Political Economic Digest Series- 17

Dear Political Economic Digest Series Participant,

In the last issue of Political Economic Digest Series we discussed about the Foreign Direct Investment in Nepal which is one of the hot topic of Nepalese economy. In this issue we will discuss about the one of the basic principle of economics- Invisible Hand.

The term Invisible Hand used by Adam Smith to describe the natural force that guides free market capitalism thorough competition for scarce resources. In a free market each participant, leading to exchange of goods and services, enables each participant to be better off then when simply producing for himself/herself. In a free market, no regulation of any type would be needed to ensure that the mutually beneficial exchange of goods and services enables each participant to be better off then when simply producing for himself/herself.

Invisible hand theory of Adam Smith

One of the greatest contributions of Adam Smith was the invisible hand theory. He said that if the government doesn't do anything, there's a controlling factor of people themselves who can guide markets. I believe that the government should be responsible in defining the property rights, to set up honest courts, to impose minor taxes and to compensate for well defined "market failures" If I sell candies for 1 peso each and Christian sells them for 2 pesos for 3 pieces, he will get all the business making me lose mine so in order to compensate for my loss I should be forced to lower my price as to stay alive in the business. I am guided by an invisible hand which is my self interest to gain profit or as Adam Smith would say everyman for himself.

The theory of the Invisible Hand states that if each consumer is allowed to choose freely what to buy and each producer is allowed to choose freely what to sell and how to produce it, the market will settle on a product distribution and prices that are beneficial to all the individual members of a community, and hence to the community as a whole. The reason for this is that self-interest drives actors to beneficial behavior. Efficient methods of production are adopted to maximize profits. Low prices are charged to maximize revenue through gain in market share by undercutting competitors. Investors invest in those industries most urgently needed to maximize returns, and withdraw capital from those less efficient in creating value. Students prepare for the most needed (and therefore most remunerative) careers. All these effects take place dynamically and automatically.

I, Pencil: My Family Tree

Leonard E. Read

I am a lead pencil—the ordinary wooden pencil familiar to all boys and girls and adults who can read and write.

Writing is both my vocation and my avocation; that's all I do.

You may wonder why I should write a genealogy. Well, to begin with, my story is interesting. And, next, I am a mystery—more so than a tree or a sunset or even a flash of lightning. But, sadly, I am taken for granted by those who use me, as if I were a mere incident and without background. This supercilious attitude relegates me to the level of the commonplace. This is a species of the grievous error in which mankind cannot too long persist without peril. For, the wise G. K. Chesterton observed, "We are perishing for want of wonder, not for want of wonders."

I, Pencil, simple though I appear to be, merit your wonder and awe, a claim I shall attempt to prove. In fact, if you can understand me—no, that's too much to ask of anyone—if you can become aware of the miraculousness which I symbolize, you can help save the freedom mankind is so unhappily losing. I have a profound lesson to teach. And I can teach this lesson better than can an automobile or an airplane or a mechanical dishwasher because—well, because I am seemingly so simple.

Simple? Yet, *not a single person on the face of this earth knows how to make me.* This sounds fantastic, doesn't it? Especially when it is realized that there are about one and one-half billion of my kind produced in the U.S.A. each year.

Pick me up and look me over. What do you see? Not much meets the eye—there's some wood, lacquer, the printed labeling, graphite lead, a bit of metal, and an eraser.

Innumerable Antecedents

Just as you cannot trace your family tree back very far, so is it impossible for me to name and explain all my antecedents. But I would like to suggest enough of them to impress upon you the richness and complexity of my background.

My family tree begins with what in fact is a tree, a cedar of straight grain that grows in Northern California and Oregon. Now contemplate all the saws and trucks and rope and the countless other gear used in harvesting and carting the cedar logs to the railroad siding. Think of all the persons and the numberless skills that went into their fabrication: the mining of ore, the

making of steel and its refinement into saws, axes, motors; the growing of hemp and bringing it through all the stages to heavy and strong rope; the logging camps with their beds and mess halls, the cookery and the raising of all the foods. Why, untold thousands of persons had a hand in every cup of coffee the loggers drink!

The logs are shipped to a mill in San Leandro, California. Can you imagine the individuals who make flat cars and rails and railroad engines and who construct and install the communication systems incidental thereto? These legions are among my antecedents.

Consider the millwork in San Leandro. The cedar logs are cut into small, pencil-length slats less than one-fourth of an inch in thickness. These are kiln dried and then tinted for the same reason women put rouge on their faces. People prefer that I look pretty, not a pallid white. The slats are waxed and kiln dried again. How many skills went into the making of the tint and the kilns, into supplying the heat, the light and power, the belts, motors, and all the other things a mill requires? Sweepers in the mill among my ancestors? Yes, and included are the men who poured the concrete for the dam of a Pacific Gas & Electric Company hydroplant which supplies the mill's power!

Don't overlook the ancestors present and distant who have a hand in transporting sixty carloads of slats across the nation.

Once in the pencil factory—$4,000,000 in machinery and building, all capital accumulated by thrifty and saving parents of mine—each slat is given eight grooves by a complex machine, after which another machine lays leads in every other slat, applies glue, and places another slat atop—a lead sandwich, so to speak. Seven brothers and I are mechanically carved from this "wood-clinched" sandwich.

My "lead" itself—it contains no lead at all—is complex. The graphite is mined in Ceylon. Consider these miners and those who make their many tools and the makers of the paper sacks in which the graphite is shipped and those who make the string that ties the sacks and those who put them aboard ships and those who make the ships. Even the lighthouse keepers along the way assisted in my birth—and the harbor pilots.

The graphite is mixed with clay from Mississippi in which ammonium hydroxide is used in the refining process. Then wetting agents are added such as sulfonated tallow—animal fats chemically reacted with sulfuric acid. After passing through numerous machines, the mixture finally appears as endless extrusions—as from a sausage grinder-cut to size, dried, and baked for several hours at 1,850 degrees Fahrenheit. To increase their strength and smoothness the leads are then treated with a hot mixture which includes candelilla wax from Mexico, paraffin wax, and hydrogenated natural fats.

My cedar receives six coats of lacquer. Do you know all the ingredients of lacquer? Who would think that the growers of castor beans and the refiners of castor oil are a part of it? They are. Why, even the processes by which the lacquer is made a beautiful yellow involve the skills of more persons than one can enumerate!

Observe the labeling. That's a film formed by applying heat to carbon black mixed with resins. How do you make resins and what, pray, is carbon black?

My bit of metal—the ferrule—is brass. Think of all the persons who mine zinc and copper and those who have the skills to make shiny sheet brass from these products of nature. Those black rings on my ferrule are black nickel. What is black nickel and how is it applied? The complete story of why the center of my ferrule has no black nickel on it would take pages to explain.

Then there's my crowning glory, inelegantly referred to in the trade as "the plug," the part man uses to erase the errors he makes with me. An ingredient called "factice" is what does the erasing. It is a rubber-like product made by reacting rape-seed oil from the Dutch East Indies with sulfur chloride. Rubber, contrary to the common notion, is only for binding purposes. Then, too, there are numerous vulcanizing and accelerating agents. The pumice comes from Italy; and the pigment which gives "the plug" its color is cadmium sulfide.

No One Knows

Does anyone wish to challenge my earlier assertion that no single person on the face of this earth knows how to make me?

Actually, millions of human beings have had a hand in my creation, no one of whom even knows more than a very few of the others. Now, you may say that I go too far in relating the picker of a coffee berry in far off Brazil and food growers elsewhere to my creation; that this is an extreme position. I shall stand by my claim. There isn't a single person in all these millions, including the president of the pencil company, who contributes more than a tiny, infinitesimal bit of know-how. From the standpoint of know-how the only difference between the miner of graphite in Ceylon and the logger in Oregon is in the *type* of know-how. Neither the miner nor the logger can be dispensed with, any more than can the chemist at the factory or the worker in the oil field—paraffin being a by-product of petroleum.

Here is an astounding fact: Neither the worker in the oil field nor the chemist nor the digger of graphite or clay nor any who mans or makes the ships or trains or trucks nor the one who runs the machine that does the knurling on my bit of metal nor the president of the company performs his singular task because he wants me. Each one wants me less, perhaps, than does a child in the first grade. Indeed, there are some among this vast multitude who never saw a pencil nor would they know how to use one. Their motivation is other than me. Perhaps it is something like this: Each of these millions sees that he can thus exchange his tiny know-how for the goods and services he needs or wants. I may or may not be among these items.

No Master Mind

There is a fact still more astounding: the absence of a master mind, of anyone dictating or forcibly directing these countless actions which bring me into being. No trace of such a person can be found. Instead, we find the Invisible Hand at work. This is the mystery to which I earlier referred.
It has been said that "only God can make a tree." Why do we agree with this? Isn't it because we realize that we ourselves could not make one? Indeed, can we even describe a tree? We cannot, except in superficial terms. We can say, for instance, that a certain molecular configuration manifests itself as a tree. But what mind is there among men that could even record, let alone direct, the constant changes in molecules that transpire in the life span of a tree? Such a feat is utterly unthinkable!

I, Pencil, am a complex combination of miracles: a tree, zinc, copper, graphite, and so on. But to these miracles which manifest themselves in Nature an even more extraordinary miracle has been added: the configuration of creative human energies—millions of tiny know-hows configurating naturally and spontaneously in response to human necessity and desire and *in the absence of any human master-minding!* Since only God can make a tree, I insist that only God could make me. Man can no more direct these millions of know-hows to bring me into being than he can put molecules together to create a tree.

The above is what I meant when writing, "If you can become aware of the miraculousness which I symbolize, you can help save the freedom mankind is so unhappily losing." For, if one is aware that these know-hows will naturally, yes, automatically, arrange themselves into creative and productive patterns in response to human necessity and demand—that is, in the absence of governmental or any other coercive masterminding—then one will possess an absolutely essential ingredient for freedom: *a faith in free people.* Freedom is impossible without this faith.

Once government has had a monopoly of a creative activity such, for instance, as the delivery of the mails, most individuals will believe that the mails could not be efficiently delivered by men acting freely. And here is the reason: Each one acknowledges that he himself doesn't know how to do all the things incident to mail delivery. He also recognizes that no other individual could do it. These assumptions are correct. No individual possesses enough know-how to perform a nation's mail delivery any more than any individual possesses enough know-how to make a pencil. Now, in the absence of faith in free people—in the unawareness that millions of tiny know-hows would naturally and miraculously form and cooperate to satisfy this necessity—the individual cannot help but reach the erroneous conclusion that mail can be delivered only by governmental "master-minding."

Testimony Galore

If I, Pencil, were the only item that could offer testimony on what men and women can accomplish when free to try, then those with little faith would have a fair case. However, there is testimony galore; it's all about us and on every hand. Mail delivery is exceedingly simple when compared, for instance, to the making of an automobile or a calculating machine or a grain combine or a milling machine or to tens of thousands of other things. Delivery? Why, in this area where men have been left free to try, they deliver the human voice around the world in less than one second; they deliver an event visually and in motion to any person's home when it is happening; they deliver 150 passengers from Seattle to Baltimore in less than four hours; they deliver gas from Texas to one's range or furnace in New York at unbelievably low rates and without subsidy; they deliver each four pounds of oil from the Persian Gulf to our Eastern Seaboard—halfway around the world—for less money than the government charges for delivering a one-ounce letter across the street!

The lesson I have to teach is this: *Leave all creative energies uninhibited.* Merely organize society to act in harmony with this lesson. Let society's legal apparatus remove all obstacles the best it can. Permit these creative know-hows freely to flow. Have faith that free men and women will respond to the Invisible Hand. This faith will be confirmed. I, Pencil, seemingly simple though I am, offer the miracle of my creation as testimony that this is a practical faith, as practical as the sun, the rain, a cedar tree, the good earth.

The "invisible hand" of market prices directs buyers and sellers toward activities that promote the general welfare.

This chapter is taken from the book called "Commonsense Economics"

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.

- Adam Smith

As Adam Smith noted, the remarkable thing about an economy based on private property is that *self-interest* will further the general prosperity of a community or nation. The individual "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 principle of the "*invisible hand*" is difficult for many people to grasp. There is a natural tendency to associate order in a society with centralized planning. Yet Adam Smith contends that pursuing one's own advantage can create an orderly society in which demands are routinely satisfied without a central plan.

This order occurs because market prices coordinate the actions of self-interested individuals when private property and freedom of exchange are present. One statistic – the market price of a particular good or service – provides buyers and sellers with what they need to know to bring their actions into harmony with the actions and preferences of others. Market prices register the choices of millions of consumers, producers, and resource suppliers. They 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.

Have you ever thought about why the supermarkets in your community have approximately the right amount of milk, bread, vegetables, and other goods – an amount large enough that the goods are nearly always available but not so large that a lot gets spoiled or wasted? How is it that refrigerators, automobiles, and CD players, produced at diverse places around the world, are available in your local market in about the quantity that consumers desire? The invisible hand of market prices provides the answer. It directs self-interested individuals into cooperative action and brings their choices into line with each other.

Friedrich Hayek, a more modern economist than Adam Smith, called the market system a "marvel" because just one indicator, the market price of a commodity, spontaneously carries so much information that it guides buyers and sellers to make decisions that help both obtain what they want.4 The market price of a product reflects thousands, even millions, of decisions made around the world by people who don't know what the others are doing. For each commodity or service, the market acts like a giant computer network grinding out an indicator that gives all participants both the information they need and the incentive to act on that information.

Consider the price of apples in the supermarket. This price reflects what consumers are likely to be willing to pay for their next apple but also incorporates the costs that suppliers had to cover to make it available. As a consumer, you will purchase more apples only if the value of each apple (its *marginal* value) is worth at least as much to you as the price. If you are willing to pay the price, you value the apples at least as much as other consumers who might have purchased them, and at least as much as it cost producers to supply them. And because you are paying for them, you have an incentive to make the wisest possible decision.

But that coordination is only the beginning of the "marvel." Changes are constantly taking place that affect both the value and the cost of apples, and those changes must be communicated to consumers and producers if the desires of consumers and producers are to remain in harmony. Consider what would happen if the citizens of Omaha, Nebraska, initiate a giant Halloween festival that features dunking for apples. They will want more apples than usual. If apple prices

do not increase, there will not be enough apples to go around. As people in Omaha (first individuals, then retail outlets, then distributors) express their desire for more apples, the price will go up. The higher price may lead consumers in other cities and states, and perhaps even countries, to reduce their consumption of apples. Without a strong immediate need for apples, they will prefer to eat fewer apples rather than pay more. The result is that outsiders will eat fewer apples, making it possible for Omahans to consume the desired additional apples – at the higher price, which they are willing to pay.

On the supply side, the higher apple prices will make it more profitable for producers to supply more. Attracted by the higher price, suppliers will take more care to avoid spoilage or damage to apples that are stored and shipped. A short-term event such as a Halloween festival will not affect decisions about planting orchards, but a broader increase in consumer interest in apples (perhaps spurred by respected nutritionists who recommend an apple a day) will lead apple growers to increase the size of their orchards. As apple growers expand production, their actions will increase the value of resources required for the production of apples, such as seedlings, pesticides, and orchard labor. This will shift resources from other activities into the apple- growing industry. As the prices of inputs to apple production go up, more suppliers will be willing to provide them. Over time, these adjustments will expand the future availability of apples. Apple production will increase as long as consumers communicate through prices that they value additional apples more than they value the goods and services that have to be sacrificed to produce the apples.

No individual or central planning authority could possibly obtain or consider all the information needed for millions of consumers and producers of thousands of different goods and services to coordinate their actions the way markets do. But *market prices contain this information in a distilled form*. They will direct producers and resource suppliers toward production of those things that consumers value most (relative to their costs, that is). No one will have to force a farmer to raise apples, or tell a construction firm to build houses, or convince a 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.

Nor will it be necessary for anyone to remind producers to search for and utilize low-cost methods of production. The invisible hand of market prices will provide them with a strong incentive to seek out the best combination of resources and the most costeffective production methods. Because lower costs will mean higher profits, each producer will strive to keep costs down and quality up. In fact, competition will virtually force them to do so.

In a modern economy, the cooperation that comes from self-interest directed by the invisible hand of market prices is truly amazing. The next time you sit down to a nice dinner; think about all the people who help make it possible. It is unlikely that any of them, from the farmer to the truck driver to the grocer, was motivated by concern that you have an enjoyable meal at the lowest possible cost. Market prices, however, brought their interests into harmony with yours.

Farmers who raise the best beef or turkeys receive higher prices; truck drivers and grocers earn more money if their products are delivered fresh and in good condition to the consumer, and so on, always using the low cost means to do so. Literally tens of thousands of people, most of whom we will never meet, make contributions that help each of us consume a bundle of goods that is far beyond what we could produce for ourselves. The invisible hand works so quietly and automatically that the order, cooperation, and vast array of goods available to modern consumers are largely taken for granted.

Question to think about:

1. Do you think invisible hand can create stability in economy and can create wealth?

2. Is the invisible hand a practical approach for setting prices of the basic necessity?