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Robert Cooter

Berkeley Law

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Recommended Citation

An Escape from Poverty: Developing Productive Organizations, 12 Sw. J. L. & Trade Am. 181 (2005)
AN ESCAPE FROM POVERTY: DEVELOPING PRODUCTIVE ORGANIZATIONS

Keynote Address by Robert Cooter*

I. INTRODUCTION – INNOVATION, INFORMATION, AND THE POVERTY OF NATIONS

The topic of my talk is “innovation, information, and the poverty of nations.” It is my premise that in the modern world, defective legal institutions cause national poverty and that all nations now have the opportunity to escape poverty by developing productive organizations.

At the beginning of the last century, England was richer per capita than Japan, but at the end of the last century Japan was richer than England. In 1900, Argentina’s wealth per capita was on a par with that of the U.S. and Northern Italy was poorer. Today, northern Italy is richer than the U.S. while Argentina is poorer. If current performance continues, China’s national income will equal the U.S. in 2014, while most African nations will fall significantly farther behind.

Like compound interest on a debt, sustained growth moves faster than the popular imagination can grasp. The question of whether growth is faster in rich or poor nations determines whether living standards in the world converge or diverge. If poor nations grow significantly faster than rich nations, the gap between them closes surprisingly quickly. Conversely, if rich nations grow significantly faster than poor nations, the gap between them widens surprisingly quickly. In fact, no general pattern exists for poor countries to catch

* Herman F. Selvin Professor of Law; Director, Program in Law and Economics, University of California, Berkeley; B.A. 1967, Swarthmore College; M.A. 1969, Oxford University; Ph.D. 1975, Harvard University. Robert Cooter, a pioneer in the field of law and economics, began teaching in the Department of Economics at UC Berkeley in 1975 and joined the University of California at Berkeley School of Law (Boalt Hall) faculty in 1980. Cooter has published widely on private law, constitutional law and economics, and law and economic development including the third edition of the leading textbook, LAW AND ECONOMICS (with Ulen, 1999), which has been translated into Spanish, Italian, Japanese, Chinese and Korean.
up or fall farther behind. Instead, some poor countries have grown faster than some rich countries, thus closing the gap, and some rich countries have grown faster than some poor countries, thus widening the gap.

A nation’s wealth comes from the productivity of its citizens, which depends on resources, technology, and organization. In the past, the uneven distribution of natural resources condemned some countries to poverty. Because of vast improvements in technology, nations can now overcome poor natural resources with good technology and organization. By the end of the last century, the absence of major wars, the collapse of communism, the lowering of tariffs, and falling transportation costs removed most obstacles to exchanging goods and ideas among nations. Consequently, international obstacles to acquiring technology are mostly gone. Nations can exchange goods and ideas with relative ease, but they must develop innovative organizations.

II. Process of Economic Growth

A. Innovation and Capital

To analyze the innovation process in which economic growth unites information and capital consider two examples. First, an economist working at a Boston investment bank received a letter that said, "I know how your bank can make $10 million; if you give me $1 million, I will tell you." The letter concisely illustrates the separation of information and capital in the process of innovation: the bank does not want to pay for information without first determining its worth, but the innovator fears to disclose information to the bank without first being paid.

Second, a Berkeley mathematician invented bibliographic software called "Endnote." Some of you may have it on your computer, as I do. In the early stage of developing this product, his hope and fear was to receive a call from Microsoft. The hope was that Microsoft would examine Endnote and decide to buy his company, thus making him rich. The fear was that Microsoft would examine Endnote and decide to build a competing product, thus bankrupting Endnote. Like the Boston bank, Microsoft would not pay for information without determining its worth, and after obtaining the information, it would have less need to buy it. Eventually, the mathematician received a call from Microsoft, which he answered with trepidation, but Microsoft was merely calling to sell some software to his company.
These two examples illustrate the problem of "make-or-take" applied to innovation. To stimulate innovations, people who make them must be paid. To develop innovations into marketable products, innovators must disclose information to investors so they can evaluate it. However, after the information is revealed to them, the investors may take it without paying.

B. Uniting Capital and Information

When an innovator makes a discovery, he acquires valuable information that is private. Useful information that remains private gives the innovator a competitive advantage against his rivals. The prospect of exceptional profits draws people to use their energy and creativity to innovate. Exceptional profits, however, also attract competitors who try to learn what the innovator knows. As competitors come to understand what the innovator knows, the innovator's private information becomes public. In general, competition converts valuable private information into public information. This is true for recipes, machine designs, computer programs, organizational methods, and market opportunities.

The tendency to convert valuable private information into public information creates a characteristic life cycle of organizations. First, someone proposes an innovation and obtains capital to develop it. An established firm with ample capital may employ the innovator, or the innovator may form a new firm and find outside investors. If the innovation is useful, the innovator's organization enjoys exceptional profits and expands faster than its competitors. In this stage, only a few people understand the innovation. Second, competitors begin to discover what the innovator knows. This erodes the innovator's profits and slows their growth. Third, competitors fully assimilate the innovation, the innovator's profits return to normal, and the organization stops expanding faster than its competitors. In this life cycle, the innovator understands the innovation in the first stage; the innovators and some competitors understand it in the second stage; and the public understands it in the third stage.

III. Financing: The 3 F's

These three stages in the development of an innovation correspond roughly to three stages of finance for a startup firm in Silicon Valley. According to a popular quip, the initial funding for start-up firms comes from "the 3 F's": family, friends, and fools. These "angel investors" rely partly on personal relationships that foster trust be-
between innovator and investor. I refer to the first stage as "relational finance." Most innovators, however, have too few personal relationships to achieve the scale necessary to finance an innovation's development.

After initial funding by the 3 F's, the second stage of funding comes from "venture capitalists," who are not family, friends, or fools. Venture capital is a form of private finance based on expert knowledge, not relationships. In the second stage, the company has something to show investors. Venture capitalists are the experts at ascertaining risks in the early stages of an innovation's development. Venture capitalists are also experts at organizing startups to extract full value from them. They structure their contract with the innovator so that they can seize control and reorganize the firm if it does not succeed. This is quite important because people who have the best ideas are often bad at organization and administration.

In Silicon Valley, lawyers are intermediaries between innovators and venture capitalists; but lawyers are also venture capitalists in their own right. To illustrate, the largest Silicon Valley law firm, Wilson Sonsini Goodrich & Rosati, routinely accepts payment from startups in the form of preferred shares and deferred debt. Collection of debt is deferred until a "significant capital event," which consists of an initial public offering or the acquisition of the startup by an established company. If the startup fails, the shares and debt are worthless, so the law firm is paid nothing.

In the third stage, a successful startup offers its stock to the public, or a large firm that sells stock to the public acquires the startup. To comply with rules of the Securities Exchange Commission, a firm that makes an initial public offering must divulge much private information about itself to the public. Thus, the third stage is public finance. As financing moves from private to public, information moves from private to public. As information diffuses, the risk decreases and the expected profit rate falls towards the ordinary rate of return.

Innovation involves discovering something a new way to make something or something new to make. In order to foresee science and technology's future, it would be necessary to know what has not yet been discovered. Discovery and foresight are substantially inconsistent.

Besides developments in science and technology, innovation in markets and business organization are unforeseeable for another reason: strategic considerations. In some simple games like tic-tac-toe, an intelligent person can calculate all the possible moves and counter-
moves, and play out the entire contest in his mind. These games have a predictable outcome for intelligent players, which is why intelligent people seldom play them. In other games like poker, calculating all the possible moves is too difficult, and the players decrease their predictability by bluffing and randomizing. In poker, a player’s move is unpredictable before it occurs and understandable afterwards. In this respect, business competition resembles poker. For each move, there is a counter-move. The most successful strategy is the one that is hardest to counter. And the hardest move to counter is an unforeseen one.

Since discovery begins as private information, people with public information cannot predict which organizations will innovate, become more productive, and grow faster than their competitors grow. The growth of competing economic organizations is inevitably unpredictable for the public—including most experts and officials of the state. After the cycle of growth is complete and the private information becomes public, however, the public can understand why the innovator’s organization grew so fast.

Empirical studies in finance confirm this by demonstrating that investors who only possess public information cannot do better than chance when trying to predict the companies that will be profitable. This demonstration, whose technical name is the “efficient market hypothesis,” explains why few economists are rich. Economists study the economy by using mostly public information, so they cannot do better than chance in picking successful companies.

This demonstration also suggests that many investors have paid large commissions for worthless information. This realization has caused dramatic changes in the way many private investors manage their portfolios. “Churning” refers to wasteful and unnecessary trading that generates commissions for managers without increasing profits for investors. Instead of paying investment advisors to pick growth stocks, private investors who have studied finance tend to favor “passive” mutual funds, meaning those funds whose managers buy a diverse portfolio of stocks and hold it.

IV. Law

There is a connection between the three levels of finance and the law. Let us start by examining relational finance. As we know, relationships are often based upon personal promises. Financing innovation requires some degree of trust between innovator and investor, especially in the early stages of innovation. By increasing trust be-
between innovator and investor, law extends capital markets from personal to impersonal finance and increases the flow of funds to innovators.

Property and contracts are the legal foundations of economic cooperation, including that between innovator and investor. The use of the phrase, "the property principle for growth," refers to the proposition that "people who create wealth can keep most of it." When implemented, the property principle motivates people to make wealth rather than taking it from others. Legal institutions must protect the creators of wealth from predation by private persons such as criminal gangs, scheming managers, dishonest accountants, appropriating bankers, and corrupt unions. In addition, the legal framework must protect wealth creators from predation by public officials such as tax collectors, planners, licensing authorities, regulators, and politicians.

Consider the specialized laws that business requires, which are often built on property and contracts, such as corporations, banking, securities, and bankruptcy. Let us begin with corporate law. When people invest in a company that they do not control, they run the risk that the people who control it will appropriate their investment. Securing non-controlling investors against appropriation requires effective corporate laws.

Developing effective laws to secure non-controlling stockholders is harder than securing non-controlling bondholders, because of the essential difference between stocks and bonds. Stocks entitle their holders to a share of profits. The people who control a company can manipulate reported profits in ways that are difficult to detect and prove in court. The stock market cannot flourish in most poor countries because ineffective corporate and securities laws provide insufficient protection against manipulation of profits and appropriation of non-controlling investors. In contrast, a bond calls for a fixed payment, which is easier to enforce than federal profit sharing. If you look at the ratio of funds raised through bond markets and funds raised through the stock market in poor countries, the bond market is much larger. The reason for this is corporate law.

The state cannot correct the problem of deficient stock markets by direct investment in business. If the state invests in businesses on the basis of public information, it cannot identify growth industries at a rate exceeding chance. Instead of directly investing in businesses, the state should develop good institutions of corporate law to facilitate private investment.
V. Conclusion

Because of history, property and contract law-on-the-books in a poor country often closely resemble the law of a rich country. For example, property and contract law in India and Nigeria resemble English common law, and property and contract law in South America resembles the French and Spanish civil codes. Consequently, property and contract law-on-the-books in poor countries tend to be sound.

Unfortunately, property and contract law-on-the-books in poor countries tend to be ineffective. By “ineffective,” I mean that property rights are violated and contracts are broken without victims having access to legal remedies. Ineffective property and contract law cause people to take wealth from each other instead of making it. In my view, the most pervasive and fundamental defect in the legal framework of poor countries is inadequate enforcement of property and contract law.

Similarly, state officials use public law to take wealth from its creators and keep it for themselves or give it to politically favored people. Unlike property and contract law, the defect in public law is not just under-enforcement. In addition, the defect in poor countries lies in law-on-the-books. Over-regulation and state leadership in directing investment retard growth in poor countries. An important obstacle to growth in the developing world is inefficient legal institutions. It is my hope that the development of effective law – an effort advanced by this symposium on the DR-CAFTA trade agreement – can ameliorate the poverty of nations.