TEN KEY ELEMENTS OF ECONOMICS

1. Incentives Matter.
2. There is No Such Thing as a Free Lunch.
3. Voluntary Exchange Promotes Economic Progress.
4. Transaction Costs are an Obstacle to Exchange; Reducing This Obstacle Will Help Promote Economic Progress.
5. Increases in Real Income are Dependent Upon Increases in Real Output.
6. The Four Sources of Income Growth are (a) Improvements in Worker Skills, (b) Capital Formation, (c) Technological Advancements, and (d) Better Economic Organization.
7. Income is Compensation Derived from the Provision of Services to Others. People Earn Income by Helping Others.
8. Profits Direct Businesses Toward Activities that Increase Wealth.
9. The "Invisible Hand" Principle—Market Prices Bring Personal Self-interest and the General Welfare into Harmony.
10. Ignoring Secondary Effects and Long-term Consequences is the Most Common Source of Error in Economics.

1. Incentives Matter

ALL ECONOMIC THEORY IS BASED on the postulate that changes in incentives influence human behaviour in a predictable manner. Personal benefits and costs influence our choices. If the benefits derived from an option increase, people will be more likely to choose it. Conversely, if the personal costs of an option increase, people will be less likely to choose it.

This basic postulate of economics is a powerful tool because its application is so widespread. Incentives affect behaviour in virtually all aspects of our lives, ranging from market activities to household decision-making to political choices.

In the marketplace, this basic postulate indicates that, if the price of a good increases, consumers will buy less of it; producers, on the other hand, will supply more of it since the price increase makes it more profitable to produce the good. Both buyers and sellers respond to incentives. Market prices will bring their actions into harmony. If the quantity buyers want to purchase exceeds the quantity sellers are willing to provide, the price will rise. The higher price will discourage consumption and encourage production of the good or service, bringing amount demanded and amount supplied into balance. Alternatively, if consumers are unwilling to purchase the current output of a good, inventories will accumulate and there will be downward pressure on the price. In turn, the lower price will encourage consumption and retard production until the amount demanded by consumers is once again in balance with production of the good. Markets work because both buyers and sellers alter their behaviour in response to changes in incentives.

Of course, this process does not work instantaneously. It will take time for buyers to respond fully to a change in price. Similarly, it will take time for producers to build an additional plant in response to a price increase or to reduce production if price declines. Nonetheless, the implications are clear—market prices will coordinate the actions of both buyers and sellers and will bring them into harmony.

The response of buyers and sellers to the higher gasoline prices of the 1970s illustrates the importance of incentives. As gasoline prices rose, consumers eliminated less essential trips and did more car pooling. Gradually, they shifted to smaller, more fuel-efficient cars in order to reduce their gasoline consumption still further. At the same time, petroleum suppliers increased their drilling, used a water flooding technique to recover more oil from existing wells, and searched more intensely for new oil fields. By the early 1980s, this combination of factors was placing downward pressure on the price of crude oil.

Incentives also influence political choices. The person who shops in the supermarket is the same person who shops among political alternatives. In most cases, voters are more likely to support political candidates and policies that provide them with net personal benefits. Conversely, they will tend to oppose political options when the personal costs are high relative to the benefits provided.

The basic postulate of economics—that incentives matter—is just as applicable under socialism as it is under capitalism. For example, in the former Soviet Union, managers and employees of glass plants were at one time rewarded according to the tons of sheet glass produced. Not surprisingly, most plants produced sheet glass so thick that one could hardly see through it. The rules were changed so that the managers were rewarded according to the square meters of glass produced. The results were predictable. Under the new rules, Soviet firms produced glass so thin that it was easily broken. Changes in incentives influence actions under all forms of economic organization.

Some critics have charged that economic analysis only helps explain the actions of self-centred, greedy materialists. This view is false. People act for a variety of reasons, some selfish and some humanitarian. The basic postulate of economics applies to both the altruist and egotist. The choices of both will be influenced by changes in personal costs and benefits. For example, both the altruist and the egotist will be more likely to attempt the rescue of a small child in a three-foot swimming pool than in the rapid currents approaching Niagara Falls. Similarly, both are more likely to give a needy person their hand-me-downs rather than their best clothes. Incentives influence the choices of both.

2. There is No Such Thing as a Free Lunch

SCARCITY CONSTRAINS US. THE REALITY of life on our planet is that productive resources are limited, while human desires for goods and services are virtually unlimited. Since we cannot have as much of everything as we would like, we are forced to choose among alternatives.

When resources are used to produce good A, say a shopping centre, the action diverts resources away from the production of other goods that are also desired. The cost of the shopping centre is the highest valued bundle of other goods that could have been produced and consumed, but now must be sacrificed, because the required resources were used instead to produce the shopping centre. The use of resources to produce one thing reduces their availability to produce other things. Thus, the use of scarce resources always involves a cost; there is no such thing as a free lunch.

Costs play a vitally important function: they help us balance our desire for more of a good against our desire for more of *other* goods that could be produced instead. If we do not consider these costs, we will end up using scarce resources to produce the wrong things—goods that we do not value as much as other things that we might have produced.

In a market economy, consumer demand and producer costs perform this balancing function. In essence, the demand for a product is the voice of consumers instructing firms to produce a good. In order to produce the good, however, resources must be bid away from their alternative uses—primarily the production of other goods. Producers incur costs when they bid resources away from the production of other goods. These costs of production represent the voice of consumers saying that *other goods* that could be produced with the resources are also desired. Producers have a strong incentive to supply those goods that can be sold for as much or more than their production costs. This is another way of saying that producers will tend to supply those goods that consumers value most relative to their production costs.

Of course, a good can be provided free to an individual or group if others foot the bill. But this merely shifts the costs; it does not reduce them. Politicians often speak of "free education," "free medical care," or "free housing." This terminology is deceptive. None of these things are free. Scarce resources are required to produce each of them. For example, the buildings, labour, and other resources used to produce schooling could be used instead to produce more food, recreation, entertainment, or other goods. The cost of the schooling is the value of those goods that must now be given up because the resources required for their production were instead used to produce schooling. Governments may be able to shift costs, but they cannot avoid them. The "scarce resources have a cost" concept applies to all.

With the passage of time, of course, we may be able to discover better ways of doing things and improve our knowledge about how to transform scarce resources into desired goods and services. Clearly, this has been the case. During the last 250 years, we have been able to relax the grip of scarcity and improve our quality of life. However, this does not change the fundamental point—we still confront the reality of scarcity. The use of more labour, machines, and natural resources to produce one good forces us to give up other goods that might otherwise have been produced.

3. Voluntary Exchange Promotes Economic Progress

MUTUAL GAIN IS THE FOUNDATION OF TRADE. Parties agree to an exchange because they anticipate that it will improve their well-being. The motivation for market exchange is summed up in the phrase, "If you do something good for me, I will do something good for you." Trade is productive; it permits each of the trading partners to get more of what they want.

There are three major reasons why trade is productive—why it increases the wealth of people. *First, trade channels goods and services to those who value them most.* A good or service does not have value just because it exists. Material things are not wealth until they are in the hands of someone who values them. The preferences, knowledge, and goals of people vary widely. Thus, a good that is virtually worthless to one may be a precious gem to another. For example, a highly technical book on electronics that is of no value to an art collector may be worth hundreds of dollars to n engineer. Similarly, a painting that is unappreciated by an engineer may be an object of great value to an art collector. Therefore, a voluntary exchange that moves the electronics book to the engineer and the painting to the art collector will increase the value of both goods. Simultaneously, the exchange will increase the wealth of both trading partners and the nation because it moves goods from people who value them less to people who value them more.

Second, exchange permits trading partners to gain from specializing in the production of those things they do best. Specialization allows us to expand total output. A group of individuals, regions, or nations will be able to produce a larger output when each specializes in the production of goods and services it can provide at a

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Modern production of a good like a pencil or an automobile often involves specialization, division of labour, large-scale production methods, and the cooperation of literally tens of thousands of people. Gains from these sources are dependent upon exchange.

low cost, and uses its sales revenue to trade for desired goods it can provide only at a high cost. Economists refer to this principle as the law of comparative advantage.

In many ways, gains from trade and specialization are common sense. Examples abound. Trade permits a skilled carpenter to specialize in the production of frame housing while trading the earnings from housing sales to purchase food, clothing, automobiles, and thousands of other goods that the carpenter is not so skilled at producing. Similarly, trade allows Canadian farmers to specialize in the production of wheat and use the revenue from wheat sales to buy Brazilian coffee, a commodity that the Canadians could produce only at a high cost. Simultaneously, it is cheaper for Brazilians to use their resources to grow coffee and trade the revenues for Canadian wheat. Total output is enlarged and both trading partners gain.

Third, voluntary exchange permits us to realize gains derived from cooperative effort, division of labour, and the adoption of large-scale production methods. In the absence of exchange, productive activity would be limited to the individual household. Self-sufficiency and small-scale production would be the rule. Exchange permits us to have a much wider market for our output, and thus enables us to separate production processes into a series of specific operations in order to plan for large production runs—actions which often lead to enormous increases in output per worker.

Adam Smith, the "father of economics," stressed the importance of gains from the division of labour more than 200 years ago. Observing the operation of a pin manufacturer, Smith noted that the production of the pins was broken into "about eighteen distinct operations," each performed by specific workers. When the workers each specialized in a productive function, they were able to produce 4,800 pins *per worker* each day. Without specialization and division of labour, Smith doubted an individual worker would have been able to produce even 20 pins per day.

Specialization permits individuals to take advantage of the diversity in their abilities and skills. It also enables employers to assign tasks to the workers who are more able to accomplish them. Even more importantly, the division of labour lets us adopt complex, large-scale production techniques unthinkable for an individual household. Without exchange, however, these gains would be lost.

4. Transaction Costs are an Obstacle to Exchange; Reducing This Obstacle Will Help Promote Economic Progress

VOLUNTARY EXCHANGE IS PRODUCTIVE because it promotes social cooperation and helps us get more of what we want. However, exchange is also costly. The time, effort, and other resources necessary to search out, negotiate, and conclude an exchange are called transaction costs. Transaction costs are an obstacle to the creation of wealth. They limit both our productive capacity and the realization of gains from mutually advantageous trades.

Transaction costs are sometimes high because of physical obstacles, such as oceans, rivers, marshes, and mountains. In these cases, investment in roads and improvements in transportation and communications can reduce them. In other instances, transaction costs may be high because of man-made obstacles, such as taxes, licensing requirements, government regulations, price controls, tariffs, or quotas. But regardless of whether the roadblocks are physical or man-made, high transaction costs reduce the potential gains from trade. Conversely, reductions in transaction costs increase the gains from trade and thereby promote economic progress.

People who provide trading partners with information and services that help them arrange trades and make better choices are providing something valuable. Such specialists or middlemen include real estate agents, stockbrokers, automobile dealers, publishers of classified ads, and a wide variety of merchants.

Often, people believe that middlemen are unnecessary—that they merely increase the price of goods without providing benefits to either the buyer or the seller. Once we recognize that transaction costs are an obstacle to trade, it is easy to see the fallacy of this view. Consider the grocer who, in essence, provides middleman services that make it cheaper and more convenient for producers and consumers of food products to deal with each other. Think of the time and effort that would be involved in preparing even a single meal if shoppers had to deal directly with farmers when purchasing vegetables; citrus growers when buying fruit; dairy operators if they wanted butter, milk, or cheese; and a rancher or a fisherman if they wanted to serve beef or fish. Grocers make these contacts for consumers, transport and sell all of the items in a convenient shopping location, and maintain reliable inventories. The services of grocers and other middlemen reduce transaction costs and make it easier for potential buyers and sellers to realize gains from trade. These services increase the volume of trade and thereby promote economic progress.

5. Increases in Real Income are Dependent Upon Increases in Real Output

A HIGHER INCOME AND STANDARD OF LIVING are dependent upon higher productivity and output. There is a direct relationship between a nation's per capita (per person) income and its per capita output. In essence, output and income are opposite sides of the same coin. Output is the value of the goods and services produced, as measured by the prices paid by purchasers. Income is the revenue paid to the people (including the entrepreneur's residual revenue), who supply the resources that generate the output. This too, must equal the sale price of the goods.

Consider the following example: suppose that a construction company hires workers and purchases other resources, such as lumber, nails, and bricks, to produce output—in this case, a home. When the home is sold to a buyer, the sale price is a measure of output. Simultaneously, the sum of the payments to the workers, suppliers of the other resources, and the residual income received by the construction company (which may be either positive or negative) is a measure of income. Both the output and income add up to the sale price of the good, which represents the value of what was produced.

Once the linkage between output and income is recognized, the real source of economic progress is clarified. We improve our standard of living (income) by figuring out how to produce more output (things that people value). Economic progress is dependent, for example, on our ability to build a better house, computer, or video camera with the same or a lesser amount of labour and other resources. Without increases in real output—that is, output adjusted for inflation—there can be no increases in income and no improvement in our living standards.

Historical comparisons illustrate this point. On average, workers in North America, Europe, and Japan produce about five times more output per capita than their ancestors did 50 years ago. Similarly, their inflation-adjusted per capita income—what economists call real income—is approximately five times higher.

Output per worker also accounts for differences in earnings per worker across countries. For example, the average worker in the United States is better educated, works with more productive machines, and benefits from more efficient economic organization than the average person in India or China. Thus, the average U.S. worker produces approximately 20 times as much value of output as an average worker in India or China. American workers earn more because they produce more. If they did not produce more, they would not be able to earn more.

Politicians often erroneously talk as if the creation of jobs is the source of economic progress. While campaigning, a recent political leader argued that his economic program had three pillars: "Jobs, jobs, and jobs." But focusing on jobs is a potential source of confusion. More employment will not promote economic progress, unless the employment expands output. We do not need more jobs, *per se*. Rather we need more productive workers, more productivity-enhancing machinery, and more efficient economic organization so we can produce more output per capita.

Some observers argue that technology adversely affects workers. In fact, just the opposite is true. Once you recognize that expansion in output is the source of higher wages, the positive impact of improvements in technology is apparent: better technology makes it possible for workers to produce more and thus to earn more. For example, farmers can generally produce more when working with a tractor rather than a team of horses. Accountants can handle more business accounts using micro-computers rather than a pencil and calculator. A secretary can prepare more letters when working with a word-processor than with a typewriter.

Sometimes specific jobs will be eliminated. Clearly modern technology has largely eliminated the jobs of elevator operators, blacksmiths, household workers, ditch diggers, and buggy manufacturers. These changes, however, merely release human resources so they can be used to expand output in other areas. Other tasks can now be accomplished with the newly released resources and, as a result, we are able to achieve a higher standard of living than would otherwise be the case.

Recognition of the link between output and income also makes it easier to see why minimum wage legislation and labour unions fail to increase the overall wages of workers. A higher minimum wage will price some low-skill workers out of the market. Therefore, their employment will decline, reducing total output. While some individual workers may be helped, overall per capita income will be lower because per capita output will be lower.

Similarly, labour unions may be able to reduce the competition from nonunion workers and thereby push up the wages of union members. But without commensurate increases in worker productivity, unions are unable to enhance the wages of all workers. If they could, the average wages in a highly unionized country like the United Kingdom would be higher than in the United States. But this is not what we observe. Wages in the U.K. are at least 40 percent lower than in the U.S., even though nearly half of the workforce is unionized in the United Kingdom compared to less than 20 percent in the United States.

Without high productivity per worker, there can be no high wages per worker. Similarly, without growth in the production of goods and services valued by consumers, there can be no growth in the real income of a nation. Production provides the source of income.

6. The Four Sources of Income Growth are (a) Improvements in Worker Skills, (b) Capital Formation, (c) Technological Advancement, and (d) Better Economic Organization

THE GOODS AND SERVICES THAT PROVIDE for our standard of living do not just happen. Their production requires work, investment, cooperation, machinery, brain power, and organization. There are four major sources of production and income growth.

First, improvements in the skills of workers will promote economic growth. Skilful workers are more productive. How do individuals improve their skills? Primarily they do so by investing in themselves—by developing their natural abilities. There are literally thousands of ways people can improve their skills, but most of them involve studying and practising. Thus, education, training, and experience are the primary ways people improve their skills.

Second, capital formation can also enhance the productivity of workers. Workers can produce more if they work with more and better machines. For example, a logger can produce more when working with a chain saw than with a hand-operated, cross-cut blade. Similarly, a transport worker can haul more with a truck than with a mule and wagon. Other things constant, investment in tools and machines can help us produce more in the future. But investment is not a free lunch. The resources used to produce tools, machines, and factories could also be used to produce food, clothing, automobiles, and other current consumption goods. Economics is about trade-offs. It does, however, indicate that people who save and invest more will be able to produce more in the future.

Third, an improvement in technology—our knowledge about how to transform resources into goods and services—will also permit us to achieve a larger future output. The use of brain power to discover economical new products and/or less costly methods of production is a powerful source of economic progress. During the last 250 years, improvements in technology have literally transformed our lives. During that time period, the steam engine and later the internal combustion engine, electricity, and nuclear power replaced human and animal power as the major source of energy. Automobiles, buses, trains, and airplanes replaced the horse and buggy (and walking) as the major methods of transportation. Technological improvements continue to change our lifestyles. Consider the impact of compact disk players, micro-computers, word-processors, microwave ovens, video cameras and cassette players, and automobile air conditioners—the development and improvement of these products during the last couple of decades have vastly changed the way that we work, play, and entertain ourselves.

Finally, improvements in economic organization can also promote economic growth. Of the four sources of growth, this one is probably the most often overlooked. The legal system of a country influences the degree of economic cooperation. Historically, legal innovations have been an important source of economic progress. During the 18th century, a system of patents provided investors with a private property right to their ideas. About the same time, the recognition of the corporation as a legal entity reduced the cost of forming large firms that were often required for the mass production of manufactured goods. Both of these improvements in economic organization accelerated the growth of output in Europe and North America.

Effective economic organization will facilitate social cooperation and channel resources toward the production of goods that people value. Conversely, economic organization that protects wasteful practices and fails to reward the creation of wealth will retard economic progress. In Part II we will investigate more fully the broad characteristics of effective economic organization.

7. Income is Compensation Derived from the Provision of Services to Others. People Earn Income by Helping Others

PEOPLE DIFFER WITH REGARD to their productive abilities, preferences, opportunities, development of specialized skills, willingness to take risks, and luck. These differences influence incomes because they influence the value of the goods and services individuals will be able or willing to provide to others.

While considering differences among people, we must not lose sight of precisely what income is. Income is simply compensation received in exchange for productive services supplied to others. People who earn large incomes provide others with lots of things that they value. If they did not, other people would not be willing to pay them so generously. There is a moral here. If you want to earn a large income, you had better figure out how to help others a great deal. The converse is also true. If you are unable and unwilling to help others very much, your income will be quite small.

This direct link between helping others and receiving income provides each of us with a strong incentive to acquire skills and develop talents that are highly valued by others. College students study for long hours, endure stress, and incur the financial cost of schooling in order to become, for example, doctors, chemists, and engineers. Other people acquire training and experience that will help them develop electrician, maintenance, or computer programming skills. Still others invest and start a business. Why do people do these things? Many factors undoubtedly influence such decisions. In some cases, individuals may be motivated by a strong personal desire to improve the world in which we live. However, *and this is the key point*, even people who are motivated primarily by the pursuit of income will have a strong incentive to develop skills and undertake investments that are valuable to others. Provision of services that others value is the source of high earnings. Therefore, when markets determine incomes, even individuals motivated primarily by the pursuit of personal income will have a strong incentive to pay close attention to what it is that others value.

Some people have a tendency to think that high-income individuals must be exploiting others. Recognition that income is compensation received for helping others makes it easy to see the fallacy in this view. People who earn a large income almost always improve the well-being of large numbers of people. The entertainers and athletes who earn huge incomes do so because millions of people are willing to pay to see them perform. Business entrepreneurs who succeed in a big way do so by making their products affordable to millions of consumers. The late Sam Walton (founder of Walmart Stores) became the richest man in the United States because he figured out how to manage large inventories more effectively and bring discount prices on brand-name merchandise to small town America. Later, Bill Gates, the founder and president of Microsoft, rose to the top of the *Forbes* magazine "Wealthiest Four Hundred" list by developing a product that dramatically improved the efficiency and compatibility of desk-top computers. Millions of consumers who never heard of either Walton or Gates nonetheless benefitted from their entrepreneurial talents and low-priced products. Walton and Gates made a lot of money because they helped a lot of people.

8. Profits Direct Businesses Toward Activities that Increase Wealth

THE PEOPLE OF A NATION will be better off if their resources are used to produce goods and services that are highly valued in comparison with their costs. At any given time, there is virtually an infinite number of potential investment projects. Some will increase the value of resources and promote economic progress. Others will reduce the value of resources and lead to economic decline. If economic progress is going to proceed, the value-increasing projects must be encouraged and the value-reducing projects avoided.

This is precisely what profits and losses do in a market setting. Business firms purchase resources and use them to produce a product or service that is sold to consumers. Costs are incurred as the business pays workers and other resource owners for their services. If the sales of the business firm exceed the costs of employing all of the resources required to produce the firm's output, then the firm will make a profit. In essence, profit is a reward that business owners will earn if they produce a good that consumers value more (as measured by their willingness to pay) than the resources required for that good's production (as measured by the cost of bidding the resources away from their alternative employment possibilities).

In contrast, losses are a penalty imposed on businesses that reduce the value of resources. The value of the resources used up by such unsuccessful firms exceeds the price consumers are willing to pay for their product. Losses and bankruptcies are the market's way of bringing such wasteful activities to a halt.

For example, suppose that it costs a shirt manufacturer $20,000 per month to lease a building, rent the required machines,

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If a nation is going to get the most out of its resources, it must have a way of bringing counterproductive activities to a halt. In market economies, losses perform this vitally important function.

and purchase the labour, cloth, buttons, and other materials necessary to produce and market 1,000 shirts per month. If the manufacturer sells the 1,000 shirts for $22 each, his actions create wealth. Consumers value the shirts more than they value the resources required for their production. The manufacturer's $2 profit per shirt is a reward received for increasing the value of the resources.

On the other hand, if the shirts could not be sold for more than $17 each, then the manufacturer would show a loss of $3 per shirt. This loss results because the manufacturer's actions reduced the value of the resources—the shirts were worth less to consumers than were the resources required for their production.

We live in a world of changing tastes and technology, imperfect knowledge, and uncertainty. Business decision-makers cannot be sure of either future market prices or costs of production. Their decisions must be based on expectations. Nonetheless, the reward-penalty structure of a market economy is clear. Firms that produce efficiently and anticipate correctly the products and services for which future demand will be most urgent (relative to production cost) will make economic profits. Those that are inefficient and allocate resources incorrectly into areas of weak future demand will be penalized with losses.

Essentially, profits and losses direct business investment toward projects that promote economic progress and away from those that squander scarce resources. This is a vitally important function. Nations that fail to perform this function well will almost surely experience economic stagnation.

9. The "Invisible Hand" Principle—Market Prices Bring Personal Self-interest and the General Welfare into Harmony

Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to society.... He intends only his own gain, and he is in this, and in many other cases, led by an invisible hand to promote an end which was not part of his intention.[1]

—**Adam Smith**

As ADAM SMITH NOTED, the remarkable thing about an economy based on private property and freedom of contract is that market prices will bring the actions of self-interested individuals into harmony with the general prosperity of a community or nation. The entrepreneur "intends only his own gain" but he is directed by the "invisible hand" of market prices to "promote an end [economic prosperity] which was not part of his intention."

The invisible hand principle is difficult for many people to grasp because there is a natural tendency to associate order with centralized planning. If resources are going to be allocated sensibly, surely some central authority must be in charge. The invisible hand principle stresses that this need not be the case. When

1 Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (1776; Cannan's ed., Chicago: University of Chicago Press, 1976), p. 477.

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Price controls cause shortages. For example, when price controls were imposed on gasoline, they led to long waiting lines and "no gas" signs at the pump. This was true for both the U.S. during the 1970s and Eastern Europe during the 1990s.

private property and freedom of exchange are present, market prices will register the choices of literally millions of consumers, producers, and resource suppliers and bring them into harmony. Prices will reflect information about consumer preferences, costs, and matters related to timing, location, and circumstances that are well beyond the comprehension of any individual or central-planning authority. This single summary statistic—the market price—provides producers with everything they need to know in order to bring their actions into harmony with the actions and preferences of others. The market price directs and motivates both producers and resource suppliers to provide those things that others value highly, relative to their costs.

No central authority is needed to tell business decision-makers what to produce or how to produce it. Prices will do the job. For example, no one has to force the farmer to raise wheat, or tell the construction firm to build houses, or convince the furniture manufacturer to produce chairs. When the prices of these and other products indicate that consumers value them as much or more than their production costs, producers seeking personal gain will supply them.

Neither will it be necessary or even helpful for a central authority to monitor the production methods of business firms. Farmers, construction companies, furniture manufacturers, and thousand of other producers will seek out the best resource combination and most cost-effective production methods because lower costs mean higher profits. It is in the interest of each producer to keep costs down and quality up. In fact, competition virtually forces them to do so. High-cost producers will have difficulty surviving in the marketplace. Consumers, seeking the best value for their money, will see to that.

The invisible hand of the market process works so automatically that most people give little thought to it. Most simply take it for granted that goods people value will be produced in approximately the quantities that consumers want to buy them. The long waiting lines and "sold out until next week" signs that characterize centrally-planned economies are almost totally unknown to the residents of market economies. Similarly, the availability of a vast array of goods that challenges even the imagination of modern consumers is largely taken for granted. The invisible hand process brings order, harmony, and diversity. The process works so quietly, however, that it is both little understood and seldom appreciated. Nonetheless, it is vital to our economic well-being.

10. Ignoring Secondary Effects and Long-term Consequences is the Most Common Source of Error in Economics

HENRY HAZLITT, PERHAPS THIS CENTURY'S greatest popular writer on economics, authored the book *Economics in One Lesson*. Hazlitt's one lesson was, that when analyzing an economic proposal, one

> *must trace not merely the immediate results but the results in the long run, not merely the primary consequences but the secondary consequences, and not merely the effects on some special group but the effects on everyone.*[2]

Hazlitt believed that failure to apply this lesson was, by far, the most common source of economic error.

It is difficult to argue with this point. Time and again, politicians stress the short-term benefits derived from a policy, while completely ignoring longer-term consequences. Similarly, there seems to be an endless pleading for proposals to help specific industries, regions, or groups without considering their impact on the broader community, including taxpayers and consumers.

Of course, much of this is deliberate. When seeking political favours, interest groups and their hired representatives have an incentive to put the best spin on their case. Predictably, they will exaggerate the benefits, while ignoring important components of costs. When the benefits are immediate and easily visible, while the costs are less visible and mostly in the future, it will be easier for interest groups to sell befuddled economic reasoning.

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2 Henry Hazlitt, *Economics in One Lesson*, (New Rochelle: Arlington House, 1979), p. 103.

It is easy to point to instances where the secondary effects are largely ignored. Consider the case of rent controls imposed on apartments. Proponents argue that controls will reduce rents and make housing more affordable for the poor. Yes, but there will be secondary effects. The lower rental prices will depress the rate of return on housing investments. Current owners of rental units may be forced to accept the lower return, but this will not be true for potential future owners. Many of them will channel their funds elsewhere; apartment house investments will fall; and the future availability of rental units will decline. Shortages will develop and the quality of rental housing will fall with the passage of time. These secondary effects, however, will not be immediately observable. Thus, rent controls command substantial popularity in communities from Montreal and Toronto to New York and Berkeley, California even though a declining supply of rental housing, poor maintenance, and shortages are the inevitable result. In the words of Swedish economist Assar Lindbeck: "In many cases rent control appears to be the most efficient technique presently known to destroy a city—except for bombing."[3]

The proponents of tariffs and quotas to "protect jobs" almost always ignore the secondary effects of their policies. Consider the impact of trade restrictions that reduce the supply of foreign-produced automobiles in the North American market. As a result, employment in the domestic automobile industry expands. But what about the secondary effects on others? The restrictions will mean higher prices for automobile consumers. As a result of the higher prices, many auto consumers will be forced to curtail their purchases of food, clothing, recreation, and literally thousands of other items. These reductions in spending will mean less output and reduced employment in these areas. Furthermore, there is also a secondary effect on foreigners. Since foreigners sell fewer

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3 Assar Lindbeck, *The Political Economy of the New Left, 1970* (New York: Harper and Row, 1972), p. 39.

automobiles to Americans, they acquire fewer dollars with which to import American-made goods. When foreigners sell less to us, they will have less purchasing power with which to buy from us. Therefore, U.S. exports will fall as a result of the restrictions on automobile imports. Once the secondary effects are considered, the impact on employment is clear. The restrictions do not create jobs; they reshuffle them. Employment is higher in the auto industry, but lower in other industries, particularly export industries. Unfortunately, the jobs of the people actual working in the automobile industry are highly visible, while the secondary effects— the "lost jobs" in other industries—are less visible. Thus, it is not surprising that many people fall for the "protecting jobs" argument even though it is clearly fallacious.

Let's consider one final misconception that reflects a failure to consider the secondary effects. Politicians often argue that government spending on favoured projects expands employment. Of course, there may be good reasons for government expenditures on roads, increased police protection, administration of justice, and so forth. The creation of jobs, however, is not one of them. Suppose the government spends \$2 billion employing workers to build a high speed train linking Windsor and Montreal. How many jobs will the project create? Once the secondary effects are considered, the answer is none. The government must either use taxes or debt to finance the project. Taxes of \$2 billion will reduce both consumer spending and private savings and thereby destroy as many jobs as the government spending will create. Alternatively, if the project is financed by debt, the borrowing will lead to higher interest rates and a decline in \$2 billion of private investment and consumption expenditures. As in the case of trade restrictions, the result is job re-shuffling, not job creation. Does this mean the project should not be undertaken? Not necessarily. But it does mean that its justification must come from benefits provided by the high-speed train rather than the illusory benefits of an expansion in employment.