



The Secret to Wealth

When the ancient Greeks faced a dilemma, they consulted the Oracle at Delphi. If we were to ask the Oracle the secret to wealth, what would she say? Work hard? Get an education? Probably not. Diligence and intelligence are strategies for improving one's lot in life, but plenty of smart, hard-working people remain poor.

No, the Oracle's advice would consist of just a few words: *Do what you do best. Trade for the rest.* In other words, specialize and then trade.

The farmer grows wheat, the baker makes bread, the weaver produces cloth, the tailor sews clothing, the lumberjack harvests wood, the carpenter builds houses. By exchanging the fruits of their labor in the marketplace, they all can enjoy more food, clothing and shelter than they could if each tried to meet his needs in isolation.

Magnified many times, that is our world. Americans live and work in a highly interdependent society where jobs are specialized and a typical household buys goods and services from thousands of sources, not just in this country but around the globe. We've embraced specialization and trade, and the reward lies in a standard of living that's the envy of the world.

Whether trade involves the dry cleaner down the street or the carpet maker on the far side of the planet, all involved in the transaction end up better off. Why? Because trade is voluntary. No one would accept a raw deal of his own free will.

If there's a secret to wealth, it lies in the alchemy of specialization and trade. Buyer and seller consume more without added effort. It sounds too good to be true. Yet unlike the alchemist's false promise of turning lead into gold, the gains from specialization and trade occur wherever markets are allowed to function.

It's a matter of working smarter, not harder.

Societies reaped the benefits of specialization and trade for thousands of years before English economist David Ricardo (1772–1823) finally demonstrated why it works. His theory of comparative advantage helps explain why the United States exports soybeans to China and imports shoes in return.

Suppose an average American worker can produce 100 bushels of soybeans or five pairs of shoes and a typical Chinese worker can turn out eight bushels of soybeans or four pairs of shoes.

The United States is more productive than China in both industries, but consumers in both countries can still gain from specialization and trade. Shifting a U.S. worker from shoe factory to soybean farm produces a gain of 100 bushels of soybeans at the cost of five pairs of shoes. Shifting two Chinese workers from farm to factory raises shoe output by eight pairs but cuts soybean production by 16 bushels. The net effect is an increase of 84 bushels of soybeans and three pairs of shoes.

Total output of both products reaches a maximum when the United States specializes in soybeans and China in shoes. Through trade, the two countries

can divide the added production between themselves, leaving both better off than they were on their own. (See Exhibit 2.)

In the real world, trade isn't a two-party swap meet. The United States does business with more than 225 other nations—from Albania to Zimbabwe. The dizzying number of potential transactions increases the opportunities to gain from trade.

This potent international division of labor enables America to take advantage of its expertise in such industries as jet-aircraft manufacturing and financial services while other countries exploit their edge in oil production or hand assembly.

Specialization and trade arise out of the profit motive. Except when transaction costs are too high or governments impose barriers, buyers and sellers will find each other. We're not meant to go it alone.

Self-sufficiency may sound noble in the abstract, but it condemns people to meager living standards. History shows us as much. The American pioneers, living on remote homesteads and ranches, had no choice but to produce just about everything on their own. They embodied the virtue of self-reliance; yet

EXHIBIT 2. The Alchemy of Exchange

Five hundred Chinese workers can each produce four pairs of shoes or eight bushels of soybeans. One hundred U.S. workers can each produce five pairs or 100 bushels—more productive in both jobs but comparatively more so in farming. Under an autarkic regime—isolated from foreign trade—Chinese workers can afford one pair of shoes each and six bushels of soybeans; Americans, three and 40. Trading freely, China will specialize in shoes and America in soybeans, raising world production of shoes from 800 to 2,000 pairs and soybeans from 7,000 to 10,000 bushels. Chinese workers can then afford three pairs of shoes and 10 bushels of soybeans; American workers, five and 50.



	Autarky		Free Trade	
	China	U.S.	China	U.S.
Labor Force	500	100	500	100
Output per worker				
Shoes	4	5	4	5
Soybeans	8	100	8	100
Employment				
Shoes	125	60	500	0
Soybeans	375	40	0	100
Production				
Shoes	500	300	2,000	0
Soybeans	3,000	4,000	0	10,000
Consumption				
Shoes	500	300	1,500	500
Soybeans	3,000	4,000	5,000	5,000
Consumption per person				
Shoes	1	3	3	5
Soybeans	6	40	10	50

they worked from sunup to sundown, seven days a week to eke out a subsistence living. (See Exhibit 3.)

A jack of all trades will never be rich. Because specialization and trade create wealth, independence becomes a fool's errand—for countries as well as individuals.

The United States could grow its own bananas, but it would take a huge capital investment to reproduce the tropics' growing conditions. Using mammoth glass-domed greenhouses, artificial lighting and sprinklers, we could probably achieve banana self-reliance. Our bananas, of course, would be the world's most expensive. It's absurd in economic terms.

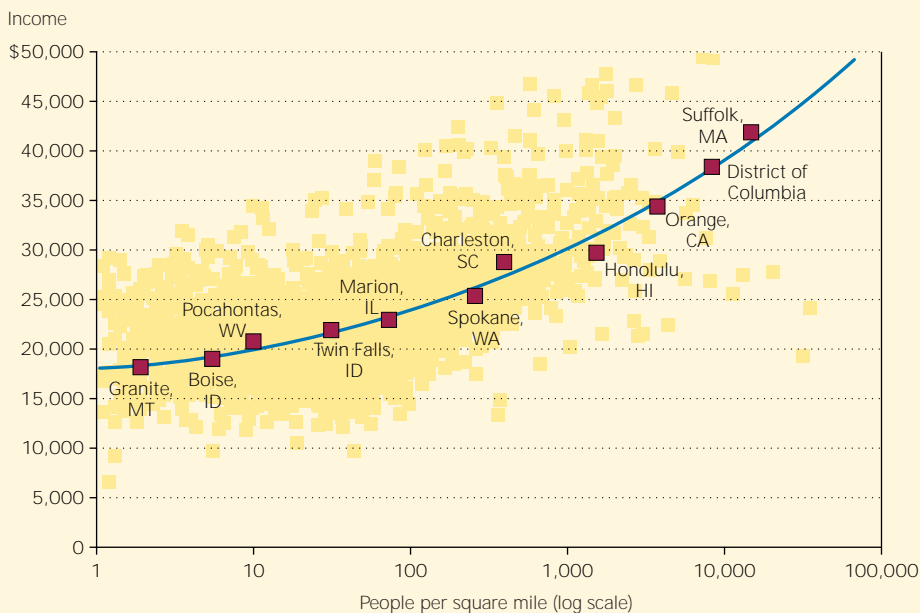
EXHIBIT 3. Independently Poor

Imagine the living standard each of us would have if we consumed only the goods and services we could produce. Few of us can make our own clothing, build our own house or even grow enough food to survive. At best, our self-sufficient living standard would reach that of the pioneers, who toiled long hours but remained dirt poor. As Adam Smith, the father of modern economics, revealed in *Wealth of Nations*, the keys to wealth are specialization and trade, not just work.

Nebraska pioneer family, 1886



Per Capita Income Rises with Population Density

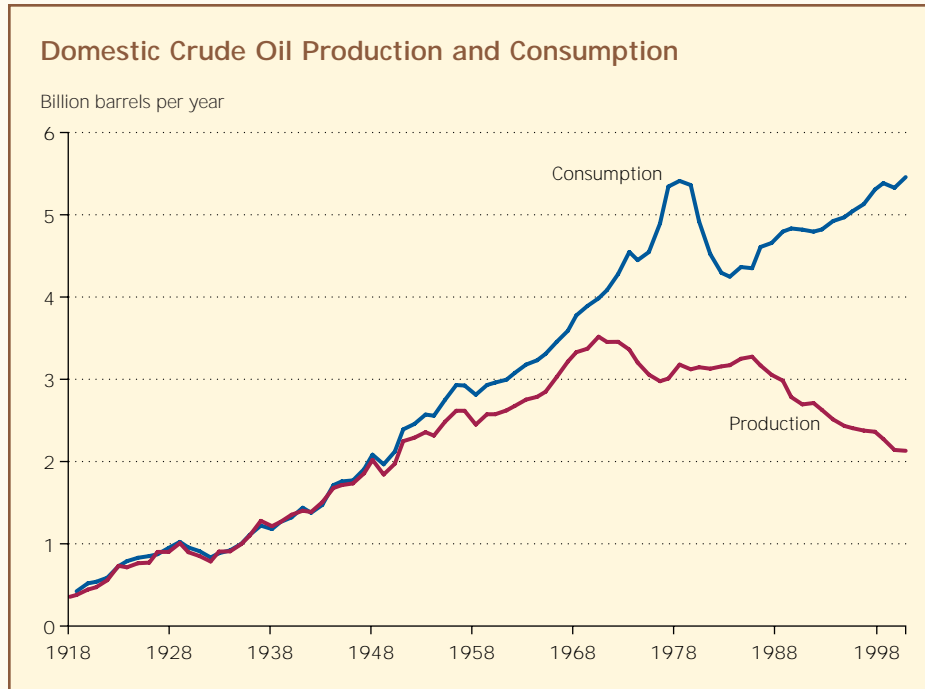


The Extent of the Market

There are no valets in the countryside. You won't even find a taxi. That's because "the division of labor is limited by the extent of the market," as Adam Smith noted some 225 years ago. Only in cities is specialization great enough that someone can drive or park cars for a living. Plotting a regression line for more than 3,000 U.S. counties shows that per capita income tends to rise with population density. New York (not shown) is the most densely populated county (66,940 people per square mile) and has the greatest per capita income (\$93,999). Loup County, Nebraska, among the sparsest populated (1.2 people per square mile), has the lowest per capita income (\$6,831).

EXHIBIT 4. Oil Independence — at \$7.50 per gallon

America has been a net importer of oil since the late 1940s. Today, nearly two-thirds (61 percent) of our oil comes from abroad. Some say this situation makes the nation vulnerable and we should seek energy independence. But what would it cost? Economists put price elasticity at about 0.04 for U.S. oil production and -0.5 for domestic oil demand. This means that a roughly 500 percent increase in oil prices would be needed to equate domestic supply and demand over a 10-year period. U.S. motorists would pay close to \$7.50 for a gallon of gasoline and have to drive nearly 60 percent less. Prices for plastics and other oil derivatives would rise sharply, and we'd have to consume less of these products as well. All told, the nation would suffer an \$80 billion annual loss in GDP, which would grow over time as we depleted our limited oil reserves. We'd be independent—and poor.



No one advocates banana independence, but energy is another matter. With this nation growing more dependent on foreign oil and with the increasing potential for disruption in international oil markets, isolationists want America to quench its own thirst for gasoline. As with bananas, the United States could achieve oil self-sufficiency—if consumers were willing to pay the price.

Over the past two decades, America's demand for oil has risen steadily. At the same time, the nation's ability to extract energy at competitive prices has waned. We now import 61 percent of our oil, so doing without foreign suppliers would require much higher prices to boost production and reduce consumption.

Domestic oil prices would have to jump to about \$145 a barrel to increase output 7.5 percent, to 3.7 billion barrels a year. We'd still have to get by on 60 percent less oil, so pump prices would triple, to at least \$7.50 a gallon. Energy independence would condemn consumers to sharply lower living standards and raise costs to just about every U.S. industry. Overall, GDP would fall 6.7 percent. (See Exhibit 4.)

Oil isn't any different from other goods and services. We're much better off importing oil from nations that produce it at a lower cost. We pay for it by selling our goods and services to oil suppliers in other countries.