Asia-Pacific

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Volume 2

A Lexicon of Selected Economic Concepts and Terms

Brooks Robinson
Sara Nakasone
Miemie Byrd

Camp H.M. Smith
Honolulu, Hawai'I 96861

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Preface

This begins a new era for the *Asia-Pacific Economic Update* (*APEU*). We address for the first time critical economic issues that are related to the current global financial and economic crisis that began to unfold in 2008. It also marks the tenure of Admiral Timothy J. Keating as Commander of the United States Pacific Command (U.S. PACOM). Finally, this 2009 *APEU* represents the first of what is to become an annual series; in the past, the *APEU* was a biennial publication.

Like past *APEUs,* Volume 1 features profiles of nations with historical data and analysis. However, we have streamlined the analysis by focusing on outlooks, and only provide a brief update of the most recent year's economic developments. Volume 2 will now be a lexicon of selected economic concepts and terms that are often confronted by military officials who read sources that discuss the economies of area of responsibility (AOR) nations. It is not designed to provide a comprehensive list of economic concepts and terms and their definitions. On the other hand, for the concepts and terms that are included, the volume not only presents definitions, but in most cases, it reflects interpretations and real-life examples that enable readers who are likely to be non-economists to fully comprehend the concepts and terms and to apply them beyond the *APEU* itself.

The *APEU* is designed as a three-volume work. However, Volume 3 is not produced for 2009; time and resources were unavailable to produce the volume. We intend to produce Volume 3 beginning in 2010, and it will feature articles concerning important AOR economic issues.

The *APEU* is intended as a resource of unclassified information for researchers and those simply interested in the economics of Asia-Pacific Region nations. We invite readers to inform us if they find that we have left some area uncovered, or if our coverage of certain areas is insufficient. Our goal is to improve the APEU each year and to meet the highest standards in the process. Please send your comments to brooks.robinson@pacom.mil. We welcome your comments.

Foreword

As we finalize the Asia *Pacific Economic Update* (*APEU*) *2009*, the economics of area of responsibility (AOR) nations reflect diverse patterns and outcomes. For example, Japan and Singapore are just exiting (i.e., they are experiencing quarter-to-quarter growth) extended economic recessions. Indonesia is experiencing slow growth and relatively high unemployment. Economic and political conditions in Nepal and Thailand have produced civil actions and pushed these nations slightly toward civil instability. On the other hand, China, India, and Vietnam are growing solidly—albeit at moderated paces when compared with their accelerated expansions during the years 2002-2007. These nations face little prospect of economic, political, or civil instability. Yet, due to the interconnectedness of AOR nations, the latter nations are not immune from their neighbors' difficulties. Just as terrorism can be exported across borders, certain adverse economic outcomes can filter across borders and cause problems for nations that have experienced a smoothly functioning economy.

The forecast for Asia is that the few economies that remain in recession will see the onset of recovery toward the end of 2009 and into 2010. AOR nations that have continued to grow slowly through the global economic crisis should see growth in their economies accelerate during the same period. Enough monetary and fiscal stimulus has been injected into economies to accelerate growth. Questions remain, however, concerning the strength of the recovery and its sustainability.

Most nations believe that, in concert, AOR nations will recover and begin a new and extended period of economic growth and prosperity. In the main, nations have not over-extended themselves by running up large deficits in order to stimulate their economies. Therefore, nations should be able to use the returns from growth to extend the cycle as opposed to siphoning off a portion of those returns to service high debt levels. Moreover, nations inked monetary and trade agreements (ASEAN + 3, + 2, currency swaps, etc.) during the economic crisis that will help further accelerate growth during, and after, the recovery. Overall, the outlook is favorable for most AOR nations.

Part 1 of Volume 1 provides country-by-country analyses of 16 large AOR economies for the past four years along with forecasts for 2009 and 2010.[1] This is accomplished primarily via standardized and easily readable and interpretable data tables. We augment the statistics with charts and brief textual "Analytical Updates" that summarize events leading up to the late summer of 2009 when the *APEU* was released. The Analytical Updates highlight key events that characterize recessions or economic slowing in the countries. We also note major efforts by nations to stimulate their economies using monetary and/or fiscal

[1] By large, we mean economies that have nominal (market price) GDP values greater than $50 billion. Economies with GDP of less than $50 billion at market prices are considered small.

policies. "Economic Outlooks" provide forecasts of real growth, of price change, and details concerning important, expected economic developments.[2]

For 19 small (see footnote 1) economies, statistical tables are presented in Part 2 that reflect key actual and forecasted data values that characterize the size and nature of economic growth and inflation in these economies.[3] Unfortunately, up-to-date statistics are not available for certain AOR nations; e.g., Nauru and Tuvalu.

As noted in the preface, Volume 2 is a new *APEU* feature. It provides definitions and applications of selected economic concepts and terms that enable readers to fully comprehend economic events in the AOR. In addition, we believe that it can serve as a handy desk reference for those who encounter and must analyze economic concepts, terms, and issues on a day-to-day basis.

Also as noted in the preface, we are not releasing Volume 3 during 2009, but plan to issue in 2010 a collection of essays on high visibility economic topics that have captured the attention of AOR country analysts.

What we know about economics in the 21st century is that conditions change rapidly. Therefore, the *APEU 2009* is not intended as a definitive source that provides a complete and final analysis of economic conditions in the AOR. Rather, it provides facts about recent and current economic conditions and short-term forecasts that serve as a starting point for analyzing ongoing economic conditions in AOR countries as new events unfold.

This is clearly a streamlined version of previous *APEU*s. It facilitates easy capture of general economic conditions in AOR countries. It does not provide the thorough historical analysis presented in earlier *APEUs*. However, given the nature of the Internet today, readers should find it relatively easy to obtain detailed historical analysis of general and specific economic events in AOR countries via the Internet.

Our primary goal for future *APEUs* that will be presented in the current format is to provide statistical, definitional, conceptual, and analytical information about the economics of AOR countries in one place so that readers can avoid spending an inordinate amount of time assembling this information from a variety of sources. Therefore, we view the *APEU* as a resource that will facilitate a quick and easy understanding of economic conditions in the AOR, and that will provide a solid background for conducting more extensive analyses.

[2] Forecasts are primarily from the International Monetary Fund's *World Economic Outlook*, which was released in April of 2009; http://www.imf.org/external/pubs/ft/weo/2009/01/index.htm.
[3] The data provided in Part 2 tables are also from the *World Economic Outlook*.

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Economics

Economics has often been called the “dismal science” because it involves the study of “the distribution of scarce resources.” Because resources are limited, and when the demand for resources exceeds the supply of resources, someone is going to have to do without. Those who are left to do without are in a dismal situation; hence, the characterization of economics as the dismal science.

The study of economics is essentially the study of supply, demand, and price as depicted by the “Marshallian Cross” in Figure 1 below.

Figure 1.—Supply, Demand, Equilibrium, and Price

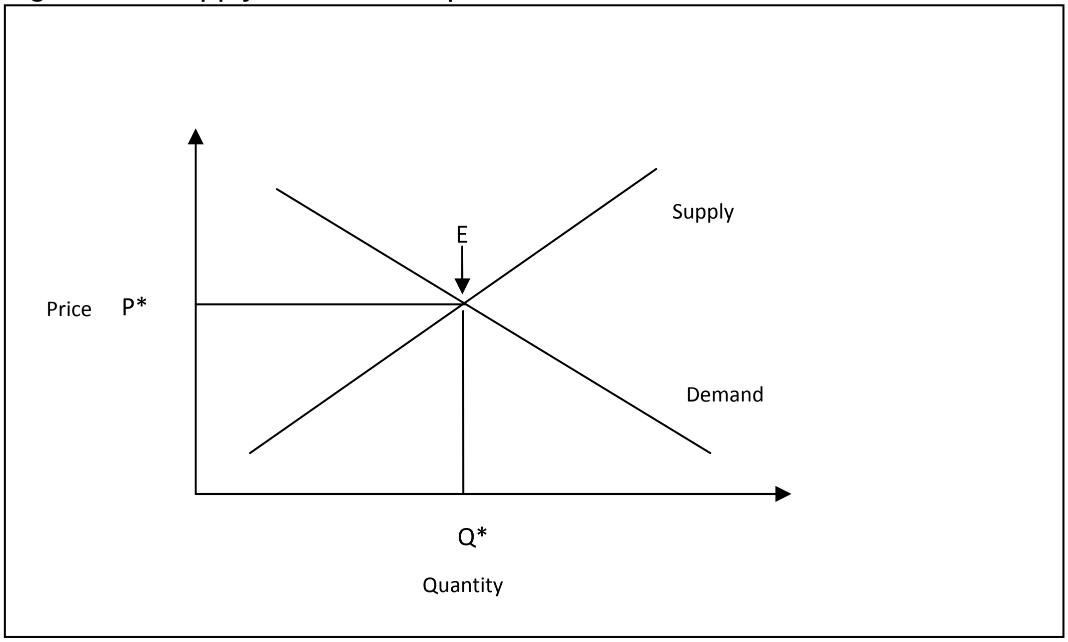

Figure 1 shows a downward sloping demand curve, that indicates that more of a good is demanded as the price of the good falls, and an upward sloping supply curve that indicates that more of a good is supplied as the price of a good increases. Where the supply and demand curves cross is said to be an equilibrium point (point E).[4] The vertical line from this equilibrium point down to the Quantity axis indicates the quantity demand and supplied at this equilibrium (Q*). The horizontal line from this equilibrium point over to the Price axis indicates the equilibrium price at which suppliers are willing to supply the good and demanders are willing to pay for the good (P*).

[4]By equilibrium we mean that producers and consumers are in agreement on the quantity of the good that is produced and consumed and on the price at which it is sold and purchased.

While holding the supply curve in place (constant), increases or decreases in the demand (i.e., shifting of the demand curve out or in, respectively), causes the equilibrium price to rise or fall, respectively. Similarly, with constant supply (holding the demand curve in place), increases or decreases in supply (i.e., shifting of the supply curve out or in, respectively), causes the equilibrium price to fall or rise, respectively.

Simply put, when consumers want (demand) more of a particular good, then it is likely that the price of the good will rise. Demanding less of a good will cause its price to fall. Conversely, when producers supply more of a good, then it is likely that the good's price will fall. A decreased supply is likely to cause the price to rise.

It is important to caveat the foregoing with the point that it represents a classical view and that characterization of "perfectly competitive" markets or a purely monopolistic market and the range of market types in between (e.g., duopoly or oligopoly) would cause Figure 1 to change significantly. Such characterizations are beyond the scope of this volume. However, we urge interested readers to explore these special market cases and the range of possible market types.

Finally, we should not be mystified by the discussion of quantities produced and prices. It is really quite simple. If you had the capacity to produce a product and introduce it into the marketplace, then you would set a price for the product above your cost of producing the product so as to earn a profit. If consumers do not purchase the product at that price, then you would likely lower the price. Conversely, if consumers scoop up the product at a rapid rate, then you are likely to raise the price to earn a larger profit. This is the very game that consumers and producers play in markets where products are produced and sold each day.

Markets

Economists' use of the term "market" may be linked ultimately to the scene that we are all so familiar with when we think of "farmers' markets." Whatever the origin, the concept of market is characterized by the meeting of sellers and buyers who willingly engage in transactions. Sellers have goods to sell and buyers want to acquire these goods. How they determine the price or rate of exchange and what they use to complete the transaction (money, sea shells, other goods, pledging of the purchaser's labor, etc.) depends on the specific situation. However, the constant feature of the concept of markets is that sellers and buyers are able to exchange goods and services. Today, we can also add to goods and services, ideas (intellectual property).[5]

In addition, the idea of exchanging goods, services, and ideas in the market here and now is too restrictive; future markets are very much a part of today's landscape, where buyers and sellers agree to exchange goods, services, or ideas at some future point. Interestingly, as opposed to determining a specific rate of exchange or price, market participants can gamble on the rate of exchange in what are called derivative markets, where the rate of exchange is linked to the occurrence or non-occurrence of particular events.

There are different market structures, ranging from perfect competition to monopolies. Governments also play a large role in markets, they are able to set policies regarding price of products, services, and ideas. In the United States, we transact for goods, services, and ideas in an economy that is called a market economy. This is because U.S. firms have very few barriers to overcome in purchasing and selling across borders. The North American Free Trade Association (NAFTA) is just one legal arrangement that permits the relatively free flow of goods across U.S. borders. It is also considered a hybrid market because it is not completely competitive (there are many monopoly and oligopolistic-type markets) and it includes a great deal of socialistic principles (from Social Security to "corporate welfare").[6]

In U.S. markets, it is important to note that certain markets are regulated (e.g., utilities and food industries), but most are not. Firms in these markets are self-policed or standards exist up to which firms must measure. In addition, the more fluid and unconstrained a market is, the more aggressive competing firms must be to attract sufficient market share to attain and maintain profitability.

[5] By "intellectual property" we mean creations such as patents, trademarks, designs, databases, computer programs, etc. These creations are not tangible products such as computers, vehicles, food, or clothes, but they can have as much, or more, value.

[6] The current financial and economic crisis has resulted in the United States Government investing in certain companies that are "too big to fail." By determining which firms will survive and which will fail (picking winners and losers), the government has adopted principles that are akin to a command economy, much like the principles formerly used in socialist and communist countries.

In the Asia-Pacific Region, economies of nations are characterized by a variety of market types: From the free and open markets of Hong Kong, Singapore, and Japan to the tightly controlled markets of China, Mongolia, and Burma. These nations' economies also reflect a variety of licensing and regulatory requirements.

Price

Price is the amount, in money, goods, services, or ideas that you agree to pay in exchange for products, goods, services, or ideas that are required to fulfill your needs or desires. The "price" concept extends to transactions that we do not normally consider in a "price" context: e.g., the price for labor is a "wage"; the price at which one borrows money is an "interest rate"; "taxes" may be viewed, in part, as the price that you pay to receive the benefits that governments offer at the city, state, or national level; and the price at which international travelers or transactors exchange money is an "exchange rate."

In a "market" economy (the predominant market type in the United States), price is usually determined by supply and demand (see Figure 1 on page 1 in the entry on "What is Economics?"). The leading edge of price determination, however, begins with supply. First, producers come to understand that there may be demand for a product. Second, they estimate the amount (price) that consumers may be willing to pay for the product. Third, they calculate whether the product can be produced at a cost that will result in a sufficient profit (i.e., price less cost) to warrant the production of the good. In making this calculation, producers focus on the price that they must pay for the inputs that are required to produce the product.

To optimize assets and wealth, the goal is to negotiate and pay the lowest possible price for products, goods, services, and ideas that meet your requirements. Keep in mind that, in many cases, a lower price is associated with lower quality products, goods, services, and ideas.

Inflation

Inflation is simply the rate at which prices change in the economy. For example, if the price of a meal at Restaurant X for you and your family was $50.00 last year, but the price for a comparable meal increased to $55 this year, then the price has increased by $5 or by 10 percent. In this case, economists would say that you have experienced a 10 percent inflation rate in meals at Restaurant X. Recognize that inflation for product Y, which increases in price from $1,000 in year t to $1,100 in year t+1 is the same as inflation for product Z, which increases from $100 in year t to $110 in year t+1; both products experience 10-percent inflation.

Nations usually assigns the task of measuring price change to a statistical agency. Measures of price change not only include products, goods, and services that are usually purchased by consumers (Consumer Price Index (CPI)), but also commodities that are usually purchased by businesses (Producer Price Index (PPI)). Both the CPI and PPI may be measured using price information about literally hundreds, if not thousands, of products. Certain nations also prepare price indexes for goods that are exported and imported; these indexes are called International Price Index (IPI). These indexes are usually prepared on a monthly basis.

It is important to keep in mind that, in measuring price change, one must compare changes in the price of products that are essentially the same. If a long-standing product “A” that has a particular set of characteristics is replaced in the market by a new product “B” with a different set of characteristics, then the change in price that you see from product “A” to product “B” represents both “pure price change” and “quality change.” Price change should be measured on a “constant quality” basis; i.e., efforts should be made to account for the characteristics or quality of products.

In today’s technological world, certain products (say computers or video game devices) continue to improve in quality (i.e., they include increasing and improved characteristics), yet they often reflect either little-to-no increase in price or even declines in price. In these cases, because the purchaser is getting “more” for the same dollar amount or even less, there has actually been a decline in price, or deflation (disinflation).

As an observer of, and participant in, the economy, you will find that there tends to be a close association between inflation and interest rates. This is not an odd outcome because an interest rate simply represents the price that you pay to borrow. The link between these two economic measures may be explained in the following way. Begin with businesses that produce goods, services, or ideas for the economy. First, the cost of borrowing goes up for businesses; i.e., interest rates rise. Second, in order to pay the higher cost of borrowing, businesses raise the price of the goods, services, or ideas that they produce to maintain their profit margin. Thus, we have an increase in interest rates and an increase in inflation. The reverse is also true. At a lower borrowing cost (lower interest rate), producers can lower the price that they charge for their goods and still retain the same profit margin—but firms do not always follow this logic.

Here are a few key points to remember about inflation:

1. Central banks seek to keep inflation under control.
2. If economic conditions are such that inflation is expected to continue for some time, then it may be wise to borrow at the beginning of such an inflation cycle if a fixed interest rate can be secured. Under inflation, because wages (income) may increase as inflation increases, one may receive increasing amounts of income to pay off fixed loan payment amounts.
3. If inflation gets out of control (hyper-inflation), the economy suffers because of the uncertainty associated with price increases; it becomes very difficult to make business and other types of plans when prices are changing so rapidly. Under these circumstances, a great deal of energy must be expended just to plan to keep up with the rise in prices and to prevent economic harm that can be caused by inflation.

Money

Whether one is playing a Monopoly game, or life's real game, money is valuable only when it can be used in exchange for a good or a service that is of value. We value money because we can exchange it to obtain goods or services to meet our needs or fulfill our desires.

In the past, money in most nations was backed by precious metals: Gold or silver. However, in a 1934 conference of world bankers at Bretton Woods, New Hampshire a process was initiated through which nations began to de-link their currencies from precious metals. In 1971, the United States completely de-linked its currency from precious metals.

Around the world today, the money that nations use is called "fiat" money; i.e., it is paper, the value for which is determined by the governments that issue it. Money's value is based on the owning government's willingness to guarantee that users of the money can exchange the money for goods, services or ideas. The same nations, by their policies, determine the value of the money in their economies.

The real importance of money is that it facilitates exchanges. Without money, economic agents would always have to find other economic agents with opposite needs and desires; there would have to be, what economists call, a "coincidence of wants." That is, if you were a lawyer in need of a suit, you would have to find a tailor who needed legal services. You would exchange your legal services for the suit that the tailor could produce.

Federal Reserve Bank

The Federal Reserve Bank (FRB) is the U.S. central bank, and it keeps our economy supplied with money. (The U.S. Department of the Treasury is responsible for providing the actual money, which is produced at the U.S. Mint.) The FRB is responsible for the operation of commercial banks in the nation. Commercial banks and other financial institutions facilitate the smooth flow of money through the economy through their acceptance of deposits, their creation of checking, saving, and other types of accounts, and through their lending of money.

The FRB includes the Federal Reserve Board in Washington, D.C., and 12 Reserve Banks located in Atlanta, Boston, Chicago, Cleveland, Dallas, Kansas City, Minneapolis, New York, Philadelphia, Richmond, San Francisco, and St. Louis. The Reserve Banks monitor commercial banks in their regions and ensure that they operate using sound practices.

The Federal Reserve Board, which has a chairman and six rotating board members (board members represent banks in the system), is an independent agency of the Federal government that is responsible for controlling the money supply in the U.S. economy. The Board controls the money supply by raising or lowering interest rates by buying or selling U.S. Treasury Securities (namely U.S. government bills, notes, and bonds).

The Federal Reserve Board and banks in the system work to keep the economy growing; they also manage the economy to ensure that inflation remains at a reasonable rate. In its economy-managing efforts, the Federal Reserve Board monitors the growth and contraction of several monetary measures—three key measures being:

- M-1 = Currency (coins and paper money) and most checkable deposits (excluding those owned by the U.S. government, the Federal Reserve Banks, commercial banks, or other financial institutions);
- M-2 = M-1 plus near monies, including savings deposits, time deposits, and money market mutual funds.
- M-3 = M-2 plus large time deposits that are usually owned by businesses as certificates of deposits.

In a nut shell, money is the oil that lubricates the economy, and the Federal Reserve Board serves as the mechanic tasked with applying an appropriate amount of lubrication depending on how the economic machine is operating.

The central banks of Asia-Pacific nations perform essentially the same functions, and have many of the same goals, as the FRB.

Wealth

First, let us be clear about what wealth is not. In its truest form, wealth or "capital," is not paper money. To have wealth is to have resources to produce goods, services, or ideas, which can be used to satisfy the needs and desires of those who wish to consume them.

Wealth can be land, which can be used to produce food, to produce trees for lumber to construct buildings, or to produce a golf course that can be used to provide recreational services. Wealth can be a structure, which can be used to provide shelter for a family and in which the family can conduct its affairs, to provide space for a manufacturer to organize equipment and workers to produce goods like computers or toys, or to provide space for firms to establish an office to provide health, legal, or medical services. Similarly, wealth can be a road, bridge, or airport runway that can be used to provide transportation services.

Wealth can be equipment, which can be used to build roads or bridges, to construct buildings, to make other equipment or other goods, or to serve as a producer of services: e.g., video equipment that displays movies in theaters, or vacuum cleaners that clean offices, or airplanes, trains, buses, trucks, and cars, that provide transportation services.

The wealth mentioned thus far is often called "tangible" wealth. "Intangible" wealth is also very important. For example, the knowledge that is stored in your brain from learning over the years is called "human capital" or wealth. Your knowledge is used to perform functions that lead to the production of goods, services, ideas, or more human capital. Another type of intangible wealth is a database or computer software. Databases and computer software enable their owners to produce goods and services in a fashion that is akin to the production of goods and services by other forms of capital.

Again, wealth is not paper money, or stock or bond certificates. These items are proxies for financial assets and wealth. Wealth is the resource that may be linked to, or acquired by, the paper money or securities that one owns. Wealth is that which can be used directly to meet needs and fulfill desires, or that can be used to produce new wealth.

Gross Domestic Product

Gross domestic product (GDP) is a measure of the value of all the “final” goods, services, and ideas (output) that are produced in an economy during a year. The term “final” is important in this definition because “intermediate” products are not measured in GDP. For example, the value of the bread that you purchase from a grocer to consume is in GDP; however, the value of the seed and fertilizer that the farmer purchased to grow the wheat, the value of the wheat that was purchased by the mill to produce the flour, and the value of the flour that was purchased by the baker to produce the bread are considered intermediate goods and are not included in GDP. If the value of all of this intermediate output were included, GDP would be overstated. (The sum of the value of all intermediate and final production is called “gross output.”)

In summary, GDP is often used as a gauge of the “business cycle”; i.e., when the economy is increasing or declining. A traditional yardstick for when a recession occurs is that GDP must decline for two or more consecutive calendar quarters. A depression is marked by an extended period of declining GDP.

The responsibility of producing measures of GDP is usually assigned to a national accounts office, to a national statistics office, or to the central bank. Three approaches are usually used to measure GDP.

1. Expenditures: The value of expenditures for the final goods and services that are produced in the economy. The traditional equation for measuring GDP using this approach is:

   $$\boxed{GDP = Consumption + Investment + Government + Net\ Exports}$$

   Where “Consumption” is expenditures by consumers; “Investment” is expenditures for nonresidential structures, private equipment and software, residential structures, and change in private inventories; “Government” is expenditures by the government to produce services and to invest in structures, equipment, and software (military and civilian); and “Net Exports” is the value of “Exports” (goods and services sold abroad) less the value of “Imports” (goods and services purchased from abroad).
2. Income (Gross Domestic Income (GDI)): The value of the income (wages and salaries and property income (profits, interest, dividends, etc.)) that is earned in the production of the goods and services produced in the economy.
3. Value added by industry, which is equal to gross output less intermediate inputs: Gross output is the value of all, not just the final, goods and services produced in the economy. Intermediate inputs is

the value of all inputs (labor, energy, materials, supplies, services, etc.) that are required to produce gross output.

In the national accounts, measurement techniques 1 and 3 are usually constrained to be equal. Theoretically, all three measures should be the same. However, because the output and income measures are derived using different source data and estimation methods, they usually differ. The difference between the output (expenditure and value added) and income measures is labeled the "Statistical Discrepancy."

GDP or output measures are prepared in current (nominal output) and in constant (real output) prices. Nominal output is the actual value in market prices of output produced in the economy; real output reflects adjustments to nominal output to remove price change. The latter measure makes it possible to compare output measures over time. For example, if GDP was valued at $100 last year, but it is valued at $110 this year, it is clear that nominal output has increased. However, has real GDP increased? It depends on the rate of inflation. If there was no inflation, then real GDP would have increased by 10 percent (from 100 to 110). However, if inflation increased by 10 percent, then real output would not have increased at all because real output measures are calculated by removing inflation from nominal output growth. In this case, we would remove 10 percent inflation from 10 percent nominal output growth to produce 0 percent real growth.

Industrial Production

Indexes of industrial production (IP) are produced by many, but not all, countries. IP indexes usually represent production by firms in manufacturing, mining, and utility industries (the latter industries include electric power generation, transmission, and distribution and natural gas distribution). In the United States, the index is constructed as a weighted aggregate of real gross output (nominal output deflated by a price deflator, where nominal output is the total value of what is produced during a period) for the manufacturing, mining, and utility industries, and then normalized to a particular year. In many cases, nations produce IP indexes on a monthly basis because monthly data are available with which to produce the indexes. Monthly IP indexes are often used to obtain an early reading on quarterly estimates of real gross domestic product (GDP). Given that manufacturing, mining, and utility industries constitute a large proportion of many nations' economies, it stands to reason that IP indexes may often serve as a high-quality indicator of GDP growth.

The quality and accuracy of IP indexes are called into question, however, when movements in the indexes differ from movements in GDP. For example, it is difficult to explain how major components of IP indexes, such as utilities, can drop significantly during a period, but real GDP can grow substantially during that period. For example, China's IP index and GDP estimates have received criticism because the just described scenario unfolded during the fourth quarter of 2008 and the first quarter of 2009.

Income

Generally, we think of income as the money that is received in return for labor services. However, income can be defined in broader terms. Income may be defined as the return on any product, service, idea, or asset that is placed in the market place in a productive capacity—whether extended during an earlier or a current period. Therefore, income can be defined to not only include the wages and salaries that are received for our labor services, but it may also be defined as the monetary (pecuniary) or other returns/resources that are received for products, other services, and ideas that are produced. It may also include the returns that are received on other owned assets; e.g., equities (stocks or mutual funds), notes, bills, bonds, commercial paper, certificates of deposit, and saving and other types of financial accounts (i.e., interest, dividends, and capital gains).

Income can also be obtained in nonmonetary form; that is "in-kind" income. For example, if goods or services are received in response to participation in a government sponsored program such as Medicaid, Temporary Assistance to Needy Families (TANF), or the Women and Infant Care (WIC) program, then the products, services, and ideas received through these programs are considered in-kind income. The Food Stamp program falls into this category, although it has become essentially a cash program, because foods stamps often function as "near money."

In the national economic accounts, the following types of monetary income are identified as being received by persons: Wages and salaries, farm and nonfarm proprietors' income, dividends, interest, rental income. The following types of nonmonetary or in-kind incomes are listed: Wage and salary supplements (mainly employer contributions to health and social insurance (Social Security)) and transfer payments from government.[7]

Measures of income are important because, among other things, they are used to define who is above or below the poverty line. Median household income is also an important measure, because it indicates that half of the nation's household are above and half are below this level. Gross domestic product (GDP) per capita is also a widely-used measure of income. It is computed as the nominal or current price GDP divided by the population. (See page 11 for a definition of the GDP concept.)

[7] It is worth mentioning that employees also make contributions to health and social insurance.

Unemployment

As a starting point for defining unemployment, it is appropriate to begin by defining employment. Generally, to be employed is to be engaged in an activity. In an economic sense, to be employed is to be "working"; i.e., to have a job for which one receives compensation. (Such compensation is usually on a "per period" (hourly, weekly, monthly, or annual basis) or "per task" basis.) The compensation may include "regular" pay, overtime pay (for work beyond "regular" work hours), and bonus pay (special pay that may represent compensation for an extraordinary effort or it may be standardized (i.e., a regular component of the compensation package)).

Now that we know what it means to be employed, we can turn to what it means to be unemployed. Simply put, to be unemployed is to be without a job; to not have work to do.

In the United States, the measurement of unemployment and the unemployed is performed thusly:

- Households are contacted and queried concerning persons who are working and who are not working.
- For those who are not working, the questioning proceeds with the query, "Has the nonworking person actively sought work within the past two weeks?" "Actively seeking" work primarily means, one has participated in a job interview, filed an employment application, etc.
- If it can be determined that a person has actively engaged in seeking employment in the past two weeks, then that person is considered to be a member of the labor force. If a person has not actively sought work within the past two weeks, then that person is not in the labor force.
- The unemployed, then, are those who are in the labor force, but who are not working.

Therefore, the unemployment rate (UR) is calculated using the following equation:

UR = Unemployed Persons / Total Labor Force

Notably, a person who is not working, who has not been working for some time, and who has not actively sought work within the past two weeks, but who would work if given the opportunity to do so, is considered a discouraged worker. Discouraged workers are not counted among the unemployed and are not reflected in the unemployment rate.

Nations in the Asia-Pacific Region define unemployment and the unemployment rate in a similar way. However, the method that is used to determine who is in the labor force and who is actively seeking work may be quite different.

Certain nations report an official level of unemployment that is much lower than the level of unemployment that would be reported if Western world standards were used. These countries have sizeable rural populations that are engaged in essentially unproductive activities, and a sizeable proportion of this population should probably be counted as unemployed. However, these populations are counted as employed, and the unemployment rate that these nations report is artificially depressed.

Investment

Surpluses result when one expends less than what one produces, i.e., there is saving. What happens to saving? If the saving is in the form of money, then there are at least two options. First, one can retain the money in cash (hide it under the mattress). Second, one can invest the funds in a variety of financial instruments (saving accounts, money market funds, individual equities (company stocks), mutual funds, notes, bills or bonds, etc.), or in tangible or intangible property (land, residential or commercial real estate, equipment, gold, jewelry, art, or goodwill). In either case, the investor obtains investment assets.

In a purely theoretical sense, all investments are intended to be used to produce future earnings. In the case of tangible and intangible property, investments are expected to have an extended useful life; i.e., usually longer than three years. Assets that qualify as investments (their nature and holding period or useful life) are determined by tax law.

Earnings on certain financial investments produce “interest” earnings (saving accounts, money market funds, certain mutual funds, and notes, bills or bonds, etc.); and other financial investments produce “dividend” earnings (corporate equities and certain mutual funds). Investment in tangible or intangible property produces “capital gains” earnings. These earnings or returns on investment are considered forms of income and they are usually taxable.

Investment in tangible and certain intangible property are reflected in the nation’s estimates of gross domestic product (GDP); they include private and public creation of nonresidential and residential structures, equipment and software, and inventories. Historical measures of investment help national accountants compile estimates of the nation’s capital stock (available investment goods) and to assess the future productive potential of the economy. Efforts are now underway to incorporate estimates of certain intangible investments, such as research and development, into measures of GDP.

Given information about the acquisition and use of investments and the earnings incurred through the use of these investments, it is possible to estimate the rate-of-return on investments; particularly those investments that are used by firms that operate in the market place. (It is more difficult to estimate the rate of return on certain public sector investments.) These rates of return assist prospective investors in determining whether it is in their best interest to invest in particular types of assets. The basis for making most investment decisions is the extent to which the future stream of income derived from the investment, in present discounted value terms, exceeds today's cost of the investment.[8]

[8] By "present discounted value" (PDV) is meant the sum of "t" period expected returns on the investment discounted (divided by the quantity $((1+r)^t)$) back to the current period. For example, if the flow of investment returns summed to 100 over a five year period, and the discount rate (interest rate, r) is selected to be 5 percent, then the PDV is calculated as $(\$100/(1+0.05)^5)$, which equals $78.35. In this case, a rational investor will not enter into this investment if the cost of the investment exceeds $78.35.

Interest Rates

As stated in the “price” entry (see page 5), the interest rate is the price that borrowers agree to pay lenders in exchange for the use of the latter’s monetary resources. For example, if you were a lender who loaned us $100 at an interest rate of 10 percent, and we agreed to the loan arrangement, then we would be obligated to not only return the $100 dollars to you at the end of the loan period, but also an additional $10 in interest. So the price of the loan was, in essence, the 10-percent interest rate—the rate or price at which the money was borrowed. One may view the interest rate as the price per dollar (in this case $0.10) or the price for the entire loan ($10.00).

There are numerous types of interest rates. For example, there are interest rates on home loans or mortgages (mortgage rates), car loans, saving accounts, money market funds, interest bearing checking accounts, government and firm notes, bills, and bonds, credit card accounts, and even pay-day credit accounts.

Traditionally speaking, interest rates, like most other prices, are determined by the demand and supply of funds that are available for lending. However, central banks, in their role of controlling the money supply, play an important role in determining the amount of funds that are available for lending. In addition to the pure supply and demand basis for interest rates, most lenders factor up the interest rate with a so-called “risk premium.” That is, interest rates are usually adjusted up to reflect the risk (that the borrower may default on the loan) that the lender assumes by extending the loan. The higher is the risk per borrower, then the higher the risk premium and the overall interest rate.

Another factor that determines interest rates is the perceived level of access to lenders. If a customer has access to many lenders that must compete to extend loans, then this competition is likely to assist in keeping interest rates at a level that is lower than they would be otherwise. However, if lenders perceive that borrowers have little choice in lenders, then competition may not be sufficient to hold interest rates down. In these cases, lenders feel empowered to charge higher interest rates.

Bonds

Bonds are financial instruments that are sold by government or by firms (also known as commercial paper) to investors. Bonds represent loans by investors to government or business. Unlike equities (company stocks), bonds convey no ownership rights to lenders. However, bonds are considered to be less risky than equities. In most countries, the law requires that lenders be paid before dividends are extended to stock holders should a firm enter a dissolution (bankruptcy) process.

How do bonds work? If an investor decides to invest in a firm by purchasing the firm's bonds, then the investor makes a decision to act as a lender to the firm based on specific terms: A predetermined interest rate (yield rate or rate of return) and a predetermined loan period. For example, an investor may act as a lender to a firm by giving the firm $1,000 and receiving in exchange a bond certificate with a face value of $1,000. The terms of the loan, for sake of this example, might be that the interest rate is 5 percent per annum and the period of the loan is five years. In this case, the firm pledges to pay the lender $50 dollars in interest each year during the loan period ($1,000 X 0.05 = $50); and at the end of the five-year period, the firm would return the investor's $1,000. In this case, the investor will receive a total of $250 in total interest payments for this bond over the five-year period.

As a form of lending and borrowing, bills (one year) and notes (two to ten years) are equivalent to bonds, except that they have a loan period that is shorter than for bonds (twenty to thirty years).

Securities

Securities encompass a wide-range of investment instruments (legal documents) that may be issued by private- or public-sector entities that convey to the owner rights in debt or equity; i.e., the right to complete or partial ownership of physical assets or to a future payment or stream of payments. Securities reflect maturities that exceed nine months.

Securities include, but are not limited to, company stock shares, bills, notes, bonds, debentures, certificates of interest, profit-sharing agreements, certificates of deposits, and option contracts. Securities exclude currency, drafts, bills of exchange, banker's acceptances, and other financial instruments that reflect maturities that are less than nine months in duration.

While certain Asia-Pacific Region nations possess sophisticated enough financial systems to support trade in most, if not all, of the types of securities listed above, many nations in the region have not reached such a level of sophistication. Hence, there is significant room for growth and development in the financial systems of these nations. It is expected that expansion of securities trade in these nations will increase the allocational efficiency of their economies.

Stock Market

The stock market is a market; a place where buyers and sellers meet. What is being bought and sold? Stocks. Stocks or equities, as they are often called, represent portions of the value—value in shares (proportions)—of firms. The stock market is an economic indicator, a robust stock market indicates that consumers are confident in firms' and/or the economy's prospects for growth.

Who is selling these shares? Initially (during "initial public offerings" (IPOs) and often later with subsequent offerings), firms offer ownership shares of their company so that they can raise money or capital (as distinguished from physical capital (structures and equipment)) to help finance and grow their company. In other words, purchasers of shares become owners of the firm. After firms sell their shares in the stock market to original purchasers, subsequent sales of those shares occur in the stock market by whoever happens to have been fortunate or unfortunate enough to come into ownership of those shares.

Who buys shares in the stock market? Individual investors, large investors, and every sized investor in between purchase stock. Since the dot.com era of the mid-to-late-1990s, the development of information technology and the proliferation of stock trading companies made it possible for almost anyone with an inclination to do so to trade in the stock market on an ongoing basis.

Most nations have their own stock markets; e.g., Japan's Tokyo Stock Exchange, China's Shanghai Stock Exchange; and India's Bombay (Mumbai) Stock Exchange. Indicators that signal the relative value (relative to a reference period) of the market include the NIKKEI 225 Index, the Shanghai 50 Index, and the SENSEX Index.

Asset-Backed Securities

Asset-backed securities (ABS) are securities that are supported by underlying assets, such as real estate mortgages, car loans, student loans, and credit card loans. In other words, identified assets are pooled (rolled together) to form ABS. These securities have become increasingly popular since the 1990s. ABS enable depository institutions, financial companies, and other corporations to convert their long-term balance sheet assets into cash. A key benefit derived from securitizing balance sheet assets is the spreading of risk. In fact, companies that securitize balance sheet assets, and then ensure against default by purchasing “credit default swaps” (see page 24) essentially shed most, if not all, of the risk that is associated with their balance sheet assets. It can be comforting, however, to think that, because even the most financially strapped companies may hold low risk and valuable assets on their balance sheets, it is possible for the credit quality of ABS to be higher than the credit quality of the companies that issue them.

Credit Default Swap

Credit default swaps (CDS) are an insurance-like agreement that involves three parties. A lender/investor (the first party) obtains a security from a borrower/issuer (the second party) of asset backed securities (ABS). The lender/investor then insures against the default of the borrower/issuer by purchasing CDS from an insurer (the third party). The lender/investor makes periodic payments to the insurer (an insurance premium-like payment). If the borrower/issuer defaults, the insurer is obligated to make the lender/investor whole. This can be achieved by the insurer filling the gap between the ABS' par value (value at the point of sale) and the market value of ABS at the time of default. The insurer also pays to the lender/investor the remaining expected stream of income (interest payments) that is associated with ABS.

Interestingly, CDS do not carry an international classification as an insurance product. Therefore, non-insurance firms sold this financial protection, but were not be required to maintain reserves that are required to be held by companies that sell insurance products. Certain insurance companies that sold CDS also did not maintain sufficient reserves to cover defaults because they were not required to do so. Therefore, when defaults rose on ABS to unexpected levels during the 2008-2009 financial and economic crisis, sufficient reserves were not available to cover CDS.

Short Selling

A “short sale” occurs when an investor sells a security without owning it with the expectation that the price of the security will fall. Conversely, an investor is “long” when a security is purchased with the expectation that its price will rise.

A successful short sale transpires as follows. A short seller borrows a security (stock) from a broker and sells it immediately. The expectation is that the price of the security will fall, at which time the short seller will purchase the security at a lower price, then return the security to its owner, and reap as a profit of the difference between the original sales price and the lower purchase price. Of course, the profit is reduced by the amount of brokers’ and other transaction fees. In addition, the short seller must pay to the owner of the security an amount equal to dividends or rights that accrue to the security while it is on loan.

Short sellers can borrow a security indefinitely. However, short sellers may be forced to cover the full value of the security if brokers that loaned the security request that it be returned.

Short selling can become quite popular when it appears that the prices of certain securities are going to fall. This is what occurred during the 2008-2009 global financial and economic crisis. As short selling proliferated, it produced a self-fulfilling prophesy as the price of a broad range of securities fell. Consequently, regulators of securities markets around the world called a temporary halt to short selling. At this writing, however, short selling has returned to most securities markets.

Budgets: Balance, Surplus, Deficit, and Debt

National or central governments operate in much the same way that private businesses operate—they both generate receipts and incur expenses. Government receipts are mainly in the form of tax revenues or nontax payments. Government expenses include compensation for employees, operating expenses (including interest expense) that enable the production of the services offered by government, and capital expenditures to purchase the buildings, equipment, and software that are required to produce government services. In the case of government enterprises, there is essentially no difference between the transactions conducted by these entities and by private business. However, governments usually have a set of expenses that private businesses do not incur: Transfer payments to, or on behalf of, qualifying citizens, such as Social Security benefits, and payments for medical care.

Depending on the configuration of the political system in a country, a president or a prime minister may be required to develop a budget for the nation that reflects expected receipts and expenditures for a coming period—usually a fiscal year, which is a 12-month arrangement that may or may not be consistent with the calendar year. In most cases, a country's parliament or legislature must approve the budget that is developed by the president or prime minister.

The budget that is initially produced, that is approved, and/or the final accounting at the end of the fiscal year may reflect a balance, a surplus, or a deficit. A balanced budget occurs when receipts are exactly equal to expenditures. A surplus occurs when receipts exceed expenditures. A deficit occurs when receipts are less than expenditures. Governments meet deficits by drawing on savings that may have been accumulated via previous surpluses or from some other source, or the government borrow funds.

Large surpluses or deficits may signal that governmental operations are out of kilter. If a government incurs persistent surpluses, then the government may be raising too much revenue. If a government incurs persistent deficits, then the government may not be raising sufficient revenues and/or may be spending excessively. Generally, governments are likely to incur budget surpluses when the economy is growing rapidly, and they are likely to incur budget deficits when the economy slows or goes into recession.

Over the course of time, the cumulative budget balances (surpluses or deficits) incurred by a nation determines the nation's debt. If, over the years, a nation has ended fiscal years with deficits more so than with surpluses, then that nation will have a national debt that is equal to the sum total of those deficits, less the amount of the nation's debt that has been retired. National debt must be financed, and that financing creates expenses that must be accounted for in ongoing budgets.

Taxes

Taxes are unrequited payments that governments collect from their citizens; i.e., the tax payers have no expectation of receiving immediately and directly any good or service in exchange for their payments. Usually, taxes are based on laws that are passed by government officials to raise revenue to meet general and specific needs of its citizens. However, it is often the case that certain taxpayers receive few, if any, government services in exchange for their taxes, while other citizens may receive much more in services from their government relative to the taxes that they actually pay.

There are a variety of taxes: Income, corporate profit, value added, excise or sales, property, and custom duties, etc. Taxes should be clearly distinguished from funds that are collected by government in the form of license and other fees and fines (nontaxes).

Traditionally, governments collect taxes to provide for the defense of its population, as well as to ensure that its citizens have access to education, health care, sufficient transportation options, and appropriate regulation. Government is also generally expected to take necessary action to ensure that there are sufficient economic opportunities.

While governments generally have progressive-type (tax payers with greater capacity to pay, in fact, pay more) tax systems, it is important to assess the full tax burden that citizens bear. That is, it is necessary to not only measure income-type taxes, but also value added or sales, property, and other types of taxes that citizens pay.

International Economic Transactions

Nations account for their international economic transactions using *Current*, *Capital*, and *Financial accounts,* from which one can compute the *Balance of payments.*

Current account

The *Current account* is equal to the balance on traded goods and services (exports of goods and services less imports of goods and services), plus *Net factor income* flows (company payments from abroad less company payments to abroad), plus *Net foreign remittances* (payments from residents living and working abroad less payments by foreign nationals back to their home countries), plus *Net unilateral transfers* (government transfers to other nations less payments from foreign governments).

A *Current account* surplus indicates that the home country has an excess of claims on foreigners, while a *Current account* deficit indicates that foreigners have an excess of claims on the home country. However, accounting ensures balanced accounts; i.e., no excesses. Therefore, imbalances in the *Current account* are balanced by *Capital* and *Financial account* transactions.

In other words, the sum of the *Capital* and *Financial accounts* is equal in value to the *Current account* but has the opposite sign (+ or -, indicating surplus or deficit, respectively). Note that the *Balance of payments* is determined by the following identify:

Current account + (*Capital* and *Financial accounts*) = 0.

The following formula states this conclusion differently:

Current account deficit (or surplus) = *Capital* and *Financial account* surplus (or deficit).

Capital and financial accounts

The *Capital* and *Financial accounts* reflect transactions (changes in ownership) in capital assets (foreign direct investment (FDI); i.e., physical capital), financial assets (portfolio investment; i.e., currencies and securities), and other types of assets, which are sufficient to offset the current account balance.

It is important to note that when a resident of the home country acquires a foreign capital or financial asset it is registered as a capital and financial outflow (-), while the acquisition of a domestic capital or financial asset by a foreigner is registered as a capital and financial inflow (+).

Exchange Rate

An exchange rate is the rate at which one currency can be exchanged for another currency. For example, on April 30, 2009, the dollar-to-yen (the currency for Japan) exchange rate was ¥96.8734. That is, one dollar would purchase 96.8734 yen. The reverse calculation is that the yen-to-dollar exchange rate is $0.0103. That is, a yen would purchase 0.0103 dollars.

As noted in the entry on “Price” (see page 5) an exchange rate is just a price that you pay for one currency in terms of another currency. The price is, in part, determined in the international foreign exchange market based on demand and supply. Economic agents throughout the world demand a certain amount of a particular currency, the nation that owns that currency is willing to supply a certain amount, and the two quantities (demand and supply) determine, in part, the price.

We say “in part” because the value of very few currencies are permitted to be solely determined by market forces (i.e., very few currencies are allowed to “freely float”). Depending on where a country is in its business cycle, it may be advantageous to have a strong currency (sell at a higher price—fewer units of your currency in exchange for a unit of another currency) or a weak currency (sell at a lower price—more units of your currency in exchange for a unit of another currency). Therefore, most nations intervene in the market to control or “manage” their currencies’ exchange rates. Some nations attempt to have a fixed (or pegged) exchange rate; i.e., the currency’s value is maintained at a fixed amount relative to certain other currencies. Other nations adopt a “managed” exchange rate regime; a so-called “dirty float” regime where the value of the currency is allowed to fluctuate relative to certain other currencies. Certain countries adopt a currency banding strategy, where they allow the value of their currency to fluctuate within a band relative to the value of one or a basket of other currencies.

When, due to market or other conditions, a currency rises in value (fewer units of the currency must be exchanged for one unit of another currency), we say that the currency has “appreciated.” On the other hand, when a currency falls in value (more units of the currency must be exchanged for one unit of another currency), we say that the currency has “depreciated.”

You might think that there are many nations and many exchange rates, and that there may be opportunities to earn money by trading currencies in such a way as to take advantage of differences in exchange rates across three or more countries. For example, suppose we had the following situation:

Currency X to Currency Y exchange rate = 1.43
Currency X to Currency Z exchange rate = 0.20

Currency Y to Currency Z exchange rate = 7.25

In this situation, one could take 1.43 units of currency X, purchase one unit of currency Y, use the one unit of currency Y to purchase 7.25 units of currency Z, and then use the 7.25 units of currency Z to purchase 1.45 units of currency X, which is .02 more units of currency X than with which you began. A 0.02-unit profit on the transaction is not very much in and of itself, but when currency "arbitragers" conduct such transactions in thousands or millions of units, the small unit profits produce large overall profits. It was feasible to conduct arbitrage transactions of this type before international computer networks were established. However, today, with the world being so tightly connected electronically, it is difficult to identify and take advantage of even very small differences in exchange rates across a variety of currencies.

You should know that there are "futures" currency markets. That is, in case the need arises, you can write a contract to buy or sell currencies at a particular point in the future at a rate that is agreed upon in the current period. The problem with such futures transactions is that there is uncertainty as to whether the exchange rate will remain the same or change in your favor or disfavor between the current period and the futures contract settlement date. To avoid this risk, many futures contractors "hedge" their risk by making offsetting contracts: One that anticipates a rise in exchange rates and one that anticipates a fall in exchange rates.

The following are a few interesting facts about exchange rates in the Asia-Pacific Region:

- Under a currency banding regime, China's currency (the reminbi) is permitted to appreciate up to 0.5% per day against the U.S. dollar.

- Although Hong Kong is officially part of China, Hong Kong maintains a different currency—the Hong Kong dollar. The Hong Kong dollar is pegged to the U.S. dollar. In addition, Hong Kong banks must back up Hong Kong dollars with U.S. dollars. For every Hong Kong dollar that is issued, there is the equivalent exchange in U.S. dollars in the banks reserves.

- The Japanese yen is one of the only Asia-Pacific currencies that is allowed to float on the world market. Currently, the yen is also one of the strongest currencies in the world.

Foreign Exchange Reserves

Here we define foreign exchange reserves to include currencies held by the central bank or monetary authority of a nation.[9] Foreign exchange reserves are accumulated mainly through trade. A home country that exports more goods and services than it imports from a foreign nation creates a trade surplus that is evidenced by an excess of currencies (exchange) from foreign nations with which it has a trade surplus. This currency surplus constitutes a reserve that can be used for a variety of purposes. For example foreign exchange reserves can be used to:

- Purchase goods and services.
- Conduct foreign direct investment.
- Conduct foreign financial investment.
- Conduct a unilateral transfer.
- Purchase other currencies in the international foreign exchange market.
- Sell on the international foreign exchange market to manage the value of a currency.

Many nations in the Asia-Pacific Region have accumulated sizeable amounts of foreign exchange reserves, with China being the leader (over $2.0 trillion in September of 2009). Several Asia-Pacific nations have used foreign exchange reserves to develop sovereign wealth funds, which have conducted wide-spread investing around the globe. Nations that do not have a freely floating exchange rate regime use foreign exchange reserves to manage the value of their currency.

[9] The most complete definition of foreign exchange reserves includes special drawing rights, gold, bonds, currencies, and International Monetary Fund (IMF) reserve positions. Special drawing rights are a currency-equivalent asset that is allocated to nations by the IMF, and that can be used for transactions between nations. A reserve position at the IMF is the balance of reserves—as just defined—held in a nation's account at the IMF.

Currency Swaps

In a macroeconomic context, currency swaps are agreements between central banks or monetary authorities in which agreeing parties commit to making their currencies available to each other. The agreements cover the amounts of currencies that will be made available, and the amount of time during which the agreement is to be in force.

As an example, currency swap lines of credit agreements were entered into by the U.S. Federal Reserve Board and the central banks (monetary authorities) of several Asia-Pacific countries (Japan, South Korea, Singapore, Australia, etc.) during the 2008-2009 financial and economic crisis. These agreements ensured dollar liquidity in these Asian markets at a time when private U.S. banks reflected a constrained willingness to lend dollars. Therefore, to the extent that Asian companies and, therefore, banks needed dollars to conduct transactions, the latter could borrow dollars from their central banks if and when private U.S. banks were unwilling to lend dollars. This arrangement facilitated economic transactions that would not have otherwise occurred between parties desiring to trade in dollars.

There is a microeconomic analogue to currency swaps. It is a type of foreign exchange agreement that involves two companies swapping equally-valued (in net present value terms) principle and fixed rate interest payments that are denominated in different currencies. Such agreements serve as cost-cutting and/or hedging measures. These types of currency swaps also constitute an alternative to currency futures contracts.

Foreign Direct Investment

Foreign direct investment (FDI) entails a company from a home country founding a new company, acquiring an existing company outright, or obtaining a significant voting interest (10 percent or greater) in an existing firm in a foreign nation. The home country company is considered the "parent," and the foreign company owned by the parent is called an "affiliate." A parent must be actively involved in the management of its affiliate.

Nations may experience FDI inflows (foreign companies acquiring home country firms) and outflows (home country companies acquiring foreign firms) from year-to-year. The cumulative value of these investments is considered the "stock" of (inward or outward) FDI. The United States, the United Kingdom, and Hong Kong are the top recipients of inward FDI in the world.

The inward and outward flow of income from affiliates to their parents creates *Net factor income* flows for a nation, which enter the *Current account* and the *Balance of payments*.

Portfolio Investment

Portfolio investment is the passive holding by a home country owner of foreign securities, such as stocks, bonds, other financial assets, and a less than 10 percent voting interest in a foreign firm. The owner must not be actively engaged in managing these assets.

The flow of income derived from ownership of these assets (inward flows to home country from foreign assets, and outward flows to owners of home country assets) constitute income from portfolio investments, which appear in nations' *Financial account* and the *Balance of payments*.

Foreign Remittances

Foreign remittances are payments that are transmitted back to a home country by a resident who is working in a foreign country. Several nations in the Asia-Pacific Region (e.g., China, India, Philippines, Bangladesh, and Indonesia) derive a significant amount of income from foreign remittances. Countries receive and transmit foreign remittances; therefore, the net amount enters nations' *Current account* and the *Balances of payments*.

International Financial Institutions

During and after World War II, nations recognized the importance of collaborative forums through which to provide assistance to needy nations. They recognized that events could unfold that could push even strong nations to the point where assistance might be useful—if not absolutely required. Hence nations formed the United Nations, which mainly addresses political, social, and economic issues in very philosophical way. However, nations also formed two major financial institutions that could address financial and economic concerns that might surface within and across nations in a very practical way: The International Monetary Fund (IMF) and the World Bank. Subsequently, during the 1960s, a subset of United Nations member countries created the Asian Development Bank (ADB), which focuses strictly on providing financial assistance to nations in the Asia-Pacific Region. These three financial institutions—the IMF, the World Bank, and the ADB—are discussed below.

International Monetary Fund

The International Monetary Fund (IMF) was founded in 1945. It is a financial institution that offers concessional loans to member countries experiencing financial crisis. The IMF also provides policy advice, global financial and economic analysis, and technical assistance.

The IMF is funded and operated by its 185 member countries. Any country can apply to become a member. A majority of the existing membership must approve new accessions. IMF member nations are allocated a quota which determines: (1) The amount of capital a country must initially contribute to the IMF; (2) the number of votes allocated to the country; and (3) the accessibility of funds available to the country. Until 2009, the quota was based on the size of a member country's economy relative to the global economy. However, the IMF is currently making quota reforms to better reflect the ever-changing global economy and to provide more incentives for low-income countries to join the IMF.

As a diverse organization, the IMF is able to promote economic cooperation between member countries.

A country that requests a loan from the IMF typically has exhausted all other financial options; i.e., they are unable to obtain loans from private banks or from allies. IMF loans are extended only after the requesting country and IMF have agreed on an economic plan. Often, requesting countries must implement financial reforms before or after receiving loans in order to produce a healthier economy.

As the 2008-2009 economic and financial crisis spreads and intensifies around the globe, more countries are turning to the IMF for relief. Since the fall of 2008, the IMF has provided assistance to secure sizeable loans to the Ukraine, Serbia, and to Mexico. During the April 2009 G-20 Summit, participating members pledged to inject more money into the IMF in order to increase the organization's lending capacity to $750 billion.

For more information about the IMF, visit www.imf.org.

World Bank

The World Bank is an international financial institution that is owned and operated by its 185 member countries. Members must first be a part of the International Monetary Fund (IMF) before being eligible for World Bank membership. The organization offers financial and technical assistance to developing countries in order to foster economic and social improvements.

The World Bank is comprised of two major institutions: The International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA). While both institutions have similar goals of helping developing countries, the IBRD assists poor countries that have established credit, while the IDA assists the poorest countries in the world. Both institutions receive contributions from member countries; however, the IBRD is more self-sufficient. The IBRD lends contributed capital and uses interest charges to operate. This is unlike the IDA, which is generally funded every three years by 40 donor countries.

Member countries may apply for low-interest or no-interest loans, or for grants from the IBRD or the IDA. Countries must propose a specific project that the financing will be used to complete, such as building a wastewater treatment plant or developing farmable land. The project proposal is reviewed to ensure that it meets World Bank goals. Financial assistance will be provided only after the borrower and the World Bank agree upon a national development plan. Throughout the project development period, the country must demonstrate that project milestones and goals are being met.

Many developing countries receive assistance from the World Bank. In 2008, the World Bank offered $23.6 billion in low-interest and zero-interest loans, and grants for projects.

For more information about the World Bank, visit www.worldbank.org.

Asian Development Bank

The Asian Development Bank (ADB) is a regional financial institution that was formed in 1966, and it is owned and operated by its 67 member countries. Countries that are a part of the United Nations Economic and Social Commission for Asia and the Pacific are eligible for membership. New membership must be approved by a majority of the existing members.

The ADB provides loans, grants and technical assistance for developmental projects to struggling Asian and Pacific countries. The ADB is able to conduct operations using contributions made by member countries. The ADB lends capital, and then generates earnings through minimal-interest charges.

ADB members that are classified as “developing” countries may receive loans or grants for projects that contribute to their economic and social development. To receive a loan, the developing country must first collaborate with the ADB on a Country Partnership Strategy to identify development goals and measurements. Once a specific project is identified and a loan is approved, the country cooperates with the ADB to show that they are meeting milestones.

The ADB mainly provides loans to the governments or public sectors of developing member countries. However, at times, loans may be made available to private enterprises that operate within developing countries. One of the ADB’s largest loans, $1.1 billion, was provided to Vietnam in 2009 to build a highway in the Greater Mekong Area.

For more information about the ADB, visit http://www.adb.org

Summit Meetings

In a globalised world, nations have found that an effective way to solve problems and to plan for the future is to assemble for these purposes. Summit meetings are meetings between higher level government officials; they are forums where governments discuss important international economic and political issues. In addition, governments use these forums to strengthen their ties. Member nations can consult with one another and may agree to cooperate in economic, financial, military, and political efforts. Among the top summits at which the largest nations meet are the G-7, G-8, and G-20 Summits. These alpha-numerical terms reference both the number of members present at the summit meeting and the summit meeting itself.

The G-7 and G-20 meetings are focused on finance and the economies of countries. Typically, finance ministers or central bank governors participate with heads of states during G-7 and G-20 meetings. The G-8 meeting may concern a wide variety of topics and usually, the head of state attends the meeting. The rotating host country of the G-8 Summit sets the meeting agenda. The G-20 Summit is a recently configured summit of developed and large emerging market economies. Recent G-20 Summits have focused on solving the global financial and economic crisis.

Members of the G-7 include: Canada, France, Germany, Italy, Japan, United Kingdom, and United States. Members of the G-8 include: Canada, France, Germany, Italy, Japan, Russia, United Kingdom, and United States. Members of the G-20 include: Argentina, Australia, Brazil, Canada, China, European Union, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom, and United States.

Asia-Pacific Economic Associations

Nations in the Asia-Pacific Region have found great benefit in developing collaborative associations through which to address political, military, and economic issues. There are a plethora of such organizations, which vary in membership from just a few nations to organizations that have over 20 members. Two of the most important associations of nations in the Asia-Pacific Region are the Asia-Pacific Economic Corporation (APEC) and the Association for Southeast Asian Nations (ASEAN). They are highlighted below.

Asia Pacific Economic Cooperation

The Asia Pacific Economic Cooperation (APEC) includes 21 members, and strives to facilitate economic growth, cooperation, trade and investment in the Asia-Pacific region. APEC membership is voluntary. In addition, policies or agreements made under APEC facilitation are executed willingly by members.

Each member of APEC has an individual action plan (IAPs) that highlights actions taken each year to promote free trade and investments. APEC members also help to fund operations and projects that support APEC's mission. These project objectives range from "establishing channels for information exchange, to assisting business with trade and investment, to providing information technology training in developing economies."

Member countries include: Australia, Brunei Darussalam, Canada, Chile, China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, The Philippines, Russia, Singapore, Taiwan, Thailand, the United States, and Vietnam.

For more information about APEC, visit http://www.apec.org

Association of Southeast Asian Nations

The Association of Southeast Asian Nations is an organization that promotes economic growth, social progress, cultural development, peace and stability throughout the Southeast Asian region. Member countries work cooperatively to achieve economic and social goals, while respecting each others differences and allowing each other to govern themselves without interference. Member countries include: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar (Burma), Philippines, Singapore, Thailand, and Vietnam.

For more information about ASEAN, visit http://aseansec.org

Social Costs and Benefits

Rational economic agents engage in transactions to derive personal or private benefits. In certain cases, the costs incurred from such transactions are limited to the parties directly involved in the transaction. In other cases, a transaction may produce costs for those not directly involved in the transaction. In the former case, we say that total or social costs are equal to private costs. In the latter case, we say that total/social costs are greater than private costs and that the difference between social and private costs is accounted for by a "negative externality." An example of the former is when one kid purchases a cookie from another kid in the neighborhood. The cost incurred by the seller is paid by the buyer, and the benefit incurred by the buyer's consumption of the cookie is limited to the buyer/eater. A case of the latter is a smoker's purchase and consumption of cigarettes. The purchaser pays the manufacturer for the cost incurred to produce the cigarette, but the purchaser is not obliged to pay those in the immediate environment who may be harmed by the second-hand smoke that is produced when the cigarette is consumed. In this case the social/total cost (cost of manufacturing and the health costs of second-hand smoke) exceeds the private cost (the cost to the buyer of the cigarette).

There are also cases where social/total cost is less than private cost—the difference being accounted for by a "positive externality." For example, a private citizen pays for the construction of a bridge across a stream so that access can be gained to a home, which is the first to be built in a newly developed area. Later, when other homes are built in the area, the bridge provides a benefit (access) for new home owners, but they incur no cost for the bridge. If we assume that the initial homeowner would not have constructed the bridge unless the total cost of the bridge was less than or equal to the benefit that would be derived from the bridge, then we can conclude that the total/social cost (paid by the initial homeowner) is less than the total/social benefit (benefit to the initial and subsequent home owners).

There are two standard approaches to bringing social costs in line with private costs. In the case of a negative externality, a tax may be imposed to reduce consumption so that social costs are reduced to the point where they are equal to social benefit. In the case of a positive externality, a subsidy may be awarded to expand consumption to the point where social cost rises to equal social benefit.

Imbalances between social costs and benefits become a concern in analyzing nations in the Asia-Pacific Region when countries make economic decisions that impose costs on other nations. For example, a nation that lies along the upper reaches of a river may impose a severe cost on nations that lie along the lower reaches of the river by building a dam which reduces the flow of water, or establishes manufacturing operations that send pollution down the river.