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Government's Role When Markets Rule

The legitimate object of government is to do for a community of people whatever they need to have done, but cannot do in their separate and individual capacities.

—A. LINCOLN, 1854

THE MARKET DEFINES our times.¹ In all but a few isolated corners of the world—and especially in the United States—market institutions, market mechanisms, and market players occupy important or dominant places in the mechanics of most people's lives and most people's sense of how the world works (and *should* work). If FDR and G.I. Joe were emblems of ascendant government in the middle of the twentieth century, Lou Gerstner of IBM and Steve Case of AOL symbolize the edgy energy of private enterprise today. Yet just as business retained indispensable roles even at the public sector's high-water mark—the government did not build many weapons for World War II, produce the concrete for Hoover Dam, or (in peacetime) ever employ much more than one-fifth of America's work force²—government retains essential functions amid ascendant markets. Doesn't it?

Few would deny the proposition at this pitch of generality; we wouldn't. But government's role in the economic realm is largely defined by reference

to the market—making good the market's defects, curbing the market's excesses. As extragovernmental devices for orchestrating collective endeavors improve, a "community of people" (in Lincoln's terms) is able to engineer larger-scale, broader-based, more complex, and less tested forms of cooperation. And as citizens become equipped to amplify their "separate and individual capacities" through growingly sophisticated private arrangements, old questions reopen about the "legitimate object of government."

Beyond their unaccustomed scope and scale, contemporary markets seem prone to mutate at an exceptional pace. Intervening in fast-changing markets is akin to air-brushing a moving picture or editing an unfinished story. How can the agents of governance lower the odds of failure—of acting needlessly, or acting clumsily, or standing idly by while untrammelled markets wreak preventable damage—in such a setting? This essay gropes for some guidelines. Some illustrative examples of bigger, better markets:

—Auto insurance has presented a palpably imperfect market, and regulation has long seemed warranted. Because signals of a driver's risk are either few (city of residence, age, history of accidents and traffic violations) or ruled out of bounds (race, gender), rate-setting is riddled with unfairness and inefficiency. But newly developed sensors and positioning devices make it possible to fine-tune insurance rates to actual driving behavior. Drivers can be charged for risk coverage much as they are charged for telephone service, based on use—the duration, time of day, location, and conditions of driving. Early experience suggests average savings of about 25 percent.³ As the technology improves, the urban youth who only drives to church will save on insurance, and the elderly drag-racer will have to pay much more.

—Ever since the lead-up to the Great Depression demonstrated banks' vulnerability, the federal government has provided (and required) deposit insurance. In the past decade or so, as Akash Deep and Guido Schaefer relate in this volume, progressive growth in the completeness and efficiency of derivative securities markets allows banks to hedge nearly all of their interest-rate risk through swap contracts.⁴ These new financial tools may undercut the case for old-style deposit insurance—while requiring government either to develop the capacity to test the soundness of intricate risk-hedging strategies or to count on depositors (or their private sector agents) to do it themselves.

—Online commerce expands consumers' options and reduces their vulnerability (even in the boondocks) to retail market power. For example, the ease of comparison shopping on the Internet appears to explain a good

part of the drop in prices for term life insurance during the 1990s.⁵ Meanwhile, e-commerce raises a tangle of new issues, including the legitimacy of differential pricing based on data-powered guesses about customers' price sensitivity; the urgency and feasibility of privacy protection; and the best way of calibrating and allocating the value of information about consumer choices.

Let's not kid ourselves. For many decades America has featured a mixed economy or (as one of us has put it) a "mongrel economy, with public and private efforts jumbled together."⁶ The mix of market and public authority depends in small part on analysis and ideology and in larger part on history, politics, and popular judgments. The age of the mongrel is by no means over, and we do not anticipate a purebred market (even less, purebred government) to claim as its exclusive turf any important segment of the American economy. But the new-generation mongrel economy manifests less of the governmental sheepdog and more of the market terrier than even its recent ancestors.

Why Markets Rule

You don't need a weatherman to know which way the wind blows.

—R. A. ZIMMERMAN, 1965⁷

Why has our mongrel economy evolved to favor the price mechanism over government policy as an organizing force? What happened to trigger the market's ascendancy? (Our options at this point are either multiple volumes or a quick once-over. We opt for the latter.)

Technology happened, of course, especially information technology. As the twentieth century neared its end, long-gestating innovations burst from the laboratories and flooded the mainstream economy. Especially in the United States, where flexible workers could readily assimilate and adapt to technological change, these advances have both created a "new economy" and (less vividly but more importantly) transformed much of the "old economy."⁸ This phenomenon is no secret to anyone and is discussed elsewhere in this volume. So we simply add our voices to those affirming its overwhelming importance.

Globalization happened, too. International transport and communication costs plummeted, cross-border information flows proliferated, and

trade (in goods and services) and transnational investment (both portfolio and direct) exploded.⁹ National borders became flimsier barriers to opportunity and competition. At the same time, the intertwining of national economies through stepped-up trade and investment frustrated many conventional tactics for steering or constraining market forces.

Finance evolved. As top talent (especially in the English-speaking world) gravitated to the financial industries, new and improved financing mechanisms proliferated. Sophisticated devices for supporting innovation, diffusing risk, and allocating rewards that in mid-century had been either unimagined or restricted to the parlor games of theorists have become routine workplace tools.

And politics changed. The collapse of communism, the shattering of the Soviet empire, and the Thatcher and Reagan governments were only the most visible examples of a broader and deeper trend. A generally diminishing ardor for intervention is partly explained by, and partly explains, the shrinking role of fiscal policy and the strictures international capital markets impose on national politics. (Developments in macroeconomics, while not our focus here, powerfully shape the context for the trends we discuss.)

But why did these categorical transformations—particularly the last three, globalization, financial evolution, and the political turn from collectivism—occur when they did, and more or less together, instead of fifty years earlier, or fifty years later, or separated by decades of history? Part of the explanation is that the trends are mutually reinforcing. But we suspect there may be a subtler syndrome behind the rise of markets in the late twentieth century.

Market ascendancy may have much to do with a period of stability that is long enough and sufficiently widespread to allow market-based instruments of collective action to be tested, refined, and incorporated into the fabric of society. Most of the West (again, especially the United States) has lived without any truly major social disruption for over half a century. This extraordinarily long period of stability, coupled with the (mostly exogenous, presumably) technological vibrancy of the same period allowed new market mechanisms to take root, thrive, and bear fruit. By another metaphor, markets are like crystals that grow by their own immanent structure. But the pace and extent of their growth are determined by the richness of the solution from which they precipitate (the intensity of technological development), the shape and structure of their container (the cultural and political context), and the length of time that passes without disruptive shaking or shocks.

Markets depend on a measure of trust, validated by experience, both between individual transactors (to make specific markets possible) and among the populace at large (to shore up the legitimacy of market arrangements). Large-scale traumas—wars, invasions, economic crises—can shatter the cultural and institutional underpinnings of trust and inspire a retreat to blunter but less brittle bureaucratic alternatives. Mancur Olson argued brilliantly for a seemingly opposite dynamic: trauma serves to break up encumbering encrustations of special interests, thus clearing space for markets to emerge.¹⁰ But America's recent economic history suggests that the relationship between stability and market orientation may follow a more complex and contingent trajectory.

Diagnosis before Therapy

You better think.

—A. FRANKLIN, 1968¹¹

Although the details are endlessly debated, economists have developed a set of coherent justifications—public goods; positive or negative externalities; market power; information asymmetries—for governmental efforts to alter the outcomes markets would produce on their own. This assemblage of theory and data is a marvel of sophistication, but a strikingly unhelpful guide to why and when governments actually intervene. Neither the largest budget item at the federal level (Social Security) nor the largest budget item at the state and local levels (primary and secondary education), for example, is premised on a cut-and-dried case of market failure.

Glaring discrepancies between theoretical justifications for intervention and observed patterns of intervention inspire mutual charges of obtuseness between academic economists and government practitioners. But there are both good reasons and bad reasons for these discrepancies. Governments can nudge or veto market outcomes for reasons that command popular legitimacy but have little to do with market failure. Governments can also commit simple errors in market governance, intervening (or doing so clumsily, or failing to intervene where they should) for no compelling economic *or* noneconomic rationale. We will not discuss the valid reasons for violating economists' criteria for efficient intervention—in part for reasons of space, in part because consensus is elusive (even between coauthors),

but mostly because the bad reasons present, on their own, a large and important topic.¹² Market governance in a democracy may never be a science, but it can be a more, or a less, careful craft.

The best way to improve market governance is to avoid making mistakes. This is not the simple tautology it may seem to be. In some domains—science, sports, business—mistakes are inevitable, acceptable, even a healthy by-product of appropriate risk-taking. This is generally not the case when it comes to governmental intervention in markets. Mistakes tend to stick. More subtly, and more commonly, once-sensible interventions tend to endure as the conditions that justified their creation change or fade into history. If the Department of Agriculture, or the Mine Safety and Health Administration, or the Tennessee Valley Authority did not exist, it would not be necessary to invent them—at least not at their present scale and in their present form. Rent control, tax preferences for ethanol production, taxi medallions, and mohair subsidies are examples of interventions that have outlasted most of their disinterested defenders.

There are many reasons for this inertia, most of them eminently familiar. Constituencies of beneficiaries tend to coalesce around any intervention, more motivated by their concentrated and manifest gains to defend the status quo than the diffuse public is to alter it. Activists, sponsoring legislators, and civil servants entrusted with the mission tend to resist change. And citizens, businesses, and other units of government come to depend, in ways large and small, on consistency in governmental policies and processes. The worker looking toward retirement, the investor structuring a real-estate deal to capitalize on tax benefits, the automaker designing the safety features for cars to be marketed five years hence, and the mayor planning a waste-treatment plant all anticipate and rely upon continuity in government policy. Widespread reliance narrows the range of change the government can contemplate without doing damage to (or undergoing intricate negotiations with) those who had accommodated themselves to the status quo.¹³ Other factors are at work as well. Behavioral economists have found evidence of a bias toward the status quo even in private choice, and inertia is amplified by the characteristic complexity of collective decisionmaking.¹⁴ The fact that original justifications for intervention tend to be multidimensional—mixing market-failure arguments with noneconomic rationales—means that once an intervention is embodied in policy it can be difficult to dislodge even conceptually, let alone politically.

Hence our watchword for governance amid rapidly changing markets is “diagnosis before therapy.” By this we mean that an interval of assessment

and analysis, before intervention, is more apt to improve policy today than in earlier eras when markets were less fluid, policy problems were more stable, and correct solutions had a longer shelf life. We offer this not as an iron law, but as a rule of thumb that is broadly sound despite some categorical exceptions (on which more shortly) but often at odds with political reflexes in a democracy. Deferring intervention until the conflict between market outcomes and the public good can be diagnosed requires unnatural humility on the part of elected and appointed officials and an equally unnatural patience on the part of citizens. Premature prescription—commencing therapy in advance of diagnosis—is a common cause of errors, both of commission and omission. Some examples:

—In the mid-1980s many observers—impressed by the apparent success of the Ministry of International Trade and Industry in orchestrating Japan's economy—called for federal measures in the United States to set standards in emerging industries, including semiconductors and high-definition television. Such a strategy, in retrospect, likely would have shackled technological evolution and undercut the vibrancy that blossomed through much of the American economy a decade later.

—The fraction of Americans working in something other than a traditional employment relationship began creeping up in the late 1980s and early 1990s. Alarmed at the prospect that the rise of “contingent workers” would erode employment stability and work place-based benefits, the Clinton administration launched a task force to examine ways to curb the trend. The initiative became controversial within the administration because the broad category of contingent workers included low-paid temporary workers, voluntary part-timers, erstwhile employees pushed into unwelcome “contractor” status, and highly skilled consultants. The policy development effort stalled as participants debated the size of each subcategory and the appropriate policy response, and it was curtailed once the 1994 elections made favorable legislation unlikely. Half a decade later, happily footloose free agents rather than downtrodden temps emerged as the emblems of the contingent work force.¹⁵ And the trend toward contingent work reversed itself later in the 1990s, despite the absence of any intervention.¹⁶

—In the mid-1990s, as the commercial implications of the Internet were first emerging, Congress enacted and the president signed a tax moratorium on electronic commerce. It is true that e-commerce is new and important. It may be that the temporary tax preference is a reasonable way to nurture the trend. The case for a permanent differential between the tax treatment of electronic and bricks-and-mortar retail establishments, however, is far

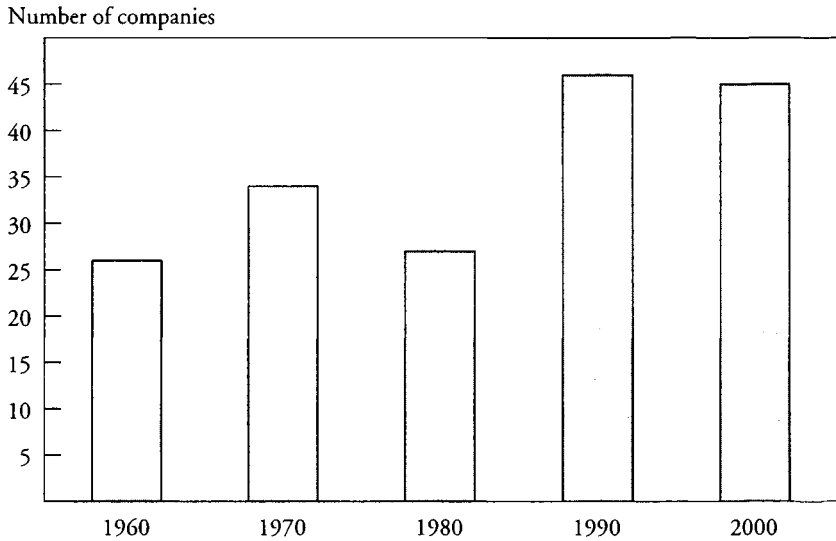
weaker. Yet once this preference was set in place it became the status quo, and constituencies organized to defend it. There are no signs that the temporary moratorium will end soon, if ever, and the rush to prescribe tax advantages for Internet sales is likely to prove both expensive to other taxpayers and unfair to other retailers, as well as economically inefficient.

In these and many other cases where new problems (or more important, new classes of problems) arise, the identification of a market governance challenge is followed—often honestly and intelligently, let us grant, but prematurely—by the impulse to prescribe a plausible remedy. Premature prescription is not a risk restricted to government. The risk of overly hasty market governance is by no means a twenty-first-century development.¹⁷ But rapidly changing markets strengthen the case for diagnosis before therapy in two ways, both by tending to raise the payoff to incremental evidence and analysis, and (less obviously) by tending to reduce the cost of delay for diagnosis.

Why Is Diagnosis More Valuable?

As change accelerates, fresh evidence is worth more than it would be in a more static context. The signals of stepped-up economic change are reasonably persuasive, if still short of conclusive. One simple measure of marketplace turmoil is the annual turnover in the Fortune 500. Figure 12-1 tracks the one-year change in the 1960, 1970, 1980, 1990, and 2000 lists of companies ranked by revenue. Close to twice as many companies were replaced between 1998 and 1999 as were between 1958 and 1959. This is a coarse measure, to be sure, and may understate the current pace of change; a firm can plow along with high levels of sales long after changing trends have dimmed its future. It may take years, conversely, for even the most glittering new company to register large-scale revenues.

A better measure than revenue rankings may be relative market capitalization—the market's best guess of a firm's worth, aggregating investors' judgments about its future prospects. The more turmoil there is within the hierarchy of top corporations, by the metric of market capitalization, the more persuasive is our generalization about accelerating change. Stable rankings suggest a placid economic environment (at least at the top) while instability suggests a sportier setting. Figure 12-2 summarizes a preliminary attempt to assess the rate of churning over time using this measure.¹⁸ The starting point for analysis is Center for Research on Security Prices data on market capitalization—that is, the number of shares outstanding times the

Figure 12-1. *Annual Turnover in Fortune 500*

Source: *Fortune*, various annual issues.

end-of-year price per share. For each year-to-year comparison, the list of the 100 publicly traded U.S. firms with the highest market capitalization was determined for the base year, then compared with the *next* year's list for those same 100 firms. (New arrivals were not considered.). A simple measure of market turmoil is the correlation between one year's rankings and the next year's rankings. In a perfectly static economy—the top firm in 1970 is also the top firm in 1971 and in 2000, with equal stability down through the list to the hundredth-most-valuable firm—this correlation would be a steady 1.0. If there is some turbulence in the relative scale of companies' market capitalization, the correlation will be lower than 1.0. And if this turbulence increases, the correlation coefficient will decline. Figure 12-2 traces the correlation of year-to-year rankings from 1970 through the end of the century. (That is, the final data point is the correlation between rankings at the end of 1999 and the end of 2000.) It shows that the year-to-year correlation oscillated around the range of 0.9, then nosed downward toward the end of the period (though only the most recent one or two years suggest a statistically significant departure).¹⁹

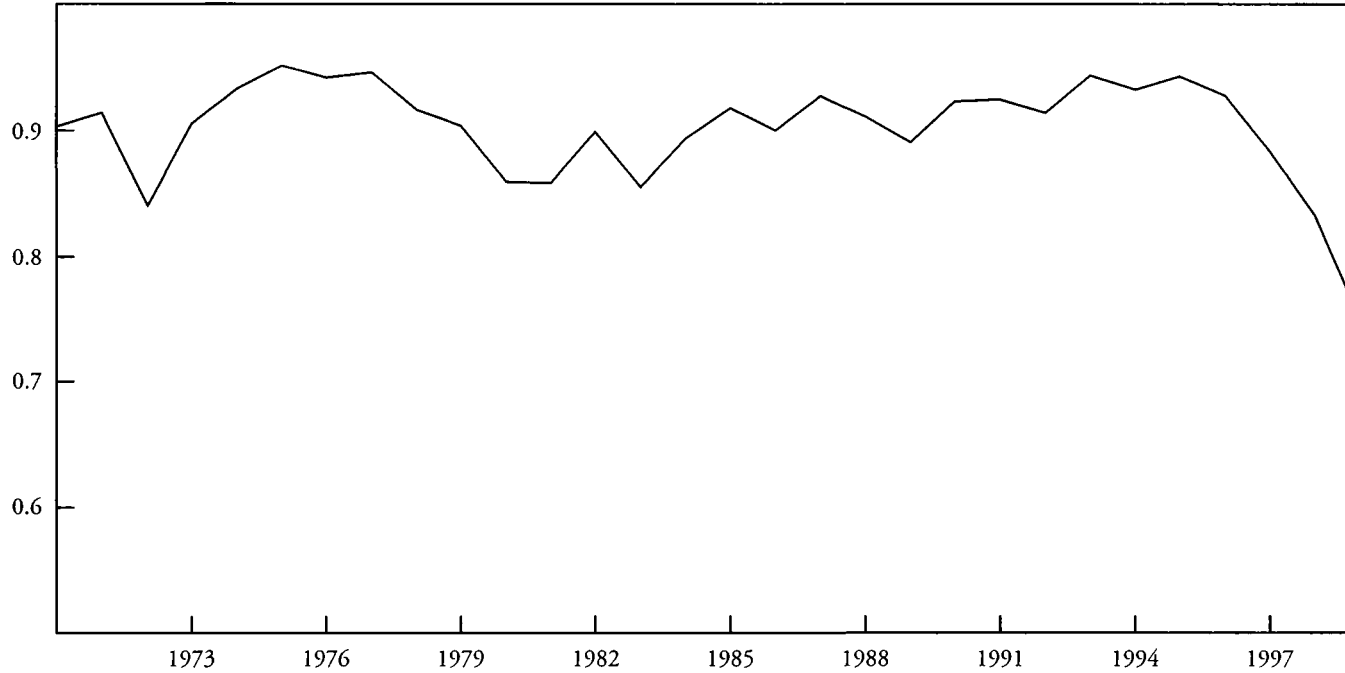
These data are suggestive, not conclusive. They show that increased turmoil is a matter of degree, rather than a sharp discontinuity between a static past and a roiling present. Economic change has always shuffled the deck of policy challenges and rendered evidence and analysis valuable (if often undervalued) inputs into policymaking. Public officials in 1960 knew more about market power in the steel industry, or the potential for jet passenger service, or consolidation among meat processors than had their counterparts in 1955. If legislators and regulators in 1955 had possessed perfect knowledge of the future five years out, they would surely have made better decisions about market governance. But the increment of understanding during that five-year interval was smaller, we suggest, than the news revealed about the Internet or health maintenance organizations between 1991 and 2000, and probably smaller than the news to come about cloning or electronic retailing between now and 2010. As governance challenges become less familiar and more complex, the payoff from patient diagnosis tends to rise. The backdrop of rapidly evolving and unpredictable technology increases the probability that premature prescriptions will turn out to be misdirected. Just as important, but less obvious, it increases the damage done by policy errors as underanalyzed interventions warp the trajectory of technological development and hobble future policy.

Why Has Delay for Diagnosis Become Less Costly?

It may seem paradoxical that rapid change can *lower* the cost of diagnosis. Intuition suggests that fast-changing markets require fast-changing policy. Many of our hair-trigger decisions to commence, avoid, or alter interventions may turn out to be wrong, but so what? Isn't that just life in the new millennium, for government as it is for business? But there are several reasons to believe that the costs of delaying intervention, in the name of better understanding, have diminished.

First, the expected value of public benefits surrendered during the interval of delayed policy response is smaller in a changing and poorly understood setting. This forgone benefit can be expressed as the probability of getting the policy right without careful diagnosis, multiplied by the length of time this serendipitously sound approach would have been correct, multiplied by the annual benefit of the lucky-guess policy. The first two factors, we believe, tend to be shrinking—not in every case or every sector, but for

Figure 12-2. *Correlation in Year-to-Next Ranking of Top 100 Firms by Market Capitalization*



Source: Center for Research on Securities Prices data tapes.

the economy as a whole. If we tried to set the policy this month, we would not be very likely to choose the right response to employers' genetic screening of potential employees. Cherished values and stark consequences are at stake, and any policy—including *laissez-faire*—has significant potential drawbacks. If we happened, by good luck or good intuition, to develop a response that made sense for 2001, it would be even less likely that the policy would still be correct in 2005.

Second, technological and organizational fluidity lowers the expected costs of business and consumer "reliance" on an interim government policy pending finer diagnosis. In the mid-1970s there were more than 2 million American farmers, most of them basing investment and planting decisions on federal price support and production control policies.²⁰ It may have been appealing, from the government's perspective, to leave the issue up in the air for a while until the scale and impact of Soviet grain purchases became clear. But the reliance costs of putting policy decisions on hold—inspiring investments not easily undone and locking up resources not easily unfrozen—made more sustained diagnosis unworkable, however desirable it would have been in retrospect. Today a broader swath of the economy is more accustomed to uncertainty, better equipped with instruments for gauging and hedging against risks, and less dependent on specific governmental actions.

Third, greater economic and political fluidity lowers the odds that a potent political constituency will coalesce around some aspect of the status quo, rendering diagnosis moot by entrenching a flawed intervention (or nonintervention). When economic interests are well defined, concentrated, and self-aware, the option to intervene may bear a "use it or lose it" label. Government must move with dispatch to counter a perceived clash between market dynamics and the public interest, even if the perception is murky, lest delay for diagnosis give special pleaders time to dominate the political terrain. Today's political environment—with respect to many areas of market governance—tends to be more complex, fragmented, and unstable. A turbulent market, meanwhile, retards the emergence of dominant firms with fixed political agendas rooted in stable strategic positions and goals.

What evidence is there that business coalitions are becoming more fluid and less likely to entrench regrettable policy regimes? The ideal test of this assertion would require defining some comprehensive metric of political activity by business interests (incorporating campaign contributions, lobbying activities, and other tactics); coding by corporation and industry;

and tracking trends in concentration over a suitably long period. Like our earlier foray into gauging market turmoil, this is a dissertation-scale enterprise; we offer merely some suggestive bits of evidence.

In the late 1970s there were fewer than 1,000 corporate political action committees (PACs); today there are more than 1,500, hinting at a growing diversity of voices in the corporate choir.²¹ This is not a particularly satisfying metric, however, because PACs are but one route by which firms can exercise political influence, and because a growing number of PACs is at best a murky measure of political fragmentation. A somewhat better (though still flawed) indicator is the concentration of political contributions of all kinds. The Center for Responsive Politics (using primarily Federal Election Committee data) has tracked major contributors, organized by industry group, since 1990. The center identifies the industry group of PAC contributions with a high degree of precision; soft money contributions by firms and individual contributions coordinated with corporate agendas are coded with somewhat less precision. Table 12-1 summarizes some relevant patterns for seven industry groups during the six election cycles from 1990 through 2000.

Two industry groups—defense and transportation—display relative stability among the top contributors. In defense, only about one-fifth of the top twenty donors changed, on average, between one election cycle and the next, and in transportation the average turnover was only about one-tenth. Defense and transportation had relatively low levels of total political spending and (more to the point) may also feature relatively well-defined political terrain. (Defense, in particular, may be *sui generis*, given its near-total reliance on government.) For the remaining seven industry groups, at least one-quarter of the twenty top contributors changed, on average, between election cycles.²²

In most of the industry groups—the exceptions being defense and, this time, energy and natural resources—the share of industry political contributions accounted for by the top five donors dropped between 1990 and 2000. The three industry groups making the heaviest investments in political influence—health; electronics and communications; and finance, insurance, and real estate—warrant particular attention. In these industries the concentration of political spending at the top declined markedly. The identity of the leading corporate spenders also changed. In communications and electronics, two of the biggest spenders in 2000 (Microsoft and Seagram's) had not even ranked in the top twenty just ten years earlier,

and only AT&T made the top-five contributor list in both 1990 and 2000.²³ It is also noteworthy that in only two industry groups, defense and transportation, did the top five contributors account for 20 percent or more of the industry's political spending in 2000.

Perhaps the most suggestive pattern, from the perspective of our claim that stepped-up market change erodes old business coalitions and slows the entrenchment of new ones, is the shift from *associations* to *firms* as major contributors. Industry associations, we conjecture, thrive in stable markets. A sufficient degree of continuity in market shares and consensus on policy agendas, for a sufficiently long period, allows firms to overcome collective-action problems and coordinate their political activities through associations. Conversely, when market segments blur, hierarchies topple, and interests splinter, the emphasis tips toward "every firm for itself." In 1990 the top five contributors in the health care and finance, insurance, and real-estate industry groups were multi-firm organizations such as the American Medical Association and the American Bankers' Association. In 2000 only one of these quasi-corporatist associations survived in the top five of each industry, with the rest replaced by individual firms.

These preliminary data are broadly consistent with our suggestion that the old monolithic ice sheets of business influence in politics are fragmenting into shifting floes of company-specific agendas as corporate interests become more heterogeneous. Efforts to forge public policies—if adequately nimble and astutely steered—may be better able to navigate around the obstacles to reach sound results. By this conjecture (in an odd corollary to Olson's argument about institutional turmoil promoting economic growth), market instability preserves room for well-considered government. We find the Microsoft case a comforting data point on this front—not so much for its outcome as for the fact that it occurred. Consider that the federal government and a phalanx of state governments engineered a potentially lethal strike against a well-regarded and hugely valuable industry leader, whose products are used and whose stock is owned by a significant fraction of American voters.²⁴ Many political analysts, if granted a glimpse at a crystal ball in, say, 1990, would have predicted that a behemoth with Microsoft's reach would prove strongly resistant to governance and would have counseled taming it before it grew too powerful. It could be, of course, that there were peculiarities specific to Microsoft to explain subsequent events.²⁵ But we suspect it illustrates a broader phenomenon. Government gains breathing room for well-thought-through

Table 12-1. *Shifts in Top Political Donors, by Industry*

<i>Industry group</i>	<i>Total political spending (PACs, soft money, and individual gifts in 2000 election cycle) (millions of dollars)</i>	<i>Average turnover between election cycles among top 20 donors, 1990–2000</i>	<i>Top 5 donors in 1990 election cycle (share of industry total)</i>	<i>Top 5 donors in 2000 election cycle (share of industry total)</i>
Defense	10.8	4	McDonnell-Douglas, Lockheed, Northrop, Textron, Rockwell International (32%)	Lockheed-Martin, General Dynamics, Raytheon, United Technologies, Northrop Grumman (43.5%)
Transportation	38.5	2.2	National Auto Dealers Association, Federal Express, United Parcel Service, Auto Dealers and Drivers for Free Trade, Union Pacific (29.4%)	United Parcel Service, Federal Express, National Auto Dealers Association, Union Pacific, American Airlines (23.5%)
Agribusiness	40	5	Associated Milk Producers, RJR Nabisco, Philip Morris, Mid-America Dairymen, American Crystal Sugar Corporation (15.5%)	Philip Morris, U.S. Tobacco, Brown & Williamson, RJ Reynolds, Archer Daniels Midland (15.5%)

Energy/Natural Resources	46.3	6.8	Rural Electric Cooperative Association, Waste Management, Amoco, Chevron, Atlantic Richfield (13.2%)	Enron, Southern Company, BP Amoco, Dominion Resources, Exxon Mobil (13.4%)
Health	56.4	6.8	American Medical Association, American Academy of Ophthalmology, American Dental Association, American Hospital Association, American Optometric Association (26.4%)	Pfizer, Bristol-Myers Squibb, American Medical Association, Slim-Fast Foods, Eli Lilly (11.6%)
Communications/ Electronics	84.3	5	AT&T, BellSouth, National Cable Television Association, GTE, U.S. West (23.4%)	Microsoft, AT&T, Verizon, SBC, Joseph E. Seagram & Sons (16.4%)
Finance/ Insurance/ Real Estate	195	6.2	National Association of Realtors, National Association of Life Underwriters, American Bankers Association, American Institute of CPAs, American Council of Life Insurance (15.9%)	Goldman Sachs, National Association of Realtors, Citigroup, Ernst & Young, MBNA America Bank (5.8%)

Source: Based on online data assembled by the Center for Responsive Politics (www.opensecrets.org/industries/index.asp [October–November 2000]).

intervention choices when unpredictable change retards the coalescence of stable business interests.

Fourth, and relatedly, even where one or a few firms dominate an *industry*, this dominance may be more fleeting than in earlier eras. “Industries” are seemingly becoming more arbitrary and transitory categories than heretofore. Particular economic *capabilities*—the capability to rapidly and reliably process very large numbers of transactions, for example, or to orchestrate alliances and partnerships, or to organize and motivate creative personnel—are coming to matter more. It is generally harder to dominate such capabilities than it is to dominate a well-defined industry. The old business-school cliché—“You thought you were in the *railroad* industry, but you’re in the *transportation* industry!”—hints at what is becoming the general case.²⁶ As long as both the relative importance and comparative endowments of significant economic capabilities remain in flux, a healthy turmoil can slow the accumulation and erode the security of market power. Such a situation not only undermines the *political* power wielded by dominant firms. It also increases the odds that a disjuncture between market reality and the public interest will turn out to be temporary. This is not to suggest that in the era of bigger, better markets all flaws will be self-correcting. Sometimes they will get worse, and sometimes they will stay bad but in a different way. But it does caution against pursuing the chimera of once-and-for-all fixes, calls into question proven solutions from the past, and highlights the wisdom of looking before leaping.²⁷

A fifth factor making diagnosis less costly—obvious, perhaps minor, but certainly not trivial—is that new technologies directly lower the cost of gathering and processing information. A single analyst at the Food and Drug Administration, the Federal Trade Commission, or the Justice Department’s Antitrust Division, equipped with web access, Lexis-Nexis, and an off-the-shelf spreadsheet program, can do herself in a few days what would have taken a team of analysts weeks to accomplish twenty years ago.

When Should Therapy Come First?

“Diagnosis before therapy” is a rule of thumb, we noted, not a universal maxim. In certain medical circumstances, therapy rightly precedes diagnosis—when conditions are clearly life-threatening, for example, or when symptoms can be treated with some confidence independent of the underlying cause. Researchers have recently determined that high blood levels of

homocysteine (an amino acid) are associated with heart attacks, strokes, miscarriage, and other ailments. But nobody yet knows whether elevated homocysteine is a cause or a side-effect of pathology, and it is unclear whether driving down homocysteine does any real good. Yet physicians are advising some patients to get blood tests anyway and to take steps to reduce high levels of homocysteine. It happens that the therapy for lowering homocysteine—eating less meat and more green vegetables, plus reducing stress—is much more likely to be good for you than bad for you even if homocysteine turns out to be a red herring.²⁸

What conditions define analogous cases in the realm of market governance? We suggest three generic categories in which therapy can properly commence in advance of a full diagnosis.

First, and least interesting, are instances in which government has no discretion and diagnosis is superfluous. In some areas—the issuing of patents; certain regulatory arenas where cost-benefit analysis is explicitly proscribed—government is constrained to take action *X* whenever circumstance *Y* is encountered.

The second category includes instances in which even a temporary policy lacuna triggers irreversible consequences. These irreversibilities may be *technical* (the default is adoption of a flawed technical standard), *economic* (costly investments made in reliance on current policies), *legal* (formal or informal precedents that give property rights in status quo policy), or *political* (the accretion of constituencies with the motive and the means to resist subsequent efforts at governance).²⁹

And the third category—the homocysteine analogue—includes instances in which generically useful therapy can be initiated without precluding its replacement by a more refined, or utterly different, approach following diagnosis. Interventions involving information disclosure—mandating consistent reporting of pension fund adequacy or mutual fund performance, for example—presumably fall into this category.³⁰ Better education and training may also be a broad-spectrum remedy for a range of ills in the era of bigger, better markets.

We are not suggesting that these three sorts of circumstances are unknown or even uncommon; indeed, with a little reflection most students of policy could cite several plausible examples within each category. What we are claiming is that they are rarer than they used to be, and that in the age of bigger and better markets diagnosis is at once more challenging and tends to matter more.

Concluding Comments

If economists could manage to get themselves thought of as humble, competent people, on a level with dentists, that would be splendid.

—J. M. KEYNES, 1930³¹

The time cannot be far distant when a knowledge of Political Economy will be considered as necessary for legislators as knowledge of Greek.

—J. R. MCCULLOCH, 1823³²

We could turn out to be wrong. Markets may not be changing any faster, in the aggregate, than they used to; or (more likely) market turbulence may turn out to be a temporary phase—a jagged ridge connecting two placid mesas of relative stability. Alternatively, our arguments about the rising payoff of careful diagnosis could be mistaken. The proper watchword for government’s role when markets rule could conceivably be “shoot first and ask questions later,” rather than “diagnosis before therapy.”

But for the sake of argument, grant (to a first approximation) that our line of thinking is correct. Why might it be *interesting*? What can be more banal and less controversial than a call for more diagnosis in the face of uncertainty? It seems to go without saying. What makes us think it warrants such emphasis? There are three general reasons for our conviction that hasty diagnosis and premature prescription are special perils of governance in an age of bigger, better markets.

First, the game may change more quickly than the players. Most participants in debates about market governance—whether academics, politicians, lobbyists, business leaders, or civil servants—have sunk professional, psychological, and reputational investments into established models of market successes, market failures, and the wisdom of particular interventions. Just as generals chronically prepare to fight the last war, public officials and scholarly kibitzers dispense prescriptions to address the previous decade’s problems. This is a minor flaw in a stable world, but a major hazard amid rapid change. Alexander the Great could have stood in for Constantine, in a pinch, more easily than Patton could have replaced Powell. Analysts who cut their teeth on concentration ratios and price leadership may find their instincts outdated when industries cannot be defined, when

firms rapidly and repeatedly leap into and out of sharply different areas of endeavor, and when some prices hover near zero.

Second, "diagnosis before therapy" may seem to invite paralysis by analysis, serving as a backdoor counsel of conservatism. But this would miss the point; the guiding phrase is, "laissez faire—pour le moment." It is silent on the nature of the public interest, or on the typical merits or flaws of market outcomes. It merely calls for initial caution and ongoing intellectual diligence when constructing what eventually may turn out to be highly aggressive interventions.³³

Third, decisionmakers are accustomed to uneven and often shoddy service from diagnosticians. "Diagnosis before therapy" is an unremarkable recommendation in the medical arena, since patients have a well-founded expectation that expert assessment will lead to a better outcome. Academic social science, to a lamentably large degree, is ill-equipped and disinclined to offer practical guidance on emerging problems of market governance. How should Internet sales be taxed? Should new life-forms, gene sequences, or software capabilities be patentable? Even old questions take on new dimensions. In light of the changing nature of work, should overtime laws be abolished or broadened?³⁴ How should we feel about child labor if a teenager is scribbling software instead of stitching shirts?

Shopping for an accurate diagnosis is a daunting task. Policymakers encounter competing diagnosticians, many who are servants of particular interests or slaves to particular ideologies. But even scrupulously honest investigators tend to be handicapped by overspecialization and disciplinary blinders. Imagine if medical practice were similarly shackled, and one of us suffered, say, a compound fracture of the arm after balancing on the back of a chair to reach a volume on a top-shelf pile. We would call 911, and a bus-sized ambulance would roar up and disgorge a dozen or so white-coated specialists. The orthopedic surgeon would prepare a titanium pin for the broken bone; the plastic surgeon would push him aside to ponder the prettiest way to stitch the ripped skin; one specialist would test a bone chip and warn of inadequate calcium; another would assay the dripping blood and prescribe a crash program to reduce cholesterol. After a few such experiences, it would be understandable if the victim skipped the expert advice, splinted the break with supplies from the corner pharmacy, and hoped for the best. A similar plight sometimes confronts the policymaker seeking guidance on market governance. Diagnosis is too often rigged to justify the treatment an expert has long been peddling, or tuned to fit the dictates of theoretical elegance or disciplinary fashion.

For our academic colleagues, then, we counsel a measure more humility in the face of new classes of market governance problems.³⁵ We also advise a renewed commitment to *usefulness*—a commendable stance in general, and more so as the stakes of sound assessment rise. Careful diagnosis is an honorable craft, whether or not the candid analyst can offer some ready remedy. Diagnosis and prescription, even when bundled into the same treatise, should be sufficiently separable that those inclined to reject the recommended therapy can still benefit from the assessment.

And for practitioners, we emphasize our central theme: Market fluidity and uncertainty mean that objectionable market outcomes are apt to be imperfectly understood at any one point in time and likely to become less objectionable, or objectionable in different ways. Evidence and analysis are becoming more valuable, as is flexibility in the strategy and tactics of intervention. Substantial and systematic increases in governmental flexibility, however desirable, do not seem probable (at least in the short run). Hence government's role when markets rule, we submit, is likely to involve an unaccustomed, and doubtless uncomfortable, quotient of delay as evidence accumulates, cause and effect become better understood, and the mists of uncertainty dissipate.

Notes

1. Commentary on this broad phenomenon includes Daniel Yergin and Joseph Stanislaw, *The Commanding Heights: The Battle between Government and the Marketplace That Is Remaking the Modern World* (Simon and Schuster, 1998); William Greider, *One World, Ready or Not: The Manic Logic of Global Capitalism* (Simon and Schuster, 1997); Lester Thurow, *The Future of Capitalism: How Today's Economic Forces Shape Tomorrow's World* (William Morrow, 1996); Robert Kuttner, *Everything for Sale: The Virtues and Limits of Markets* (Alfred A. Knopf, 1997); George Gilder, *Telecosm: How Infinite Bandwidth Will Revolutionize Our World* (Free Press, 2000); and Thomas Frank, *One Market under God: Extreme Capitalism, Market Populism and the End of Economic Democracy* (Doubleday, 2000).

2. Government employment—military and civilian, at all levels of government—has ranged between roughly 15 and 20 percent of the work force since the Commerce Department's Bureau of Economic Analysis first compiled the National Income and Product Accounts data in 1948; it peaked at just over 20 percent in the late 1960s and early 1970s.

3. Anne Eisenberg, "Paying for Car Insurance by the Mile," *New York Times*, April 20, 2000, p. E20.

4. See the chapter by Deep and Schaefer in this volume.

5. Jeffrey Brown and Austan Goolsbee, "Does the Internet Make Markets More Competitive? Evidence from the Life Insurance Industry," National Bureau for Economic Research, draft of October 2000.

6. Richard J. Zeckhauser, "The Muddled Responsibilities of Public and Private America," in Richard J. Zeckhauser and Winthrop Knowlton, eds., *American Society: Public and Private Responsibilities* (Cambridge, Mass.: Ballinger, 1986), p. 73.

7. A.k.a. Bob Dylan, "Subterranean Homesick Blues," on *Bringing It All Back Home*, Columbia Records, 1965.

8. In mid-2000, Federal Reserve chairman Alan Greenspan highlighted the interplay between technological progress and flexible labor: "An intriguing aspect of the recent wave of productivity acceleration is that U.S. businesses and workers appear to have benefited more from the recent advances in information technology than their counterparts in Europe or Japan. Those countries, of course, have also participated in this wave of invention and innovation, but they appear to have been slower to exploit it. The relatively inflexible and, hence, more costly labor markets of these economies appear to be a significant part of the explanation." Remarks to the National Governors' Association, College Park, Penn., July 11, 2000.

9. See the chapters by Dani Rodrik and Jeffrey Frankel in *Governance in a Globalizing World*, Joseph S. Nye Jr. and John D. Donahue, eds. (Brookings, 2000).

10. "Countries that have had democratic freedom of organization without upheaval or invasion the longest will suffer the most from growth-repressing organizations and combinations." Mancur Olson, *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities* (Yale University Press, 1982), p. 77.

11. Aretha Franklin, "Think," Atlantic Records 2518, 1968.

12. A thoughtful perspective on this theme can be found in Charles Wolf Jr., *Markets or Governments: Choosing between Imperfect Alternatives* (MIT Press, 1988).

13. See John D. Donahue, "Jamming in the Symphony," in Donahue, ed., *Making Washington Work* (Brookings, 1999).

14. See William Samuelson and Richard Zeckhauser, "Status Quo Bias in Decision-Making," *Journal of Risk and Uncertainty*, vol. 1 (March 1988), pp. 7–59, esp. pp. 45–46.

15. The Internet has proven a remarkably effective device for sorting short-term workers into desirable engagements, and the growing number of skilled, and voluntary, contingent workers is almost certainly an important spur to growth and efficiency. It is not that the tales of exploited temps were fictional—they did, and do, exist—but that they turned out to be unrepresentative of a more benign broader trend.

16. We are indebted to Steven Hipple of the Bureau of Labor Statistics for a late-2000 update on the trend. The heterogeneity of nontraditional work is discussed in Anne E. Polivka, Sharon R. Cohan, and Steven Hipple, "Definition, Composition, and Economic Consequences of the Nonstandard Workforce," in Françoise Carré and others, eds., *Non-Standard Work: The Nature and Challenges of Changing Employment Arrangements* (Ithaca, N.Y.: Industrial Relations Research Association, 2000).

17. For some broader commentary on a related theme, see Stephen P. Breyer, *Regulation and Its Reform* (Harvard University Press, 1982).

18. We stress the term "preliminary"; a thorough treatment of this topic would form a nice dissertation chapter, and it may well do so for the graduate student who ran these numbers for us.

19. The sample of thirty correlation coefficients is not large enough to assess normality. If normality is assumed, the correlations for 1998–99 and 1999–2000 are statistically significantly below (at the 0.05 confidence level) those for the rest of the period. Non-parametric kernel estimation yields statistical significance only for 1999–2000. We thank Nikita Piankov for all calculations relating to these correlation coefficients.

20. *Statistical Abstract of the United States 1995*, table 1097: “Farms: Number and Acreage by Tenure of Operator” (GPO, 1995).

21. Data from Federal Election Committee website (www.fec.gov/press/paccnt_grph.html [October 2000]).

22. It would strengthen our case, obviously, if we could say that turnover among top contributors was systematically lower, say, thirty years ago, but comparable data for earlier years are not readily available. We will leave this to some enterprising doctoral student to explore.

23. Illustrating the murkiness of industry boundaries—and complicating comparisons over time—is the fact that although in 1990 Seagram’s was not in the communications and electronics industry at all, by the end of 2000 the free-spending entity formerly known as Seagram’s had become the global communications giant Vivendi.

24. Nearly 37 percent of U.S. stock funds held Microsoft stock in the second quarter of 2000, and of course a much larger fraction of computer users depend on its products. Aaron Lucchetti, “Is Microsoft Everywhere?” *Wall Street Journal*, July 10, 2000, p. R29.

25. The company’s early political ham-handedness is legend, of course. It is probably also significant that the case was brought by relatively apolitical units of governance using existing antitrust authority, rather than requiring new legislation or initiative by elected leaders.

26. Indeed, it appears that in some cases industry boundaries can only be drawn in hindsight.

27. One might object that these points apply only to “new economy” industries and are irrelevant to more settled sectors. Our general theme—diagnosis before therapy—admittedly matters less where problems are far from novel and therapies are tested by time. Yet the border between “old” and “new” economies is shifting and poorly marked as new technologies work their way through the system, making these observations more generally germane.

28. Jane E. Brody, “Taking Action before the Verdict Is In,” *New York Times*, June 13, 2000, p. D8.

29. Mergers have conventionally fallen into this category; a merger proposal, once approved or rejected, is not easily revisited.

30. Policies premised on the idea that more and better information is almost always a good thing have been the hallmark of Chairman Arthur Levitt’s tenure at the Securities and Exchange Commission, for example.

31. “Economic Possibilities for our Grandchildren,” 1930.

32. John Ramsey McCulloch—an early Victorian economist and foil of Charles Dickens—in a letter to George Pryme, May 26, 1823, in *Autobiographic Recollections of George Pryme* (Cambridge: Deighton-Bell, 1870), p. 127.

33. One of us is by instinct a hot Hamiltonian; the other a cool Schumpeterian. The merits of careful diagnosis are pretty much independent of one’s appetite for intervention, once the evidence is in.

34. Rules determining coverage by the forty-hour workweek rule are half a century old, and roughly a quarter of workers are now exempt. Cynthia M. Fagnoni, "Fair Labor Standards: White Collar Exemptions Need Adjustment for Today's Workplace," General Accounting Office Report T/HEHS/00/105, May 3, 2000.

35. Altered roles for patents, first-mover advantages, the roles of economic alliances (as distinct from mergers), increasing ambiguity about corporate nationality, privacy, ethical problems raised by biotechnology, and many other practical policy problems may prove resistant to the standard welfare economics models that traditionally inform debates about market governance.