

Pope Lecture Series

Departments of Economics and Political Science

North Carolina State University

Raleigh, North Carolina

March 2, 2005

***Inaugural Pope Lecture: Some Economics
and Politics of Globalization***

Vernon L. Smith*

Professor of Economics and Law

George Mason University

President, International Foundation for

Experimental Economics (IFREE)

ACKNOWLEDGEMENTS:

I want to thank

- the J.W. Pope Foundation, John William Pope, Art and Cathy Pope for their imagination and generosity in founding this lecture series; it is a very distinguished honor to be invited to be the first speaker in this important new interdisciplinary program
- Steve Margolis, Department of Economics and Andrew Taylor, Department of Political Science for making the arrangements and serving as such gracious hosts for my visit; and for the support of
- Ira Weiss, Dean of the College of Management and Linda Brady, Dean of the College of Humanities
- The overflow audience who made the event so memorable and inspiring.

*Portions of this lecture have drawn upon my lecture, entitled "Markets, Capital Markets and Globalization," May 4, 2004, World Bank.

INTRODUCTION

My message today is an optimistic one about exchange and markets, without which people cannot engage in task and knowledge specialization. It is this specialization that is the secret of all wealth creation. There is no other source of sustainable human betterment, and this is the essence of globalization.

Let me begin by outlining what I want to cover in my talk this evening:

- I'll discuss a social and political challenge we face in the modern world: Living in two different worlds of exchange at once, the worlds of personal and impersonal exchange, and I'll briefly discuss how the two worlds relate.
- I'll discuss commodity and service markets as an extended order of impersonal cooperation, achieving ends not part of anyone's intention.
- I'll include some references to laboratory experiments.
- As I discuss the function of commodity and service markets, I will stress the importance of diversity.
- Then I will distinguish capital (or stock) markets from commodity and service markets and will discuss why the distinctions are important.
- Within this context I will talk about innovation and stock market bubbles.
- Laying all of this as groundwork will move us into globalization as a continuation of an age-old migration, economic expansion and human betterment.
- I'll discuss the role of technology, competition in national policies, as well as the association of economic development with freedom, but that does not mean that we know how to make either freedom or development happen from the top down.

- And two final points will deal with the issues of Brain Drain and Outsourcing and the importance of both in economic development and globalization.

We all function simultaneously in more than one world of exchange. Those worlds overlap, as we live first in a world of personal exchange—trading favors and friendship and of building reputations based on trust and trustworthiness in small groups, families and communities, and, second in a world of impersonal exchange through markets—where communication and cooperation gradually emerged in long distance trade between strangers.

The most compelling feature of human nature is our sociality. It is our species' capacity for personal social exchange that first enabled task specialization and production above bare subsistence. Exchange had its origin in reciprocity and sharing norms in the family, the extended family and tribes. This personal exchange allowed task specialization between hunting, gathering and tool making that laid the basis for enhanced productivity and welfare, which in turn enabled early peoples to migrate all over the world. Thus, specialization supported by personal exchange allowed globalization to begin early, long before the emergence of markets.

I and my coauthors have studied norms of reciprocity and trading favors as it emerges in two person games between anonymously matched subjects, many of whom use trust and trustworthiness to achieve gains from the exchange—cooperative outcomes that increase joint benefits. Many voluntarily avoid choosing outcomes that take for themselves without giving

something in return to their matched counterpart. All of us have had experiences in families and small groups and realize that the rules for sharing and reciprocity run deep in our emotional psyches. The phrase, "I owe you one" is a human universal across many languages in which people voluntarily acknowledge indebtedness for a favor.

In extending exchange to markets with strangers and the use of money this connectedness is replaced by impersonal transactions. In personal exchange, we often experience that doing good for others comes from intending to do so, whereas, in markets, this perception is lost as each looks out for himself.

When the same subjects who consciously cooperate for betterment in elementary two person interactions come to the laboratory to trade in experimental markets in larger groups, what do they do? They strive to maximize their own gain, but in this process, without intending to, they maximize the joint benefits of the group. However, these markets are supported by externally enforced property right rules that prohibit taking without giving in return.

Hence, functionally the two kinds of exchanges are the same: you have to give in order to receive.

Commodity and service markets are the foundation of wealth creation worldwide, and the extent that they exist determines the extent of task and knowledge specialization.

In established commodity and service markets producers incur recurrent, relatively predictable costs, and consumers

experience corresponding recurrent flows of value from consumption. But costs and values are inherently private and all such information is dispersed. Command and control economies have failed because such information cannot be given to any one mind, or any number of planning committees.

We have discovered in controlled laboratory experiments that these recurrent flow markets are incredibly efficient, and these findings have been replicated many hundreds of times. Moreover, the subjects in these experiments are not aware of the group welfare maximizing ends that they produce. Each, in pursuing his personal gain, achieves group maximizing benefits that are not part of his intention.

When used in teaching, debriefings at the end of a market experiment reveal two perceptions of the individuals:

1) People deny that any kind of model could predict their final trading prices and exchange volume, yet these outcomes correspond to the demand and supply schedules of values and costs that are dispersed privately among all the participants. *Market efficiency does not require large numbers, complete information, economic understanding or sophistication; a fact that should not be too surprising since people were trading in markets long before there were economists.*

2) People in market experiments also believe that it ought to have been possible for them to have earned more profit for themselves, yet in fact they were in equilibrium, and each was doing as well as possible given the constraining behavior of all the others.

The hallmark of commodity and service markets is *diversity*: diversity of tastes, human skill and knowledge, natural resources, soil and climate.

Initially, diversity was possible and encouraged through sharing and reciprocity norms in the family, the extended family and tribes. Thus, in stateless hunter/gather societies, the women and children gathered fruits, nuts, tubers, and grains; men hunted; and old men advised in the hunt, fashioned tools weapons and helped in gathering.

Early peoples, long before nation states, traded tools, weapons, and public goods like symbols, customs, crests, and unmolested rights of access to trade routes and hunting grounds. At many times and many places in prehistory, exchange was extended to strangers through barter, and ultimately the use of commodity money.

Indeed early humans set the stage for a vast expansion of wealth and well-being whenever a tribe discovered that it was better to trade with their neighboring tribes than to kill them. If you kill them, they can't produce something and trade it with you tomorrow, nor can you benefit from their unique skills, learning, art, culture and experience. Similarly if you let them live but steal from them, they are much less willing to produce more for you tomorrow, than if you trade with them today.

Diversity requires freedom, because it is freedom that allows each to be as different as he or she is able and desires to become. Markets in turn support tolerance of freedom.

Diversity without the freedom to exchange implies poverty: no human, however abundantly endowed with a single skill or a single resource, can prosper without trade. Robinson Crusoe owned an Island, but he was poor.

We have need of others, and the diversity they bring to the table, if we are to rise above bare subsistence. Through markets we depend on others, whom we do not know, or recognize or understand. We know not how and in what ways others contribute to our welfare, and we contribute to theirs. Such are the long subtle chains of interdependence through markets connected by prices. The welfare of each of us depends vitally upon the knowledge and skills of others with whom we trade through markets.

Without markets we would indeed be poor, miserable, brutish and ignorant; if some were less poor, it would be because of conquest, theft, taking without giving in return, which can be sustained only for as long as there are others to conquer.

Markets require consensual enforcement of the rules of social and economic exchange. No one has said it better than David Hume over 250 years ago, when he said that there are just three laws of human nature:

- 1) the right of possession,*
- 2) its transference by consent, and*
- 3) the performance of promises.*

These are the ultimate foundations of order, with or without formal law, that make possible markets and prosperity.

Hume's Laws of nature are derived from the ancient Judeo commandments: *Thou shalt not steal; thou shalt not covet thy neighbors' possessions; thou shalt not bear false witness.* But these same commandments emerged in other religions the world over.

- The game of 'steal' consumes wealth without encouraging its reproduction, while the game of 'trade' sustains and grows abundance.

- Coveting the possessions of others invites an involuntary state enforced redistribution of the gains from specialization and trade, endangering incentives to produce tomorrow's harvest perhaps as surely as its theft.

- To bear false witness is to undermine community, management credibility, investor trust and confidence, long-term profitability and the personal social exchanges that are most humanizing. Corporate management bears false witness at its peril. Once management loses credibility with shareholders the stock market is unforgiving, as evidenced with Enron, whose stock plummeted when management lost the confidence of its investors.

This brings me to the topic of CAPITAL, or stock markets, which are inherently far more uncertain than markets for commodities and services because stock markets must anticipate innovations—the new commodities and services of the *future*. At the time of new innovations the extent of their subsequent economic success is inherently unpredictable.

If changing knowledge and technologies are to yield new commodities and services, they require capital. Capital markets allow the users and suppliers of capital to be distinct and more specialized; the savers do not also have to be the

entrepreneurs that can grow new wealth from capital investment, and both can gain by exchanging investment for a share of the return, each also bearing the risk of loss.

Stock markets are far more volatile and unpredictable than are existing commodity and service markets, as their function is to anticipate the commodities and services of the future.

Stock market bubbles and crashes are not new. Why? Great stock market booms are fueled by emergent technologies.

For example, in the 19th century the steam engine allowed the steam ship to replace the square-rigger, the railroad to replace the mule team and the stagecoach. Railroad expansion in 19th century America outran the shipping needs of inter-regional trade.

Profitability turned to losses, bankruptcies and consolidations. But out of this 19th century expansion, long-term value was created and retained for the entire economy.

At the turn of the 20th century many new technologies emerged. Telephone, electricity, petroleum and automobiles sustained a wave of investment and development. There was over-expansion in response to high profitability followed by declining margins, losses, bankruptcy, consolidation, but long run value was created and not lost to the economy. Bankruptcy typically allows the assets of failed managers—human and

physical—to be reallocated to managers who launch a new attempt at making the business a success.

A century ago there were hundreds of small companies hoping to get rich manufacturing automobiles. A third of them were electric, and most of the others were experimenting with steam engines. Ultimately both failed: electric-powered cars had very little range, and steamers took too long to heat up. A long-shot won the race: the gasoline engine, which Henry Ford combined with the assembly line to produce a low cost car. By the 1920s he had produced nearly half the cars that had ever been built. No one in advance could have picked the winner.

The ball point pen is today an almost invisible but classic example of innovation and change: this mid-century invention sold initially for about \$10; it was a very profitable new product, inspired a rush of entry, falling prices, losses, consolidations, but the pen stays—yielding continuing long term value of which we are not aware, except that we are all a little richer as a result. When today we buy a 60 cent BIC pen we are unaware that they are far superior to those expensive upstarts over a half century ago. According to the online Great Idea Finder: “The first great success for the ballpoint pen came on an October morning in 1945 when a crowd of over 5,000 people jammed the entrance of New York’s Gimbels Department Store. The day before, Gimbels had taken out a full-page ad in the New York Times promoting the first sale of ballpoints in the United States. The ad described the new pen as a ‘fantastic... miraculous fountain pen ... guaranteed to write for two years without refilling!’ On that first day

of sales, Gimbels sold out its entire stock of 10,000 pens-at \$12.50 each!”

The 1990s brought an unprecedented volume of IPOs. I am sure that the history of that decade will record an unprecedented failure rate, but also, and much less visible, an unprecedented increase in long-term economic value for the economy. This bubble and crash was fueled by new electronic, communication, computer, biological and pharmacological technologies. The residual long term value creation is suggested by the post crash national income data: output increased with little increase in employment. We continue to get more for less.

It is painful for those who risk investment in new technologies and lose, but the benefits captured by other industries, and by the learning and consolidations which follow, allow the few winners to generate great new wealth for the economy. This is the substance of growth, betterment and the ultimate reduction of poverty. This is why almost everybody is wealthier than were their parents and grandparents.

How can the individual pain be eliminated, and the long-term value achieved, with a policy fix that avoids the risk of doing more harm than good? We don't know. On this as on many matters there are just two classes of people: those who know they do not know and those that don't. If someone tells you they can identify new product winners and losers, keep your hands in your pockets.

Here is the problem: If you limit people's decisions to make risky investments in an attempt to keep them from harming

themselves, how much will that reduce our capacity to achieve major technological advancements? The hope of great gain by individuals fuels thousands of experiments in an environment of great uncertainty as to which experiment, which combinations of management and technology will be successful. The failure of the many may be a crucial part of the cost of sorting out the few that will succeed. After a wave of innovation, and a bubble bursts managers know a lot about what did not work, and even a little about what did work.

This discovery process has become increasingly global.

Globalization is a new word for the age-old process of migration and market expansion that began for us all when our common ancestors walked out of Africa some 50,000 years ago, settling Asia and Australia, 50-40,000 years ago, Europe by 40,000 years ago, Siberia and the Arctic, some 20,000 years ago, the Bering gateway to North America, 15-13,000 years ago, the Americas soon thereafter, and NZ and Madagascar only 1,000 years ago. 500 years before the square rigger sailing ship, our ancestors had settled every continent except Antarctica, and all the major islands.

The first long distance trade between Europe and the Near East allowed escape from the static dead-end and poverty-ridden Middle Ages. This led to new explorations by stock companies and nation states.

Exploration was driven by a new square-rigger sailing technology.

As commerce spanned the old and new worlds, there was a worldwide exchange of plant and fruit products. The diversity of nature was the basis of specialization and much wealth creation through exchange. Instead of cutting edge research and development we had exploration, transportation and transplantation.

Eventually, whole regions began to specialize in different industrial and agricultural products depending on their natural comparative advantages. The diversified subsistence farm reformed into the cattle ranch, the wheat, barley, corn and rice farms, the milk farm and the chicken farm.

The global Green Revolution stemmed from the new seed varieties developed by Norman Borlaug, who won the Nobel Peace prize in 1970. Norman Borlaug has saved more lives than any other man who has ever lived. His work doubled and tripled the yields of wheat, maize, rice and other crops enabling Mexico, India, Pakistan and China to feed their greatly increased populations with only a 1% increase in world land cultivation. The 1960s predictions of mass starvation were wrong, and today genetic engineering promises a far more efficient means of growing more food from less land, less water and less fertilizer. More is obtained from less, and with it a vastly improved environment.

The latest great thrust in globalization is driven by innovations in computing power, communications, and transportation logistics. All three serve *Internet* exchange.

The pace of global change has brought a new world of policy competition among nations. Budget and monetary excesses

by national governments discourage foreign investment, while encouraging domestic nationals to seek foreign, more stable, investment opportunities. Economic development is linked with free economic and political systems, nurtured by the rule of law in private property regimes. Strong centrally planned regimes have failed to deliver the goods, everywhere. The hard facts of history and economics pose an ultimatum, but some countries have reformed to embrace more economic freedom and improved their performance.

But there is a world of difference between saying that development and free systems are linked, or correlated, and stating dependable ways of achieving economic development. No one knows how to centrally plan the transition from a bad to a good performing economy.

There are, however, plenty of examples from New Zealand and Ireland to China, in which governments have removed barriers to business freedom, and seen remarkable growth by simply letting their people pursue economic betterment.

The congressional Office of Management and Budget has undertaken a review of the comparative regulatory burden in 130 countries; it concluded that the 10 least regulated economies are Hong Kong, Singapore, the United States, New Zealand, the United Kingdom, Canada, Switzerland, Ireland, Australia, and the Netherlands. These are the countries high on the list of free economies. Many are also on the list of countries with high per capita incomes: of the countries in the top 20 Economic Freedom Index, 11 are also among the top 20 in GDP per capita; 13 of the

freest top 20 economies are also in the top 20 of the Innovation Index. (See *The Economist, World in Figures*, 2005)

Although China has not yet achieved any significant political freedom, they have moved considerably in the direction of *economic* freedom. Just over a year ago they revised the constitution to allow people to own, buy and sell private property. Why? It was a move to control rampant corruption in government that was interfering with economic development. According to the *New York Times* (Joseph Kahn, December 23, 2003, p 1),

“China’s national legislature moved to amend the Constitution...to protect private property rights, the first time the Communist Party has formally protected private wealth since taking power 55 years ago. The change...marks a victory for China’s emerging class of entrepreneurs, who have argued for years that the Marxist Constitution discriminates against them and gives leeway to the police and the courts to seize their property according to party dictates...Corruption is rampant in China...Local and national authorities often confiscate land and money of people they consider threatening or disobedient, generally arguing that they lost their rights because they violated a law or regulation while accumulating their property.”

By recognizing property rights the central government is trying to undercut the source of the power that supports corruption by government agents who are hard to monitor and control centrally.

As I see it, the constitutional change is a practical means of controlling political interference with economic development; it does not arise from a political predisposition to liberty, but necessity may help lead the way to more liberty.

Recently, my wife, Candace, and I visited the huge “zPark,” an R&D complex in Beijing, extending 343 acres. “zPark” is populated by most of the prominent hi tech companies of the world—including 276 of the Fortune 500 companies—who are investing in facilities there based on very favorable 50 year lease terms from the Chinese government. The long term lease is the bureaucratic end-run around restrictions on ownership.

Ireland illustrates the principle that you don’t have to be a big country to grow wealth for your people by changing government policies. In the past Ireland, relative to its population size, has been a big exporter of people. This has been, as J.P. Lehmann, in *Commentary, Project Syndicate*, November 2002, puts it, “to America’s and Great Britain’s great advantage, because both received many bright Irish fleeing the stultifying intellectual life of their homeland...Yet, from Third World poverty levels two decades ago, Ireland has surpassed its former colonial master in GDP *per capita*. Becoming a committed European player, fostering foreign direct investment, including venture businesses, promoting financial services and IT resulted in a formidable brain drain reversal for Ireland.”

According to World Bank statistics, Ireland’s growth rate of GDP jumped from 3.2% in the 1980s to 7.8% in the 1990s. Ireland now is eighth highest in GDP per capita, the United Kingdom is fifteenth, and the US is fourth.

Here are two case histories illustrating reversal of the brain drain in China over the last two decades; both bear directly on development issues anywhere:

- Richard Lee was a Chinese national and PhD student of mine. He finished his dissertation in experimental economics at the University of Arizona in 1991. He was an assistant professor for awhile at an East Coast university then departed to start his own company, now called Amsino International. He divides his time between Amsino offices in Los Angeles, and in Shanghai. His company manufactures and/or assembles disposable medical products in China for distribution to the US and over 30 other countries. Most of his products are designed, tested and developed in the US—this, by the way, is the norm across industry, for development to occur here, and production outsourced. This is why the US is number one on the world Innovation Index. Richard Lee is an example of a Chinese national who came to the US via Hong Kong. He was educated and gained his experience in the US, but with the turn to more economic freedom there, returned to link his business with China and is helping to create wealth in both countries.
- Jennifer Pan was our host in visiting the R & D “zPark” in Beijing. She spoke excellent English, was articulate and well-informed on computer and software technology. Curious, Candace inquired about her background. She had been a horrified witness to the Tainanmen Square massacre, resolved to leave, thinking she would never return; but she did return, thanks to a change in Chinese government policy,

and her own search for fulfillment. As she put it to me in a recent email, and I quote with her permission:

“I witnessed Tiananmen square event when I was in high school. I went to Beijing University the next year and was sent directly to military training for ‘brain wash’ for one year. After I graduated from Beijing University, I went to U.S. to chase the ‘America spirit.’ For 8 years, I studied and worked and earned myself a comfortable life. But, something was missing – ‘the self-actualization’ of making a difference and the willingness to take risks. The void was too big to be filled by bigger house or nicer cars. So, I put myself on the plane back to China to chase the ‘America spirit’ again. I’d love to offer my lessons learned to others if they can benefit from it. In my opinion, that’s how human beings progress - we learn from our own experiences but also others.”

Richard and Jennifer are examples of “can do” knowledge-based entrepreneurs who are creating wealth and human betterment for China, the US, and many other countries. Their stories demonstrate the inevitability of the brain drain that results from bad economic policies, but also how those policies can be changed to create economic opportunities that reverse the brain drain.

Individual and personal identification with places of origin, and with cultural institutions in the world of personal exchange and sociality, will often lead people back to their roots and bring enrichment to their local and national communities.

Their stories are also part of a long continuing trend to outsource production and services.

Part of the lifeblood of change, growth, and economic betterment is to allow yesterday's jobs to go the way of yesterday's technologies. If you prevent domestic companies from outsourcing, this will not prevent their foreign competitors from doing it, lowering their cost, and using the savings to lower prices and upgrade their technology. The result is that you end up bankrupting the companies.

One of the best known examples of outsourcing was the Post WWII New England textile industry's move to the South in response to lower wages—as always, this raised wages in the South, and the industry eventually moved on to lower cost sources in Asia. But textiles were replaced in NE by hi tech electronic, information and bio technologies. There were huge net gains to NE even though they lost what had once been an important industry. In 1965 Warren Buffett gained control of one of those fading textile makers in Massachusetts, called Berkshire Hathaway, and used its large but declining cash flow as a launch pad for reinvesting that cash flow in a host of famously successful new business ventures. Forty years later his company has a market capitalization of \$113 billion. The same transition is occurring today with K-Mart and Sears Roebuck. Nothing is forever.

As long as the US remains # 1 on the World Innovation Index, I believe we have nothing to fear from outsourcing, and much to fear if our politicians succeed in opposing it. According to the Institute for International Economics, there were more than 115,000 higher paid computer software jobs created from 1999-2003, while 70,000 jobs were eliminated. Similarly in the service sector 12 million new jobs were being created while 10 million were being eliminated. This phenomenon of rapid

technological change and the replacement of old jobs with new jobs is what development is all about.

McKinsey and Co. estimates that for every dollar US companies outsource to India, \$1.14 accrues to the benefit of the US. About half of this benefit is returned to investors and customers, and most of the remainder is spent on new jobs that have been created. By contrast, in Germany the return benefits are only 80% largely because the re-employment rate of displaced workers is so much lower. (*The Economist*, November 13, 2004)

SUMMARY:

Commodity and service markets are the foundation of wealth creation. The fact that stock markets serve by supplying capital for new consumer products explains why they are inherently uncertain, unpredictable, volatile, and, given investor behavior, why they tend to bubble and crash.

World stock markets are far more uncertain than markets for commodities and services because stock markets must anticipate innovations—the new commodities and services of the *future*. By outsourcing to foreign countries, US businesses save money that is available to invest in new technologies, new jobs and remain competitive in world markets.

We don't know enough about social and economic change to know how to manage it so that we get the benefits without incurring the pain of transition.

Globalization is not new. It is a modern word describing an ancient human movement—a word for humankind’s search for betterment through exchange, and the worldwide expansion of resource specialization, which is a pronouncement of the great French Economist, Bastiat,

If goods don’t cross borders, soldiers will.