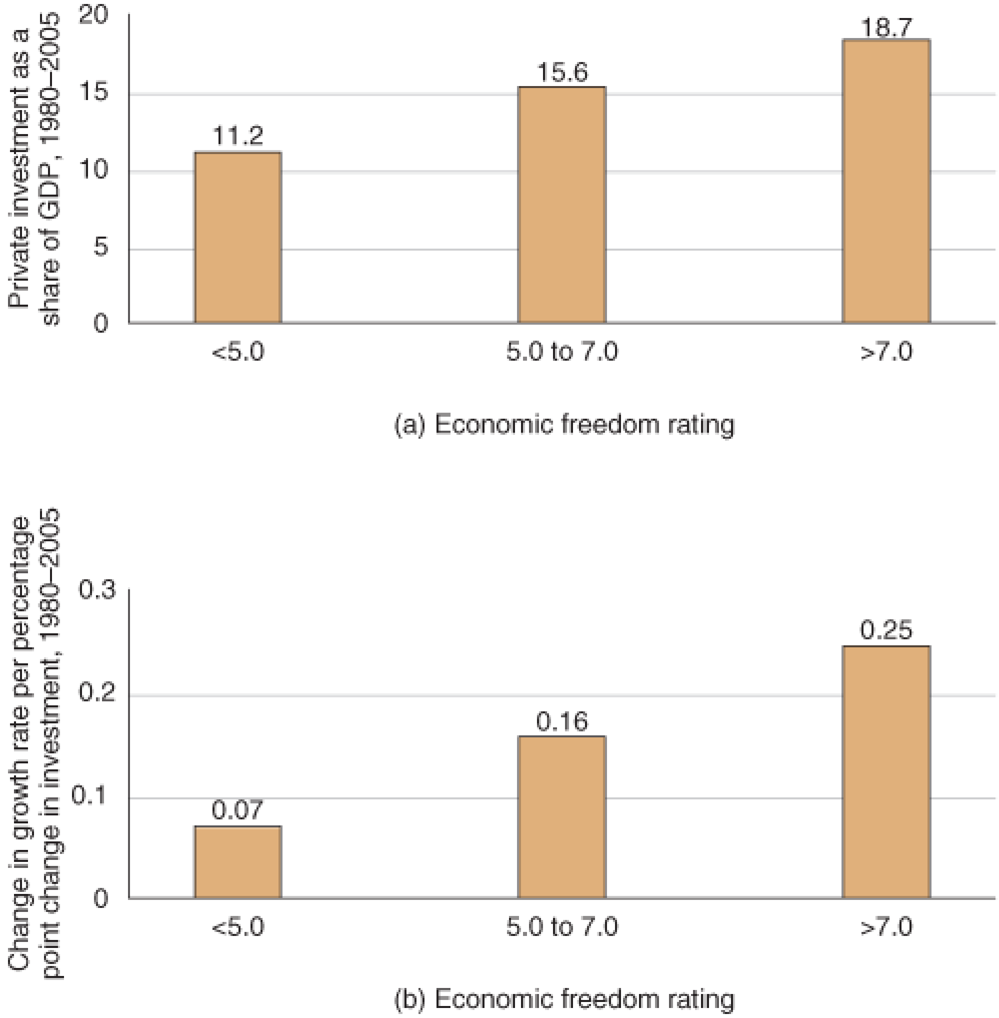
As we discussed in the previous chapter, investment is an important source of economic growth. Other things constant, countries that invest more will tend to grow more rapidly, and, with time, achieve higher levels of income. The quality of institutions and policies will influence the flow of investment funds toward or away from a country. Private investors will be attracted to economies in which markets are open, the regulatory burden is minimal, and the legal system protects property rights and provides for evenhanded enforcement of exchange agreements. In contrast, when regulations limit entry and restrict voluntary exchange, taxes are high, protection of property rights is uncertain, and political favoritism rampant, investors will take their funds elsewhere.

Exhibit 6 illustrates the impact of institutions and policies on private investment and its productivity during 1980–2005. The data are separated into three economic freedom-rating categories (greater than 7.0, 5.0–7.0, and less than 5.0) during this quarter of a century. As Exhibit 6(a) shows, private investment as a share of GDP increased sharply with the level of economic freedom. On average, private investment constituted 18.7 percent of GDP for countries with an EFW rating of 7.0 or more compared to 15.6 percent for the middle group and only 11.2 percent for the least free group. Thus, the private investment rate of the economically free group was 67 percent higher than for the least free group.

Exhibit 6

Economic Freedom and the Level and Productivity of Private Investment

Here, data are presented for both the level and productivity of private investment for countries with an average EFW rating during 1980–2005 of greater than 7.0, between 5.0 and 7.0, and less than 5.0. As frame (a) shows, private investment as a share of GDP was substantially higher in the more free countries. Frame (b) presents data on the impact of a percentage point increase in investment as a share of GDP on the annual rate of economic growth during 1980–2005. Note the productivity of investment in the freest economies was more than three times the level for the least free countries. These figures are after adjustment for the impact of initial income level, changes in human capital, tropical location, share of the population residing near an ocean coastline, and government investment as a share of GDP.



Source: *James Gwartney, "Institutions, Economic Freedom, and Cross-Country Differences in Performance," Southern Economic Journal 75 (April 2009): 937–56.*

Exhibit 6(b) illustrates the impact on long-term growth of a one percentage point increase in private investment as a share of GDP for the three different levels of economic freedom. In countries with EFW ratings of 7.0 or more, a one percentage point increase in private investment as a share of GDP was associated with a 0.25 percent increase in growth during the 1980–2005 period. For countries with EFW ratings between 5.0 and 7.0, a percentage point increase in investment as a share of GDP enhanced growth by only 0.16 percent, and when EFW was less than 5.0, a percentage point increase in the investment/GDP ratio increased growth by only 0.07 percent. Thus, the productivity of investment—the impact of a unit change on growth—was more than three times higher in the more free economies than for the group with the least economic freedom. These figures are after adjustment was made for initial income level, changes in human capital, tropical location, share of the population residing near an ocean coastline and government investment as a share of GDP. * The model was also tested for less-developed countries only, and the pattern of results was similar.

The investment figures add clarity to the relationship between sound institutions and economic performance. Countries with institutions more consistent with economic freedom generally attract more investment and direct the investment into higher productivity projects than countries that are less free. In turn, the additional investment and higher productivity boosts the growth rate of the more economically free economies. As a result, freer economies achieve higher income levels than those that are less free.

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Chapter 17: Institutions, Policies, and Cross-Country Differences in Income and Growth: 17-4c Economic Freedom and the Poverty Rate
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17-4c Economic Freedom and the Poverty Rate

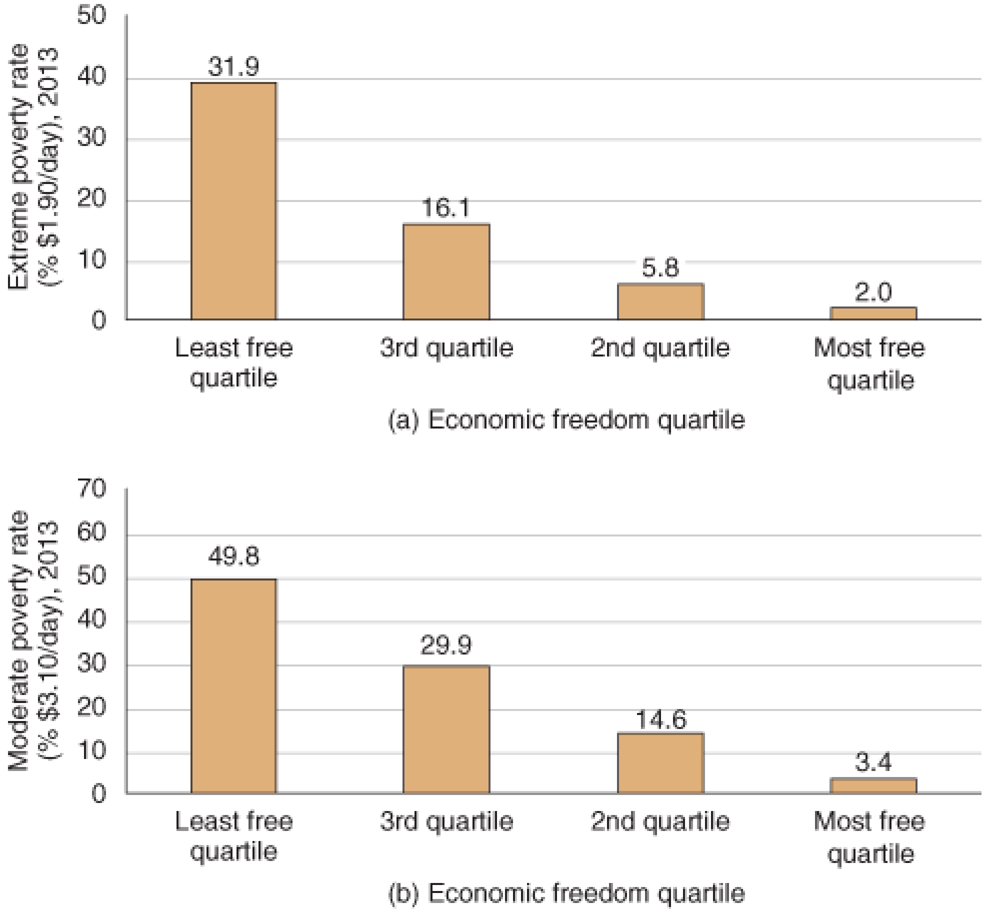
The data of Exhibits 4 and 5 are for average per capita income and growth rate, respectively. What about the poorest segment of the population? What impact does economic freedom have on the poverty rate? The World Bank provides data on extreme and moderate poverty rates. The extreme poverty rate is the percentage of the population with an income of less than $1.90 per day, whereas the moderate poverty rate is the share of the population with an income of less than $3.10 per day (measured in 2011 international dollars).

Exhibit 7 provides data for both the extreme and moderate poverty rates in 2013 according to economic freedom quartiles arranged from lowest to highest. Clearly, the poverty rates were much lower in the freer economies. The extreme poverty rate in 2013 was 31.9 percent for the least free economies, but only 2.0 percent in those that were most free. Correspondingly, the moderate poverty rate was 49.8 percent for the least free quartile compared to only 3.4 percent in the most free quartile. The two middle quartiles had both extreme and moderate poverty rates between those of the least and most free economies.

Exhibit 7

Economic Freedom and the Poverty Rate

The 2013 extreme and moderate poverty rates are shown here according to the economic freedom quartiles arrayed from least to most free. Clearly, both the extreme and the moderate poverty rates are lower in the more free economies.



Note: The extreme and moderate poverty rates are the percentage of the population living on less than $1.90 and $3.10 per day, respectively. These numbers are measured in constant 2011 dollars and normalized across countries using the purchasing power parity method.

Source: *http://data.worldbank.org/data-catalog/world-development-indicators. The World Bank poverty rate data were used to calculate the poverty rate for each country. There were missing values for the poverty rate for some countries. Estimation procedures were used to fill in the missing values. For details, see Joseph Connors, Global Poverty: The Role of Economic Freedom, Democracy, and Foreign Aid (PhD diss., Florida State University, 2011).*

Moreover, more detailed analysis indicates that countries moving toward more economic freedom achieved larger poverty rate reductions than did those that were less free. These relationships held even after adjustments for geographic and locational factors, receipt of foreign aid, and political institutions. *

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Chapter 17: Institutions, Policies, and Cross-Country Differences in Income and Growth: 17-5 Economic Freedom, Institutional Quality, and the Dramatic Reduction in the World Poverty Rate
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17-5 Economic Freedom, Institutional Quality, and the Dramatic Reduction in the World Poverty Rate

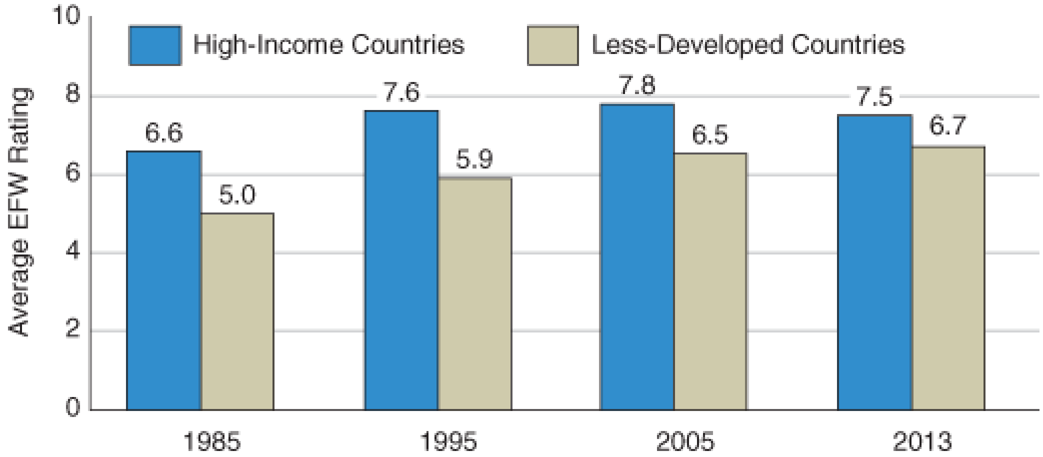
During the past three decades, economic freedom has been increasing throughout the world. Moreover, the low-income developing countries have narrowed the economic freedom gap relative to their high-income counterparts. The 24 long-standing members of the Organisation of Economic Co-operation and Development (OECD) are, in essence, a "club" of the world's high-income developed countries. These OECD members, which are comprised of the high-income countries of Western Europe and North America in addition to Japan, Australia, and New Zealand, were the world's highest income countries in the mid-1980s.

Exhibit 8 shows the average economic freedom ratings during 1985–2013 for the 24 high-income OECD countries and 85 less-developed countries for which the data were available. The average summary EFW rating of the high-income countries was 6.6 in 1985, compared to 5.0 for the developing economies, a gap of 1.6 units. In 2013, the mean summary rating of the high-income countries was 7.5 compared to 6.7 for the developing countries, a gap of 0.8. While the economic freedom of both groups increased, the EFW ratings of the less-developed countries rose more rapidly. As a result, the economic freedom gap between the high-income developed economies and the world's less-developed countries was cut in half during this 28-year period.

Exhibit 8

Average Economic Freedom Rating for High-Income Countries and Less-Developed Countries

The average EFW rating for 24 high-income OECD and the 85 less-developed countries are shown here for 1985–2013. Note that the gap between the two groups narrowed from 1.6 in 1985 to 0.8 in 2013.



Source: *Derived from James Gwartney, Robert Lawson, and Joshua Hall. Economic Freedom of the World, 2015 Annual Report. Vancouver: Fraser Institute, 2015.*

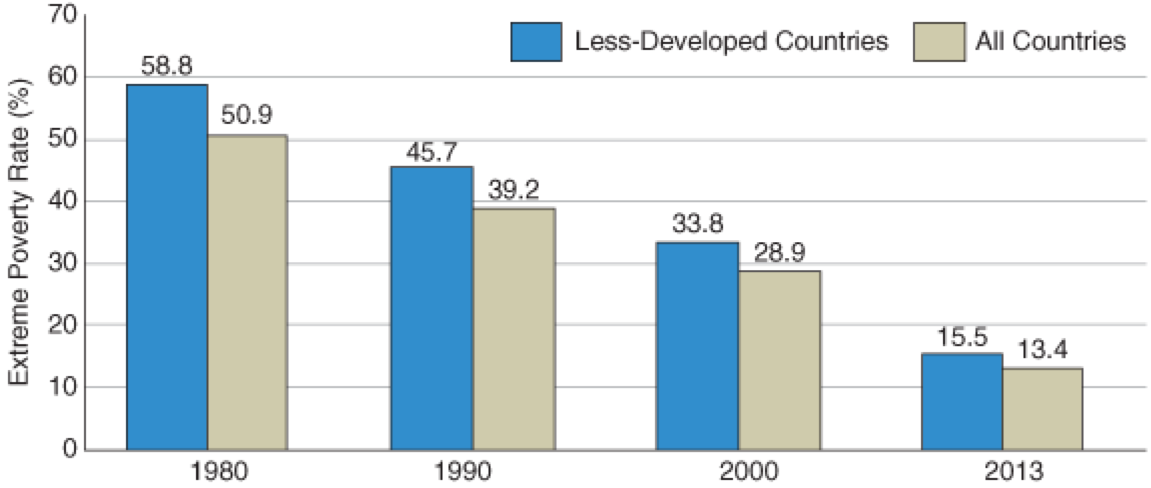
The economic freedom data indicate that the institutional gains of the developing economies were particularly large in the areas of sound money (area 3) and trade liberalization (area 4). Between 1985 and 2013, the monetary rating of the developing countries rose from 6.0 to 7.8, an increase of 1.8 units. Most of this increase occurred since 1995. These numbers reflect that compared to the 1970s and 1980s, developing countries have followed a monetary policy more consistent with price stability during the past two decades. The gains in trade liberalization were even larger. The trade liberalization ratings of the developing economies jumped from 3.9 in 1985 to 6.6 in 2000 and 6.7 in 2013, a whopping gain of 2.8 units during the 28-year period. This gain is reflective of sharp reductions in tariff rates, elimination of exchange rate controls, and other moves toward trade liberalization in many developing countries.

Some observers fear that growth propelled by economic freedom will leave the poor behind. This has not been the case during the past three decades. Exhibit 9 presents the extreme and moderate poverty rates for the world and for the non-OECD countries for various years during 1980–2013. In 2013, the world's extreme poverty rate was 13.4 percent, down from 28.9 percent in 2000 and 50.9 percent in 1980. Thus, the world's extreme poverty rate is now only about one-quarter of the 1980 figure. If only the non-OECD countries are considered, the extreme poverty rate fell from 58.8 percent in 1980 to 33.8 percent in 2000 and 15.5 percent in 2013.

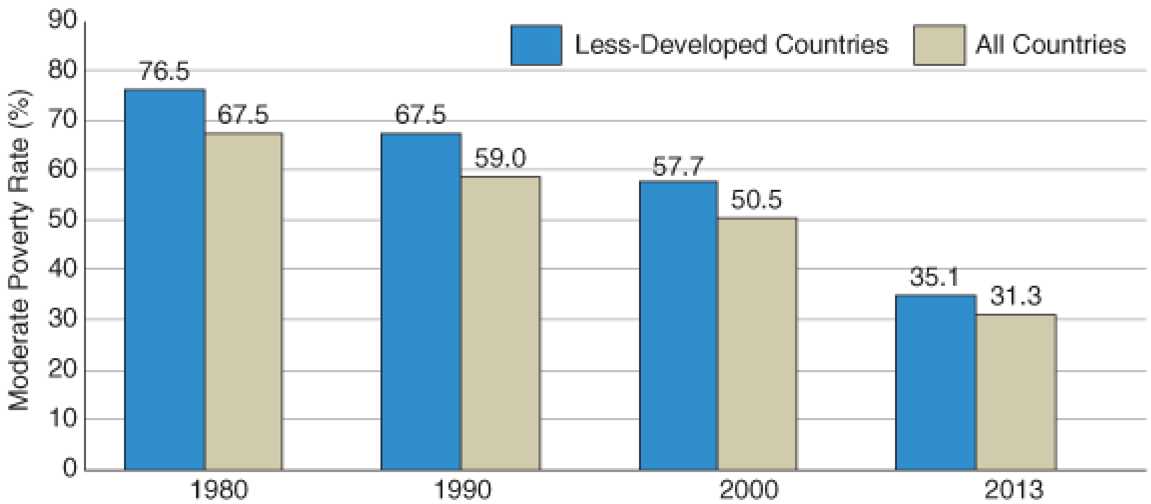
Exhibit 9

The Extreme and Moderate Poverty Rates of the World and Less-Developed Countries, 1980–2013

As shown here [panel (a)], the extreme poverty rate ($1.90/per day) of the world fell from 50.9% in 1980 to 13.4% in 2013. In less-developed countries, the extreme poverty rate fell from 58.8% in 1980 to 15.5% in 2013. As panel (b) illustrates, the moderate poverty rate ($3.10/day) followed a similar pattern.



(a) Etreme poverty rate



(b) Moderate poverty rate

Source: *http://data.worldbank.org/data-catalog/world-development-indicators. The World Bank poverty rate data were used to calculate the poverty rate for each country. There were missing values for the poverty rate for some countries. Estimation procedures were used to fill in the missing values. For details, see Joseph Connors, Global Poverty: The Role of Economic Freedom, Democracy, and Foreign Aid (PhD diss., Florida State University, 2011).*

Persons with incomes of less than $3.10 per day (measured in 2011 international dollars) are classified by the World Bank as living in moderate poverty. As Exhibit 9 shows, two-thirds (67.5 percent) of the world's population had an income level below the moderate poverty threshold in 1980. By 2000, the moderate poverty rate had fallen to 50.5 percent, and by 2013, the figure had declined to 31.3 percent. Thus, the world's moderate poverty rate was reduced by more than 50 percent during the 33-year period. In the case of the non-OECD countries, the moderate poverty rate fell from 76.5 percent in 1980 to 57.7 in 2000 and 35.1 in 2013, more than a 50 percent reduction in a little more than three decades.

Clearly, enormous progress has been made against poverty during the past third of a century. If the poverty rates of 1980 were present today, an additional 2 billion people would be experiencing both extreme and moderate poverty. The developing countries that moved most markedly toward economic freedom achieved both strong economic growth and substantial reductions in poverty. This indicates that an institutional and policy environment consistent with economic freedom is an important ingredient of progress against poverty.

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17-6 Rich and Poor Nations Revisited

Observing income differences between the wealthy and poor nations, some have argued that the rich are consistently getting richer while the poor are getting poorer. Is this true? Look back at Exhibit 2 as you think about this question. Interestingly, as Exhibit 2 shows, countries with a low per capita income in 1990 dominate the list of both countries that have grown most rapidly and those that have regressed and experienced falling incomes since 1990.

How can this pattern be explained? When you think about it, the rapid growth of LDCs with a low initial income should not be surprising. When low-income countries establish sound institutions and policies, they actually have an advantage. The low-income economies can copy or emulate ideas and technologies that have been successful in the high-income countries. Further, in a world of diminishing returns, the rate of return on investment in low-income economies with sound institutions will generally be higher than in capital-rich, more advanced economies. Thus, foreign investors will be attracted, and high investment rates will promote more rapid growth. To a degree, the rapid growth in recent decades of economies such as China, South Korea, India, Singapore, and Hong Kong reflects these advantages. These countries would not have grown as rapidly if their initial incomes had been higher, and they had not been in a position to attract investment and emulate technologies, business procedures, and other ideas from more advanced economies.

However, if a low-income country is going to benefit from borrowing technologies from more advanced economies and an influx of investment capital, it must have sound institutions. Access to modern technology is of little value when the institutional and policy environment undermine the potential attractiveness of entrepreneurial activity. This has been the case in many LDCs. The ten economies with the worst growth records shown in Exhibit 2 are all among the world's least free economies. Unsound institutional conditions explain the persistence of both their low incomes and poor growth. Many low-income economies continue to perform poorly and even regress because their institutions and policies stifle gains from trade, entrepreneurship, and investment.

As noted in the previous chapter, the past 200 years have been a remarkable period of human history (see Chapter 16, Exhibit 1). During these two centuries, the per person income of the world has expanded tenfold, and in the West, per capita income is now about 20 times the figure of 1800. As incomes grew rapidly in the West and a few other regions, most of the less-developed world lagged behind. In 1800, the wealthy nations of the world had income levels five or six times those of poor countries, but by 1980, the income levels in the world's richest countries were 30 or 40 times those present in the less-developed world. Thus, during 1800–1980, worldwide income inequality increased decade after decade.

As Exhibit 8 indicates, the institutional quality gap between the rich and poor nations of the world has narrowed during the past three decades. Has this change exerted any impact? There is reason to believe that it has. Since 1980, the trend toward inequality has reversed. Worldwide, income inequality is now declining. Xavier Sala-i-Martin of Columbia University and Maxim Pinkovskiy of the Federal Reserve Bank of New York examined this issue in great detail. Their research indicates that worldwide income inequality and the poverty rate both declined during the 1980s and 1990s. * To a large degree, these trends were driven by the rapid growth of populous countries, particularly China and India. As Sala-i-Martin and Pinkovskiy noted, the population weighted average growth rate of the developing economies exceeded that of their high-income counterparts during the 1980s and 1990s. Since 2000, the growth gap has accelerated. During 2000–2013, the annual growth rate of the high-income OECD economies was only 0.8 percent, compared to 4.3 percent for those residing in a developing economy. Thus, the population weighted growth of per capita GDP in the low-income developing countries was five times the rate of the high-income economies during 2000–2013. Given the rapid growth of less-developed countries compared to their high-income counterparts since 2000, it is a virtual certainty that the trends toward both lower poverty rates and less income inequality are continuing.

For the first time since the rise of sustained economic growth about 200 years ago, worldwide income inequality has declined during the past three decades. Paradoxically, concern about income inequality in high-income countries, including the United States, is a central focus of current political debate. During the past three decades, there may well have been an increase in income inequality in many high-income countries, but this has not been the case worldwide. Income inequality worldwide has declined because developing countries, particularly those with higher levels of economic freedom, have grown more rapidly than their high-income counterparts. Interestingly, this trend toward income equality has been almost entirely overlooked by intellectuals, the media, and the general populace.

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Chapter 17: Institutions, Policies, and Cross-Country Differences in Income and Growth: 17-7 The Declining Economic Freedom of the United States
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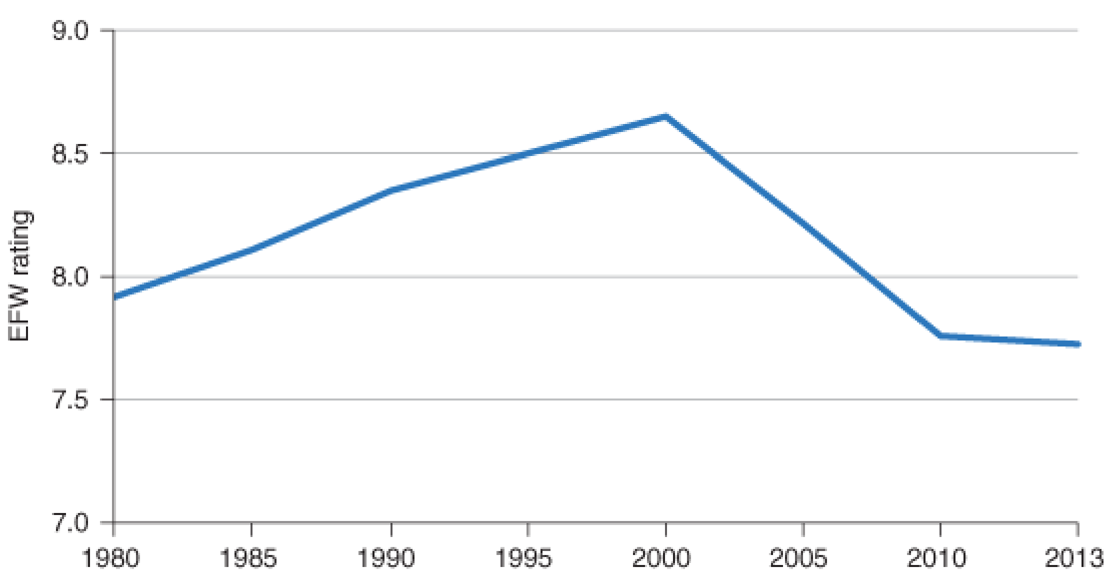
17-7 The Declining Economic Freedom of the United States

The United States ranked as the world's third freest economy, behind only Hong Kong and Singapore, throughout the 1980s and 1990s. But the situation has changed substantially since 2000. As Exhibit 10 shows, the summary EFW rating of the United States fell from 8.7 in 2000 to 7.7 in 2013, a reduction of one full unit. By 2013, the U.S. ranking had fallen to sixteenth, down from the third place position it occupied in 2000. Several factors contributed to the decline in the U.S. rating. Government spending on both consumption and transfer payments was higher in 2013 than in 2000, pushing the ratings for these components down. The rating in the legal system and protection of property rights area also declined substantially during the past decade. Non-tariff trade barriers, perhaps the result of increasing cost of meeting heightened security standards, have risen in recent years. Similarly, restrictions on foreign investment and regulatory favoritism have grown extensively since 2000. A decline in the share of credit allocated to the private sector and increased regulations and administrative costs imposed on business also contributed to the decline in the U.S. rating.

Exhibit 10

Economic Freedom of the United States, 1980–2013

While the EFW rating of the United States increased from 7.9 in 1980 to 8.7 in 2000, it has declined substantially during the past decade. By 2013, the rating fell to 7.7, its lowest level in more than three decades. Unless this trend is reversed, future growth of the U.S. economy is likely to be sluggish.



Source: *James Gwartney, Robert Lawson, and Joshua Hall, Economic Freedom of the World: 2015 Annual Report (Vancouver, British Columbia: Fraser Institute).*

Although a one-point decline does not sound like much, the summary EFW ratings fall within a narrow range between three and nine. Research on the impact of a one-unit reduction in the EFW rating indicates that it is associated with approximately a one percentage point decline in long-run economic growth. In this regard, it is interesting to note that the growth of real per capita GDP in the United States averaged 2.3 percent in the 1980s and 2.2 percent during the 1990s, but it fell to an annual rate of less than 1 percent during 2000–2013. If the United States continues to follow policies restrictive of economic freedom, it can expect to grow at a slower rate in the years ahead.

Applications in Economics

China: Institutions, Markets, and Growth

Since 1980, China has been the world's fastest-growing economy. How can this be? Isn't China a centrally planned socialist economy? It certainly was for three decades following World War II. However, even though the Communist Party of China remains in charge, the Chinese economy has experienced remarkable change during the past three decades.

Following the 1978 Communist Party Congress, China began introducing institutional reforms that have dramatically changed the structure of the economy. Today, there are essentially two Chinese economies:

(1) agriculture, small businesses, and “special economic zones” and

(2) state enterprises.

The activities in the first category take place within a now relatively free economy, whereas those in the second continue to be owned and operated by various levels of government.

China's liberalization started with the agricultural sector. Following the 1978 Communist Party Congress, collective farms were dismantled and replaced with what the Chinese refer to as a contract responsibility system. Under this system, families are now permitted to lease land from the government for periods of up to 50 years. Except for a modest production quota supplied to the government, farmers are permitted to keep what they produce and/or sell it at market prices. Even though the legal ownership of land remains with the state, the system of long-term leases provides a farmer with something akin to a private property right, particularly as renewal of the leases has now become virtually automatic. Currently, more than 85 percent of the grain output (rice, wheat, and barley) is produced privately and sold at market-determined prices.

Success in China's agriculture led to reforms in other sectors. Restrictions on the operation of small-scale service and retail businesses were relaxed in the 1980s. The number of self-employed household businesses and single proprietorships increased from 140,000 in 1978 to 2.6 million in 1981. Private restaurants, stores, and repair shops sprang up and began to compete with state-operated enterprises. By the mid-1980s, Chinese cities were teeming with sidewalk vendors, restaurants, small retail businesses, and hundreds of thousands of individuals providing personal services. Moreover, townships and villages were permitted to both directly operate businesses and authorize local entrepreneurs to do likewise. These enterprises purchased resources and labor services and sold their products at market determined prices. They were directed by profits and losses, much like firms in a market economy.

China also established so-called special economic zones. Approximately 30 percent of the people in the Chinese labor force now work in these areas. Regulations are more liberal and taxes lower in the zones. People are permitted to establish businesses, engage in trade with foreigners, maintain bank accounts in foreign currencies, and undertake investment without having to obtain government approval. During recent decades, the zones attracted a large amount of investment from abroad, which has contributed to the growth of the Chinese investment rate. Economic activity in these regions has also made a sizable contribution to the growth of the trade sector.

The Chinese economy has become much more open to international trade in recent decades. In 1980, international trade (the average of imports plus exports) as a share of GDP was 10 percent of the Chinese economy. But this changed rapidly during the 1980s and 1990s. In recent years, the trade sector has comprised more than 20 percent of the Chinese economy. By way of comparison, international trade is about 15 percent of the U.S. economy. Even though China is more populous, measured as a share of GDP, China's trade sector is about one-third larger than that of the United States. No doubt, the increased openness and rapid expansion of the trade sector have been major factors contributing to the impressive growth of the Chinese economy

China's economic freedom ranking is still relatively low. In 2013, it ranked 111th among the 157 countries of the EFW report. But the movements toward economic liberalization have boosted its EFW rating substantially. China's EFW rating in 2013 was 6.25, up from 5.78 in 2000, and 3.74 in 1980. Moreover, the degree of economic freedom in the special economic zones, which now cover a large share of the economy, is substantially greater than for the country as a whole.

The liberal reforms have surely contributed to China's rapid growth. * However, it is possible that some of the growth has been exaggerated. This was the case for the former Soviet Union and the countries of Eastern Europe during the 1970s and 1980s. Because centrally planned economies do not rely on market prices to allocate goods and services, output in the planned sector is generally measured by the physical quantities of goods produced and the value of inputs used. These factors might not reliably reflect the value of what is actually produced. Also, the movement of the labor force away from the rural agriculture sector toward an urbanized market economy tends to overstate the growth of real GDP. Output in the former is often omitted from GDP because it does not involve a market transaction, while the latter is generally included. This will also tend to exaggerate the growth of GDP. Thus, while China's growth is clearly impressive, the figures should be interpreted with a degree of caution.

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17-8 Origins of Institutions

In an important recent book, *Why Nations Fail*, economists Daron Acemoglu of the Massachusetts Institute of Technology, and James Robinson of Harvard University argue that institutions determine the fate of nations. Successful nations adopt institutions and policies that limit the power of political leaders, provide secure property rights, and permit open markets—all of which encourage trade, innovation, and entrepreneurship. In contrast, nations fail when their institutions and policies are "extractive," when they allow the politically powerful to take resources and income from others. *

Economic institutions reflect the political process. A legal system that provides for the protection of individuals and their property and the unbiased enforcement of contracts is particularly important for growth and prosperity.

Tim Graham/Alamy Stock Photo

Why do some nations have good institutions and others bad? Acemoglu and Robinson believe history provides a big part of the answer. They argue that a country's history during the colonial era exerted a major impact on the evolution of its institutions. Researchers have found that countries with colonial settlers who planned on staying were likely to develop sound institutions and policies. Because of their long-term commitment, they sought to protect individual property rights and limit the power of government. In contrast, colonizers settling in harsh climates and with short-term interests in the extraction of mineral resources were more likely to choose institutions that provided few limitations on the power of government. They were not very interested in individual rights, protection of property, and evenhanded application and enforcement of the law. Even after independence, the colonial institutional influences remained and continued to exert an impact on institutions and policies.

According to this view, countries like the United States, Canada, Australia, and New Zealand developed sound institutions and policies because their colonizing Europeans planned on staying. They had long-range plans and sought to protect their investments, gains from trade, and returns on new discoveries. Conversely, protective institutions were largely absent in Africa and Latin America, where the European colonizers were primarily interested in resource extraction.

Is institutional change possible? History can help answer that. What happened 50 or 100 years ago continues to shape the institutions and policies of various countries. While no country can entirely escape its past, there are at least three reasons to believe that the opportunity for constructive institutional change is now greater than in the past. First, the colonial era is over. Countries that were previously colonized by European powers are now in a position to make their own institutional and policy choices. Second, the collapse of communism has also expanded the opportunity for institutional change. Much like former colonies, the institutional choices of countries under Soviet domination were also limited. Third, and perhaps most important, substantial reductions in transportation and communication costs have increased the importance of institutions and policies. Lower transportation and communication costs mean that, to a greater extent than in the past, entrepreneurs can choose where to locate a productive facility. This increases the potential gains from trade, including those accompanying the importation of investment and technology from abroad. It also increases the incentive for countries to adopt sound institutions and policies.

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17-9 Economic Rules and Political Decision-Making

The rules and institutions of a country exert a major impact on economic performance. When the institutions and policies of a country encourage market exchanges, reward the discovery of better ways of doing things, and protect people and their property, investment will be attracted to the nation and people will engage in productive activities. Rapid growth and movement up the income ladder will result. In contrast, if the rules make unproductive and destructive activities profitable, people will pursue such activities and potentially productive resources will be squandered.

Economics indicates the types of institutions and policies that will lead to wealth creation, growth, and prosperity. However, institutions and policies are an outgrowth of the political process. Unfortunately, there is no assurance that political decision-making will lead to sound policies.

Won't **democracy** (A form of political organization in which adult citizens are free to participate in the political process (vote, lobby, and choose among candidates), elections are free and open, and majority voting, either directly or by elected representatives, decides outcomes.) ensure that a government will undertake productive policies? Think about the difference between markets and political democracy as you ponder this question. The two are quite different. Market exchange is based on agreement and mutual gain. When markets are open and property rights are well defined, market activities will persist only when they are mutually advantageous. Most important, the agreement of the market participants provides strong evidence that the activity is productive. In contrast, the majority rule criteria of democracy generate “losers” as well as “winners.” And there is no assurance that the gains of the winners will be greater than the costs imposed on the losers. This is particularly true when the primary beneficiaries of the decisions differ from those who are paying the costs related to those decisions.

As public choice analysis highlights, there are several circumstances under which there is good reason to expect that the costs imposed on the minority will be greater than, and often substantially greater than, the benefits derived by the political majority. Majoritarian democracy tends to be shortsighted. It is biased toward the adoption of programs that provide immediate, highly-visible benefits at the expense of future costs that are difficult to identify. Furthermore, special interests will exert disproportional power at the expense of the ordinary citizen. Political incentives will lead politicians to “trade” favors to interest groups in exchange for political contributions that will help them win the next election. When the government becomes heavily involved in activities that provide favors to some at the expense of others, people will be encouraged to divert resources away from productive activities and toward lobbying, campaign contributions, and other forms of political favor seeking. All of these shortcomings tend to corrupt the political process and lead even democratic governments to adopt counterproductive policies.

Could political institutions be designed in a manner that would make political action more reflective of mutual agreement and provide better protection of economic rights? Clearly, the answer is “yes.” Such a design would include

(1) checks on the powers of both the executive and simple legislative majorities;

(2) constitutional protection of economic rights like ownership of property, freedom to trade and compete, and use of alternative currencies; and

(3) political decentralization so that citizens can more easily escape from governmental units that fail to provide an attractive economic environment.

*

The ingredients of sound institutions and policies in the decades ahead are the same as they have been in decades past: well-defined property rights, rule of law, monetary and price stability, open markets, low taxes, control of government spending, and neutral treatment of both people and enterprises. (See the Keys to Prosperity list of this book.) However, merely because it is possible to design a political system reasonably consistent with growth and prosperity does not mean it will happen. As the chapter-opening quote from Professor North indicates, history is a story about countries that fail to adopt and enforce a set of economic rules that generate sustained economic growth.

Countries that adopt sound institutions and policies will grow and prosper. Those that fail to do so will stagnate and regress. The future of the United States and other countries throughout the world in the twenty-first century will be shaped by their actions in this vitally important area.

Looking Ahead

As we have already discussed, international trade is an important source of growth and prosperity. The following chapter will provide a more detailed analysis of this issue.

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Chapter Review

Key Points

- PPP comparisons indicate that the per person income in wealthy countries such as Singapore, Norway, Switzerland, Hong Kong, and the United States is more than 50 times the income level of the world's poorest countries. While these figures may result in some overstatement because GDP excludes production within the household sector, it is clear that the income differences between high- and low-income countries are huge.
- The world's fastest-growing economies were all low-income, less-developed countries (LDCs) a couple of decades ago. China and India, with a third of the world's population, are included in the fast-growing group of LDCs. But there is also a large number of LDCs that have experienced falling incomes in recent decades.
- The Economic Freedom of the World (EFW) index is designed to measure the consistency of a nation's institutions and policies with personal choice, voluntary exchange, open markets, and protection of property rights. In order to score high on this index, countries must rely on markets, refrain from regulations that restrain trade, keep taxes low, and provide access to sound money and a legal system that protects privately owned property and enforces contracts in an evenhanded manner.
- Countries with institutions and policies more consistent with economic freedom have grown more rapidly, attained higher income levels, and achieved lower poverty rates than those that are less free. The 2013 per capita income in the persistently free quartile of countries was nearly six times the figure for the least free quartile.
- Both the level and productivity of investment is higher in countries with institutions and policies more consistent with economic freedom than in those that are less free. This is a contributing factor to the more rapid growth and higher income levels of the freer economies.
- Since 1980, less-developed countries have narrowed the economic freedom gap relative to the high-income developed nations. As less-developed countries have moved toward economic freedom, they have grown more rapidly and achieved historic reductions in both the extreme and moderate poverty rates. Worldwide, income inequality has declined during the past three decades.

- Economic institutions and policies will reflect political choices. The political environment often conflicts with the adoption of sound economic policy. Even democratic political decision-making will sometimes lead to the adoption of policies that reduce growth and prosperity.

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