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**THE 21ST-CENTURY  
ECONOMY**

**A BEGINNER'S GUIDE**

**RANDY CHARLES EPPING**

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**THE 21ST-CENTURY ECONOMY**

**A Beginner's Guide**

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*The Beginner's Guide to the World Economy*

Novels

*Trust*

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# THE 21ST-CENTURY ECONOMY

**A BEGINNER'S GUIDE**

*With 101 Easy-to-Learn Tools  
for Surviving and Thriving  
in the New Global Marketplace*

RANDY CHARLES EPPING



VINTAGE BOOKS  
A DIVISION OF RANDOM HOUSE, INC.  
NEW YORK

To Thalia Zepatos, thank you for your inspiration. To Richard Lupoff and Frank Robinson, thank you for your example. János Faragó, thank you for your ideas. And to Jerrod, Shawn, and Chas Engelberg, thank you for your corrections.

In Memoriam: Tracy Lawrence Epping

I would also like to thank my agent, Kirsten Manges, and my editors at Vintage Books, Edward Kastenmeier, Tim O'Connell, and Marty Asher, for their vision and ongoing efforts to create an economically literate world. As the *Economist* once said, “Politicians care about what voters think, especially voters in blocks, and not a shred about what economists think. Talking to politicians about economics is therefore a waste of time. The only way to make governments behave as if they were economically literate is to confront them with electorates that are.”

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# INTRODUCTION

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**U**NDERSTANDING THE WORLD economy has never been more important than it is today. What happens in one corner of the globe can affect us and our families in ways that would have been unimaginable in previous years.

In today's interconnected fusion economy, almost anything can happen. A downturn in one part of the world can turn into a global financial meltdown within days—if not hours. When a housing crisis in a few American states grew into a full-fledged financial crisis in 2008, for example, it sparked one of the biggest stock-market meltdowns in modern history. And when countries, companies, and banks around the world began tumbling like dominoes, the so-called credit crisis became an economic inferno. Money dried up and companies were forced to lay off employees and cut back production. Even the developing world was impacted, when investors from rich countries pulled funds from the four corners of the globe to cover losses at home.

It was just a matter of time before the economic crisis became a political and social crisis as well. When people lose their jobs or their retirement savings—or worse, when food runs out, as it already has in some countries around the world—it doesn't take much to bring down governments or engender social chaos.

Never before has it been so important for us to become economically literate. The idea of this book is not only to give you a thorough understanding of what's happening in the world economy today, but to provide you with the tools to be able to make sense of future economic events—good or bad. These days, the front pages of our newspapers are flooded with business-and economics-related articles. Web sites are increasingly devoted to economic issues. And the news we see and hear on TV and radio is increasingly economic in content.

Even the water-cooler conversations have become economic in nature. How's your 401(k) surviving the crash? Will Congress be able to get us out of the mess we're in? What about those foreign investors, are they going to pull out their investments and bring down the economic house of cards? How are we going to be able to pay for our children's education, our retirement, our fuel this winter? Will there be enough money around to ensure our economic survival in the years to come?

Faced with the enormous complexity of the new global economy, many of us tend to shrug our shoulders and say, “It's all too difficult. Let the economists figure it all out.” But if we're going to survive and thrive in this strange new world, we're going to have to understand the basics. Unfortunately, most economists today are not able to explain things simply.

I remember how my first economics professor at Yale, a brilliant man by all accounts, thought that any question needed to be answered with a complicated graph or a formula. No question could be answered with a simple yes or no. Always with a “Let me draw you an equation,” or “Let's look at this graph.” I would sit there and stare at the complex array of numbers and Greek letters he was writing on the blackboard and wonder, *Is this really the only way to understand economics?*

I had the impression that if someone had asked the question “What's the weather like today?” the brilliant economist would begin his answer by writing out a complex formula or matrix equation. Sometimes, all you have to do is look out the window. The answers are often right there, staring at us in the face.

What is a stock index? Think of checking the cost of a few items in a store to see how the “market” as a whole is priced. Or what is a leveraged buyout? Think of a seesaw, lifting a heavy weight at one end with a small amount of force at the other. The same concept allows investors who borrow money to finance their acquisitions to get more



“bang for their buck.”

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We are all citizens of this increasingly interconnected world, and we're going to have to understand the economic forces shaping our daily lives if we're going to profit from them or intelligently oppose them. Student, farmer, businessperson, criminal, lawyer, politician, homemaker, or environmental activist—whoever we are, we all have a role to play. And without a basic understanding of the world economy and its effect on our daily lives, we're never going to be effective members of society.

The intent of this book is to provide an easy-to-understand survey of the 21st-century economy, so that whoever we are—consumers, voters, businesspeople, or students—we'll be able to survive, and thrive, in the new global marketplace. All we need is a basic understanding of how this new 21st-century economy works.

Although this isn't meant to be a “get-rich-quick” book, it's obvious that any successful foray into the global marketplace needs to be accompanied by a thorough understanding of the principles on which global finance and economics are based. Imagine trying to invest in an Internet-based IPO without knowing your way around the Web-based economy. Or trying to convince your government to increase spending on biofuels without knowing the underlying fundamentals of the “green” economy and the effect these policies will have on global food production. Or how to bail out failed banks without bankrupting the government in the process.

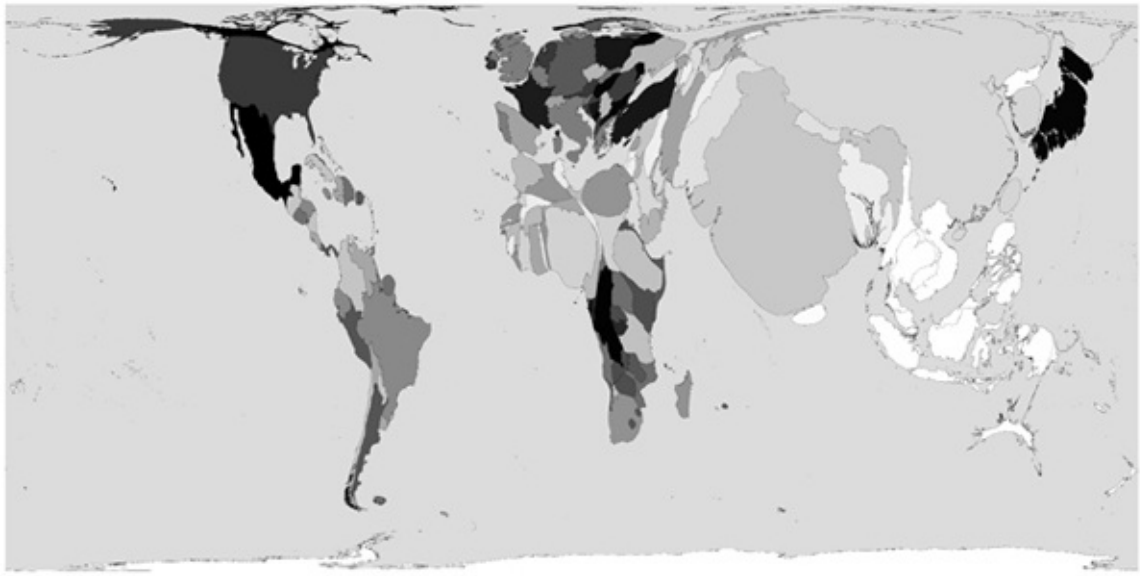
I hope this book helps you on your journey through this perilous new century. If you have any questions or suggestions, please feel free to contact me at [RCEpping@aya.yale.edu](mailto:RCEpping@aya.yale.edu), through the publisher of this book, Vintage Books, or through the fusion economics Web site: [www.fusioneconomics.com](http://www.fusioneconomics.com). I'm always happy to receive readers' comments and hear how they are using their newfound knowledge.

You can read this book from front to back, from back to front—however you'd like. And don't worry, you'll find no graphs and no equations. By the time you finish, you should be able to understand every one of the major economic forces that are shaping our daily lives.

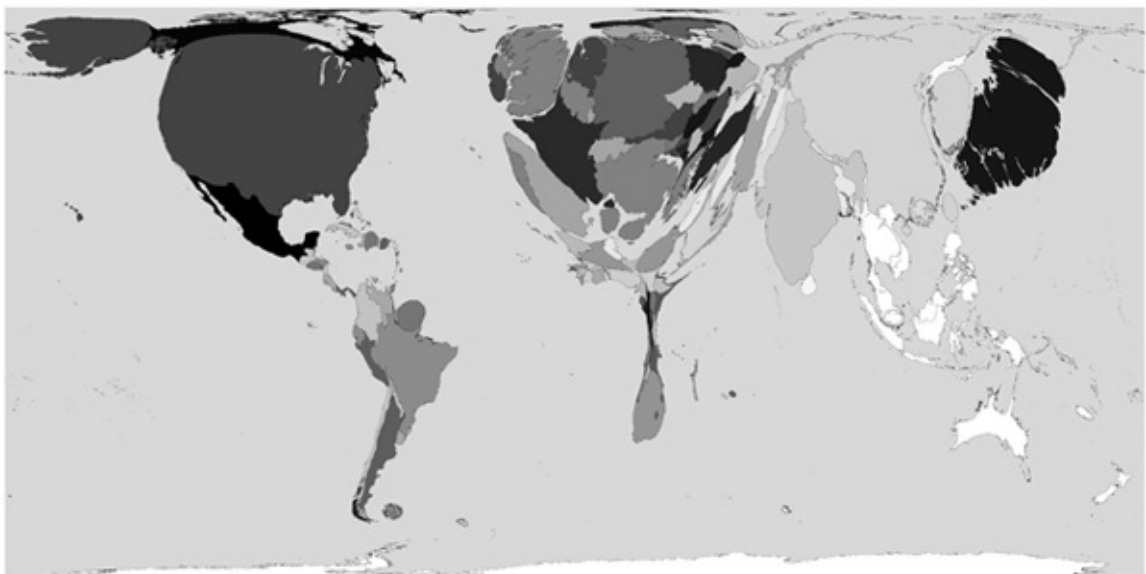
Along the way you'll find occasional informational sidebars that explain various economic concepts that are important for understanding the 21st-century economy. “What is subprime debt?” “What is a derivative?” “What is a carbon footprint?” “What is the G8?” At the end, you'll find an extensive glossary with definitions of all the major economic terms—credit default swaps, Fed funds, current accounts, hedge funds, etc.—that you can refer to whenever you encounter them in the news, at work, in class, on the Web, or on TV. Eventually, the complex fusion economy of the 21st century won't be so difficult to comprehend.

Then it's up to you to go out and change the world. In whatever way you choose.





Map of the World According to Population





## WHAT IS THE FUSION ECONOMY?

**T**HE CONVERGING WORLD economy has created a whole new paradigm for the 21st century. Global warming, credit crunches, currency meltdowns, food crises, and trade wars are just a few examples of how our everyday lives are being altered by a myriad of forces, many of which are economic in nature. And like nuclear fusion, which joins together hydrogen molecules and releases enormous amounts of energy in the process, the converging global economy is releasing a lot of new energy—we just need to figure out how to use it.

This new *fusion economy* brings together forces and reactions in ways that are impossible to understand using normal linear forms of approach. It used to be that we could follow a fairly simple path to arrive at an economic conclusion: A better product or a more efficient company meant more productivity, which meant a higher standard of living for all. But today, things aren't so simple. How can we say that economic growth in China or India is a good thing if it increases global pollution or leads to food scarcity? How can we say that increased access to mortgage financing is a good thing if it entices subprime borrowers to buy houses they can't afford to pay for, leading to failing banks in Europe and the United States, stock market crashes in Asia, and a worldwide credit crisis?

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### INFORMATIONAL TOOL:

#### *What are subprime mortgages?*

*During the housing boom at the beginning of the 21st century, many mortgage companies and banks in the United States began providing loans to home buyers who normally wouldn't have been given credit. These “subprime” borrowers were allowed to buy homes by paying slightly more than normal rates, often with floating interest rates that rise and fall with the general market. Most of these subprime mortgages were repackaged and sold as bonds to investors throughout the world economy, mainly to banks and financial institutions—from Frankfurt to Tokyo to Zurich. Many were given AAA ratings, implying that the chances of not being paid back were minimal. Unfortunately, many ended up being classified as “junk” and brought down banks, investment funds, and insurance companies around the world.*

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With hundreds of billions of dollars worth of mortgage-backed securities being traded annually, the market for sub-prime debt became, at one point, bigger than the entire market for U.S. Treasury bonds—the biggest bond market in the world. When banks and mortgage companies realized they could pass on the risk of the mortgages they were issuing, they became more concerned about increasing volume and less concerned about whether the borrowers could pay back their loans. Consequently, credit standards were relaxed and many poor and low-income borrowers were given mortgages to buy homes—leading to even

increasing home prices. Many borrowers bought homes they knew they couldn't afford, but assumed that rising home prices would cover their loan commitments, allowing them to refinance at a later date, once the house's value had gone up.

When the housing market began to cool, many subprime borrowers were unable to refinance their loans and were unable to make the interest payments on their original loans. Delinquencies—borrowers' failure to make their mortgage payments—began to rise, and the value of the bonds that were based on subprime mortgages began to decline. When large numbers of these subprime borrowers started going bankrupt, the subprime mortgage securities had to be revalued downward.

In the end, the banks and investment houses around the world that had bought the mortgage-backed securities were forced to write off large portions of their debt—up to 80 percent of their original value in some cases—leading to a credit crisis that spread around the world as other banks and investment houses refused to provide the cash that the world's companies and financial institutions need to keep running. Banks around the world had to be rescued by cash-strapped governments. In the United States, Lehman Brothers, one of the largest investment banks in the country, was forced into bankruptcy, and another investment bank, Bear Stearns, had to be sold off with help from the U.S. Federal Reserve—for a fraction of its previous value. AIG, the largest insurance company in the world, also had to be bailed out by the Federal Reserve. Once the financial meltdown had started it was impossible to stop.

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#### *INFORMATIONAL TOOL:*

*What is a mortgage-backed security?*

*Think of an IOU backed by a deed to a house. A mortgage-backed security is a type of collateralized debt obligation, a bond or other security that is backed by assets such as loans or mortgages. During the first years of the 21st century, many subprime mortgages were repackaged and sold as bonds to investors, with the understanding that the loans would be sufficient to pay back the bonds at one point in the future. When property prices tumbled beyond anyone's expectations, the crash of the mortgage-backed securities market led to a global financial meltdown. Many central banks and monetary authorities around the world were forced to take over vast portfolios of "toxic" mortgage-backed securities.*

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In addition to financial meltdowns, even cataclysmic events such as hurricanes and global warming are influenced by the expanding 21st-century economy, which is bringing forces to bear that are making it impossible to predict what will happen in the future. For example, the destruction of the Amazon rain forest, primarily for economic reasons, has led to a sharp increase in the release of carbon dioxide into the atmosphere. And industrial pollution in the United States, Europe, and China has contributed to the shrinking of the Arctic ice cap and an unprecedented melting of the permafrost, releasing even more carbon dioxide and methane gas into the atmosphere, leading to even more global warming. This greenhouse effect has led to ever higher temperatures—literally a "meltdown" in some parts of the world. And no one seems to know where it will all end.

Even efforts to reduce global warming, such as the promotion of biofuels, have led to

unintended and unforeseen consequences. In addition to the use of massive amounts of water to produce sugar- or corn-based biofuels, the reduction of farmland for the production of food for human consumption led to rising shortages of rice, corn, and wheat on the world market, resulting in riots in some countries and calls for increased protectionism in others.

The converging global economy is also shaking up traditional patterns of trade and investing. Before the 21st century, for example, people tended to limit their investments to purchases of domestic stocks and bonds. They then waited patiently for their investments to increase in value or provide a safe, fixed income over time. But in today's fusion economy, our money is being invested—whether we're aware of it or not—in pension funds, governments, and banks that buy an increasingly complex array of securities and investment vehicles.

The 21st-century economy has brought strange new correlations between investors and between markets. And the results can be catastrophic. Investors who are losing money in one sector tend to sell investments in another sector—or another part of the world—to pay their debts. When stocks fall sharply in the United States and Europe, for example, emerging market funds from Brazil to Bangladesh can decline sharply as investors sell their shares abroad in order to raise cash to pay for losses at home. Currencies in previously healthy economies around the world often crash as speculators rush to safe haven currencies such as dollars and yen.

It has been said that a butterfly flapping its wings over Tokyo could cause a rainstorm over New York's Central Park several days later. The 21st-century economy has taken this line of correlation to another level. Causes and effects are converging, fusing together in a complex web that no one—not even the experts—are able to fully understand. Just as Metcalfe's Law, which says that the value of a network is proportional to the square of the number of its users, the expanding global economy is growing and expanding in ways we are unable to control.

And the speed of change is increasing exponentially. In today's modern economy, even small events can have an almost immediate effect. If stocks fall sharply in China, markets around the world plunge instantly. Political events, such as an assassination or an unexpected election result—or even random events such as earthquakes or terrorist attacks—can cause the “invisible hand” of the marketplace to buy or sell precipitously.

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#### INFORMATIONAL TOOL:

What is the *invisible hand* of the marketplace?

The idea that there is an “invisible hand” of the marketplace, guiding consumers and businesses to make the right economic decisions, was developed by the economic philosopher Adam Smith in the 18th century. His theory was that markets, if left to themselves, would find the most efficient way of doing things. The invisible hand is, in fact, the result of millions of profit-seeking consumers and producers making rational economic decisions. This invisible hand is thought to steer the market in the most logical direction and keep all economic forces in balance.

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Like the aforementioned butterfly flapping its wings over Tokyo, even small investments

decisions can affect the global marketplace. With China holding more than a trillion dollars of U.S. government securities, any sign that the dollar could lose value in the years ahead—decision by the U.S. Federal Reserve to lower interest rates, for example, or a move by Congress to force China to revalue its currency—may set in motion political and economic changes that could end up dethroning the dollar as the world's preferred reserve currency.

At the beginning of the 21st century, the euro had already begun supplanting the dollar as the world's currency of choice—there are now more euro notes and coins in circulation than dollars. And the international bond markets have begun issuing more euro-denominated securities than dollar-denominated securities. Many countries are now accounting for their purchases and sales of commodities and other goods on the international marketplace in euros instead of the almighty greenback—leading to an eventual decline in value of the dollar as countries sell the U.S. currency to buy others to use in the global marketplace.

In many ways, old paradigms have become obsolete and a new world order has been established. Asia's export boom at the beginning of the 21st century, for example, was mainly based on sales of products to U.S. consumers. Without them, it was assumed, the booming Asian economies would slow, engendering economic and political turmoil. In order to keep the U.S. economy afloat—and in part to ensure the safety of the foreign reserves sitting in Asian central banks' vaults—Asian nations became the United States' biggest creditor.

Trillions of dollars of U.S. government securities have been sold to mercantilist Asian and oil-rich Middle East nations, allowing the United States to fund its huge budget and trade deficits. The decision by foreign investment funds and central banks to subsidize the U.S. economy—providing the credit to fuel the U.S. housing bubble, leading eventually to a worldwide financial meltdown affecting even the cash-rich economies in Asia and the Middle East—shows how much the balance of power has shifted and how interconnected the world has become.

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#### INFORMATIONAL TOOL:

*What is the difference between a **budget deficit** and a **trade deficit**?*

*When a government overspends—paying out more for guns and butter than it gets from tax revenue, for example—it is said to run a budget deficit. A trade deficit occurs when a country “spends” more than it “earns” on the international marketplace. A country runs a trade deficit when it imports more than it exports—more foreign oil and foreign-made toys coming in, for example, than when exports such as cars and computer software going out. The excess in imports means more money has to be spent to pay for the foreign purchases.*

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In one of the biggest economic revolutions in history, the expanding 21st-century economy has begun shifting power from the developed world to the developing world—with Brazil, Russia, India, and China, the so-called *BRIC* countries, leading the way. Adjusting for purchasing power, the economies of the emerging markets have surpassed the economic output of the developed world. Their economic machine is already consuming over half of the world's energy, and they have been responsible for 80 percent of the increase in global consumption during the first years of the 21st century. The export-oriented powerhouses of the developing world have been able to acquire more than three-quarters of the world's



foreign currency reserves and increase the stock market valuations of their companies enormously. This led fund managers to invest even more money in the emerging markets, leading to even more growth and even more consumption of the world's resources.

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*INFORMATIONAL TOOL:*

*What are the **BRIC** countries?*

*Think of a brick being used to build developing-country factories. The BRIC term is an acronym used to describe the four largest developing countries of the 21st-century economy: Brazil, Russia, India, and China. Coined by Goldman Sachs in 2003, the term has been expanded at times to include Mexico (BRIMC) and Korea (BRICK). The Next Eleven or N11 countries have also been singled out for strong economic growth during the 21st century. They are: Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, the Philippines, South Korea, Turkey, and Vietnam.*

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Where will it all end? With economic and political events occurring around the world at a dizzying pace—from credit meltdowns to terrorist attacks—the ability of any one country to control or significantly influence the maelstrom of forces buffeting the economic landscape will be increasingly limited in the years to come.

### WHAT IS MACROECONOMICS?

ECONOMICS IS AN art as much as it is a science. And economics in the 21st century, the art form *and* the science, is being transformed significantly. It used to be that economists limited themselves to looking at the behavior of governments, firms, and individuals in a carefully defined framework. Inflation, unemployment, and interest rates—the traditional components of macroeconomics—were the main areas of interest, with very little else occupying the limelight.

Now there is a whole new horde of players clamoring to be center stage. Hedge funds, subprime mortgage securities, black markets, outsourcing, pollution rights, and carbon footprints are just as much a part of the world economy as the behavior of firms and individuals when interest rates rise or fall or when taxes are slashed.

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#### INFORMATIONAL TOOL:

*What is the difference between macroeconomics and microeconomics?*

*Think of using the Web to look at a map of your country and then zooming in to a view of your home. Macroeconomics looks at the “big-picture” aspects of an economy, such as inflation, unemployment, and economic growth. Microeconomics looks at the economic behavior of individuals and how firms make decisions under various economic conditions.*

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The study of the global economy is essentially a macroeconomic survey, but there is constant interplay between the world at large and the role we all play in it. When we go to the store and buy foreign-grown bananas, fill up our gas tank with imported oil, or watch foreign-made music video on TV or on the Web, we're participating in the world economy. And it is not only as consumers of imported goods or services that we are part of the world economy. The money that our pension funds or college endowments invest in foreign markets helps pay for our retirement or for a new dormitory on campus. In fact, foreign investment in our home economy—and foreign purchases of our government debt—provide needed capital and jobs, making our lives better.

Unfortunately, it's not just the legal activities that make up the new 21st-century global economy. If we buy drugs—or if we join in the fight against illegal drugs by helping Latin American farmers substitute food crops for coca—we are also participating in the world economy. Even international trade and finance. Even economic sanctions against foreign regimes that abuse human rights or destroy the environment make us part of the world economy. Basically, buying anything that crosses an international border, from an illegal music download to imported hashish, integrates us into the ever-expanding global economy.

How do we size up a country's economy? Mainly, by putting a value on every good and service produced in an economy. *Gross domestic product (GDP)* and *gross national product (GNP)* are the terms economists use to describe the total amount of goods and services produced by a country in any given year.

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**INFORMATIONAL TOOL:**

*What is the difference between gross domestic product and gross national product?*

*Think of the word domestic implying a more locally oriented viewpoint. While gross domestic product (GDP) concentrates on the economic activity taking place within the country's borders, gross national product (GNP) includes international income and expenses—those coming from foreign operations, for example, or income from foreign stocks or interest payments on bonds that one country's government has sold to another—an important consideration in the 21st-century economy, where countries like China and Korea hold hundreds of billions of dollars of U.S. Treasury bonds. Whatever figure is used, always remember to verify whether it applies to the quarter or to the entire year. GDP growth of 1 percent, if it's for only the first quarter, indicates an annual GDP growth more than 4 percent, once compounded growth is factored in.*

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Sometimes GNP is bigger than GDP and sometimes it's the other way around. Countries like Ireland, which have a large portion of domestic companies in foreigners' hands, have a smaller GNP than GDP because the payments to foreign stock-holders are deducted from the GDP figures. On the other hand, British, U.S., and Swiss residents own a lot of companies abroad, so their GNP is usually larger than their GDP because it includes income from foreign production that is not included in the "domestic" summary.

How do you compare GDP among countries with different currencies? One way is to translate the various figures into a common currency, such as the U.S. dollar.

COUNTRY	CURRENCY	GDP	GDP
		IN LOCAL CURRENCY	IN U.S. DOLLARS
European Union	euros	12,279,000,000,000	\$16,830,000,000,000
United States	U.S. dollars	14,839,000,000,000	\$14,859,000,000,000
Japan	yen	488,000,000,000,000	\$5,388,000,000,000
China	yuan	33,017,000,000,000	\$4,818,000,000,000
Germany	euros	2,517,000,000,000	\$3,440,000,000,000
France	euros	2,000,000,000,000	\$2,734,000,000,000
United Kingdom	pounds	1,600,000,000,000	\$2,442,000,000,000
Russia	rubles	46,449,000,000,000	\$1,680,000,000,000
Spain	euros	1,156,000,000,000	\$1,581,000,000,000
Canada	Can. dollars	1,817,000,000	\$1,468,000,000,000
India	rupees	64,865,000,000,000	\$1,362,000,000,000
Brazil	reals	3,082,000,000,000	\$1,308,000,000,000
Mexico	pesos	12,793,000,000,000	\$959,000,000,000
Indonesia	rupiahs	5,618,000,000,000	\$505,000,000,000
Switzerland	francs	527,000,000,000	\$454,000,000,000
Israel	shekels	805,000,000,000	\$209,000,000,000
Singapore	dollars	309,000,000,000	\$209,000,000,000
Kenya	shillings	2,711,000,000	\$35,000,000,000

Source: *Economist, The world in 2009*, CIA

Unfortunately, official exchange rates give a skewed view of the size of a country's economy if the cost of goods and services isn't the same in every country. In India and China

for example, everything from meat to movie tickets is much cheaper than in wealthy countries like the United States and France—so the GDP often ends up looking much smaller than it really is. That is why economists have come up with a “real-world” exchange rate called *purchasing power parity*, or PPP. This is arrived at by using a basket of goods and services in each country that allows GDP to be compared across borders.

The way it works is simple: One country, such as the United States, is chosen as the base country. The GDP of the other countries is adjusted to take into account the comparable “real” value of the goods and services that make up the country's economy and not what the exchange rates provide. The cheap cost of haircuts or shoes in China, for example, would be adjusted upward to give them equivalent value to the haircuts and shoes in the United States. The “basket” of goods and services that is used to determine purchasing power parity includes a wide variety of everyday items such as rent, food, and transportation.

**INFORMATIONAL TOOL:**

What is the **Big Mac index**?

*Think of walking into McDonald's in different countries around the world and comparing the price of a Big Mac to one at home. One of the best ways to calculate purchasing power parity (PPP), the “real-world” exchange rate of currencies around the world, is to look at the price of a single product that's sold in almost every country in an identical form. The Economist magazine calculates PPP by using the price of Big Macs around the world. If it costs twice as much, for example, to buy a Big Mac in London than in Miami, it means that the current exchange rates don't really give us a true picture of the size of the British economy. By using the Big Mac's price to calculate a real-world exchange rate, we are better able to compare the size of one country's economy to the others.*

Using the Big Mac index or some other form of purchasing power parity to translate gross domestic product gives us a more transparent—and, hopefully, more realistic—view of the size of each country in the global economy. Many developing countries, where official exchange rates usually undervalue the total amount of goods and services produced, would have much bigger GDPs if purchasing power parity were used to calculate their relative size. For example, official exchange rates show that the Chinese economy grew from 12 percent to 20 percent of the U.S. economy at the beginning of the 21st century. By using purchasing power parity to compare them, however, we see that China actually grew from 45 percent of the U.S. economy to approximately 100 percent in “real” terms during the first years of the 21st century.

COUNTRY	NOMINAL GDP IN U.S. DOLLARS	ADJUSTED FOR PURCHASING POWER PARITY
United States	\$14,400,000,000,000	\$14,400,000,000,000
China	\$4,818,000,000,000	\$9,128,000,000,000
Japan	\$5,322,000,000,000	\$4,546,000,000,000
India	\$1,362,000,000,000	\$3,728,000,000,000

Germany	\$3,444,000,000,000	\$2,989,000,000,000
Russia	\$1,680,000,000,000	\$2,310,000,000,000
United Kingdom	\$2,840,000,000,000	\$2,277,000,000,000
France	\$2,734,000,000,000	\$2,226,000,000,000
Brazil	\$1,308,000,000,000	\$2,114,000,000,000
Mexico	\$959,000,000,000	\$1,624,000,000,000
Spain	\$1,581,000,000,000	\$1,470,000,000,000
Canada	\$1,468,000,000,000	\$1,357,000,000,000
Indonesia	\$505,000,000,000	\$918,000,000,000
Switzerland	\$454,000,000,000	\$331,000,000,000
Israel	\$209,000,000,000	\$215,000,000,000
Singapore	\$209,000,000,000	\$204,000,000,000
Kenya	\$35,000,000,000	\$67,000,000,000

Source: *Economist, The world in 2009*

It may also be useful to relate a country's total GDP to the number of inhabitants—to get a more realistic view of how much wealth there is for each person living there. Imagine a small country like Sri Lanka or Costa Rica winning as many medals in the Summer Olympics as China or the United States. Each country's total economic output, therefore, needs to be divided by the number of people living in the country—to get a better idea of who is better off. It doesn't mean much to say that India is richer than Canada just because its nominal GDP is bigger. We need to look at its per capita GDP.

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#### INFORMATIONAL TOOL:

What is *per capita* income?

Think of *capita* as the Latin word for head. *Per capita* figures, dividing an economic statistic by the number of people in the population, allow us to better understand the effect of the statistic on the country's inhabitants. *Per capita* income tells us how much the economy's total production of goods and services—or the total gross domestic product—would be if divided among the economy's total population, putting a “human” dimension to an otherwise unfathomable economic statistic.

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In addition, when economic growth is compared on a per-person basis, it changes the picture markedly. Countries with growing populations, such as the United States, Brazil, and India, are seen to have decidedly smaller increases in economic output when their growing populations are factored in. In contrast, Russia and Japan, with stagnating or declining populations in the 21st century, show decidedly larger economic growth when measured on

per capita basis.

No measure of economic growth and economic power, however, is able to capture the complete economic picture. Quality of life, for example, isn't included in traditional measures of GDP. Which means that the small monetary outlay of a French family taking a five-week summer vacation in the family's country house in Provence or the Atlantic coast doesn't, in the end, contribute much to a traditional measure of GDP.

<b>COUNTRY</b>	<b>GDP(IN U.S. DOLLARS ADJUSTED FOR PPP)</b>	<b>GDP PER CAPITA(IN U.S. DOLLARS ADJUSTED FOR PPP)</b>
United States	\$14,839,000,000,000	\$48,400
Singapore	\$204,000,000,000	\$44,200
Switzerland	\$331,000,000,000	\$42,940
Canada	\$1,357,000,000,000	\$40,540
United Kingdom	\$2,277,000,000,000	\$36,820
Germany	\$2,989,000,000,000	\$36,100
Japan	\$4,546,000,000,000	\$35,780
France	\$2,226,000,000,000	\$35,750
Spain	\$1,470,000,000,000	\$32,120
Israel	\$215,000,000,000	\$28,940
Russia	\$2,310,000,000,000	\$16,330
Mexico	\$1,624,000,000,000	\$14,610
Brazil	\$2,114,000,000,000	\$10,880
China	\$9,128,000,000,000	\$6,830
Indonesia	\$918,000,000,000	\$3,870
India	\$3,728,000,000,000	\$3,270
Kenya	\$67,000,000,000	\$1,700

Source: *Economist, The world in 2009*

Japanese and American families, on the other hand, taking much shorter summer vacations in order to earn more salary—and paying a lot of money to send the children to summer camp or pay for expensive day care—would have a significantly greater effect on the country's calculation of GDP. This extra economic activity is seen by some economists as

contributing to the economic well-being of the nation—albeit with minimal benefit to the family's overall quality of life, sometimes referred to as *gross national happiness*.

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### CENTRAL BANKS AND GLOBAL CRISES—WHO REALLY CONTROLS THE GLOBAL ECONOMY?

**T**HE WORLDWIDE CREDIT crisis that began with the collapse of the housing market in the United States was just one of many crises that central banks and other financial authorities have had to deal with during the first part of the 21st century.

But the enormity of the financial collapse required government and central bank intervention never before seen in the global economy. After Lehman Brothers, one of America's biggest investment banks, was allowed to go bankrupt, the Federal Reserve was required to bail out AIG, the world's largest insurance company. The \$85 billion bailout was until then, the biggest bailout in American economic history.

When banks began failing across the globe—primarily because of bad investments in U.S. subprime securities, but also because of the freeze in interbank lending—it was clear that a full-blown worldwide crisis had arrived. Stock market declines of more than 50 percent in some countries presaged a global economic meltdown. The concerted action of the world's central banks, including the U.S. Federal Reserve, the Bank of England, the European Central Bank, and the Bank of Japan, helped calm things down for a while. But when countries began failing—Iceland and the Ukraine were the first of many national economies that had to be bailed out—it was clear that the fallout of the 2008 crisis would last for years to come.

The key to finding the right solution to economic crises is to somehow solve the immediate problem without making things worse in the future. Some say that the reaction of the Fed to the meltdown of the dot-com sector at the end of the 20th century—increased liquidity and drastically lower interest rates—set the stage for the meltdown of financial markets several years later, with massive defaults of mortgage holders who probably shouldn't have been given home loans to start with, but were lured in by artificially low interest rates. The result was a recession that was much worse than that which the central bank was trying to avoid.

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#### INFORMATIONAL TOOL:

*What is the difference between a **recession** and a **depression**?*

*Think of the difference between having a cold or a long-term illness. Officially, a recession is a decline in economic output over two consecutive quarters. A severe recession, one lasting a year or more, is referred to as a depression. Often, recessions are not recognized as such until they're over—the economic statistics that define recessions and depressions are notoriously volatile and cannot be evaluated with certainty only after a few months or even years. Falling prices, called deflation, sometimes accompany a long*



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