The Dynamism of Nations: Toward a Theory of Indigenous Innovation

Edmund Phelps
Columbia University

Recommended Citation:
The Dynamism of Nations:
Toward a Theory of Indigenous Innovation

Edmund Phelps

Abstract

Modern life invaded societies in the 19th century: First in Britain and America, later in Germany and France. Increasing numbers were driven not just by a work ethic or a desire to accumulate: They were dreamers, tinkerers, and adventurers on a journey, exercising their imagination, creativity, and curiosity. The result was not simply a “take-off” into sustained growth; the economy was turned into a vast imaginarium in which people conceived new products, uses, and approaches, as well as methods of production. This indigenous innovation, coming from the grassroots up, was the foundation of modern life: The satisfaction of “succeeding” at what one is doing, the satisfactions one has from “flourishing,” and the thrill of the unknown. These “soft” rewards of work are important, as are material rewards. By now, however, “soft” rewards seem to have fallen off and growth has slowed. Have modern values narrowed to a trickle or has big business choked off the dynamism of old?

Author note: The author is the 2006 Nobel Laureate in Economics and the Director, Center on Capitalism and Society, Columbia University. Early versions of this paper were given at the Nobel Laureate Meetings in Lindau in August 2014, the Wilbur Cross event at Yale in October and, in November 2016, the Harvard Business School Club of Athens, EPFL in Lausanne, and CEPS in Brussels.
Economics at its core is about human life in human economies. The difficulty is that economies have continued to evolve and economics has lagged behind. From the 16th to the 18th centuries, Western nations graduated from feudalistic economies with limited markets to national economies of a classical character. But over the 19th century, when economics was still acquiring an understanding of the classical economy – trade-offs, exchanges, competition, equilibrium, efficiency – the economies in several nations were evolving again, bringing another radical change in human experience. Economics has barely begun to catch up.

Economies Growing, People Prospering and Flourishing

In the 19th century, economies of unprecedented brilliance sprouted up – first in Britain and America, later in Germany and France. Cities mushroomed, myriad companies formed and, with the emerging economies, masses of people showed a new spirit: Going one’s own way, taking one’s chances, seizing one’s opportunities. This spirit was reflected in literature and the arts – in “high culture.” As the novelist Charles Dickens depicted and the historian Emma Griffin has recently documented, people increasingly took control of their lives – many of them having careers they could not have foreseen. (Dickens himself led an enterprising, audacious life.) Where it grew to be strong, the new spirit fueled a new kind of economy. The historian Paul Johnson, documenting the beginning of this phenomenon, dubbed it the “birth of the modern” – modern life in a modern economy.

Rewards of the modern economies. What was this modern life like? A person at work might be thinking (if only in the back of his or her mind) of a better method of production or an improvement of the product. A businessman, believing he saw a good opportunity, might be starting up his own enterprise. More strikingly, a person might be engaged in conceiving a wholly new product or attempting to build one or trying one out. All this endeavor, or aspiration, was a far cry from the regimentation in the past.

Participants in the modern economies felt rewarded in ways that were rare, if present at all, in the traditional economies – economies built on feudalism or mercantile capitalism. English men and women alike spoke of “getting on,” meaning they were getting somewhere – perhaps getting ahead. This phrase expressed the rewards reaped from a sense of “human

---

1 Knight and Keynes pioneered the introduction into economics of one aspect of the new economies – uncertainty and resulting employment swings. My book, Mass Flourishing (Princeton, 2013), introduces another side of the new economies – the creativity exercised in their business sector and the resulting innovation. One can find a consideration of some of the issues addressed to non-economists in my essay, “What is Wrong with the West’s Economies?” New York Review of Books, LXII, no. 13, August 13, 2015, 54-56. This paper is intended more for economists than either of those. It restates parts of the book’s thesis, improving on the argument at times and taking up new questions. It does not add my new work of the past year or so.

2 I take up such evidence in Mass Flourishing (Princeton, 2013), Chapter 3.

3 Griffin finds evidence of the new attitudes in her recent book Liberty’s Dawn (Yale, 2013). Her more recent focus on 19th century materials is even more revealing. One worker, after being promoted to the position of riveter, exclaimed how gratifying it was to be able to use his “creativity.”


5 The terms “getting on” and “taking charge” of one’s life are noted in my book Mass Flourishing (Princeton, 2013), p. 66.
agency” — having the space to exercise initiative, insight, imagination and creativity. These deep rewards fall into two or more categories.

First, one might find satisfaction in a success resulting from one’s own efforts and perhaps further satisfaction from the better terms or the recognition that might result. These rewards are experiential, not material. They are not about income and wealth. They are clearly about “succeeding,” or, to use a narrower term, prospering (from the Latin pro spere, meaning as hoped, according to expectation): An office worker earning a raise in recognition of her unusual achievement in her job, a craftsman seeing his hard-earned mastery result in a better product, a merchant’s satisfaction at seeing “his ships come in,” or a scholar’s sense of validation from being awarded an honorary degree.

Second, a person may find satisfaction from the experiences that come with one’s career: The thrill of voyaging into the unknown, the excitement of the challenges, the gratification of overcoming obstacles and the fascination with the uncertainties. Emerson wrote that “a life is a journey, not a destination.” And, not least, there is the satisfaction of “acting on the world” and, with luck, of “making a mark,” perhaps changing the world. Having these satisfactions has come to be called flourishing.

In contrast, standard economic models – neoclassical, Keynesian, behaviorist – contain none of these rewards, neither prospering nor flourishing. In such models, the reward for work is fundamentally the wage paid in the economy for the sort of work being done – the wage rate set by current market forces. There is no room in those models for any human agency by which a person might gain rewards other than the going wage – only room for endogenous responses to changes in the market wage or other prices. Thus, standard models, even ones purported to describe economies that are more or less modern, miss the character of a modern economy.

Another oft-cited notion is “personal growth,” or “self-realization.” Is this another reward that came with the modern economy? The notion is that people draw satisfaction from developing their talents, or potential. In the terms of standard economics, a person may gain utility from acquiring increased human capital for use in his or her work. But a pianist’s satisfaction of expanding his or her human capital does not appear to differ from a farmer’s satisfaction of clearing his land. Such satisfactions existed in medieval times and were not uncommon in the economies of mercantile capitalism – long before the modern economies.

---

7 In a book of mine that may feel “standard,” I say that earning in the nation’s economy is a way by which people have a sense of “belonging,” of participating in society’s main project. I cite the view that work is the “spine” around which our lives are organized. See Phelps, Rewarding Work (Harvard, 1997, 2007). In an early book, I mention the view that work provides various “job satisfactions” – such as the intellectual stimulation that Marshall notes and the pride in workmanship Veblen’s notes. See Phelps, Inflation Policy and Unemployment Theory (Norton, 1972), p. xvii.
8 In John Rawls’s exposition, “human beings enjoy the exercise of their realized capacities and this enjoyment increases the more the capacity is realized or the greater its complexity…” (Rawls, A Theory of Justice, [Harvard, 1971], pp. 428-49). (Incidentally, he did not include this satisfaction, or desire, in his model of a society’s economy.)
So significant personal growth is not peculiar to modern economies and it is certainly not a defining reward of the modern economy.\(^9\)

Prospering and flourishing derived from a person’s work in the modern economy are individual, or personal – results of the person’s own initiative. The modern economies that emerged in the 19\(^{th}\) century were realizing societal gains too. The British and Americans, later the Germans and the French – virtually all of the participants in the new economies – enjoyed sustained growth of productivity, a rising trend of the general wage level, rising household wealth, and broadening opportunities for employment. As a result, standards of living among all groups were constantly trending up. Careers no longer stopped at middle age. (Even economies far from modern could, with varying lags, obtain these societal gains by copying the new products and methods in the modern economies – a process known as technological transfer.) Historian Walt Rostow, studying this development, marveled at the “take-off into sustained economic growth.”\(^{10}\)

Yet standard economics fails to see the transformation of the economies. It does not reach a genuine understanding of the sources of these societal rewards any more than it reaches an understanding of the individual awards. Their neo-neoclassical models merely represent the growth as stochastic processes (with Keynesian extras an option).\(^11\) True, the standard economics uses the word “innovation” to denote a shift in a “technology” parameter. An occasional shift or a series of tiny shifts that can be approximated by a smooth curve. Yet these parametric shifts, large or small, are exogenous to the economy – not new products or new methods conceived in the economy; thus endogenous to the economy.

Now the phenomenon that Rostow marveled over appears to have paled. For decades, Western nations have been exhibiting weak business investment, below-trend employment and expressions of job dissatisfaction – not to mention steep increases of entitlements, public debt and household debt. The immediate cause of this syndrome is suspected to be a slowing of productivity growth, most noticeably real wage growth. Economic experts came to believe by the end of the 1980s that America had been in the throes of what they called the Great Productivity Slowdown since the late 1960s and that it had not let up – a slowdown for which they had little explanation.\(^{12}\) Germany and France, once their postwar rebuilding and their catch-up to decades of advances overseas were complete, saw their productivity growth slow markedly in the 1970s and it did not come back. Although Italy saw...
Phelps: The Dynamism of Nations

good productivity growth in the 1980s and Britain in the 1990s, Italy’s stopped by the late 1990s and Britain’s in the 2000s. Yet standard economics shows no understanding of this profound decline.

This is an embarrassment for economists. Standard economics could not see either the soaring flights starting early in the 19th century or the descent back to earth in the late 20th century. So it has nothing illuminating to say about what the late Angus Maddison called the “epoch” of modern capitalism13 – the 150 years of modernity that began first in Britain around 1815 and began to lose its vigor in America around 1965.

These twin failures of understanding are not purely of intellectual significance to historians or economic theorists: They have consequences for people’s experience in economies today. A great many people in China and India, for example, would like to see in their countries the sort of vibrant and dynamic economies that had spread to most of the West by the 20th century. But in the absence of a modern economics with which to understand modern economies, these countries will have little idea of how to begin developing such economies. Likewise, the Western nations that have gone from brilliance to very slow growth – most markedly France, though even Germany can be viewed as having become a trading nation – have little idea of how to redevelop the old élan of their best decades as long as they lack a modern economics that illuminates the modern economies of their past. With only the toolkit of standard economics – classical, Schumpeterian, Hayekian and Keynesian – economists may offer relief from some of the symptoms of the illness, but not a cure. Standard economics cannot cure the illness because it cannot know the causes.

The key element missing in standard economics is innovation. Omitting innovation is particularly consequential in nations where innovative activity is systemic and powerful – as it became in Britain and America early in the 19th century. Yet the term “innovation” – among economists, it appears to have been first used by Joseph Schumpeter a hundred years ago – has been elusive. Before going into substantive matters, it is necessary to disentangle several terms in this area.

An innovation generally refers (among economists) to the introduction to the market of a product or method that is newly conceived and perceptibly changes practice in some field or industry or in the economy more broadly. So an invention is not necessarily an innovation – in fact, few inventions become innovations. In other words, a significant innovation is a new thing springing from a new idea that is adopted widely enough to bring significant gains here or there in real incomes.14 Of course, “copying,” “transferring” or even “adapting” an innovation that has arisen elsewhere are not innovations – they are essentially further adoptions.


14 What if the idea is, say, one day old? Is the new product thought to be an innovation not really an innovation in that case? If the aging of the idea by some number of days makes no difference for the analysis, we can call the new product an innovation. When America’s first transcontinental railway was designed, built, and marketed, some commentators said it was not a “new idea.” One might test the extent to which the new event was an innovation by estimating the extent to which land prices along the route jumped in the months after the “innovator” or innovative personnel began their planning and word began to leak out. If the land prices surged to new highs, we might regard the new product as 100 percent innovation.
Mass Flourishing argues that the critically missing element in standard economics is indigenous innovation. The exogenous discoveries leading to innovations in all nations (“exogenous” innovations) had been familiar since Columbus – in the Age of Discovery – though without bringing a measurable rise in the general level of productivity and wage rates. The new kind of innovation was endogenous to some nation’s economy – thus it was indigenous innovation. This innovation became pervasive and inclusive in Britain and America around the 1820s, and in Germany and France around the 1880s. In the years that followed, indigenous innovation was so endemic and powerful as to bring not only Rostovian growth of productivity and wage rates too, but widespread prospering and flourishing as well.15 Yet, as my book also argues, the reversion to slow productivity growth in these frontrunners – very markedly in America and France by the end of the ’60s, less markedly (though from a slower initial growth rate) in Germany and Britain after World War II – strongly suggests cumulative declines of indigenous innovation in these once-leading countries.

The indigenous innovations in a country are the products and methods newly conceived in that country, which, in the paradigm case, change practice at home, whether or not abroad. A nation’s home-grown innovating is of special importance to it: While all countries will “import” all or most “exogenous” innovation without any effort, it is only by creating indigenous innovation that a nation can innovate more than what is possible by drawing on exogenous discoveries. A nation can set the level of its innovative activity according to what it values. And this innovativeness has a huge influence on the nation’s experience of work and its way of life.

Indigenous Innovation: Its Meaning and Generation

I will first sketch some rudiments of a theory of indigenous innovation: Its meaning and its generation. (The next part will look into its origins.) Developing a theory of indigenous innovation requires going outside standard economics. To be explicit, it means distancing ourselves very far from both Hayek and Schumpeter. That is what, from one perspective, my recent book Mass Flourishing aims to do, in an accessible way. This paper offers a further exposition that aims to be a little clearer and fuller.

It is necessary first of all to note that, beside the above concept of indigenous innovation, there is a very different concept that some people call “innovation” and regard as a very important kind of innovation – or even the only kind.

New ideas, not adaptations. A great many businesspeople take the view that a company “innovates” when it detects and acts on a new opportunity – one that fills a need. Typically, the established company claims it is “innovative” on the grounds that it is constantly surveying the landscape with an eye to spotting such an opportunity. (In a long spell without coming up with a new product, the company is apt to say defensively that there is “a lack of opportunity.”) But the concept of an indigenous innovation – a new idea that brings new practice – is miles away from the businesspeople’s concept – detecting and acting on an opportunity that brings

15 Johnson paints a huge canvas of this innovation in The Birth of the Modern, op. cit.
new practice. (One might be willing to call the latter an “innovation” if it took considerable imagination to identify the opportunity or to visualize why it might be adopted.) So we need a name for this different thing.

The seminal economic theorist Friedrich Hayek chose to call a new product borne of some new observation an adaptation – not an innovation. In his well-known 1945 paper he argues that – in the market economies of capitalism, at any rate, if not the economies of market socialism – the bulk of what business accomplishes is its progress toward bringing an economy's practice up to the potential level currently created by the ever-changing world about it – to make “adaptations to changing circumstances.” He then adds that “economic problems arise always and only in consequence of change” (italics added). In his thesis, change does not spring from the endogenous creation of people working in the business sector: Change is fundamentally exogenous to the economy, and it is up to business simply to make the right adaptations to that change.

Young Schumpeter, about whom I will say more later, took the same view, much influenced by the German Historical School. A similar view is taken by Chester Barnard in his pioneering book on the “functions” that established corporations must perform as they struggle to survive.

To avert misunderstandings, I set out briefly my thoughts on some kinds of adaptation and how they are produced. No doubt, adaptation is important: The so-called advanced economies are, in general, rather able at adaptation. (It is a question whether economies highly able at innovation are especially able at adaptation.) I find it useful at times to draw on a vision of the economy as a Hayekian organism constantly acquiring gains in economic knowledge of what and how to produce. Entrepreneurs are at the heart of that vision. Entrepreneurs and entrepreneurial enterprises are the economy’s forward observers, making observations and pondering what use could be made of them. In my book I liken them to

---

16 F. A. Hayek, “The Use of Knowledge in Society,” American Economic Review, v. 35, 1945, p. 523. Presumably he had in mind demographic shifts, climatic change, and scientific advance. (He differs from the German Historical School and their later recruit, Joseph Schumpeter, in saying that “technological knowledge” is not of “foremost importance” (p. 523, italics added).

17 Hayek then adds that “the economic problem of society” (“the challenge,” we would say) is mainly one of rapid adaptation in the particular circumstances of time and place,” Ibid. (p. 524). The Hayekian thesis was that an economy driven by the incentives arising from private ownership and facilitated by the “price system” of a free market is good at spotting new possibilities – better than any alternative, such as communism. The “take” of most Hayekians is that the availability of information on prices greatly shortens the amount of calculating that entrepreneurs have to do in evaluating the revenue that the new product would bring and evaluating the costs of producing the new product. Hayek also suggests, however, that business people with an accumulation of expertise about their industry and a deep insight into its current condition will have a far better sense of the kinds of opportunities to prize – and, for that matter, what kind to avoid. Most of this theorizing is compiled in F. A. Hayek, Individualism and Economic Order (Chicago, 1948).

Yet the idea implicit in Hayek – that a person acquires from experience a great deal of knowledge not in books or papers – is widely credited to the scientist-turned-philosopher Michael Polanyi in his book Personal Knowledge (Chicago, 1958). His later book, The Tacit Dimension (Anchor Books, 1967), argues that such knowledge – “we can know more than we can tell” – is behind the educated guesses and seemingly groundless hunches that characteristically figure in the process of discovery.

18 Chester Barnard, The Functions of the Executive (Harvard, 1938). Barnard, head of AT&T for many years, was one of several corporate leaders who managed to have parallel careers as theorists, composers, poets and artists, such as Charles Ives and Wallace Stevens.
Phelps: The Dynamism of  Nations

scout ants that go out into the environment to find things of use to the colony. Entrepreneurs, using their expertise about their industry, are constantly looking around to see what of possible use may be out there.

• What is called arbitrage is an example of adaptation. If an entrepreneur sees the going price for some product below the price at which the entrepreneur knows he can sell elsewhere, the entrepreneur buys where the price is low and sells where it is high, leading to a reallocation of resources – to an adaptation, in Hayek’s terminology. (Schumpeter’s early model, in which entrepreneurs leap to build new plants made profitable by the discovery of new lands, is another example of this sort of adaptation.)

• Another example of adaptation is the restructuring achieved after structural shocks have thrown large number of people out of work. With time, entrepreneurs – in an economy full of keen and unfettered entrepreneurs, all having a great variety of peculiar needs – will start to seize on the increased availability of some skills until all square pegs have moved to new square holes. (Employment and possibly all wage rates may fully recover.)

• What of piggybacking – of “standing on the shoulders of giants,” as Newton put it? Following the 1984 innovation of the commercial cellphone, the Motorola DynaTAXC 8000X, a second generation of cellphones appeared, overcoming some of the limitations of the original one, then a third generation. Were these successive improvements (the ones actually adopted) adaptations or were they innovations, albeit less of a leap than the initial step that Motorola took? It depends. If the several developers of the next generation of cellphones were responding to their observations of the previous generation and they judged that these new “circumstances,” as Hayek would have said, created an opportunity for further development of the cell phone, these developers were engaged in attempting adaptations. And the successful attempts were adaptations. But if one or more of these developers came up with a new conceptualization of the cell phone – say, a re-imagining of its use that was not imagined by the previous makers – that element in the next generation of cell phones would be rightfully be called an innovation. Perhaps the touch screen is an example of such an innovation.

So adaptation is important, as is the entrepreneurship necessary to achieve it. But two points need to be made. First, adaptation is not the same thing as innovation. And innovation cannot be driven by the keen observations, fortunate sightings, experienced judgments – or ingenuity – that support entrepreneurship. Innovatorship has different drivers.

Second, if there is nowhere a wellspring of ideas for products and methods not conceived before, the entrepreneurial scanning of the landscape for opportunities would soon bring diminishing returns and ultimately the returns would be exhausted. So the world’s innovation is, sooner or later, of direct value to every nation, especially to the extent that it sustains productivity growth; and a nation’s indigenous innovation is also of direct value in

19 That the improvements after an innovation are different from innovations themselves is the starting point of the book by Peter Thiel with Blake Masters, Zero to One (Crown, 2014).

20 As Felix Klein remarked about mathematics, “without the creation of new viewpoints, without positing new aims, mathematics would soon exhaust itself … and begin to stagnate.” How beautiful! Quoted, Mass Flourishing, p. 19.
part to the extent that it sustains prospering and flourishing in the nation. At the same time, innovation, global or indigenous, is of indirect value in continuously replenishing the treasure of opportunities, some of which entrepreneurs will find it worthwhile to pursue.

Not old ideas whose time has newly arrived. Many people implicitly include in their conception of innovation even the introduction into practice of products or methods based on ideas conceived a long time ago, not just new concepts. That might be acceptable if few new products were based on old ideas. But if an economy’s newly introduced products represented old ideas yet were counted as innovations, measures indicating a high frequency of new products and methods would portray the economy as highly innovative despite there being no element of novelty in the newly introduced products. For example, we would not want to call innovative an economy that is moving along an intertemporal equilibrium path in which one long-known product after another – stretching back to products conceived in the Renaissance perhaps – is ultimately introduced as incomes rise enough to make such products in demand.

Indigenous innovation, where it occurs, is driven by the new ideas – the new concepts, new theories and new explorations by people in the business sphere, and it progresses through trials and market tests – driven, in other words, by people’s creativity. Innovators use their imagination to conceive of new products or methods and their ingenuity and savvy to implement the new product or method, that is, to make it and market it. These human resources appear in our DNA. It is now believed that creativity (not reason) is what humans have and the other species to do not. Imagination was exhibited as far back as the cave dwellers of prehistoric times, who conceived the first flutes. Moreover, there is no reason to think that nations must inevitably run out of room for new products or even for new methods. The world is still open for us to “act on,” as Hegel put it.

The standard economics of today, however, supposes that all the actors already have complete knowledge. That, in turn, has inspired some model builders to postulate so-called “rational expectations” (RE) about the future, not just the present. And the premise of this RE implies that a nation’s economy cannot be in the business of creating and adopting original products or methods – it cannot be doing indigenous innovation. For if the economy were found to be doing it – using new methods and products never conceived before – that would, by definition, be unexpected, which contradicts RE.

So the models using RE and the phenomenon of indigenous innovation do not mix. RE models are deterministic – even probabilistic ones – while any economy pursuing indigenous innovation is open, as previously noted – open to creating its future. Such an economy’s future is not predetermined.

Some neo-Schumpeterian theorists suppose that the economy is deterministic in a probabilistic way. They liken innovating to stumbling on the occasional five-dollar bill on a sidewalk – or, better, like paying to flip a coin and when it comes up heads you have a good outcome.

---

21 Here I am taking creativity as an umbrella word to refer to imagination and ingenuity or related notions. In recent expositions I have taken imagination to be on a level with creativity or – sometimes – reduced creativity to the level of ingenuity.
These models describe an economy in which calendar time does not enter any equation and in which the so-called innovations are governed by a linear birth process with a known probability of birth.\textsuperscript{22} In this model, the probability distribution of the cumulative “innovation” at any further date, conditional on the present state, is already known – it is calculable. The model excludes genuine innovation by implying that nothing new is discovered about the economy’s potentialities – about what products or processes could later be conceived. There is no “discovery process” in Hayek’s sense. There cannot be any new economic knowledge because the structure of possibilities and their probabilities is already known. But in the innovative economies that arose in Britain, America, Germany and France, the probabilities and even the possibilities were never known.

What of Schumpeter himself? His influential 1911/12 book (the Austrian edition and the German one) proceeds from the German Historical School’s view that it is only the discoveries of “scientists and navigators” that bring advances to economies – business people have no creativity. Schumpeter’s somewhat meager value added is to remind the Germans that any commercial application of a discovery requires an entrepreneur to build the new “combination” of labor and capital that is needed to produce the new thing, and a financier to supply the finance; further, that entrepreneurs and financiers are generally able, owing to their experience and zeal, to calculate which applications are profitable to build.\textsuperscript{23} A classical economist to the core, Schumpeter saw knowledge of products and methods as coming to the nations from outside their economies – from explorers who march to a different drummer. So Schumpeterian innovation is exogenous to every nation’s economy. (It could be put in the category of a nation’s adaptations, though it appears convenient to leave that category to Barnard and Hayek.)

The Schumpeterian theory is opposite to my view that the innovation reshaping economies and economic life from as early as 1815 to 1940 or, at a reduced pace, to 1965 or so, was mostly indigenous to the nation and – going farther – endogenous to the economy, not to the nation’s scientists. In Schumpeter’s theory, businesses are adapting (in the usual sense) to discoveries made by outside forces; they are observers, prospectors and calculators, not innovators in the modern sense – certainly not my sense.

Many contemporary historians – Joel Mokyr, for example – tend to interpret innovations as Schumpeter did.\textsuperscript{24} That view, first adopted by the German Historical School, sees economic advances – the growth of total factor productivity, at any rate – as generally the byproducts of the cumulative discoveries made by scientists external to the economy. The additions to what we may call scientific knowledge are seen as contributing directly to economic knowledge – knowledge of the methods that would work and the products that could be

\textsuperscript{22} A clear and elegant model of this sort appears in Philippe Aghion, “Creative Destruction and Subjective Well-Being,” ms., December 29, 2013. It was Israel Kirzner, an economist at NYU, who in the 1950s likened innovating to finding five-dollar bills on the sidewalk.


\textsuperscript{24} Joel Mokyr, “What Today’s Economic Gloomsters are Missing,” \textit{Wall Street Journal}, Saturday, August 9, 2014. Mokyr refers to Toricelli’s 1643 finding of atmospheric pressure and Volta’s 1800 invention of the battery.
produced – thus opening the way to innovations. The theory propounded here is that, to the contrary, the innovating in nations – certainly the leading nations in innovation – is generally internal, or indigenous, to their economies. In this view, additions to business knowledge of a firm-specific nature come from success in developing and marketing products and methods not previously conceived; such additions to business knowledge are then diffused over the rest of the economy, adding to general economic knowledge.  

An encyclopedia of major innovations must be full of new products and methods not triggered by – or even linked to – any particular scientific advance: Fire, wheel, writing, paper, the Egyptians’ steam power, Gutenberg’s printing press, Whitney’s cotton gin, Waltham’s interchangeable parts, Deere’s moldboard plow, Lille’s chlorination of drinking water, Singer’s sewing machine, Pasteur’s persuading surgeons to wash their hands, Edison’s lightbulb and phonograph, Nightingale’s hospital reorganization to contain disease, the Lumière brothers’ commercial films, Marconi’s radio, Sarnoff’s radio network, Birdseye’s frozen foods, Farnsworth’s television, IBM’s computer (aimed at businesses), Malcolm McLean’s 1956 containerization, Nat Taylor’s 1957 multiplex cinema, Ted Turner’s 24-hour news program, Howard Schultz’s Starbucks, Marc Andreessen’s web browser, etc. Fracking, the latest of the big innovations, depended on the expertise that engineers gained from experience, not some exogenous advance of science. Of course, the total impact of the millions of unrecognized innovations might well exceed that of the many thousands of well-recognized ones such as those just mentioned.

We can see how Schumpeter went wrong. Science is not the sole source of all knowledge. While advancing science may be expanding potential knowledge of production possibilities, science does not tell us whether there will be a market for any of the new possibilities; business knowledge is indispensable here. And while the level of general scientific knowledge in the world may well have contributed to innovations achieved in modern economies, the outpouring of new products and methods from the 1820s to the 1960s in some countries may not have resulted from scientific discoveries more than from myriad business discoveries – discoveries made in the tests and try-outs of new business ideas. It is not established that scientific knowledge, $S$, grew faster than business, or commercial, knowledge, $C$, or that growth of the former is more effective in bringing economic advance than growth of the latter. (Furthermore, the cumulative level of business knowledge – industry expertise and related know-how – is surely more voluminous.)

---

25 This indigenous innovation, which is the starting point of my book Mass Flourishing (2013), goes back at least to my Nobel Prize Lecture (2006) in which I speak of “innovations” stemming from the “conceptual originality” of business people. (As commented above, Hayek’s 1945 paper on the “uses” of business “knowledge” refers to “adaptations,” not innovations, though his last paper, dated 1968, refers to a “discovery process.” He means that innovative publishers and movie makers offer new works to their clientele and “discover” which ones are taken up by the public. But in the great body of his work it was evidently not convenient to view the economy as wafting on clouds of unpredictable ideas.) Nathan Rosenberg and a few scholars wrote of scientists who sought to understand business innovations, not business people who sought to apply scientific discoveries. Some of my thinking on the issues here was spurred by a conversation with Martin Wolf in ‘My lunch with the FT,’ Financial Times, 14 June 2014.
Here is a crude model of the forces and pathways involved:

1. \( \frac{dS}{dt} = f_S(t) \)
2. \( \frac{dC}{dt} = f_C(t) \)
3. \( \frac{dE}{dt} = \varepsilon_S(S, C, E) \frac{dS}{dt} + \varepsilon_C(S, C, E) \frac{dC}{dt} + f_E(t) \)

In equation (1), the pace at which scientific knowledge, \( S \), advances is driven by the imagination of the existing number of scientists and it is represented by the forcing function \( f_S(t) \) – the flow of new ideas leading to new tests and new results. In equation (2), the pace at which business or commercial knowledge, \( C \), advances is driven by the imagination of a given number of business people and it is represented by the forcing function giving the flow of discoveries of what works and what does not. Equation (3) says that the pace at which (in Hayek’s term) economic knowledge, \( E \), advances is propelled by advances in business knowledge as well as in scientific, musicological and other sorts of knowledge thought exogenous to the business sector. Yet businessmen can create too, hence the forcing term.

From what does the indigenous innovation in a nation derive? Every nation has a multitude of people with creativity – the imagination to conceive of new things and the ingenuity to build some of them. (A dopamine system aids their “cognitive disinhibition.”) These creative powers are part of the “natural resources” that a nation is endowed with. A nation’s people also possess education and experience. These acquired resources are part of the “human capital” that the nation has accumulated.

Though necessary for indigenous innovation, no amount of such human resources and human capital is sufficient. For high indigenous innovation a nation must possess dynamism – the dynamism to drive the human resources that may produce indigenous innovations. (Of course, a high innovative capability in a person or even in a whole nation may, at times, be insufficient to achieve actual innovation. Market conditions may not permit it, or an unforeseen development may derail all projects.) So let us turn to the elements of such dynamism and their sources.

**The Spirit of Dynamism and Its Possible Foundation**

In his great book on early capitalism, Max Weber observes its system of enlisting and channeling labor and saving for economic development – thus for efficiency and growth – and he identifies key attitudes and traits that made the system work: The materialist streak prompting more work, the thriftiness enabling more saving and investment, and the zeal to ferret

---

26 Pico della Mirandola insisted that creativity was part of our natural powers, David Hume said that imagination was needed for advances in knowledge and Frank Taussig taught that Yankee ingenuity underlay American prowess.

John Seely Brown suggests that “[w]hen we are engaging in a creative activity, we are taking the familiar and making it strange …[w]hen we behave imaginatively, we do just the opposite: we make the strange familiar.” Quoted in Gillian Tett, ‘How to ignite the creative spark,’ Financial Times, Friday, August 15, 2014.

out missed profit opportunities. Of course, the Weberian attitudes are not sufficient to power indigenous innovation – however helpful they may be.

In the present study of modern capitalism, we observe the “system” of enlisting and applying human resources possessed and human capital accumulated for economic dynamism – thus for indigenous innovation – and we point to some requisite attitudes. The modern capitalist system offers the latitude to innovate, the capacity to do so and, above all, the desire.

For high dynamism, a nation – its families, communities and public offices – must give individuals and their companies the latitude and support they need if they are to attempt and to achieve innovation. There is little leeway for innovation if society is unwilling to put up with the “creative destruction” – even the mild disruption or inconvenience – that may accompany it. And there is wide latitude for the innovator where mayors and other public officials are eager to facilitate start-ups and help them with their development. Patent trolls and a climate of litigation pose daunting hazards for start-ups aiming to innovate. Corporatism comes in here: A dogma of a corporatist society is “solidarity.” It calls for providing “social protection” of the myriad interest groups in the economy. So the government might defend the workers or investors in industries by regulating entry with the purpose of barring outsiders with new ideas. In some industries, companies may operate a cartel that removes incentives to innovate in order to gain market share. Solidarity also requires the gains of enterprises, whether from a change of market conditions or a successful innovation, to be shared with so-called stakeholders. So any enterprise contemplating an attempt at innovation would expect that a substantial profit would be largely turned over to the community or to the state.

For a nation’s economy to have the capacity to innovate many capabilities must be acquired. Innovators must cultivate the required talent, obtain the required acumen, or insightfulness, and develop the needed passion. It is widely said that innovators in any field tend to be people who have been brought up by parents and teachers to question beliefs and think “outside the box.” A business orientation is generally required as well. Entrepreneurs generally have to feel they have some special insight or some unique intuition into the business to warrant attempting an innovation. To be successful, financiers must have developed the ability to judge uncommonly well every innovative project pitched to them and the pitcher – the aspiring innovator – even though they are far from having a full knowledge of how the new thing will be received. Innovators must also possess the aspiration, determination and

28 The Protestant Ethic and the Spirit of Capitalism, first published in 1904 in the original German. (The English edition was published in 1930.) I would note that it is common to speak of “business ethics” such as profit seeking and caveat emptor. Complicating terminology further, Schumpeter mentioned in his 1911 book a “culture” of capitalism. In that sense of the term, one might speak of the culture of show business, which demands that waitresses hustle (in American restaurants at any rate) and actors get to the theater despite personal emergencies. That kind of culture, though, is one that derives from experience with the benefits, not a spirit pre-packaged by society. Nevertheless, I will sometimes use “ethic” and “culture” interchangeably.

self-belief necessary to undertake something that is apt to prove very hard. Like the heroes of myth, innovators are too determined to think much about “risk” or to need “courage.”

At the heart of a nation’s system for high dynamism are people with the desire or occasional urge to innovate. Some may have motivations found among entrepreneurs, such as a need to succeed or to strike it rich. Some others, however, may want to make a difference or show they can go their own way. Some are driven by a curiosity to see whether their insights prove right. Still others are motivated by a desire to give something to their community or society. (Obviously the latter attitudes or traits are not the work-and-save mentality of mercantile capitalism.) I would add that, although a person’s desire to innovate may be inborn to a degree, it can be boosted by supportive attitudes of parents and teachers; and it can be repressed by unwelcoming or hostile attitudes toward creativity or novelty. Furthermore, businesspeople will have more desire to innovate in a nation that admires such ventures and provides workforces that will be engaged in the project and want to contribute. These same desires can also be inhibited by repressive attitudes in families and communities.

The empirical effects of attitudes and traits on the dynamism of nations have been the subject of much recent research. The paper I presented at the 2006 Conference of the Center on Capitalism and Society in Venice tested the statistical significance of several attitudes reported in the World Values Surveys, and it presented estimates of the efficacy of these attitudes. Economies exhibit better performance in nations in which more people regard work as important to them, want to have some initiative at work, seek jobs that are interesting, express acceptance of competition, and prefer “new ideas” to old ones. These results, which do not address innovation in particular, at least leave open the possibility that innovation is affected by these attitudes. A subsequent study by Gylfi Zoega also using WVS data found that the possession of a good “work ethic”, initiative, and trust of others raises job satisfaction; and these attitudes also affect a nation’s unemployment and labor force participation. Finally, in a study with Raicho Bojilov in 2012, I found that job satisfaction is higher – very likely because innovation is stronger or more widespread – in nations where more people think it is fair to pay more to the more productive, agree that the direction of firms is best left to the owners and feel that new ideas may be worth developing and testing. The study found that performance is worse in nations where certain “traditional” attitudes are strong.

Weber did not stop at observing the attitudes or traits that he viewed as the “spirit” of capitalism: He sought to understand how those attitudes arose or how, where many such attitudes existed, they were adopted by society. Ultimately Weber hit upon the idea that this “spirit” of capitalism was shaped, largely or wholly, by a prevailing ethic: Namely, what

---

30 Phelps, “Economic Culture and Economic Performance,” in Edmund Phelps and Hans Werner Sinn, eds. Perspectives on the Performance of the Continental Economies (Cambridge, Mass., MIT Press, 2011), 447-482. This paper refers to the influence of “values, attitudes, ethics and beliefs” (p. 453), though it is focused on what is commonly called attitudes. Two gifted students helped with this study, Raicho Bojilov and Luminita Stevens.
he dubbed the “Protestant ethic.” Likewise, I have sought in the historical pages of *Mass Flourishing* to understand the emergence of the “spirit” of dynamism – how those attitudes arose or were selected. And ultimately I argued that this “spirit” – in those nations where it was found – was largely if not wholly the result of an underlying ethic.

An historical shift. The aspirations and motives behind a spirit of dynamism do not appear to be universal – even within countries that are very small – nor do they appear to have existed throughout history. It can be said that these attitudes germinated and grew more and more prevalent and prominent in parts of the West over the period from 1500 well into the 1800s – especially in Britain and America, also Germany and France. What happened that brought about the newfound attitudes?

My hypothesis is that this “spirit” of dynamism derived from the modern ethic emerging in the late Renaissance and the Baroque era. This modern ethic held up a trinity of ethical values – values approving or encouraging the attitudes and traits that constitute the spirit of dynamism:

- the *individualism* of such late Renaissance thinkers as Occam, Pico della Mirandola and Luther: It is manifested by “taking control of one’s life,” “thinking for oneself,” and breaking from convention or from one’s group.
- the *vitalism* epitomized in Cellini’s autobiography, advocated by Montaigne, dramatized by Cervantes and Shakespeare, emphasized (much later) by William James and Henri Bergson: It is manifested by meeting challenges and summoning the will to act.
- the *self-expression* recognized in Hegel, Kierkegaard and Nietzsche: It is manifested by “acting on the world,” leaping into the void and journeying into the unknown – thus to express oneself and to find oneself – and to “make a mark” and test oneself against the challenges encountered.

The approval and influence of “individualism” grew over the centuries, as seen in the Magna Carta or Jefferson’s right to pursue one’s own “happiness” or Kant’s men as “ends, not means.” By the 19th century, it was widespread in the West – in America, Britain, France and the Rheinland of Beethoven and Goethe. “Vitalism” gained ground with Benjamin Franklin and Voltaire in the same period and spread wider in the 19th century with de Tocqueville, Dumas, and the Brontë sisters, to mention a few writers. The recognition and approval of “self-expression” came with the Romanticism of the 19th century and transformed the notion of work from merely a means of making a living for one’s self or family into a voyage to unknown places. These values were in sharp contrast to the traditional values of medieval or ancient times: *Materialist* values undermining voyaging into the unknown for the

---

33 It matters neither for my thesis on the role of attitudes in a nation’s dynamism and my further hypothesis on the role of the modern ethic in encouraging those attitudes that Weber’s thesis – that the “spirit of capitalism” was rooted in the Protestant ethic – has met objections. Much influenced by Giuseppe Toniolo, the Italian sociologist (and once prime minister) Amintore Fanfani argued in his book *Cattolicesimo e Protestantesimo nella Formazione Storica del Capitalismo* (Vita e Pensiero, Milan, 1934) that unmodified capitalism was inconsistent with Catholicism. What Fanfani had in mind was a further development of the Christian corporatism of guilds, solidarity and “distributism,” not general, wholesale restrictions on savers, financiers and entrepreneurs. Yet such modifications of a capitalist economy might so damage its performance in its own terms – from the classical perspective, at any rate – that it becomes capitalism in name only.
Phelps: The Dynamism of Nations

thrill of it, communitarian values opposing new entrants and new money; and family values impeding breaking away and taking big chances.

Mass Flourishing implicitly acknowledges another kind of value that particularly encourages the innovator, although the book’s discussion does not hit upon a telling word for it. I will try a few here:

▪ the desire to create the new – the visionaryism – that is the subject of Mary Shelley’s Frankenstein and Goethe’s Faustus and various biographies. It is manifested by deep thinking in an effort to imagine a new possibility and conceive of its realization. “Creative” fields have famous innovators, yet there are innumerable visionary innovators in business. (The difference is that the scientist conceives how the world works while the innovator conceives of how it would work after the innovation.)

As these modern values gestated (giving rise along the way to the Enlightenment toward the end of the 17th century), they finally gave birth in the 19th century – in one country after another – to what I call the modern economy: An economy rich in dynamism from the grassroots of society on up. Massive numbers of people – including ordinary people – were observing, exploring, tinkering, imagining, conceiving, creating, experimenting, testing and marketing. And as new products came out, people were examining, trying out and venturing adoption. One result was an explosion of innovation, as evidenced by the unprecedented climb of productivity from around 1820 to 1940, and less steeply to 1965 or so. Another result was a change in the way of life – in the mentality of the nation. “Young America,” Lincoln exclaimed in 1858, “has a great passion – a perfect rage – for the new.” This passion must have been in the work place, not just in the general store, or else Lincoln would not have felt it.

Now we can solve a puzzle that bothered Professor Antonio Pedone, formerly chairman of Italy’s Competition Agency. He said that when they opened up an industry to competition, “nothing happened.” Nothing happened, I submit, because good policies and institutions alone cannot bring high performance – though bad policies can worsen performance. Competition is necessary, but not sufficient. Dynamism benefits favorable attitudes and norms – the right stuff – and these come largely from modern values.

The Force of Indigenous Innovation

Scholars agree that in the “baroque era” – the span from about 1500 to about 1800 – what little innovation there was almost never came from inspirations of farmers, artisans and myriad other actors in business. It was typically Schumpeterian, thus not indigenous to any nation’s economy. And it had little effect, if any, on productivity, wages, and employment – let alone job satisfaction – in the general population. In contrast, the modern era – say, from 1815 to about 1965 – saw nations in which the economy was breaking new ground on a sustained basis decade after decade. Records show that, in the lead economies at any rate, a great many working lives were transformed: Some people wrote of the gratification they found in positions in which they were taking initiative, bearing responsibility, and using their cre-
ativity. Furthermore, labor productivity growth was unprecedented: It grew at a compound average rate of about 3 percent per annum, thus doubling every two decades, and total factor productivity (TFP) grew at about 2 percent per annum. (The profusion of new goods altered the lives of consumers too.)

In the thesis of *Mass Flourishing*, this experience could come only from grassroots, indigenous innovation, generally speaking. Schumpeterian innovation was not strong enough. It was such indigenous innovation at a feverish pitch that brought the heights of prosperity and flourishing to Britain from the 1820s to at least the 1870s, to America for a century from 1840 to 1965, Germany from 1880 to about 1930, France from the 1890s into the 1920s, and America again from 1996 to 2004. But empirical study of indigenous innovation raises a series of questions.

First, how may we conceptualize the magnitude of the innovation wrought by an innovative product or method? Or, more importantly, how does one conceptualize the force, or size, of a continuous flow of new products or methods, each one a drop in the bucket? The force of the flow of new methods over one or more years might be measured in theory by the gain per annum in the domestic national income at unchanged levels of labor and capital; equivalently, by the estimated gain in the wage rate and profit rate, weighted by employment and capital input, respectively. (Random disturbances will constantly cause estimation errors, of course. And evolution of the economy under study renders the so-called law of large numbers inapplicable.) The force of a stream of new products is not measured quite so simply. In theory, the gain per annum brought by this force could be conceived as the aggregate amount of national income that nationals would part with to “shop” in the new end-of-year catalog rather than be confined to last year’s catalog – with the mean price level of goods in the new catalog the same as the mean price level in the old catalog. (We need not dwell on the fine point of “consumer surplus” as we are not talking about a quantum leap in quality or variety, only a small, smooth flow of improved or different goods.) In practice, statistics bureaus measuring the rate of inflation can calculate the wedge between the prices of products that were available last year and the prices of the “new and improved” versions, viewing it as a measure of the quality improvement over the year; the reported inflation rate can then be adjusted downwards to take account of the wedge, with the result that measured real national incomes are adjusted upwards. (Note that this “force” of innovation serves to quantify the scale of innovation: It may not measure the range of personal and societal effects.)

Second, how in practice might we estimate over some period the force of the indigenous innovation in a nation so that it might be compared with any Schumpeterian innovation and any cross-border “transfer” of innovations from foreign countries to the home economy? One way (perhaps the only way) starts with data on the annual rate of growth of total factor productivity in the nation’s economy and proceeds to decompose that growth rate into the three forces – and controls for any extraneous forces. Figure 1 postulates a statistical

---

34 Richard Ruggles, an economist at Yale in the 1950s, pioneered the evaluation of quality improvement and the introduction of new goods. The concept of a catalog with the new prices alongside an old one was a favorite construction of his. Kelvin Lancaster, a distinguished colleague of mine at Columbia in the 1970s, took up related issues in his book *Variety, Equity & Efficiency* (Blackwell, 1979).
Figure 1:

An Illustrative Equation System
Describing Indigenous and External Sources
of a Nation’s tfp Growth

The growth rate of tfp in country \( i \) is the growth rate of its average practice, \( \dot{A}_i/A_i \). The growth of average practice in country \( i \) is a function of the gap between average practice, \( A_n \) and best practice, \( B_n \), and the gap between \( A_i \) and potential practice, given current possibilities, \( P_i \), as well as the growth of human capital, \( h_i \).

\[
\dot{A}_i = \nu_i \cdot (B_i - A_i) + \kappa_i \cdot h_i + \alpha \cdot (P_i - A_i)
\]


Detection by businesspeople of existing opportunities for Hayekian “adaptation”
(Barnard 1938, Hayek 1945)

The growth of best practice, \( \dot{B}_i \), is driven by several sources of “technical change”:

\[
\dot{B}_i = \xi_i + \rho \cdot R_i + \beta \cdot (P_i - B_i) + \gamma_i \cdot \max (B_i - B_0) + \eta_i + \epsilon_i
\]

Exogenous, common innovation
(Spieghof 1904, Schumpeter 1911)

Neo-Schumpeterian innovation deriving from research labs
(Mansfield, Nelson 1960s)

Cross-border technological transfer
(Barro/Sala-i-Martin)

Indigenous innovation
(…Phelps 2006)

Disturbance term, where \( E (\epsilon_i) = 0 \).

The growth of potential practice, \( \dot{P}_i \), is given by exogenous and indigenous sources:

\[
\dot{P}_i = \xi_i + \eta_i + \epsilon_i
\]

One may solve for \( \xi_i \), \( \eta_i \) and “adaptation” by taking the time derivative of equation (1) and using equations (2) and (3) to substitute for \( \dot{B}_i \) and \( \dot{P}_i \).
model of a group of interactive countries engaged in innovation and presents the regression equation giving the pace with which best practice is increasing in country *i* at year *t*. What is dubbed “Schumpeterian innovation” is manna from heaven and, for simplicity, it is usually assumed that all nations acquire this manna more or less equally – among the advanced economies, at any rate. Best practice in country *i* will be drawing on any country *j* with a higher best practice. Another element of innovation is the Barnard-Hayek “adaptation” resulting from detection of newly present “opportunities.” Still another element is neo-Schumpeterian innovation deriving from research labs such as those at Dupont and Bayer. On the theory that indigenous innovation flows largely from nations high in recent innovation to nations low in such innovation, the “transfer” or “spillover” of indigenous innovation into a nation can also be estimated. With all these specifications, estimations of the unknowns can be obtained. The constant term is common to every innovative economy and may be interpreted as the force of Schumpeterian innovation.

This model can be fitted to economies observed over a span of time and having a range of dynamism. Countries in which growth of average practice is relatively fast will be estimated to have relatively high rates of indigenous innovation or relatively high Hayekian adaptation. (Since the latter is unsustainable, the acceleration of productivity will be falling.)

Third, although a given innovation has more value to a nation if it is indigenous to its economy – owing to the rewards of being actively involved, of experiencing human agency – a nation will want to make use of foreign nations’ indigenous innovation too; it will want to make use of the Hayekian adaptations its entrepreneurs make and the Schumpeterian innovations that the whole world can adopt. And, even if every nation’s own indigenous innovation were small next to the Schumpeterian innovation that nations can tap into, it could well be that the total of all the innovation indigenous to the nations of the world – the global aggregate of the innovations deriving from the imagination of the world’s business sectors – dwarfs Schumpeterian innovation.

It appears to be feasible, then, to obtain estimates of just how large indigenous innovation was in the times when one or more countries were seen by historians as breaking new grounds: Britain in the mid-1800s, America from the 1870s to 1940, Germany from 1880 to 1935, France from the 1890s into the 1920s, and America again from the mid-1940s to the mid-1960s.

### Effects of Dynamism: Rewards and Justice

A previous section touched on the attitudes that have been behind people’s desires to innovate and behind society’s approval of such aspirations and general acceptance of the results. But what have the consequences of a dynamic economy been? Little on this score has been written and, as Robert Summers liked to say, the data do not speak for themselves. Standard economies, having overlooked the phenomenon of indigenous innovation and the dyna-

---

35 To solve for *η*, one may take the time derivative of equation (1) to obtain *Ḃ*, then equate that expression to the right-hand side of (2) and use (3) to obtain a solution for *Ȧ*.
mism that drives it, has failed to credit them with the social change they have wrought – or even to recognize the change. As a result, nations have not understood that the dynamism driving innovative economies brings central benefits to society.

The rewards of a nation’s dynamism

As is well known, the rise of the modern economies – their dynamism and thus, with any luck, the indigenous innovation that resulted – brought material rewards on an unprecedented scale to the nations that acquired such economies. In the so-called Age of Discovery too – the heyday of mercantile capitalism – great wealth was amassed, though much of that wealth went to the state treasury and much to traders, shippers and financiers benefitting from the discoveries. In the modern economies, however, the new products or methods might make anyone rich who had the right land, equipment or human capital. And, among the material rewards, what most distinguished the modern economies from the past was the growth of wages at unheard of rates. Wages took off and wealth too.

The ‘good life’: Satisfactions of work and career. The profound effect of the modern economy was the transformation of work and career it brought. The lone shepherd, bored by the routine and isolated from exchanges with others, could serve as a symbol of the stasis and stultification that was characteristic of the pre-modern economies – mercantile capitalism included. It was the rare individual who possessed the agency to create things or try out things. The modern economy replaced this boredom with mental stimulation and replaced isolation with interchange in companies and cities. The highly innovative economies arising in the 19th century offered wide numbers of people with opportunities to act. For the first time in history, large numbers of ordinary people might seize opportunities they spotted for private gain – the Hayek thing.

Large numbers of people found new sorts of work presenting new sorts of problems to solve. They took great satisfaction in succeeding at their work and in graduating to work that was more interesting and challenging. Some decades ago, various writers such as William James spoke of the “bitch goddess, success” and, looking back, it appears that success acquired a bad odor. However, “climbing the ladder,” which large numbers of people do achieve in varying degree, is not without its satisfactions – certainly it was widely pursued and not uncommonly attained by many people in the modern economies. Individuals who by dint of their own individual efforts were succeeding in mastering their work and perhaps getting better terms for what they do were said to be prospering – they spoke of themselves as “getting on” and they were admired or envied. Even today, philosophers generally regard this kind of success as a part of what is regarded as the good life – while the gains in prices or wages from riding a rising market are generally not regarded as a part of the good life: A rising tide of productivity may lift all wage rates, but a higher wage in a nation does not directly

---

36 The distinguished economist Kenneth Boulding, speaking at Temple University in Philadelphia around 1968, argued that the life of working-age people is largely driven by their quest for ever-increasing “terms of trade.”
contribute to a good life. (Yet people with higher income or wealth might use it to do things that are a part of the good life.) In any case, neither mastering nor gaining better terms for oneself is all there is to the good life.

Then – as now, perhaps – many people wanted more than prospering: While success or attainments may well be gratifying, these people aspired to careers of richness: Of exploring, imagining and conceiving. Individuals whose careers offer the experience of searching for new possibilities or imagining new things, thus allowing them to grow and express one’s self in the process, are said to be flourishing. And many people need venture into the unknown, to have the fascination of the journey, and, possibly, the thrill of discovery. This experience – a life lived to the full – is profoundly rewarding to a great many people. This flourishing is another part of the good life – a part that philosophers widely agree to be central.

Furthermore, some people wanted more than that: They wanted the experience of immersing themselves in thinking about how they might reach a higher understanding that would help them to innovate. These people wanted the experience of understanding what had not been understood before – the experience not just of gaining existing knowledge, which Aristotle appears to have had in mind, but of expanding existing knowledge.

The structure of the central thesis in Mass Flourishing is now clear: (1) With the rise of modern values – individualism, vitalism and self-expression – modern societies developed. And where these values reached a critical mass, modern economies sprouted up. (2) The pervasive dynamism of these economies – from the grassroots up – brought mass innovating and thus rapid economic growth. (3) The dynamism also enriched work. Ordinary people had engaging employment and most of them prospered. Many people used their imagination to conceive and develop new things and most of them flourished. Thus most people participated in what is called the good life. It was a good economy. (4) The transformation was also a giant step toward economic justice as well. In raising wages throughout the market, it offered people of relatively low productivity a living standard that was impossible in pre-modern times. In creating more jobs, it enabled more people to earn economic independence. The underlying dynamism, in offering chances to prosper and to flourish to large numbers, brought the good life to large numbers of ordinary people.

Yet, as this thesis was being weighed by readers and listeners, some questioned whether the economies I saw as “modern” actually pulled up wages; or pulled them up enough for the bulk of the population to be able to afford to take the more rewarding jobs. Some questioned where in the modern economy those jobs were created; and whether they created enough jobs that wide numbers of people would find them. I will briefly suggest that the innovation brought by dynamism did raise wages and employment markedly across society.

Market wage rates and employment. Bringing the indigenous innovation wrought by dynamism into the analysis sheds new light on the determinants of wages and employment. From the modern perspective of indigenous innovation, a shift of demand from production to innovative activity tends to increase the demand for labor, thus pulling up employment and the level of wage rates relative to wealth. Employers need more hands to design and develop
the new products and methods and to engage in their marketing, so both employment levels and wage levels are pulled up.

The effect of the “technical progress” on wage growth and thus employment is more complicated. In standard economic theory, Hicks-neutral technical progress in the consumer-goods sector unambiguously boosts wages. And in standard growth models, an increase in the sustained pace of this sort of innovation would steepen the path of wages. So workers could begin to afford to take the interesting jobs opened up by the innovative process.

As for employment, the faster growth of wages would cause a sustained elevation of the wage-wealth ratio and thus a sustained elevation of labor-force participation – booms and busts aside. Finally, the resulting expectation of future productivity growth would tend to encourage firms to acquire more job-ready employees – to boost their investment in employees. This provides some theoretical basis for the inference in my book that the grand epoch of sustained innovation that was rampant in America and Britain from 1820s – in Germany and France from the 1880s – well into the 1960s were positive forces, not negative ones, on labor force participation.

As to the question of whether many could afford to take the more interesting work becoming available, the answer is that more and more can afford to take such work as wage rates are steadily pulled up. That suggests that as the modern economies went on operating, more and more resources became available for the processes of innovation. That helps to explain why the growth rates of productivity continued to speed up over the 19th century and early decades of the 20th century – this despite the Great War, political turmoil in the Interwar Period and even the Great Depression.

In the Austrian model, though, another outcome is theoretically possible. An increase in the productivity of labor in making the capital good could drive down the price of the good more than it drives up the physical productivity of labor. An increase in the productivity of capital in making the same good could drive down the price of the good more than it drives up the physical productivity of labor. (Yet workers might find some compensation for the slower wage growth in the higher rate of return earned on their saving.) Could it be that a prevalence of innovation possessing this “labor-saving” property is a major source of the slowdown of wage rates in the American economy and in some others as well? It may be a contributor, but the slowdown in the West, to be touched on below, consists not only of slow growth of wages: In one country after another, there have been slowdowns of the entire gross domestic product.

Wealth inequality. Although the economists who decry inequality at the top decile and the top-most percentile have not attacked the modern economy – in the few countries in which it now operates – it may be wondered whether such inequality, if not capped or damped in some way, is a byproduct of the dynamism of modern economies, past or present.

I have a career-long interest in economic justice – thus unjust inequalities – going back to the 1960s and especially the 1970s. So I am not deaf to the discussion of wage inequality

---

37 As noted in *Mass Flourishing*, the “Austrian model” has further possibilities. See below.
and wealth inequality. My main concern, though, has been over inequality at the bottom, not the inequality at the top. The current preoccupation with the “top,” however, has powerful appeal for the middle income earners, who estimate their self-interest would be served by lower taxes on themselves (where possible) and increased taxes on those with higher income, whether or not greatly increased taxes on the rich would be good for the working poor. In contrast, the working poor – the bottom 10 percent, say – would gain the highest possible tax revenue for their use by raising marginal tax rates on incomes higher than theirs – from the 10th percentile to the 99th percentile – not by restricting positive marginal tax rates to the top 1 percent or 5 percent or 10 percent.

In the view of many observers, the new lines of innovation – the ICT revolution – have displaced ordinary work of an administrative or clerical kind, with the result that the top executives and the bankers have done spectacularly well and more wealth has been accumulated by those in the top 1 percent. I have been arguing, however, that a narrowing of innovation to ICT industries may have led to increased wealth inequality at the top in addition to the slower wage growth and lower employment. Such a narrowing, or constriction, of innovative activity would leave fewer industries developing new products (as noted in the discussion of wages above) and also result in fewer factories making the capital goods that produce new products – a category of factories that are generally quite labor intensive. Both developments would mean reduced labor income and a reduced share of output going to labor. EU and US data show a sharp decline in investment activity in relation to productivity since the mid-’60s. They also show since the early ‘70s a long slide in the share of domestic product – and of the share of business output – going to labor. In this view, a loss of competition has caused both a constriction of innovation and a rise of wealth inequality at the top. It does not sustain the idea that increased innovation or increased innovation of a particular kind – supposing that such occurred – is the cause of increased wealth inequality at the top.

**Losing More Innovation Than We Gained**

The main thesis of *Mass Flourishing* does not forecast high innovation forever: On the contrary, it exclaims over the extraordinary modernism that fueled the dynamism that was required. Toward the end of the book I point to evidence – borrowing and revising the picture drawn by Robert Gordon – that the rate of growth of total factor productivity (TFP) in the U.S. suffered a sea change around the late 1960s with the result that the mean growth rate in the 50-year span from 1972 to 2012 fell to about one-half of the remarkably steady rate that had prevailed from 1922 to 1972. All the brilliant innovators of the past – in the U.S., U.K., France and Germany – show TFP growth rates far below those of the interwar decades and postwar years. I proceeded to point to several developments that might play a role in a narrowing of innovation.

One hypothesis in my book is that increased barriers and impediments reduced the ability of outsiders to enter traditional industries. One result was that incumbent firms no
longer had an incentive to engage in defensive innovation (as well as defensive investment). The other result was that it was only the new or emergent industries, such as the communication sector, that outsiders with innovative ideas might enter. This, if correct, explains why the new industries of Silicon Valley were so dynamic, while the old industries in the heartland had lost their dynamism.

In some circles, however, it is argued that tfp data lack credibility in view of their failure to take the full measure of a great many advances in products and methods – especially Silicon Valley products. I point to five pieces of circumstantial evidence demonstrating that, in the U.S. at any rate, tfp growth, which is an aggregate of the growth originating in some industries and failures to grow in other industries, has been much slower since the 1960s.

1. There seems to have been a loss of involvement in work. Up to the ‘60s, a relatively high proportion of the great writers’ novels and plays were set against a backdrop of business – Herman Melville, Henrik Ibsen, Emily Brontë, Thomas Mann, Somerset Maugham, Theodore Dreiser, F. Scott Fitzgerald, Arthur Miller, John O’Hara, and John Updike to list a few. Others wrote about exploration and discovery – Jack London, H. Rider Haggard, Jules Verne, Willa Cather, Laura Ingalls Wilder, Arthur Conan Doyle, Hermann Hesse, and H.P. Lovecraft to borrow from the list in my book. Our politicians today do not describe America that way.

2. Since the late 1960s, we have seen a long, unremitting slide of the male participation rate – never mind the fall and partial recovery following the 2008-09 financial crisis and the procession of retiring baby boomers, which started around 2010. (Female participation continued to rise until recently, in part to offset the decline of male participation.) I infer from these two developments that the preponderance of businesses have become less innovative, thus less engaging, so that job satisfaction and employment in business is less attractive.

3. As I see national expenditure accounts since the late 1960s, business investment has been consistently weak, except for the internet build-out in 2005-2007 and the speculative real estate boom in 2005-2007 – this in contrast to efforts of households to maintain their “propensity to consume” in the face of the stunning slowdown of productivity growth. Much of the weakness of investment can be imputed to a slowdown of productivity – the slowdown that does not exist according to many observers and journalists. Here are some pertinent data. In the EU-15, the growth rate of gross capital formation at 1995 prices slid from 6.7% in 1961-65 to around 2% in 1971-90. In the US, it slid from 7.2% to around 3%. In the EU-12, gross fixed capital formation slid steadily from about 25% of GDP in the 1960s to 21% in the 1990s. The slide was less in the U.S. because GDP chased after capital formation.

4. If innovation slowed in the late 1960s and early 1970s, it would be reasonable to expect would expect labor to be hit harder than capital. The data show since the early 1970s a long slide in the share of domestic product – and the share of business output – going to labor. In the U.S., labor compensation as a share of non-farm business income went from 64 percent in 1950-1965 to around 60 percent in the mid-1990s – before the internet build-out – and 59 percent in the mid-2000s – before the financial crisis. It is no wonder, then, that the share of wealth held by the bottom half or even the bottom four quintiles has trended down.
5. Of course, those denying a slowdown have in mind the success of Silicon Valley over the past 10 years. But can that be big enough to offset the stagnation in the heartland of the American economy? Silicon Valley is not large: Today it produces about 3 percent of the Gross Domestic Product. It is implausible that this small enclave singlehandedly offset the contraction of innovation in the traditional industries – the 2 percent innovation once produced in the heartland – and went on to raise the aggregate to at least 3 percent. (One wonders: How does the annual revenue of Apple et al. relative to the GDP in the 2010s compares with the annual revenue of the motion picture industry in percent of GDP in the 1930s or the revenue from manufacturing television sets in the postwar decades?) Yet, Americans must be grateful that its would-be innovators found Silicon Valley, otherwise the rate of innovation would have nearly vanished, as it has in Italy and France.

What May Be Causing the Losses of Dynamism?

It is natural, though by no means a logical necessity, to hypothesize that the losses of aggregate indigenous innovation in one nation after the other over the postwar decades – Germany, the U.K., France and finally the U.S. – are the result of national losses of dynamism – just as the rise of indigenous innovation (indeed, the birth of modern economies) was sparked by the historic rise of dynamism in the 19th century. That would mean losses of the ingredients of dynamism – individualism, vitalism and expressionism and the institutions and public policies they required and built – or a resurgence of the impediments and poisons that had to be swept away before modernism could get the upper hand. *Mass Flourishing* gives a wide-ranging discussion. Here I will be brief and selective. I begin with some of the faults that can be attributed to public policy: Practices born of a misguided political economy or decadent government institutions.

*Regulation.* The economies of the West are blanketed by an accumulation of regulations that began to be significant in the 1960s and '70s. However large the benefits may be overall, regulations generally raise costs for enterprises and handicap any small enterprises that enter an industry in hopes of competing with large-scale enterprises. So, to some degree, regulation has the indirect effect of constricting entrepreneurs’ latitude to innovate and depriving employees of opportunities to participate in innovative activity. Regulation of teachers in primary and secondary school and doctors in hospitals and clinics has the direct effect of narrowing their latitude to take initiative and to experiment – with clear effects on their innovating and their flourishing. In all industries, notably in but not limited to finance, companies are significantly constrained in what they are allowed to do. That is just the tip of an iceberg, the size of which is hard to estimate, but it is undoubtedly large. This is a new development. In the glorious past, an entrepreneur dreaming of innovation could invite people to take a place on a magic carpet where they could share the fascination and suspense of venturing, creating and struggling; and, perchance, the joys of succeeding. Now, anyone starting a company would meet a tangle of legal restraints and hazards.

---

The regulation of banks deserves special mention. Governments stand ready to reorganize and rescue banks in return for the banks’ agreement to hold massive quantities of public debt and residential mortgages, in which governments have a political interest.

_Social protection._ While much regulation, such as food and drug regulations, intends only to protect us from harming ourselves, what is called social protection protects groups and individuals from other groups and individuals. Some regulations fall under that category. Many protections of consumers, workers, lenders, investors and borrowers may be justified. However, present-day economies are beset by a multitude of protections of companies and workforces, a thicket of regulations from banks to businesses in America and directives or informal constraints in Europe, burdensome licensing requirements and cartels overseen by the government, the protection of vast amounts of unused land and long-lived patents, and the government’s sweetheart contracts for powerful companies.

While such legislation professes to protect us from harm by others – from the competition of other companies and countries – this protection not uncommonly has the _latent function_, to use the term of the sociologist Robert Merton, of serving special interests: Companies, their workforces, or their customers – or all of them. Britain’s slow growth has long been laid to the rationalization, cartelization, and closed shop that became widespread in the 1930s. After the war, governments widened such protection in most of the West. By the 1970s, large British corporations were meeting together and undertaking initiatives to gain state aid under the auspices of CBI, though it was marginalized in the 1980s. In America, government contracts, carve-outs (many with the latent function of bringing in campaign contributions), patent extensions, consolidations leading to oligopoly, and even outright bailouts – AIG and GM, for example – have become familiar features.

This social protection has a dual effect on innovation. It stymies potential agents of change on the _outside_. Would-be startups are blocked or discouraged from embarking on voyages of initiative and creativity. And those on the _inside_ lose their incentive to engage in defensive innovation. _CEOs who might have been innovators are reduced to being lobbyists and rent seekers._ (Note that _social insurance_ programs, such as “social security,” do little or no such damage: They do not block entry and they do little to sap morale – they might even encourage a little boldness.) And, with less competition to fear, established firms are emboldened to raise their mark-ups and profits.41 The resulting devaluation of work directly

---

39 Some legislation is both social protection and regulation in the narrow sense: American legislation in the early 1930s limiting the purchase of new share issues in companies to persons having the required expertise – a law only recently repealed – both protects fools from harming themselves and prevents the over-confident from being duped by fraudsters.


41 In the US, BLS data on the nonfarm business sector show labor’s share tending down from 66% at its twin peaks in the mid-1970s to 61% in the mid-1990s and around 58% more recently. OECD data show the capital income share in the business sector rising in the US from 32.5% in 1971-81 to 34.5% in 1995-97 and in the EU from 33.3% to 38.5%. (_Economis Outlook_, Dec. 1998).
dampens ambitions to innovate and contracts the supply of labor and of other resources available for innovating.

Industry has become so blocked that fewer people with outsized aspiration can find success the old fashioned way – in business. There are few start-ups and angel investors competing with established firms and companies. So large numbers are driven to Wall Street and the City of London where they look for profits from arbitrage and speculation. (But others seek those positions, as discussed below.)

Private sector decadence. Some of the most serious faults of the once-dynamic economies lie in the private sector. A degree of corruption has seeped into some private institutions. The institution known as corporate governance is suspect. Most attempts at innovation are long-term projects shrouded in mystery, yet CEOs lean toward short-termism, aiming to maximize their bonuses and golden parachute by extracting every last gain in efficiency. This short-termism reduces the supply of innovation – the innovatorship, risk-capital, and venturesome end-users that innovation requires. CEOs in established companies make as few attempts at innovation as possible – explaining that there have been no “opportunities” to innovate. Financial people want to be paid on the basis of current profits, with little to no claw-back. The pressure is on corporations to meet quarterly earnings targets so as not to jeopardize hoped-for capital gains on the stock.

A characteristic of established and even accomplished corporations is that they are unable to go beyond a careful concern for efficiency, which demonstrates to the corporate board and shareowners their zeal. One explanation is that, although the company’s divisions may still conceive projects for development of new products, the infighting and self-dealing gets in the way of good decisions on what projects to back. The other explanation is that these corporations have presumably gone quite far toward exhausting the possibilities for innovation – it may usually be the case that few paths to new profits can be created. My book cites the suggestion of the late journalist Peter Martin that these large companies be “wound up” after 20 years. More dynamism will mostly involve more companies that are innovative, not more attempts at innovation in every company.42

In all the discussion of reform, however, it is supposed that it is the “economy” that needs fixing – that the spirit of the modern economy and the values that inspire it remain strong: America remains at heart a nation of pioneers and innovators, Europe the home of mythic explorers and profound discoverers. But the “spirit” is a key part of an economy – the heart of it. The corruption of government and of corporations is not simply the ineluctable consequence of self-interest. People’s self-interests depend on their values. The transmutation of the state and the corporate sector is a result of a resurgence of the traditional values that we call corporatist values, which counter the influence of modern ones.

At precisely this level of values, the rise of corporatism has transformed the functioning of the once-modern economies. Some of the values that constitute corporatism have been traced to the Corinthians of the New Testament and ruled the economies of the Mid-42 Lauri Pietinalho has pondered the conundrum of corporations that have fully achieved the purpose for which they were created. See also a recent column by John Kay in the Financial Times.
dle Ages. (Robert Shiller has looked into these origins.) The corporatism that was resurgent at the turn of the century – the doctrine of Ferdinand Tönnies, George Valois and Benito Mussolini, to name a few – disapproved of disorder, especially the topsy-turvy disorder that came with innovations and adaptations. Corporatism disapproved of those with the ambition to get rich, calling them “money-grubbers,” and hated the “new money” that displaced established wealth. It disapproved of competition, preferring instead the concerted action of society as a whole through the government. Most fundamentally, corporatism was an attack on individualism, calling for a state that would bring harmony and nationalism in place of the individual’s autonomy to take initiative and to innovate.

In the corporatist state, everyone is to go on working, accumulating wealth and managing companies – and all that is seen to be for the good of the social body. But no one is permitted to hire the nation’s labor and borrow its wealth to embark on a venture aimed at adventure, discovery and personal growth! What matters is society’s power to achieve material gains – public consumption, private consumption and leisure. Thus the rebirth of corporatism was a reaction against the modernism that was the root source of the spirit of the modern economy.

By now, corporatism is pervasive in all the nations of the West. Corporatism is behind the metastasis of vested interests, clientelism and cronyism that has brought a welter of regulations, grants, loans, guarantees, deductions, carve-outs, and evergreen patents mainly to serve vested interests, political clients, and cronies. In recent decades, large banks, large companies, and large government agencies formed a nexus to pump up home mortgage debt in America and to create unchecked sovereign debt and unfunded entitlements in several nations in Europe. America has joined Europe in having a parallel economy that draws its nourishment from the ideas of political elites, whatever their motives, rather than from new commercial ideas. All this has combined to choke off much innovation.

Corporatist thinking is behind various developments in the private sector. With the rise of stakeholders, anyone deciding to start an innovative company would have to expect that its property rights would be diluted as it copes with an array of figures – its own workforce, interest groups, advocates, and community representatives – who ardently believe they have a legitimate “stake” in the company’s results. Many employees feel they have the right to hold on to their jobs – no matter that many others would do the job for far less money – so long as they add something to profit or the company makes a profit from other divisions that can cover the loss.

With the rise of solidarism, entrepreneurs seeking profits from successful innovations must expect that any profits will be shared through corporate profit taxes. The broad classes of income are to move in lockstep, so if upper incomes soar higher, the schedule of tax rates on high income is to be shifted up to share the wealth with the middle class – no matter if those tax rates become so high they lose more revenue than they gain.

With the rise of materialism to new heights, there has been a pathological fixation on wealth. It has lured a generation away from voyages of creativity and discovery and towards careers in banking or consulting.
Figure 2: Personal Values and Economic Performance

**Modern Values**
- Individualism
  - Thinking for oneself (Luther)
  - Right to pursue happiness (Jefferson)
  - Working for one’s own ends (Dickens)
  - A willingness to rely on oneself (Emerson)
  - Breaking from convention (George Eliot)
- Vitalism
  - Summoning the courage to act (Shakespeare)
  - Relishing challenges (Cervantes)
  - Taking initiatives: ‘acting on the world’ (Hegel)
  - Competing with others (Cellini, Dumas)
  - Imagining the new (Hume)
  - Adventuring (Twain)
- Self-Expression
  - Creating things (Voltaire)
  - Exploring; experimenting (Goethe)
  - Voyaging into the unknown (Verne)
  - Making a mark (Dickens, Thackeray)

**Modern Economies**
- Dynamism
  - Desire, capacity and latitude to innovate
  - Innovative activity: imagination and ingenuity
- Economic independence
  - Abundance of jobs: ease of starting up companies
- Prospering
  - Gaining better terms for what one does through one’s own initiative and creativity
- Flourishing
  - Gaining experiential rewards: using one’s imagination, satisfying one’s creativity, venturing into the unknown, having the thrill of discovery
- Wide participation
  - Innovating down to the grassroots
- Fluctuations

**Good Life (Modern Version)**
- Gaining understanding (Aristotle)
- Meeting challenges (Cervantes)
- Achieving personal growth (Montaigne)
- Voyaging into the unknown (Kierkegaard)
- Overcoming obstacles (Nietzsche)
- Living fearlessly (William James)
- Becoming: personal growth (Bergson)

**Traditional/Anti-Modern**
- Family responsibilities
- Community solidarity
- Staying in a circle of friends
- Sharing good fortunes with stakeholders
- Service to others and service to society
- Material rather than experiential goals
- Opposition to dislocation
- Opposition to “new money”
- Conformism
- Moving in lock step
- Sense of entitlement
- The Law of Jane

**Traditional/Corporatist Economies**
- Merit Goods: Social Security
  - Pensions, medical care
- Social protection
  - Job protection, tariff protection
- Solidarism
  - State’s concertation with social partners
  - Company consultation with stakeholders
- Nexus between private and public
  - Clientelism
  - Patronage, Lobbies
- Roles of elites
- Dirigisme
  - Fluctuations

**Life of Quality**
- Amenities
- Leisure
- Enjoyment of culture
- Preservation of traditions
- Professional sports competitions
- Conservation of environment
- Material wealth and income
The rise of a culture of entitlement, self-importance and conformism has brought a palpable decline in vitalism – in “doing,” as Margaret Thatcher or Amartya Sen might term it. Even if modern values are intact, premodern notions have regained influence over business and the government.

Figure 2 maps the historic road to the modern economy and the much-traveled road to the corporatist economy. The left-hand column lists the modernist values and the basic features of the modern economy that resulted, comparing them to elements of the philosophers’ notion of the Good Life. The right-hand column lists the corporatist values and the basic features of the corporatist economy that has resulted, pointing out their resemblance to present-day notions of a Life of Quality: Material rewards and civic amenities. For those who, imbued with modern values, see the good life as a journey of richness, such a “quality life” is not sufficient.

So the resurgence of these corporatist values appears, at the very least, to have reduced the space for the exercise of the modern values, thus for innovation. However, it is not at all clear that the modern values themselves are as robust as ever. It may be that the West has seen a strengthening of family values and community values, some of which have drained companies of some of their innovative spirit and pressured them to serve community life and family life more and the bottom line less. University students display an increased focus on earning, wealth accumulation, and job stability. There is a widening rejection of a life of investigating, imagining, creating, experimenting, exploring, experimenting, trying things – and hence, of innovation.

Conclusions

If this diagnosis is at all close to the mark, two propositions follow. The first is that the nations that lack the dynamism for mass indigenous innovation – in short, a modern economy – will not achieve the prosperity of which modern economies are capable, let alone the mass flourishing they felt in their glorious past. “Reform” will be fruitless without the right culture.

Can anything be done to recreate the desired dynamism? Yes, but it will be difficult. To paraphrase Gandhi, to change our country we must first change ourselves. It will be necessary to bring back into schools and the home the literature of adventure and exploration. It may well be essential, whether or not sufficient, to regain the spirit of exploration and imagination.

The second proposition is that the once-dynamic nations of the West – Britain, America, Germany and France – cannot regain the stunning volume of indigenous innovation of old, and the high employment and job satisfaction that came with it, without first doing battle to remove the baleful influence of corporatist values on the dynamism of these nations’ economies. Western nations will have to reassert the modern values. At present, though, economists are talking only about “structural reforms” – reform of regulations, of finance, taxation and governance. If my thesis, sketched here, is right, then that approach
will not work. Massive flourishing will not happen and prosperity will come only with the occasional boom.

What is shaping up, I believe, is a struggle to persuade the economics profession to rethink the good life and the “good economy” that widespread enjoyment of the good life would require. The profession, for all its technical sophistication, is still tethered to a rather classical kind of theory in which households “maximize” their “utility” and any faults in the system or occasional breakdowns call for reset of the appropriate policy functions.

Even the most brilliant social scientists have been drawn to such conceptions, which might be quite satisfactory in the confines of a very static economy. In The Wealth of Nations, Adam Smith wrote, not disapprovingly, that England was a “nation of shopkeepers.” In the 1920s John Dewey viewed the good life as one of problem solving – and the good economy as an economy of problem-solvers. In 1943 Abraham Maslow wrote of self-actualization as the realization of a person’s predetermined potential and in 1985 Amartya Sen wrote on the importance to people of attaining capabilities. Then the Stiglitz Commission, while attacking the measurement of production, actually enshrined material well-being – household wealth and income, time off from work, and health.  

These portraits of a “model economy” and the model life it would serve all miss out on the world of creation, exploration and interior development. Gone is the conception of the good life as a wild ride through an economy with an open future, an economy offering challenges with unimagined rewards. Thus, young people today are far less likely to grow up conceiving the good life as one of richness – of Kierkegaardian mystery, Nietzschean challenge, and Bergsonian creativity and becoming. The value system has grown inimical to innovation, thus to the attainment of the good economy and ample opportunity for the good life. It is crucial that we turn away from the medieval demons that have gradually regained influence in recent decades, and embrace the modernist conception of the good life that lay at the root of the modern economies of the West’s brilliant past.

---