

Does Technology Drive The Growth of Government?

Tyler Cowen
Department of Economics
George Mason University
Fairfax, VA 22030

June 22, 2009

*The author wishes to thank Pete Boettke, Mark Brady, Bryan Caplan, Paul Edwards, Jeff Friedman, Mark Grady, Wendy Gramm, Robin Hanson, Robert Higgs, Jeff Hummel, Laurence Iannaccone, Daniel Klein, Brian Mannix, Alex Tabarrok, Gordon Tullock, Tony Woodlief, and GMU seminar participants for useful comments.

I. Introduction

Why is government so large in the Western world? This has been a question of central importance to the Mont Pelerin society since its very beginnings.

I start with what Gordon Tullock (1994) has called the paradox of government growth. Before the late nineteenth century, government was a very small percentage of gross domestic product in most Western countries, typically no more than five percent. In most cases this state of affairs had persisted for well over a century, often for many centuries. The twentieth century, however, saw the growth of governments, across the Western world, to forty or fifty percent of gross domestic product. Other measures of government intervention, such as the regulatory burden, have grown as well. Whether or not we think these developments are desirable, they are among the most important features of the last one hundred and fifty years and they cry out for explanation. My basic focus is on the United States, although a comparative perspective can help us make sense of the evidence. I'd like to address the key question of why limited government and free markets have so fallen out of favor. Of course this investigation is only one small piece of that larger puzzle.

Extant hypotheses

A complete account of the causes of government growth would have a very large number of historical variables. But historically contingent explanations fail to address why government growth has proven the universal equilibrium for the developed Western nations and also for Japan. I thus consider some more general reasons for government growth, keeping in mind that economic and historical approaches should be seen as complements, not substitutes.

Public choice analysis has generated many theories of why government grows and why that growth is inevitable. Special interest groups, voter ignorance, and the pressures of war all are cited in this context. Those theories, however, at best explain the twentieth

century, rather than the historical pattern more generally. Until the late nineteenth century, governments were not growing very rapidly. The standard public choice accounts do not contain enough institutional differentiation to account for no government growth in one period and rapid government growth in another period. Some structural shift occurred in the late nineteenth and early twentieth centuries, and has remained common to the Western capitalist democracies.

A number of partial explanations have been suggested. One line of inquiry focuses on ideology and the shift in the intellectual climate. According to this claim, the philosophy of classical liberalism declined in the mid- to late nineteenth century. This may be attributed to the rise of socialist doctrine, internal contradictions in the classical liberal position, the rise of democracy, or perhaps the rise of a professional intellectual class. While the ideology hypothesis has merit, it is unlikely to provide a final answer to the Tullock paradox. To some extent ideology stems from broader social conditions. Ideologies changed, in part, because intellectuals perceived a benefit to promoting ideas of larger government, rather than promoting classical liberalism. It remains necessary to identify the change in social conditions that drove this trend.¹

Some authors attribute the rapid governmental growth of the twentieth century to war, international conflict, and crisis more generally. Robert Higgs (1987), in his Crisis in Leviathan, argues this position. He postulates a ratchet effect. For instance, state activity invariably expands in wartime, if only to fight the war. Taxes increase, resources are conscripted, and economic controls are implemented. When the war is over, some of these extensions of state power remain in place. The twentieth century, of course, has seen the two bloodiest and most costly wars in history, the two World Wars.

¹ This point does not suggest that all intellectuals cynically court power. Many changed their minds sincerely, due to some change in objective conditions. Or perhaps few individuals changed their minds, but some change in objective conditions caused socialists to win larger audiences at the expense of classical liberals.

Wars and crises no doubt play an important role in the history of the twentieth century, but again that is not the end of the story. The ratchet effect becomes much stronger in the twentieth century than before. Furthermore most forms of governmental growth probably would have occurred in the absence of war. The example of Sweden is instructive. Sweden avoided both World Wars, and had a relatively mild depression in the 1930s, but has one of the largest governments, relative to the size of its economy, in the developed world. The war hypothesis also does not explain all of the chronology of observed growth. Many Western countries were well on a path towards larger government before the First World War. And the 1970s were a significant period for government growth in many nations, despite the prosperity and relative calm of the 1960s.

A third answer to the Tullock paradox attributes governmental growth to the expansion of the voter franchise. In the early nineteenth century, voting rights typically were restricted to a small percentage of the population, typically wealthy male landowners. In many European countries there were no voting rights at all and no democracy. By the 1920s, this state of affairs had changed. Almost all of Western Europe was democratic. Men had voting rights in all the democratic countries, without regard for income or property qualifications. Women had the franchise in many of the democracies and would shortly win it in others. Under this hypothesis, widespread voting was the central force behind the move to larger government. The small governments of the early nineteenth century are portrayed as the tools of ruling elites. But once the franchise was extended, the new voters demanded welfare state programs, which account for the bulk of government expenditure.²

The hypothesis of franchise extension, however, again leaves much unexplained. First, non-democratic regimes, such as Franco's Spain, illustrate similar patterns of government

² Along these lines, Husted and Kenny (1997a), looking at data from state governments, find that the elimination of poll taxes and literacy tests leads to higher turnout and higher welfare spending. Lott and Kenny (1999) find that women's suffrage had some role in promoting greater government expenditures. Internationally, we observe that the relatively free Hong Kong was ruled by a British mandate for much of the twentieth century, rather than having democracy.

growth as do the democracies. Second, much of the Western world was fully democratized by the 1920s. Most governmental growth comes well after that date, and some of it, such as Bismarck's Germany, comes well before that time. Third, and most fundamentally, white male property owners today do not favor extremely small government, though they do tend to be more economically conservative than female voters. So the extension of the franchise, while perhaps a contributing factor, cannot be the driving reason for government growth. The franchise extension was typically a temporally limited process, based on a few major events. Governmental growth is an ongoing process, spanning a century or more.

No matter how incomplete it may be, there clearly must be something to the voter hypothesis. That is, there must be some demand for big government. If all or most voters, circa 2009, wanted their government to be five percent of gross domestic product, some candidate would run on that platform and win. Change might prove difficult to accomplish, but we would at least observe politicians staking out that position as a rhetorical high ground. In today's world we do not observe this. Voter preferences for intervention are therefore a necessary condition for sustained large government. Democratic government cannot grow large, and stay large, against the express wishes of a substantial majority of the population.

I therefore start with the notion of an ongoing demand for big government, both in absolute terms and as a percentage of gdp. I then consider why twentieth century technology might have changed supply-side factors to make big government more possible, and might have intensified the demand for big government. I do not consider this technology hypothesis to be a monocausal theory of government growth, as the theories surveyed above all have some validity or some explanatory power. Nonetheless I hope to argue that a focus on technology has been the missing element in the government growth story.

II. The Role of Technology

I consider technology as a partial explanation of the historical shift towards big government. The late nineteenth century and early twentieth century saw a fundamental change in the production technology for large government, and for large institutions more generally. Large institutional structures require a certain degree of communications, organization, and coordination. Only in the late nineteenth century did these structures become possible and big government was one result of that expansion of the production possibilities frontier.³

Government was small in previous eras, in part, because the technologies for supporting large government simply did not exist. In other words, big government might have always "been in the cards," for demand-side reasons, but only the twentieth century has brought large government on a national scale. Furthermore technology brought governmental growth across the world. The Western countries all have had access to (roughly) the same technologies, and at roughly the same points in time.

Which technology?

If technology drove the growth of modern government, starting in the late nineteenth century, which particular technologies have been responsible? What is the technological "smoking gun," so to speak?

The period from 1880 to 1940 brought numerous technological or technologically-based changes into daily life. The long list of new developments includes electricity, automobiles, airplanes, household appliances, the telephone, vastly cheaper power, industrialism, mass production, and radio, to name just a few examples of many. The railroad was not new but expanded greatly during this time period. A bit later the 1950s brought television into many American homes. I do not pinpoint any one of these factors

³ The historian S.E. Finer (1997a, 1997b) first suggested that technology was behind the rise of big government, though he did not consider this claim in the context of public choice issues. Bradford DeLong's unpublished manuscript, "Slouching Towards Utopia," sometimes available on the web in various parts, appears to cover related themes.

as the root technology of importance, as a number of them appear to have played significant roles. They both made big government more possible on the supply side and they increased the demand for big government. Consider just a few of the mechanisms that have been operating:

Transportation (automobile, airplane, railroad):

Transportation has made it possible to extend the reach of modern bureaucracy across geographic space. The railroad allowed the North to defeat the South in the Civil War. More generally, cheap transportation increased the reach and power of a central Federal government. Federal employees, police, and armies can travel to all parts of the country with relative ease. Transportation allows published bureaucratic dictates to be distributed and shipped at relatively low expense. "Government by ox-cart," so to speak, simply cannot be very large or very powerful.

Lower transportation costs also have allowed citizens, businesses, and organized groups to lobby Washington more easily. Individuals could now go to Washington, or could travel around their home region to generate political support for their lobbying. Transportation also increased national consciousness and encouraged people to think in terms of a large national government ruling a significant geographic expanse, thereby boosting the demand for big government as well.

Telegraphs and Telephones

The telegraph and telephone make it possible for a political center to communicate with a periphery at much lower cost, thus extending political reach. Telephones and telegraphs, like transportation, also "knit the nation together," and lead people to identify with their national political unit, rather than with their local political units.

Industrial capital and mass production as cash cows

The industrial capital originating in the late nineteenth century, and extending into the twentieth century, was relatively immobile. Factories, smokestacks, power plants, and assembly lines are difficult to move, once put into place. These large and immobile assets provided a tempting target for taxation and regulation. They also provide a large enough surplus so that people can be taxed heavily, without facing the prospect of starvation or being forced into revolt. When most of the population lives from small-scale subsistence farming, and takes income in-kind, it is much harder both to levy taxes and put the in-kind revenue to good use.

The growth of large-scale industry created subsequent lobbies to influence the government and seek favors and protection. The resulting businesses and labor unions now had the wealth and motive to reach out to Washington for favors. It is well known that many Progressive-era businessmen pushed for national regulation so they would not have to face separate regulations from each state (of course today we have ended up with both forms of regulation in many cases). When transportation costs were lower, and interstate commerce was less common, this trade-off did not exist.

Radio and television

Radio entered U.S. households in the 1920s and gave people the opportunity to hear their leaders for the first time. The personal element allowed political leaders to tap into the human desire for stories and myths. Franklin Delano Roosevelt was the first American President to receive large numbers of letters from the American public, largely because he spoke so frequently on the radio (Levine and Levine 2002). Without radio and mass newspapers, the totalitarian movements of the twentieth century could not have mobilized so much mass support. Railroads and motorized vehicles allowed these governments to control large geographic areas. Mao's China was hardly a vanguard of advanced technology, but without railroads, radios, and telegraphs that level of centralized tyranny would not have been possible.

Television pushed the personalization of politics one step further. Television entered American homes in the 1950s. American television has mobilized numerous "popular" political movements, including opposition to the Vietnam War, the consumer protection movement, and the environmental movement. Television favors a politics based around simple and emotional issues that can be seen on screen. It favors narrative, discourages analysis, and discourages an emphasis on unseen "opportunity costs" of government policies. Nationally-based network television also led to a greater focus on national rather than local issues, again strengthening the power of the central authority.

Communications and management

The mid- to late nineteenth century saw the growth of large-scale bureaucracy in the Western world. This development required advances in recording, processing, manipulating, and communicating data within an organization and also across organizations. Welfare states could not have arisen unless central governments had means of identifying, tracking, and monitoring potential recipients. In addition to the technological advances mentioned above, doctrines of "scientific management" arose to support the organizational use of information. These doctrines supported regulatory bureaucracies and enabled the widespread use of transfer payments.

We take the practices of modern bureaucracy for granted, but most of them are quite recent. Until the late nineteenth century, no large government had the capacity to keep, organize, order, access, and retrieve detailed records on all of its subjects. For instance, the British government did not organize its paper records in terms of "files" until 1868 (Finer 1997b, p.1617). Subsequent advances in information management allowed Western governments to penetrate systematically into the lives of their subjects and today possibilities for electronic surveillance create further opportunities for government growth.

Tax-collecting technologies

The inability to collect taxes is a primary factor keeping many governments small in the developing world today. Most of the technological advances described above make it easier for governments to collect taxes, and thus make it easier for governments to grow. Perhaps most importantly, a wealthier economy will have many citizens working at legitimate, regular businesses with a distinct physical locale. Those institutions will have regular and reliable methods of accounting and reporting. The growth of the publicly owned, limited liability corporation, also helped create the systematic records that make corporate taxation possible. Collecting taxes is easier in an economically advanced environment.

Growing wealth

Government is to some extent a luxury good. Wealth above subsistence allows people to vote to assuage their consciences, even if the collective result of such votes destroys wealth and opportunity (Brennan and Lomasky 1993). Wealthier societies appear to have a disproportionately greater demand for government interventions of many kinds, simply because they can afford them.

In sum, no one of these technological advances serves as the cause of governmental growth. Taken as a group, however, these factors made very large government possible for the first time.

To see this, perform a very simple thought experiment. Assume that we had no cars, no trucks, no planes, no telephones, no TV or radio, and no rail network. Of course we would all be much poorer. But how large could government be? Government might take on more characteristics of a petty tyrant, but we would not expect to find the modern administrative state, commanding forty to fifty percent of gross domestic product in the developed nations, and reaching into the lives of every individual daily.

Think also about the timing of these innovations. The lag between technology and governmental growth is not a very long one. The technologies discussed above all had

slightly different rates of arrival and dissemination, but came clustered in the same general period. With the exception of the railroads and the telegraph (both coming into widespread use in the mid-nineteenth century), none predated the late nineteenth century, exactly the time when governmental growth gets underway in most parts of the West. The widespread dissemination of these technologies often comes in the 1920s and 1930s, exactly when many Western governments grew most rapidly, leading sometimes to totalitarian extremes. The relatively short time lag suggests that strong pressures for government growth already were in place. Once significant governmental growth became technologically possible, that growth came quickly.

The corporate analogy

The technology hypothesis predicts that other organizations -- not only governments -- should have experienced a comparable expansion in size and at roughly the same time. This is exactly what we observe. Prior to the American railroads, which arose in the middle of the nineteenth century, private business corporations were not typically very large. The costs of control and large-scale organization were simply too high and no single business had a truly national reach.

The railroads paved the way towards larger corporate sizes. Not only did technology now make larger companies possible, but large corporate units were needed to manage and coordinate the new nationwide network of trains. In 1849 American railroads reached only 7,365 miles. By 1870 this had increased to 52,922 miles; by 1919 it was up to 253,152 miles. The large railway companies rose in tandem with this growth in the size of the network.⁴

Following the railroads, large corporations arose in steel, oil, and later automobiles, to name a few examples. The United States Steel Corporation was the largest of the new behemoths. The J.P. Morgan banking syndicate created the company in 1901, through a

⁴ On the rail numbers, see Warren (1996, p.2). On the growth of large rail companies, see Chandler (1965).

merger of numerous smaller firms. The new company owned 156 major factories and employed 168,000 workers. The capitalization was \$1.4 billion, an immense sum for the time, and the company's annual income soon exceeded that of the U.S. Treasury. For purposes of comparison, when the Erie and Champlain canals were built for about \$7.5 million each, earlier in the century (the nineteenth century had rough price stability), these projects exceeded the size of any business enterprise at the time.⁵

U.S. Steel was the largest company of its time, but it was hardly an isolated example. Merger waves swept most major American industries. Other very large companies followed, including General Electric, National Biscuit Company (Nabisco), American Can Company, Eastman Kodak, U.S. Rubber (later Uniroyal), and AT&T, among others. This corporate growth started during the late nineteenth and early twentieth centuries, precisely when government growth was taking off.

Large corporations and large governments have common technological roots. We cannot imagine large railroad firms without relatively cheap power, high demands for transportation, and the ability to process and communicate information effectively. The railways at first relied heavily on the telegraph and later used electricity and radio communications. Successor large corporations needed new technologies in similar fashion. Standard Oil, for instance, relied on advanced transportation systems, including railroads, to receive its inputs, to recruit labor, and to ship and sell its products. Radio and other technologies also enabled mass marketing, which led to the establishment of nationwide brands and thus larger firms.

We do see that some corporations grow large before government does, by several decades, but this should come as no surprise. We should expect that private firms are more adept at adopting new technologies than are governments.

History of governments

⁵ On U.S. Steel, See Chambers (1982, pp.54-5). On the canals, see Chandler (1965, p.43).

The technology hypothesis also finds support from a broader swathe of human history. Consider a society of hunter-gatherers, as we still find in the Pygmies of Central Africa. Under some interpretations Pygmy society has a kind of anarchy. The reason for this state of affairs is obvious. It is not due to the Pygmy electoral system, Pygmy ideology, or the infrequency of Pygmy war. The Pygmies simply do not have any large-scale formal institutions of any kind. A typical Pygmy family (at least those who continue to live a traditional Pygmy existence; there are migrants to other cultures) will not own any more than its members can carry on their collective backs, when moving from hunting camp to hunting camp. Given this low level of technology, big government, for the Pygmies, simply is not an option.

The first large-scale empires required significant changes in technology to support their activities. The advent of writing, arithmetic, and large-scale cities is typically traced to the Sumerians, located in Mesopotamia (modern-day Iraq), in approximately 3500 B.C. Bureaucracy suddenly became possible, and it arose quickly. The Sumerian bureaucracy made extensive use of files, records, and archives, all new technological developments at the time (see *Finer 1997a*, 105-131). A big leap forward in human history – made possible by technology – also led to a significant increase in state power, just as we find in the early twentieth century.

The Persian Empire was one of the more impressive absolute states of antiquity. It survived for more than two centuries (550-300 B.C.) and in size covered the equivalent of 70 percent of the current surface area of the United States. Herodotus cited it as an example of tyranny, relative to the liberty of the Greek city-states. But again we see that technology limited its daily control over the lives of its subjects. The problem is easy to see. It took a traveler 67.5 days to cross the empire, and it took an army ninety days. Special couriers on horses could do it in seven days. The Persians therefore governed through a simple formula, as explained by *Finer (1997a, pp.297-8)*: “[They] set themselves the most limited objectives possible, short of losing control: in brief, to

provide an overarching structure of authority throughout the entire territory which confined itself to two aims only: tribute and obedience. Otherwise *nothing*.”

The Egyptian dynasties were among the most totalitarian of the great states of antiquity. They relied heavily on bureaucracy, formal taxation, and centralized record keeping. It was only through a fluke of nature, however, that the Egyptian empires grew to any significant size. The Nile ran through most of the Egyptian kingdoms and served as a highway, bringing the state rapidly within the reach of most of the population. It was possible to either float downstream with the current, or to move upstream with the wind, by hoisting a sail. Egypt therefore had the best communications system of the ancient world, and not surprisingly, as a result, the Egyptians lived under some of the strongest tyrannies.⁶

We can imagine a "Tullock paradox" from the vantage point of 2000 B.C. or so. The paradox might run as follows: "For thousands of years mankind had no large-scale empires or bureaucracies. Suddenly government became much larger in Sumeria, Egypt, and other locales, and has stayed large." While our historical understanding of this period is incomplete, new technologies appear to have been central to the growth of empire in that time. The same advances that boosted living standards also boosted centralized rule.

The centuries to follow brought many tyrannies and empires, larger than what had preceded the technological revolutions of Sumeria and its immediate neighbors. Yet none of these regimes had the technology to support our contemporary idea of big government. Historian Jean Dunbabin (1985, p.277) puts it starkly: "nobody was governed before the late nineteenth Century."

Imperial China presents another example. The ideology was highly statist and there were few legal checks and balances. Finer (1997a, pp.73-4) wrote: "In principle the emperor knew no substantive or procedural limits to his authority, and the localities, down to the

villages, were supposedly completely controlled and directed from his palace.” In reality, however, the reach of the emperor was quite modest. Finer (1997a, p.73) tells us that in Imperial China “the scope of the central government was, of course, very much narrower than in our own day.”

Subsequent regimes took numerous forms, but we can see common patterns. Some regimes, such as many of the Greek city-states, were small-scale tyrannies. A tyrant or oligarchy would rule a city or a small geographic area. The ruling party or parties would control many aspects of city life, political, economic, or otherwise, but only on a small scale. In other words, the rule of government could be highly intensive, but it was not typically very extensive.

Larger-scale empires were mechanisms for extracting tribute rather than well-honed sources of detailed rule. A central set of rulers would oppress a much larger geographic area, as was the case with the Mongol or Aztec empires. Yet the reach of those central rulers was limited by modern standards. The central ruler could exercise greater control of outside areas only by occupying them and sending in troops. Troops were sent when tribute was not paid, revolution threatened, or the area became a frontier in a war with another political unit. Yet once the troops were gone, the local authority reasserted its control over daily life. The rulers did not have the capacity to extend regularized control over daily life for the entire empire. They could not issue, communicate, and enforce the kind of detailed laws and regulations that emanate from Western governments today. So for much of recorded human history we had a combination of oppressive local governments, on a small scale geographically, combined with the payment of tribute to an external central ruler.⁷

If we look to American history, slavery is the greatest tyranny we find, and the greatest infringement of individual liberty. This institution came before the advent of big government. American governments, of course, supported slavery in many ways, but the

⁶ See Finer (1997a, p.135, *passim*).

⁷ See Finer (1997b, pp.1615-1618).

primary enforcement mechanism was local, either the slave owner himself or his nearby supporters in the town. Government sanctioned a system of private violence and oppression, but the government of that time did not have the reach or the machinery to run a full-scale slave economy.

Today's low-technology countries, the poorer ones, tend to have governments that harken back to times past. These governments may be highly corrupt and destructive, but they do not typically command a very large share of gross domestic product. They do not exercise direct and daily control over the lives of most of their citizens.

Haiti, for instance, is arguably the basket case of the Western hemisphere. Per capita income ranges around \$400, literacy rates run about fifteen percent, and life expectancy barely exceeds forty. The rate of malaria infection is almost one hundred percent. Haitian government, if that word can even be used, is little more than a group of thugs. Yet the Haitian government is twenty percentage of measured gross domestic product, arguably half that percentage if we count black market activity, which does not show up in formal national income statistics. Haitian politicians are brutal and corrupt, but they do not have the power to control most of the country. Haiti, of course, also has a very low level of technology. Most parts of the country have neither electricity nor running water. Most of the country's roads are barely passable. Few people have cars. The country has an "oral culture," which relies very little on newspapers or television (though radio is important). Most of the Haitian countryside lives in a state of virtual anarchy or there is rule by local gangs.⁸

Botswana provides the contrasting case. Unlike most African polities, which stand closer to Haiti, Botswana has democratic government, a semblance of rule of law, and a developed market economy. Botswana also has a government that stands at about forty percent of measured gross domestic product, comparable to the United States or Western

⁸ For figures on Haiti, and other poor countries, see for instance Holmes, Johnson, and Kirkpatrick (1997). Ayubi (1995) interprets the Arab world as being inhabited by weak and insecure states, thus leading to tyranny.

Europe. Unlike Haiti and many of its African neighbors, Botswana has enough order and progress to allow government-generating mechanisms to take hold. The same institutions and technologies that make good government possible also tend to make government large.⁹

III. Implications for reform

What does the technology hypothesis imply about the necessity of big government? Is large government inevitable in the developed countries? Or can reform procedures, at least in principle, bring about a smaller government?

We can see some immediate reasons why big government is hard to reverse, namely the difficulty of altering the underlying causes of big government. We could make government smaller by throwing away modern technology, but that is hardly a desirable recipe for political reform.

The technology hypothesis works best as an account of necessary conditions rather than sufficient conditions. The above arguments have stressed how technology made big government possible for the first time. But not every possible event comes to pass. I have largely taken the demand for big government as a given, but the question remains whether this demand is necessary or contingent.

The technology hypothesis does allow demand to be malleable to some extent. As discussed above, technology helps people develop a national consciousness, allows political leaders to make emotional appeals to people, and focuses public attention on national politics rather than on regional issues. But it remains an open question whether demand might be malleable in ways that lead to smaller government.

We also can identify some examples of "governmental overshooting." Political systems sometimes generate more government than can be sustained over a longer run. During

⁹ On Botswana, see "Economics Focus: The African Exception" (2002).

World War I, the Wilson administration drew up systematic plans to collectivize the entire American economy in peacetime as well as war. Government was relatively small at this time, by contemporary standards, but arguably this moment represents the high-water mark of collectivist thinking in the United States. The plans did not last, although Roosevelt tried to resurrect a version of them with his New Deal NRA. Nazi Germany and Communist Russia both relied heavily on modern technologies for their forced collectivizations and conquests. They used the radio, the tank, and the modern bureaucracy for totalitarian ends. Both of these regions still have large government today, but of course in much more benign forms.

In these cases, it appears that new technologies enabled the spread of a fascist intoxication with power, both among leaders and the general citizenry. Both Hitler and Mussolini had considerable popular support, and even the New Deal had fascist (and popular) elements. Political and cultural institutions were not well equipped to handle the social implications of the new technologies of radio, electricity, and easy transportation. Those technologies made mass culture possible and in the realm of politics that mass culture translated into fascism. Only after bitter experience did fascist ideas become less popular and social and political norms subsequently evolved to protect electorates against the fascist temptation. In any case, these examples raise the question of whether we might see a subsequent evolution of institutions today, reversing how mass media and technology have shaped our politics.

If big government is to go away, we should not look to the past. Earlier times probably had no greater love of liberty than does the present. Previous eras simply could not afford big government, and did not have the technologies to support it. The analysis of this paper raises a possibility, namely that perhaps earlier individuals would have jumped on the big government bandwagon as soon as they had the chance to do so. For that reason, we should be skeptical of plans to recreate the historical or intellectual conditions behind "classical liberalism," whatever that might mean. Such a strategy probably would not bring about classical liberal outcomes in the modern world.

Classical liberal doctrine frequently identifies the growth of government as an enemy of human freedom. Indeed government often acts to restrict liberties. And it might be better, and more conducive to liberty, if we had a smaller government. Nonetheless when we examine the broader historical picture, big government has been one result of a more general increase in wealth and freedom. For this reason, a simplistic “liberty vs. power” story is unlikely to mirror reality or prove persuasive. Modern technology, combined with ongoing demands for big government, has brought us both more liberty and more power at the same time.

However it is one very distinct possibility that modern technology makes government a larger and larger percentage of gdp over time. In the United States recent job growth has been concentrated in the sectors of health care, education, and government itself. Both health care and education are, for better or worse, relatively “government-intensive” economic sectors. If they grow as a percent of gdp, government will probably grow as a percent of gdp as well. Very productive, lightly regulated segments of the private sector tend to shrink as a percentage of overall gdp because of their overall success in lowering costs, just as agriculture has shrunk as a percentage of gdp over the last few centuries.¹⁰

Future technologies?

I often hear it argued that new technologies will bring about greater possibilities for freedom. For instance cyberspace, technologies for on-line anonymity, and genetic engineering might someday disfavor large government (Friedman 2008). That being said, future technologies, and their effects, have been notoriously difficult to predict in the past. So we should be cautious in drawing conclusions here.

Others argue that greater competition across governments has brought greater freedom to the world, or will bring greater freedom in the future (McKenzie and Lee 1991). We hear

¹⁰ Matt Yglesias wrote an interesting blog post on related ideas:
http://yglesias.thinkprogress.org/archives/2009/01/the_case_for_ever_bigger_government.php

how freer capital movements impose discipline on governments and force them to institute better policies. As resources become more mobile over time, we might expect such constraints to produce more freedom in the longer run.

Such hypotheses, however, do not find support in the data. The evidence shows that small open economies tend to be more interventionist rather than freer (Rodrik 1998). The more open the economy, the more risk that individuals face from the perturbations of larger world markets. These citizens then tend to favor more government intervention, not less, to protect themselves against those risks. As history progresses, we see more anecdotal examples to support this general statistical result. Global markets have punished many poorer countries, such as Argentina or Indonesia, for their bad interventionist policies. Often the end result is more government intervention, not less. Canada is a more “open” economy than is the United States, yet it typically has greater government intervention and higher levels of government spending. The Nordic economies are both very open and have lots of government spending, although they also have a relatively light regulatory hand.¹¹

More technology need not undo the politicization of societies. Future technologies may either increase or decrease the role of government in society, but if history shows one thing, it is that we should not neglect technology in understanding the shift from an old political equilibrium to a new one.

¹¹ Openness does appear to help some countries, such as New Zealand. External constraints forced them to reform in the 1980s, if only to stave off disaster. Furthermore, in historical terms, competition between European governments played a critical role in encouraging liberalization and spurring the industrial revolution. Nonetheless, in today’s world, the degree of economic openness, all other things held equal, predicts more intervention rather than greater liberty.

References

Ayubi, Nazih N. *Over-Stating the Arab State: Politics and Society in the Middle East*. New York: I.B. Tauris Publishers, 1995.

Brennan, Geoffrey and Lomasky, Loren. *Democracy and Decision: The Pure Theory of Electoral Preference*. Cambridge: Cambridge University Press, 1993.

Chambers II, John Whitney. *The Tyranny of Change: America in the Progressive Era 1890-1920*, second edition. New York: St. Martin's Press, 1982.

Chandler, Alfred D. Jr., editor. *The Railroads: The Nation's First Big Business*. New York: Harcourt, Brace & World, 1965.

DeLong, Bradford. "Slouching Towards Utopia: The Economic History of the World in the Long Twentieth Century 1870-2010," unpublished manuscript, various web editions and excerpts.

Dunbabin, Jean. *France in the Making*. Oxford: Oxford University Press, 1985.

"Economics Focus: The African Exception." *The Economist*, March 30th, 2002, p.68.

Finer, S.E. *The History of Government from the Earliest Times*. Volume I, Ancient Monarchies and Empires. Oxford: Oxford University Press, 1997aa.

Finer, S.E. *The History of Government from the Earliest Times*. Volume III, Empires, Monarchies, and the Modern State. Oxford: Oxford University Press, 1997b.

Friedman, David. *Future Imperfect: Technology and Freedom in an Imperfect World*. Cambridge, Cambridge University Press, 2008.

Goode, Erica. "Finding Answers in Secret Plots." *The New York Times*, Sunday, March 10, 2002, WK3.

Hayek, Friedrich A. *The Intellectuals and Socialism*. Menlo Park, California: Institute for Humane Studies, 1971 [1949].

Higgs, Robert. *Crisis and Leviathan*. New York: Oxford University Press, 1987.

Holmes, Kim R., Johnson Bryan T., and Kirkpatrick, Melanie. 1997 Index of Economic Freedom. Washington, D.C., The Heritage Foundation, *Wall Street Journal*, 1997.

Husted, Thomas A. and Kenny, Lawrence W. "The Effect of the Expansion of the Franchise on the Size of Government." *Journal of Political Economy*, 1997, 105, 54-82.

Levine, Lawrence W. and Levine, Cornelia, R. *The People and the President: America's Conversation with FDR*. Boston: Beacon Press, 2002.

Lott, John R. and Kenny, Lawrence W. "Did Women's Suffrage Change the Size and Scope of Government?" *Journal of Political Economy*, 1999, 107, 6, 1163-1198.

McKenzie, Richard B. and Lee, Dwight R. *Quicksilver Capital: How the Rapid Movement of Wealth has Changed the World*. New York: Free Press, 1991.

Rodrik, Dana. "Why Do More Open Economies Have Bigger Governments?" *Journal of Political Economy*, 1998, 106, 97-1032.

Tullock, Gordon. "On the Growth of Government." Unpublished manuscript, George Mason University, 1994.

Warren, Kenneth. *Triumphant Capitalism: Henry Clay Frick and the Industrial Transformation of America*. Pittsburgh: University of Pittsburgh Press, 1996.