

A Social Democratic Agenda for a More Dynamic Indian Economy:

Creating an Innovative and Learning Society

The 2010 Jawaharlal Nehru Memorial Lecture¹

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It is a real pleasure for me to deliver this year's Jawaharlal Nehru Memorial Lecture. Nehru has become a symbol of the fight for freedom, independence, and democracy throughout the world. He had high aspirations for a resurgent India, aspirations that are today being fulfilled. But the struggle for dignity, equality and democracy and for improving the living standards of all citizens within the country is a never-ending struggle. It is about this struggle, about the transformations of the economy, politics, and society that are necessary to achieve victory in this struggle, that I wish to speak.

It is an especial pleasure for me to deliver this lecture, for the country has played a large role in shaping my views of development. I first visited India more than 43 years ago, and the transformation that has occurred in the almost half century since are hard to believe. I should also note the deep and long lasting connections between my university, Columbia, and India's struggle for independence, freedom, and human rights. B. R. Ambedkar, widely claimed as the architect of India's constitution, and the champion for the rights of all—not just the untouchables, but also women's rights—spent some of his formative years at Columbia, receiving both an M.A. and Ph.D., as well as an honorary doctorate.

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² University Professor, Columbia University. In this lecture, I bring together several strands of my work on development. I am particularly indebted to my co-authors Bruce Greenwald and Karla Hoff.

India, the world's largest democracy, should be proud of the successes that it has achieved over the past 25 years, and even more so of its growth in recent years. GDP per capita in 2009 was 2.3 times what it was in 1990, and, at least according to World Bank data³, poverty has been reduced from just short of 50 percent of the population in 1994 to 42 percent in 2005. Yet India cannot rest on these laurels. There are still more than 400 million in poverty, and per capita income is still less than half of that of China in purchasing power parity.

The successes in development in Asia during the past quarter century were not only unprecedented, they were also unanticipated. Gunnar Myrdal described, just a few short years before these successes began, his pessimism about whether it would ever emerge from the poverty in which it had been mired for centuries.⁴ Today, the questions have changed dramatically. Successful countries like India are asking how they can ensure that that growth will be sustained. And less successful countries, many of them in Africa, wish to know what the essential ingredients were that led to these successes. Can they be imitated? The successes and failures around the world provide a set of natural experiments, a laboratory in which we can make some inferences about what contributes to development, and what impedes it.

But even within the successful countries, there are questions, and not just about sustainability: Are economic policies leading to the well-being of citizens? Are the benefits of the growth being equitably shared?

Events of recent years have called into question long-standing presumptions, the conventional wisdom in much of the world about the right answers to these questions. The set of ideas known

³ World Bank, WDI September 2010, <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed November 3, 2010).

⁴ See Gunnar Myrdal's Nobel Prize Lecture, 1974 available at http://nobelprize.org/nobel_prizes/economics/laureates/1974/myrdal-lecture.html (accessed November 3, 2010); or his work Gunnar Myrdal, 1968. *Asian Drama: An Inquiry into the Poverty of Nations*, New York: Pantheon.

alternatively as the Washington Consensus, market fundamentalism, or neoliberalism has failed in the very country from which those ideas emanated. The institutions and policies that were put forth as examples for others to follow have failed: they failed to produce sustainable growth, and the fruits of what growth occurred went to a few. Today, most Americans are worse off than they were in 1999, well before the previous recession.⁵ Even before the crisis, trickle-down economics—the notion that so long as growth is ensured, all will benefit—was discredited. But American growth had not only been anti-poor; even the middle class has suffered. There is ample evidence of social distress that goes beyond these economic indicators—one of the highest murder rates in the world⁶ and the highest rate of incarceration in the world.⁷ Other factors contributing to individual well being—like social connectedness—also seem to not be faring well.⁸

In this lecture, I want to put forward three hypotheses:

1. Successful and *sustained* growth requires creating a learning society. And this is especially so in the twenty-first century as we move to a knowledge economy.
2. An open, democratic society is more conducive to the creation of a learning society.
3. Successful and sustained democratic growth *must* be inclusive.

Before turning to each of these propositions, I want to briefly review the history of development thinking over the past fifty years.

⁵ Real median household income in 2009 is 5% lower than that of 1999. See *Census Current Population Survey*, Table H-6, Regions--All Races by Median and Mean Income: 1975 to 2009, available at <http://www.census.gov/hhes/www/income/data/historical/household/index.html> (accessed November 3, 2010).

⁶ The United States was 16th in the world in 2002, with a homicide rate of 5.6 per 100,000 inhabitants, compared to, say, Sweden or Canada with rates of 2.45 and 1.67 respectively. See *The Eighth United Nations Survey on Crime Trends and the Operations of Criminal Justice Systems (2001 - 2002)*, accessible at <http://www.unodc.org/unodc/en/data-and-analysis/Eighth-United-Nations-Survey-on-Crime-Trends-and-the-Operations-of-Criminal-Justice-Systems.html> (accessed November 3, 2010).

⁷ A rate of 700.22 per 100,000 in 2002. *Ibid.*

⁸ See, e.g. R. Putnam, 1995, "Bowling Alone: America's Declining Social Capital," *Journal of Democracy* 6(1), pp. 65-78; and the discussion to which it gave rise, e.g. in T. Sander and R. Putnam, 2010, "Still bowling alone?: The post-9/11 split," *Journal of Democracy*, 21(1).

I. A brief history of development thought

From projects to policies

In the years immediately after World War II, the view was that what separated developing from developed countries was a disparity in resources. Developing countries lacked capital. Global capital markets were imperfect.⁹ Hence, what was required was the creation of a bank—the World Bank—to facilitate the flow of funds and help developing countries undertake projects that would raise income per capita.

It soon became apparent that providing money by itself would not lead to a developmental transformation. The focus then shifted to implementing the “right policies,” which usually meant the Washington Consensus, neoliberal, market fundamentalist policies.

The failure of the Washington Consensus policies

Even before the recent crisis provided the nail in the coffin of neoliberalism, these ideas had been thoroughly discredited: their intellectual premises had been undermined, and almost without exception, the most successful countries, the countries in East Asia, followed a markedly different course.

To a large extent, neoliberalism/Washington Consensus policies were the application of Reagan/Thatcher conservatism to developing countries. They were predicated on the notion that markets by themselves were efficient and stable, and that the benefits of growth would trickle down to all citizens. Even before developing countries were exposed to these new policy experiments, under the

⁹ At the time, there was little discussion over why capital markets were imperfect.

egis of the international financial institutions, both theory and evidence had called into question these beliefs. My own work on the economics of information (with Bruce Greenwald) had shown that the reason that Adam Smith's invisible hand often seemed invisible was that it was, in fact, not there.¹⁰ Markets with imperfect and asymmetric information and incomplete information were not efficient—and since all markets are characterized by imperfect and asymmetric information, this meant that markets were essentially never efficient. We should have learned from the Great Depression that not only are markets are not necessarily efficient, but they are also not stable and self-correcting (at least, not in the relevant time frame). We have now learned these lessons again.

The experience with the Washington Consensus policies has now further undermined each of its central policy tenets. For instance, deregulation and liberalization may not improve efficiency and stability. Indeed, the only period in which market economies have not been subject to financial crises was the three to four decades after the Great Depression when the United States and other countries imposed strict banking and financial sector regulations. These decades happened also to be a period of rapid growth, with fruits widely shared.

Because under these well-designed regulatory structures, markets seemed to be so stable, some made the wrong inference that regulation was not needed. And the predictable results followed as regulations were stripped away, as governments refused to impose new regulations for the “innovative” but dangerous financial products—derivatives—that were being invented, and as regulators were appointed who didn't believe in regulations. There were more than 120 crises around the world in the succeeding years, of which this crisis, wearing a made-in-USA label, is by far the largest.

¹⁰ Bruce Greenwald and J.E. Stiglitz, 1986, "Externalities in Economies with Imperfect Information and Incomplete Markets," *The Quarterly Journal of Economics*, MIT Press, vol. 101(2), pages 229-64, May.

While macro-stability is important, the notion that price stability was the only, or the most important, aspect of macrostability was wrong; the focus on price stability under the WC—the notion that low and stable inflation was necessary and almost sufficient for rapid growth—was misguided. This was an idea that didn't even work in the country from which the Washington Consensus policies emanated, the United States.

While WC policies promoted neither growth nor stability, what growth did occur didn't trickle down. Trickle-down economics never had much empirical support, but in recent years, it is an idea that has fared particularly badly. In the United States, for instance, between 1999 and 2009, real median household income in the United States fell by 5%. Today, most Americans (and let me stress that: *most* Americans) are worse off than they a decade ago. All of the benefits and more have gone to those at the top. We have had trickle-up growth, not trickle-down. Today, between a fifth and a quarter of all income goes to the upper 1%.¹¹ Inequality in wealth is even worse.¹²

But from a developmental perspective, perhaps the greatest failing of the WC was just that: it was not concerned with development. It pretended that there was no difference between developed and developing countries, so that there was no developmental transformation. It was simply concerned with the efficient allocation of resources. It was almost as if the advocates of WC policies believed that was all that was required. In a way, it followed from the belief in the simplistic neoclassical model, which had undergirded the first view: if resources were efficiently allocated, then the shortage of capital would be evidenced in a higher return to capital, and that would ensure the flow of capital from

¹¹ If capital gains are included, the top 1% of income earners in the United States accounted for 20.95% of income in 2008; in 2007 they accounted for 23.5%. See Thomas Piketty and Emmanuel Saenz, "Income Inequality in the United States, 1913-1998," *Quarterly Journal of Economics*, 118(1), 2003, 1-39 (Longer updated version published in A.B. Atkinson and T. Piketty eds., Oxford University Press, 2007); updated data for 2008 is available at <http://emlab.berkeley.edu/users/saenz/> (accessed November 4, 2010).

¹²Households in the top 1% of the wealth distribution hold around 32.7% of the wealth; the top 5% hold 57.7%. Source: James Davies, Susana Sandstrom, Anthony Shorrocks and Edward Wolff, 2009, "The global pattern of household wealth," *Journal of International Development*, volume 21(8) November, pp.1111-1124.

rich countries to poor. One didn't need to turn to an international institution to ensure the transfer of capital. This approach simply didn't recognize the existence of global capital market imperfections—other than those created by misguided governments. (There is an especial irony in this crisis: in the years prior to the crisis, money actually flowed “uphill,” from poor countries to the United States. The defenders of this anti-gravity phenomenon suggested that it was because the United States was so much more efficient than developing countries that the return to capital was higher, even though capital was more abundant. This explanation seems less persuasive today; the United States misallocated capital badly, so that the net return was probably much, much lower than it would have been had the capital been invested in, say, emerging markets.)

While I have stressed the ideology underlying the advocacy of WC policies, I would be remiss not to note that they did serve some special interests. Ideas and interests are intimately intertwined. Capital markets, and especially the big banks, made money as capital flowed into East Asia in the years before the East Asian crisis; they made money in the restructuring that followed, and IMF bailouts ensured that they were repaid their loans—no matter how bad their lending decisions.

Now, Americans are angry as they watch the big banks walking off with billions, and they confront the aftermath of the crisis: budgetary deficits forcing cutbacks in social programs, millions facing extended unemployment and millions more struggling to make ends meet. But this is a familiar picture in many developing countries, one which I inveighed against in *Globalization and its Discontents*.¹³

So too privatization served certain interests well. It is noteworthy that some of the most ardent advocates of privatization—who claimed foreign ownership should not be a source of concern—suddenly changed their tune as the sovereign wealth funds or Chinese companies tried to buy American

¹³ J.E. Stiglitz, 2002, *Globalization and Its Discontents*, New York: W. W. Norton.

assets.¹⁴ A new set of arguments were put forward—private owners, whether foreign or domestic, could be trusted; it was only foreign governments that couldn't. The lack of alignment between social and private interests, so evident in the run-up to the global financial crisis, as American banks engaged in predatory lending and deceptive and dishonest practices on a massive scale, should lay to rest such contentions.

Needless to say, this approach of getting policies right was no more successful than the first approach, largely because what was conceived of as the “right policies” were in fact the wrong policies. But even if the policies had been successful in ensuring the efficient allocation of resources, they would not have led to successful development. There is more to development than that.

In their defense, many in the international institutions used to say that the problem was not so much with the policies, as with the way that they were implemented. (Today, this refrain is heard less often, as it becomes increasingly clear that they were not the right policies.) But this defense is unpersuasive: good policies are policies that can be implemented by mortal individuals working within fallible institutions. If they fail repeatedly—as they did—then by definition, they are not well designed.

From policies to institutions

With the discrediting of the “getting policies right” approach to development came a third approach, getting institutions right. But this approach too has had only mixed success, partly because we can't be sure what constitutes good institutions, and even if we did, we may not know how to create one.

¹⁴ See, for example, “Funds that shake capitalist logic,” by Larry Summers in the *Financial Times*, July 27, 2007, available at <http://www.ft.com/cms/s/2/bb8f50b8-3dcc-11dc-8f6a-0000779fd2ac.html> (accessed November 11, 2010).

Again, the crisis has brought out the problems. Before the crisis, many might have pointed to America's central bank, the Federal Reserve, as a model institution. But as the crisis has unfolded, confidence in the institution has eroded, and more fundamental defects have been exposed. It is clear that it was "cognitively captured" by the financial sector that it was supposed to regulate; it came to reflect the ideology and interests of the banks. For instance, while it was given the powers to regulate the housing sector—and to prevent the kind of bubble and abuses that arose—it *chose* not to do so.

The bywords in good governance are transparency and accountability and the avoidance of conflicts of interest. With the head of the New York Federal Reserve Bank nominated by a committee that included the chairman of Goldman Sachs and AIG, institutions which received billions from the Fed, it is hard not to raise questions of good governance. When an American court ruled that the Fed, like other public institutions, was subject to the Freedom of Information Act (America's right-to-know law), the Fed fought to keep its secrecy. It fought to ensure that Americans would not know that the largest single beneficiary of the AIG bailout which it had helped engineer was Goldman Sachs. It fought to keep secret the terms under which the Credit Default Swaps were settled, which were so disadvantageous to America's taxpayers. It never provided an explanation for the give-away that would pass muster.

These are matters of America's dirty laundry. I raise them here simply to emphasize that what might at one moment seem an exemplary institution, at another moment may seem full of blemishes. We should strive to create open, democratic, accountable institutions, but the task is not easy. India is lucky in having a Central Bank that has earned recognition for its integrity—it is one of the few central banks that were not effectively captured by the financial sector. It will be a struggle to ensure that that is the case in the future.

But these examples help bring to the fore several central issues concerning institutions. One of the important strands of modern research stresses the role of institutions in filling gaps left by markets.

In this view, institutions help correct market failures. But a closer look at how institutions work in practice is that often their role is to enforce inequalities and preserve the interests of special interests.

The push for independent central banks, when taken too far, may do exactly that. To whom are such banks accountable? In many countries, the result has been a Central bank that has served the interests of the financial sector, not the broader interests of society.

Jim Crow was an institution in the United States that enforced segregation, a system of discrimination against African-Americans that deprived them both of their rights and of economic opportunity. The caste system in India is an institution that has had similar adverse effects on large portions of the population in this country.

Institutions, like markets (which can be thought of as a particular kind of institution), are instruments. They can be used to promote development, or to impede it. Details matter. Everyone talks about the rule of law—and no one would defend a lawless society. But for almost a century after America's Civil War, the law was used as an instrument to deprive African-Americans of their rights and economic opportunities. In 2005, American banks used their money and political influence to change our bankruptcy laws, to institute what can only be called a system of partial indentured servitude, where a poor individual who is deceived by the banks to undertake debts that, say, equal his income, will have to turn over a quarter of his income for the rest of his life to the banks. There is no fresh start—rich corporations are treated, in effect, more favorably than poor individuals. Today, in America, the so-called rule of law is being used to take away homes from individuals who were never even indebted, and to transfer title to others who can't even prove their rights of ownership. The law is supposed to be the protector of the poor and powerless against the rich and powerful; but the rule of law can be used in just the opposite way.

Changing institutions is difficult, but that is what is required in the process of development. When there are institutions that preserve inequities and impede development they have to be stripped away. That has to be one of the central tasks of development; but neither of the first two strategies I described even recognized this as being at the core of successful development.

A balanced role between government and markets

The one positive aspect of the new institutional analysis is the recognition that government is important and that private firms (which are at the center of markets) may also suffer from governance problems.

Indeed, one of the main lessons to emerge from the “debacle” of the WC is that every successful economy requires a balance between government and the market (and civil society). That balance was lost in the WC policies. Government has a role in restraining markets (from the excesses exhibited, for instance, by financial markets), and in making markets work (ensuring, for instance, that they do not engage in anti-competitive practices, as is their wont). But, especially in developing countries, government has a catalytic role, in promoting entrepreneurship, ensuring access to capital, and promoting education, research, and technology. (There are other roles too, most importantly in social protection.)

The modern theory of market failures has explained why government must fill these roles, why, for instance, markets, by themselves, will under-invest in R&D.

Once one recognizes the importance of government, one has to ask two questions: how can we improve its performance (for example through better governance, better management practices)? And how can we best design how it interacts with markets and civil society? Among my most exciting

responsibilities when I served as Chairman of the Council of Economic Advisers was my engagement in our efforts at “reinventing government,” which were directed at answering these questions.

Each of these strands—projects, policies, and institutions—is part of the story of development. I have emphasized the complexity associated with each, and that we have been perhaps too facile in believing that we knew what good projects, policies, and institutions were.

The comprehensive approach to development

One of the advances in development thinking that occurred while Jim Wolfensohn was President and I was Chief Economist of the World Bank was the recognition that any successful development strategy had to be comprehensive. It did little good to educate people, if there were no jobs; without entrepreneurs to create new enterprises and financial institutions to support them, trade liberalization would destroy jobs faster than markets would create new jobs to replace them.

The failure of the series of approaches I have described lies, however, not so much in the pursuit of the “magic bullet”—the single key to success—but more in not having a clearer understanding of what development entails. It is, as I have suggested, more than building dams and roads and ensuring that resources get efficiently allocated, or maintaining inflation at low and stable levels, or in having independent Central Banks committed to a monetary regime that ensures that inflation is low and stable. These *may be* necessary, essential parts, but they are clearly not sufficient.

I want now to turn to what I think of as the essential ingredients in successful development—creating what I call a “learning society.” I want to explain why it is essential, and what has to be done to create and sustain it.

II. Creating a Learning Society¹⁵

In this section, I want to put forward three propositions:

1. *The transformation to “learning societies” which occurred around 1800 for Western economies, and more recently for those in Asia, appears to have had a far, far greater impact on human well-being than improvements in allocative efficiency or resource accumulation.¹⁶*
2. *Markets, on their own, are not efficient in promoting innovation*
3. *The policies that promote a transformation to a learning society are markedly different than those advocated by the WC. Indeed, from the perspective of creating a learning society, those policies may be counterproductive.*

The importance of technological progress

From Roman times, when the first global data on per-capita output are available, until 1800, average human standards of living increased only imperceptibly, if at all.¹⁷ Consumption for the great majority of human beings consisted predominantly of food, and food was largely limited to staples – rice, wheat and other grains. Housing entailed barn-like living conditions with no privacy and climate control consisting only of necessary heat in winter. Clothing was utilitarian and rarely involved more than single outfits with the seasonal addition of over-clothes. Personal and medical care was almost nonexistent. Travel was rare, largely local, difficult and uncomfortable. Recreation was self-generated

¹⁵ This part of the lecture represents joint work with Bruce Greenwald. These ideas are elaborated in our forthcoming book, *Creating a Learning Society: a New Paradigm for Development and Social Progress*, New York: Columbia University Press. A shortened version of these ideas is available as B. Greenwald and J. E. Stiglitz, 2006, “Helping Infant Economies Grow: Foundations of Trade Policies for Developing Countries,” *American Economic Review: AEA Papers and Proceedings*, vol. 96(2), May, pp. 141-146.

¹⁶ The two are not fully separable, since investments in human and physical capital embody this learning.

¹⁷ Angus Maddison, 2003, *The World Economy: Historical Statistics*, Development Centre of the Organisation for Economic Co-operation and Development.

and primitive. Only a small aristocratic minority enjoyed what we would consider today an appropriate human standard of living— varieties of fresh food including meat, private well-warmed accommodations, multiple sets of clothing for varied occasions, rudimentary personal and medical care and opportunities for travel and sophisticated entertainment.

Beginning in 1800 and accelerating markedly after the mid-to-late nineteenth century, that privileged standard of living began to diffuse throughout Europe, North America and Australia. In the twentieth century, elite standards of living became pervasive in these areas and in many parts of Asia, a trend which continues in much of Asia today.

The significance of these transformations can be seen in another way: until the beginning of the nineteenth century, most individuals spent most of their time meeting the basic necessities of life— food, shelter, clothing. Today, for most of those in the advanced industrial countries—and for an increasing number in the emerging markets—satisfying these basic necessities of life takes but a few hours of work a week. Individuals can choose whether to spend the “extra” time available to work, to earn enough to consume more (higher quality “necessities” or luxuries) or to enjoy more leisure.¹⁸

Although economists, such as Joseph Schumpeter,¹⁹ had identified the source of these transformative developments as technological progress, it was not until Robert Solow²⁰ that there was a

¹⁸ How they make those choices will, of course, have profound effects on *measured* growth, since increasing leisure does not show up in conventionally measured GDP. See J.E. Stiglitz, J. P. Fitoussi, and A. Sen, 2010, *Mismeasuring Our Lives: Why GDP Doesn't Add Up*, New York: The New Press. Keynes sparked a discussion of how those choices would be made. See J. M. Keynes, *Economic Possibilities for Our Grandchildren*,” reprinted in *Revisiting Keynes: Economic Possibilities for Our Grandchildren* G. Piga and L. Pecchi, ed., Cambridge: MIT Press, pp. 17-26. I speculated about why the U.S. and Europe seem to have gone in different directions in how they dealt with the “productivity dividend” in J. E. Stiglitz, 2008, “Toward a General Theory of Consumerism: Reflections on Keynes’ *Economic Possibilities for Our Grandchildren*,” in *Revisiting Keynes: Economic Possibilities for Our Grandchildren*, G. Piga and L. Pecchi, ed., Cambridge: MIT Press, pp. 41-87. (The original Keynes’ article appeared in his 1931 book, *Essays in Persuasion*, London: Macmillan, pp. 358-374.) See also the other chapters in the 2008 Stiglitz volume and the references cited there.

¹⁹ Joseph Schumpeter, 1943, *Capitalism, Socialism and Democracy*, New York: Harper.

way of quantifying the relative importance of capital accumulation versus technical progress. Changes in capital intensity could account for at most a third of changes in output per worker. The remainder, identified as the Solow residual, was attributable to various forms of technical progress.²¹

Kenneth Arrow pioneered ideas in examining the economics of these “learning processes” – the factors that promote or retard them, their likely response to normal market incentives and their relationship to the broader macro and microeconomic environment, notably in his papers on the economics of R&D and learning-by-doing.²² He called attention to the fact that while some knowledge was produced as a result of the deliberate allocation of resources to research and development, much of technical progress was a byproduct of production or investment.

Markets, on their own, are inefficient in promoting innovation

Most importantly from the perspective taken in this lecture, Arrow recognized that market failures in the production and dissemination of knowledge (whether as a result of the allocation of resources to R&D or as a result of learning)^{23, 24} were pervasive. Analyzing the nature of these

²⁰ Robert Solow, 1957, “Technical change and the Aggregate Production Function,” *Review of Economics and Statistics*, vol. 39(3) pp 312-320.

²¹ Subsequent literature suggested that the quantification was perhaps less robust than seemed initially the case. See, e.g. Zvi Griliches and Dale W. Jorgenson, 1966 “Sources of Measured Productivity Change: Capital Input,” *The American Economic Review*, vol. 56(2), May pp. 50-61, which entailed a number of ways of calculating the value of capital that suggested a much smaller role for technical progress. Further problems were identified in the quantification of labor input, as economists attempted to assess the role of human capital in economic growth. Peter J. Klenow and Andrés Rodríguez-Clare, 1997, “The neoclassical revival in growth economic: has it gone too far?” *NBER Macroeconomics Annual*, vol. 12, pp. 73-103.

²² Kenneth J. Arrow, 1962, “The Economic Implications of Learning by Doing,” *Review of Economic Studies*, vol. 29, pp. 155–173 and Kenneth J. Arrow, 1962. “Economic Welfare and the Allocation of Resources for Invention,” in R. Nelson, ed., *The Rate and Direction of Inventive Activity: Economic and Social Factors*, NBER, Princeton University Press. See also Robert M. Solow, 1957, *Learning from “learning by doing”: Lessons for economic growth*, Stanford University Press, 1997.

²³ In his earlier work on the efficiency of competitive equilibrium, he had taken the state of technology as given. But if technology is affected by human activity, then there was no presumption that the resulting market equilibrium was dynamically efficient. To the contrary, there was a presumption that it was not. Although Arrow did not frame the market failure in this way, it was clear from his analysis that knowledge was a public good, in the sense that Samuelson had defined public goods a few years earlier; see P.A. Samuelson, 1954, “The Pure Theory of Public Expenditure,” *Review of Economics and Statistics*, vol. 36, pp. 387-389. See e.g. J. E. Stiglitz, 1987, “On the

inefficiencies—and their implications for public policy—requires the construction of a general equilibrium model in which R&D or learning is endogenous, which in turn requires hypotheses about knowledge spillovers and industrial structure (which is itself endogenous).²⁵

While a full analysis is complicated, the basic ideas are simple: Knowledge is different from an ordinary commodity. The accumulation of knowledge is inherently associated with externalities—knowledge spillovers. Inevitably, many besides the inventor benefit from innovations like the computer, the laser, the transistor—and from the myriad of smaller innovations that mark the progress of society. Knowledge itself is a public good.²⁶ The use of knowledge by one person does not decrease what was available for others (non-rivalrousness), so that it is inefficient to exclude anyone from the benefits of knowledge, once acquired; and exclusion is often difficult, so that it is often difficult for innovators to appropriate more than a fraction of the value of what they contribute to society. Private and social returns can be markedly different.

Microeconomics of Technical Progress,” in *Technology Generation in Latin American Manufacturing Industries*, Jorge M. Katz, ed., Macmillan Press Ltd., pp. 56-77 (presented to IDB-Cepal Meetings, Buenos Aires, November 1978); and J. E. Stiglitz, 1999, “Knowledge as a Global Public Good,” in *Global Public Goods: International Cooperation in the 21st Century*, Inge Kaul, Isabelle Grunberg, Marc A. Stern, eds., United Nations Development Programme, New York: Oxford University Press, pp. 308-325.

²⁴ Kenneth Arrow and G. Debreu (1954), “The Existence of an Equilibrium for a Competitive Economy,” *Econometrica*, vol. XXII, pp. 265-90.

²⁵ Learning and R&D naturally give rise to increasing returns-to-scale effects, which means that markets in which these effects are important are not likely to be well described by a perfectly competitive model. At the same time, imperfections in competition in the presence of imperfections of capital markets affect the level of profits available for investment in R&D. Thus, we typically need to describe the market structure and the level of R&D simultaneously. See, for instance, Partha Dasgupta and J. E. Stiglitz, 1980, “Industrial Structure and the Nature of Innovative Activity,” *The Economic Journal*, 90(358), June, pp. 266-293; and Partha Dasgupta and J. E. Stiglitz, 1980, “Uncertainty, Market Structure and the Speed of R&D,” *Bell Journal of Economics*, vol. 11(1), Spring, pp. 1-28.

²⁶ Although Arrow did not frame the market failure in this way, it was clear from his analysis that knowledge was a public good, in the sense that Samuelson had defined public goods a few years earlier; see P.A. Samuelson, 1954, “The Pure Theory of Public Expenditure,” *Review of Economics and Statistics*, vol. 36, pp. 387-389. See e.g. J. E. Stiglitz, 1987, “On the Microeconomics of Technical Progress,” in *Technology Generation in Latin American Manufacturing Industries*, Jorge M. Katz, ed., Macmillan Press Ltd., pp. 56-77 (presented to IDB-Cepal Meetings, Buenos Aires, November 1978); and J. E. Stiglitz, 1999, “Knowledge as a Global Public Good,” in *Global Public Goods: International Cooperation in the 21st Century*, Inge Kaul, Isabelle Grunberg, Marc A. Stern, eds., United Nations Development Programme, New York: Oxford University Press, pp. 308-325 .

The failure of the Washington Consensus²⁷

Once one recognizes that there will be persistent differences between social and private returns, it is clear that the presumptions and premises underlying the WC/market fundamentalist policies are wrong. For the WC policies were based on the notion that markets allocate resources efficiently, enabling the structure to change as the (endogenous) endowments change.

As we have noted, classical economic development policy prescriptions were based on two ideas:

(1) Government should promote—and should certainly not interfere with-- static allocative efficiency. (Indeed, in extreme versions of this perspective, governments need not even promote savings, because individuals are in the best position to make those intertemporal trade-offs on their own.)

(2) Growth in productivity arises chiefly from resource accumulation – physical, human and scientific capital. But these prescriptions do not apply in these dynamic learning environments.

As I have also noted, the standard market failures approach criticized these conclusions by focusing on a variety of market imperfections: For instance, there are pervasive externalities—not only environmental externalities but also those associated with systemic risk, so evidenced in the current crisis. Research over the past twenty years has explored the consequences of market failures like imperfect capital markets, traced these imperfections back to problems of imperfect and asymmetric information, and proposed a set of remedies, which in some countries, in some periods, have worked remarkably well. Imperfections in capital markets meant that finance was often not available to finance new enterprises required as part of this sectoral adjustment. Individuals on their own couldn't finance

²⁷ This part of this lecture is adapted from J. E. Stiglitz, "Rethinking Development Economics," *World Bank Research Observer*, forthcoming.

their education. Good financial regulations in countries like India protected them against the ravages of the global financial crisis.

But the perspective of a “learning society” adds an important new dimension to the analysis.

Policies to promote learning

Policies to promote learning processes are especially important for developing countries. For more than a decade, economists have recognized that what separates developed from less developed countries is not just a gap in resources but a gap in knowledge. Thus, a central focus of development policy should be closing that gap—and that means enhancing learning.²⁸

Traditional policy prescriptions not only don’t focus on how to maximize learning, but are also often significantly at odds with those which are appropriate to enhance “learning” performance.²⁹ As a result, though well-intentioned, they may actually lead to a reduction in societal well-being.

I want now to illustrate the contrasting implications between the static, neoliberal perspective and the dynamic one that I am advocating here by looking at one of the central questions in developmental policy—should government intervene in the market’s sectoral allocation of production.

Static versus dynamic comparative advantage

Standard neoclassical theory emphasizes that countries should focus on what constitutes their comparative advantage. The problem is that some of the most important elements of comparative

²⁸ This perspective was reflected in the 1998-1999 World Development Report, *Knowledge for Development*. See also J. E. Stiglitz, 1998, “Towards a New Paradigm for Development: Strategies, Policies and Processes,” 9th Raul Prebisch Lecture delivered at the Palais des Nations, Geneva, October 19, UNCTAD. Published as Chapter 2 in *The Rebel Within*, Ha-Joon Chang, ed., London: Wimbledon Publishing Company, 2001, pp. 57-93.

²⁹ In that sense, our work is similar to that of Schumpeter, *op. cit.* (See also J.E. Stiglitz, 2008, “Introduction,” in *Capitalism, Socialism and Democracy*, by Joseph A. Schumpeter, London: Rutledge pp. ix-xiv.) But while Schumpeter was correct in his critique of neoclassical economics, he never formulated a coherent analytic normative or positive theory. For instance, his defense of monopoly was, as a result, not well-grounded.

advantage are *endogenous*. Switzerland's comparative advantage in watchmaking has little to do with its geography. What matters is *dynamic* comparative advantage, and government has an important role in shaping that.

Standard Heckscher-Ohlin theory (emphasizing that trade in goods was a substitute for movement in factors) was formulated in a period before globalization allowed the kinds of flows of capital that occur today. With fully mobile capital, outside of agriculture, resource endowments need not provide the basis for explaining patterns of production and specialization.³⁰ In short, there is no reason that countries need limit themselves to patterns dictated by endowments, as conventionally defined. More important is the "endowment" of knowledge and entrepreneurship. A major focus of policy should be how to enhance and shape those endowments.

Even if a government would like to avoid addressing these issues, it cannot, for what the government does (or does not do) has consequences, positive and negative, for the development of the "learning society." This is obviously so for investments in infrastructure, technology, and education; but also so for financial, trade, intellectual property rights and competition policies.

Industrial policies to create a learning society

Shifting the focus from short run comparative advantage to a country's long term, or dynamic, comparative advantage does not, however, fully capture the perspective I am advocating here.

At the center of creating a learning society is identifying sectors more amenable to learning, with benefits not captured by firms themselves, so that there will be underinvestment in learning.

³⁰ Indeed the work of Krugman has emphasized that today most trade is not related in fact to differences in factor endowments. (See, for example, Paul Krugman, 2008, "The increasing returns revolution in trade and geography," Nobel Prize Lecture, available at http://nobelprize.org/nobel_prizes/economics/laureates/2008/krugman-lecture.html [accessed November 3, 2010].)

Elsewhere, Greenwald and I have argued that an implication is the encouragement of the industrial sector, which typically has large spillovers to other sectors.³¹

This approach provides an interpretation of the success of Asia's export led growth.³² Had Korea allowed market forces on their own to prevail, it would not have embarked on its amazing development successes. Static efficiency entailed Korea producing rice; Korea might today have been among the most efficient rice farmers—but it would still be a poor country. As Arrow pointed out, one learns by doing (and one learns how to learn by learning)³³. Korea's success, though, is not just in the development of the particular sectors (like the chips industry) which its industrial policy encouraged. Its success arose in no small part from the spillovers that those sectors had to the entire economy.

This discussion highlights the fundamental difference with neoclassical approaches emphasizing short-run efficiency. The fundamental trade-offs between static and dynamic efficiency should be familiar from the debate over patent laws. These laws not only restrict the flow of knowledge, but even may create monopolies, all justified because of the increased knowledge that (allegedly) results.

This discussion also highlights what's wrong with the standard criticism of industrial policies: the government is in no position to pick winners, and in particular to "outsmart" markets. The objective

³¹ I use the term industrial policy in this context to refer to any policy which seeks to shift the structure of production from that which would have arisen through market forces alone. Thus, a policy to encourage agrobusiness or telecommunications is, in this terminology, an industrial policy.

³² Successful import substitution policies have also had similar objectives. The import substitution policies were perhaps more successful than critics suggest: the lost decade of the 1980's owes more to macro-economic failures than to the failure of these micro-economic policies.

³³ J. E. Stiglitz, 1987, "Learning to Learn, Localized Learning and Technological Progress," in *Economic Policy and Technological Performance*, P. Dasgupta and Stoneman, eds., Cambridge University Press, pp. 125-153.

of government is different: it is to identify externalities, and to encourage sectors with large positive spillovers.³⁴ Some governments actually have a very credible track record in doing so.

A major concern with industrial policies³⁵ concerns implementation—do developing countries have the requisite capacities? We need to put that question in context:

There is probably no country that has grown successfully without an important role—not just in restraining and creating markets, but also in promoting growth through industrial policies—from the countries of East Asia today to the advanced industrial countries, not just during their developmental stages, but even today.³⁶ The task is to adopt policies and practices, to create institutions, like an effective civil service, that enhance the quality of the public sector and its ability to carry out industrial policies effectively. The successful countries did so. Policies that either intentionally or unintentionally weaken the state (as critics suggest the WC policies did) are not likely to do so.

Economic policies have to reflect the capacity of the state to implement them. One of the arguments in favor of exchange rate policies that encourage export industries is that they are broad based: the government does not have to pick particular “strategic” firms, or even products, to support. As always, there are trade-offs: efficiency might be enhanced if the sectors with the largest externalities could be targeted.

There are other broad-based policies, such as a development-oriented intellectual property regime and investment and financial policies that encourage transfer of technology and the promotion

³⁴ Such spillovers were an essential aspect of Hirschman’s work, though he did not focus explicitly on learning spillovers. See A.O. Hirschman, 1958, *The Strategy of Economic Development*, New Haven, Conn.: Yale University Press.

³⁵ We use the term broadly, to embrace any policy attempting to affect the direction of the economy.

³⁶ Richard R. John presents a persuasive account of the large role of government in the development of the telecommunications sector in the nineteenth and twentieth centuries. Richard R. John, 2010, *Network Nation: Inventing American Telecommunications*, Harvard University Press.

of *local* entrepreneurship, that can help promote a learning and innovation society.³⁷ Some forms of financial and capital market liberalization may be counterproductive.

Interventions will never be perfect, nor need they be to effect an improvement in economic performance.³⁸ The choice is not between an imperfect government and a perfect market. It is between imperfect governments and imperfect markets, each of which has to serve as a check on the other; they need to be seen as complementary, and we need to seek a balance between the two—a balance which is not just a matter of assigning certain tasks to one, others to the other, but rather designing systems where they interact effectively.

Governments are sometimes criticized for their wasteful practices. When we talk about waste, we should remember that the full economic consequences of the dysfunctional American financial market—a cost in the trillions of dollars—entail waste on a scale probably beyond anything done by any democratic government (outside of war) in the history of the planet. We should remember too that as government has acted to address the recession, we often face unpleasant choices: a massive waste of resources as a result of the economy operating for an extended period below its potential, or a much smaller waste as a result of less than ideal government spending. So too for industrial policies: industrial policies may not be perfect, but the absence of industrial policies may be even worse.

³⁷ Shahe Emran and J. E. Stiglitz, 2009, “Financial Liberalization, Financial Restraint, and Entrepreneurial Development” January, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1332399 (accessed November 3, 2010) ; J. E. Stiglitz, 2004, “Towards a Pro-Development and Balanced Intellectual Property Regime,” keynote address presented at the Ministerial Conference on Intellectual Property for Least Developed Countries World Intellectual Property Organization (WIPO), Seoul, October 25, available at <http://www0.gsb.columbia.edu/ipd/pub/IPRjs1.pdf> (accessed November 3, 2010); K. Hoff, 1997, “Bayesian learning in an infant industry model,” *Journal of International Economics*, vol. 43, pp. 409–436; Ricardo Hausmann and Dani Rodrik, 2003, “Economic Development as Self-Discovery,” *Journal of Development Economics*, vol. 72(2), pp. 603-633.

³⁸ Indeed, if all projects were successful, it suggests that the government is undertaking too little risk.

III. Social Transformation and the Creation of a Learning Society³⁹

While I have been discussing the *economics* of development, that subject cannot be separated from broader aspects of societal transformation,⁴⁰ as Hirschman emphasized in his writings.⁴¹ For instance, race and caste are social constructs that effectively inhibit the human development of large parts of the population in many parts of the world. The study of how these constructs get formed, and how they change is thus a central part of developmental studies. So far in this lecture, I have emphasized the creation of a learning society. The economics of doing so entails policies that change sectoral composition. But at the root of success is changing mindsets. At the center of that task is the education system, and how it inculcates attitudes towards change and skills of learning. Other policies (e.g. legal systems, gender based microcredit schemes, affirmative action programs) too can play an important role.

Myrdal, in his studies of South Asia, focused on these issues.⁴² He argued, in effect, that certain social constructs affect behavior and were part of what might be called a dysfunctional *economic* and *social* equilibrium that could persist. But he did not address the question of the mechanisms by which such social constructs are created, evolve, or collapse. Nor did he ask how we might reconcile such constructions of the developmental process with the usual approaches taken by economists. In recent work with Karla Hoff, I have been attempting to construct a general approach to societal evolution that

³⁹ This part of my lecture draws heavily from K. Hoff and J. E. Stiglitz, 2009, "Equilibrium Fictions: A Cognitive Approach to Institutions and Institutional Change, with an Application to Race," preliminary draft, December 28; and K. Hoff and J. E. Stiglitz, 2010, "Equilibrium Fictions: A Cognitive Approach to Societal Rigidity," *American Economic Review*, 100(2), May, pp. 141-146.

⁴⁰ See "Towards a New Paradigm for Development: Strategies, Policies and Processes," 9th Raul Prebisch Lecture delivered at the Palais des Nations, Geneva, October 19, 1998, UNCTAD. Chapter 2 in *The Rebel Within*, Ha-Joon Chang, ed., London: Wimbledon Publishing Company, 2001, pp. 57-93.

⁴¹ See, for instance, Albert Hirschman, 1958, *The Strategy of Economic Development*, New Haven, Conn.: Yale University Press.

⁴² Gunnar Myrdal, 1968, *Asian Drama: An Inquiry into the Poverty of Nations*, New York: Pantheon.

clarifies the critical—and unrealistic—assumptions about individual behavior and cognition that underlie what has become the dominant developmental model within the economics literature. This work provides some insights into why Myrdal’s predictions concerning Asia’s prospects could have been so far off the mark.

In our work, we are concerned with *what collective beliefs are an equilibrium*, and how they change. There are three critical hypotheses:

1. *Perceptions (beliefs) affect actions (choices) and are shaped by cognitive frames*; the infinite set of potentially observable data and the infinite ways in which that data could be processed are limited by the finite set of *socially* constructed categories that are a part of what are called *ideologies (or belief systems)*. Individual behavior is based on beliefs that are more complex (or at least different) in their formation than is reflected in standard Bayesian theories about the determination of probabilities of the occurrence of different states of nature. Indeed, in our work, we employ well-documented results in psychology, where individuals recognize and process information that is consistent with their prior beliefs in a way that is different from the way they treat other information, to show that, in equilibrium these beliefs can be self-confirming even when, in a fundamental sense, they are wrong. That is why we refer to them as *equilibrium fictions*. As in Rational Expectations models, beliefs affect behavior, which affect outcomes, which affect beliefs. But unlike a RE model, *beliefs also affect what is perceived*, the categories into which information is placed, and how information is absorbed and filtered. Biases—at every stage of the formation of beliefs—shape perceptions, widen the set of possible equilibria, and make them history-dependent.⁴³

⁴³ On the other hand, the set of equilibria in our approach is much more constrained than the “animal spirits” equilibrium, which presumes that virtually any set of beliefs could be sustained.

2. *The categories that shape cognition are social constructions.* A second difference from the neoclassical perspective is that many beliefs, such as the categories into which information is placed, are social constructions. Individuals do not choose their “software” in isolation, but within a social context. A set of collective beliefs (ideologies) that serves a society—or some group in society—well under one set of economic circumstances may serve it less well under another.

3. Because belief systems affect the equilibrium, e.g. by shaping perceptions, elites have a strong incentive to influence people’s beliefs. In contrast, in a RE equilibrium, this is not relevant—cognitive frames play no role. But the elites cannot simply “choose” the cognitive frames that work best for themselves (nor can non-elites simply choose the beliefs that might work best for themselves). The task of “choosing” for themselves and imposing on others cognitive frames is more complicated and is itself constrained by higher-order beliefs. Those in “power” typically do not control all the determinants of the evolution of beliefs. Cultures are always contested.

4. *The general beliefs about the world are a state variable that determine which beliefs are acceptable.* Acceptance and legitimacy are a function, too, of collective beliefs. An institution⁴⁴ (like Jim Crow) may be accepted at one time, and not at another. It may be part of an equilibrium at one time, and not at another.⁴⁵ Redistributive institutions, too, function because they have “legitimacy,” because

⁴⁴ But it is not as if that group got together and figured out a set of beliefs that would accomplish what they sought. Our theory is thus incomplete. But we believe it is a step forward to break out of the mold of rational expectations, in which the variables described above play no role.

⁴⁵ At one time, some economists suggested that institutions have a simple role in society—to fill in the “holes” in markets, to remedy market failures (see Douglass C. North, 1971, “Institutional Change and Economic Growth,” *The Journal of Economic History*, Cambridge University Press, vol. 31(01), pp. 118-125, March). Arnott and Stiglitz and Hoff and Sen, as well as others, showed that non-market institutions purportedly resolving a market failure (like incomplete insurance markets) could, in this sense, be dysfunctional—they could lead to Pareto inferior outcomes. (See R. Arnott and J.E. Stiglitz, 1991, “Moral Hazard and Non-Market Institutions: Dysfunctional Crowding Out or Peer Monitoring,” *American Economic Review*, 81(1), March, pp. 179-190; Karla Hoff and Arijit Sen, 2006, “The kin system as a poverty trap?” in *Poverty Traps*, Samuel Bowles, Steven Durlauf, and Karla Hoff (eds.), Princeton University Press, 2006, pp. 95-115.

More recent literature has highlighted the role of institutions in preserving inequalities—in the context of repeated games, equilibria in which one group is exploited by others may be sustained. (See, among others, Dilip

they are accepted. The acceptance and performance of institutions depend not only on economic variables, but also on the set of general beliefs about the world, which can at any moment be treated a state variable. Collective beliefs that emerge in one period shape the possible institutions in the next.

Incorporating “cognitive frames” (ideologies) as state variables provides part of a general theory of societal change that is markedly different from traditional theories, in which only capital and the distribution of power and wealth are state variables. If ideologies change, the equilibrium can change, with no change in the “fundamentals.” At the same time, this perspective helps explain why institutional change can be so difficult and societies so rigid. A set of beliefs that may have been functional at one time, but is no longer so, can persist after the economics/technology that had led to the adoption of the beliefs has changed.

How such belief systems change—and how those (like governments) who seek to deliberately change belief systems—is thus a core part of developmental analysis, but regrettably, pursuing this question would take me beyond the confines of this lecture.⁴⁶

I want to turn now to one particular set of beliefs that have enormous importance in shaping societies in recent decades.

Mookherjee and Debraj Ray, 2003, “Persistent Inequality,” *Review of Economic Studies*, vol. 70(2), pp. 369-393; Daron Acemoglu and James Robinson, 2000, “Why did the West Extend the Franchise? Democracy, Inequality and Growth in Historical Perspective,” *Quarterly Journal of Economics*, vol. 115(4), pp. 1167-1199.)

⁴⁶ The complexity of the issues is illustrated by vicissitudes in attitudes towards government policies to re-stimulate the economy. In the aftermath of the collapse of Lehman Brothers, there was a moment in which all the world adhered to Keynesian ideas. But within two years, there was a shift towards “Hooverite” fiscal austerity policies—even though the empirical (scientific) evidence that such policies would lead to slower growth with disappointing results on deficit reduction had actually mounted in the interim.

IV. Democracy and the Creation of a Learning Society

Ideas concerning human rights and democracy have been among the most important in shaping what is and is not acceptable. In the United States and Europe, these ideas eventually led to the abolition of slavery, though there were large groups for whom the continuation of this institutional arrangement was advantageous, and those who opposed it reaped no economic gain from the abolition.

Democratic ideals question authority. When America's Declaration of Independence said, *All men are created equal*, it didn't mean that they were of equal physical or mental capacities, but of equal rights, including the right to put forth their ideas into a competitive market place of ideas. Democracy and an open society are intrinsically interlinked.

But it is exactly that same frame of mind which is so essential for creating a dynamic, learning economy and society.

A more open society generates more ideas, a flow of "mutations," which provides not only excitement, but the possibility of dynamic evolution, rather than stasis.

Unfortunately, even if in the long run, a more dynamic society benefits most members of society, in the short run, there can be (and normally will be) losers. And not surprisingly, those who might lose seek to prevent such changes through any means they can. The political process is one way that is often taken. Those who seek to maintain inequalities in wealth and power do so is not only through policies (economic, legal, etc.) which perpetuate existing bases of power and wealth, e.g. by creating entry barriers; but also through policies which attempt to maintain the legitimacy of these inequities of wealth and power. Media policies (control of the airwaves, right to know laws, and so forth) thus become important instruments for shaping public perceptions, and thus public policies. The

political processes themselves evolve over time, shaped not just by history, but economics, especially in today's world. Firms long ago learned that they could partially shape individuals' preferences. Those with wealth have more recently learned how to use such tools to shape perceptions in ways that lead to outcomes in the political process that are more favorable to themselves. Sometimes, this entails creating a less open and transparent society—a more open society might lead to a questioning of the persistent inequities, a more transparent society might expose the nefarious ways by which inequities are maintained. When that happens, the long term success of the economy may be put into question.⁴⁷

V. Inclusive Growth

So far, I have emphasized the importance of creating a learning economy and society; that success requires not just an economic transformation but a social transformation; I have also argued that, over the long run, democratic and open societies will be more dynamic. But, as I have noted, democratic processes can be shaped, and there are incentives on the part of some to maintain existing inequities. Democratic processes can then lead to the antithesis of an open and transparent society.

There is thus at least one more requirement for long-term success: inclusive growth. Earlier, I explained that trickle-down economics doesn't work. The critique of many of the WC policies though was not just that they were not pro-poor, that is, that the poor did not share in the benefits. Rather, it was that they were anti-poor. Policies that lead to greater volatility (which arguably capital and financial market liberalization do) are anti-poor. It is the poor that bear the brunt of crises—nowhere evidenced more than in this crisis, where the bankers who caused the crisis are walking home with multi-million dollar bonuses. Policies that lead to higher levels of unemployment are anti-poor. Trade liberalization

⁴⁷ Earlier, we noted how, in the U.S., those wanting to insulate the Fed from scrutiny as it provided massive subsidies to certain banks opposed Fed transparency.

destroys jobs, so that unless such liberalization is accompanied by measures that lead to job and enterprise creation, it can be anti-poor. That is why it is so important that trade liberalization be accompanied by appropriate financial sector and aid-to-trade measures to ensure that job creation occurs in tandem with job destruction. Markets, on their own, do not ensure this, even in seemingly well-functioning advanced industrial countries.

One of the big advances in development in recent years is that we understand not only that some policies can be anti- or non-pro-poor growth, but that we have instruments and policies (from broad policies, like micro-credit, to specific instruments, like more efficient cookstoves) to enhance the likelihood that the poor share in the growth that occurs.

My argument for why inclusive growth is so important goes beyond the standard one that it is a waste of a country's most valuable resource, its human talent, to fail to ensure that everyone lives up to his or her abilities.

The political economy of inclusiveness and openness

Rather, it is based on political economy, of an analysis of how inequality affects political processes in ways which are adverse to long term growth and inclusive democracy.⁴⁸

⁴⁸ I am deeply indebted to Tim Besley for discussions on the ideas in this section. See Tim Besley and Torsten Persson, forthcoming, "The Origins of State Capacity: Property Rights, Taxation and Politics," *American Economic Review*; Tim Besley and Torsten Persson, forthcoming, "State Capacity, Conflict and Development," *Econometrica*; Tim Besley, Torsten Persson, and Daniel M. Sturm, forthcoming, "Political Competition, Policy and Growth: Theory and Evidence from the United States," *Review of Economic Studies*. In earlier work with Karla Hoff, I attempted to model the political economy of transition from communism to a market economy, employing analogous ideas. See K. Hoff and J.E. Stiglitz, 2004, "After the Big Bang? Obstacles to the Emergence of the Rule of Law in Post-Communist Societies," *American Economic Review*, vol. 94(3), June, pp. 753-763; K. Hoff and J.E. Stiglitz, 2004, "The Transition Process in Post-Communist Societies: Towards a Political Economy of Property Rights," in *Toward Pro-Poor Policies: Aid, Institutions and Globalization*, B. Tungodden, N. Stern, and I. Kolstad (eds.), World Bank/Oxford University Press, pp. 231-245; K. Hoff and J.E. Stiglitz, 2007, "Exiting a Lawless State," *Economic Journal*, 118(531), pp. 1474-1497. See also Daron Acemoglu and James Robinson, op. cit., who have also have written about inequality and institutional change.

Earlier I argued that government needs to play an important role in any economy, correcting pervasive market failures, but especially in the “creative economy,” e.g. financing basic research and providing high quality education. Moreover, innovation is always risky, and in societies with better systems of social protection, individuals are willing to take more risk. So too, societies (like Sweden) in which there are stronger social protections are more willing to expose themselves and their citizens to growth-enhancing risks, such as those associated with openness.

Consider, for a moment, a society in which there is very little inequality. The only role of the State then is to provide collective goods and correct market failures. A consensus can be developed on what that entails—since interests are aligned.

But this is not so in societies in which there are large inequalities. Then interests differ. Liberals may want to use the state to redistribute income. While ostensibly conservative high income individuals may claim that they are only trying to prevent such redistributions, a more careful look at the policies they advocate often entail redistributions toward themselves; and at the very least, they entail ensuring that the government does not curtail their activities exploiting the poor and extracting a disproportionate share of public assets. Distributive battles inevitably rage.

Often, the “ideology” of the battle takes the form of an attempt to circumscribe government (an “independent” central bank, in reality, a central bank accountable mainly to the financial sector, budget constraints that severely limit the scope of government activity, even when there are very high investment opportunities in the public sector.)

Many in the U.S. are concerned that we have embarked on an adverse dynamic, moving us towards an equilibrium in which we will become a less dynamic and a less equal economy and society. As social protections erode and public investments weaken, including in education, inequality increases.

The rich turn to private education, private parks, private health insurance, etc., even though public provision might be far more efficient. Rather than working to improve the efficiency of the public sector, those who seek to limit the scope of government work to tear down the public sector, to undermine its credibility, knowing that if they succeed, then there will be a broader consensus for limiting the role of government, and thus limiting the extent to which the government can engage in redistributive activities, *even if in doing so, the government is limited in its ability to engage in collective wealth enhancement*. As this happens, inequalities increase, confidence in public provision erodes, and the state takes on a less important role. It is problematic to gauge whether, in the end, even those at the top benefit; but what is not questionable is that the vast majority in the society lose out.

A casual look around the world suggests that different societies have taken different courses. The Scandinavian countries, by and large, have limited inequalities, have efficient and large public sectors, high standards of living for the vast majority of their citizens, and have succeeded in creating inclusive dynamic economies and societies. There are important differences among the political parties in these countries, but still, there is a broad consensus about most of the elements of the “social contract.” America in more recent years has taken a different course. The image of a society with a high degree of social mobility is belied by the statistics, which suggest that such mobility is less than in many “old” European countries. Social and economic mobility has decreased in the United States, while it has increased in many of the European countries. In the beginning of this lecture, I laid out some of the consequences for the United States: decreasing standards of living for the majority of citizens combined with increasing social pathologies.

India, as a young democracy, has before it important decisions about which course it will take.

VI. Concluding Comments

I have attempted in this lecture to cover a broad terrain. Economics, politics, and society are interconnected. Too often, economists have lost touch with these broader dimensions—though I have argued that much of the conventional wisdom of economists even missed out on the most important *economic* elements in creating a dynamic and creative society.

In discussing the importance of creating an open, democratic, and inclusive society as necessary conditions for the creation of a dynamic economy, I don't want to underestimate the importance of these as ends in themselves. Creativity, voice, security are all important ingredients to individual well-being and a sense of dignity. The central message of the International Commission on the Measurement of Economic Performance and Social Progress was that GDP was not a good measure of well-being, and policies which narrowly focused on increasing GDP were misguided.⁴⁹

India has had enormous success over the past 25 years in its increase in GDP, and it now seeks to ensure that that success continues and that the benefits of that success are shared by all of its citizens. The financial crisis has shown how misguided policies of financial market liberalization and deregulation were. These were policies that the United States and international institutions foisted on countries all over the world. These are policies that served special interests well, and the voices of these special interests are often heard more loudly than the voices of those that are hurt by these policies. Indeed, those in the financial sector touted the so-called financial innovations of recent years, suggesting that they brought on a new era of growth and prosperity, Paul Volcker was absolutely right in pointing out that there was not a single innovation (other than the creation of the ATM machine) that had been linked to improved economic performance. The innovations often enhanced the coffers of the

⁴⁹ J. P. Fitoussi, A. Sen and J.E. Stiglitz, 2010, *Mismeasuring Our lives: Why GDP Doesn't Add Up*, New York: The New Press.

banks and the bankers, but at the expense of the rest of society. And what we can say unequivocally is that the innovations introduced an unprecedented level of instability into the economy.

I have couched most of this talk in broad strokes. But the principles have strong implications for policy. I have hinted directly at the implications for financial and capital market liberalization and the design of monetary policy and institutions. But the principles translate too into policies regarding intellectual property regimes, investment treaties, taxation, and expenditures on infrastructure, education, and technology.

I hope that this lecture has provided a new lens through which one can examine these and other policy choices facing India in the coming years. India might like to pretend that it could avoid matters of industrial policy—following the neoliberal doctrines that these are matters to be left to the market. But it cannot. For the choices it makes in each of these arenas will inevitably shape India's economy and society, for better or for worse, for decades to come.