At one point in the recent Ebola crisis in West Africa, the situation was so dire that Liberia’s defense minister declared the pandemic a “serious threat” to Liberia’s very existence. Such a pronouncement was not unwarranted. Still, most Americans probably think the defense minister was guilty of hyperbole. This American cultural prejudice stems in large part from the belief that the American health and social institutions are more stable than Liberia and other developing nations. And, of course, there are some good reasons for thinking that. But this relative stability does not mean that America, and particularly America’s leaders, can afford to ignore the concept of potential existential threats to the U.S. and to developed countries as a whole. Beyond the potential problem of a deadly pandemic, other system-threatening catastrophes could include a nuclear attack, a grid meltdown, or complete economic collapse.

Presidents and top government officials plan for a wide variety of possible disasters, but the complete collapse of the U.S. government is rarely contemplated. It is true that the U.S. government has some continuity of government protocols, but it is not clear how or whether they would be adhered to if things became so bad that they necessitated the use of such protocols. If such a systemic disaster were ever to take place, the immediate and longer term responses by America's leadership class would have profound implications both for the entire U.S. citizenry, but also for the prospect of human freedom worldwide. While this type of collapse may not be a likely scenario, it would be so devastating to the entire citizenry that it requires at least some
serious thought and planning. This chapter will examine U.S. thinking on the problem of systemic collapse, and make recommendations to policy planners for how to prevent some of the gravest dangers – and how to prepare should the worst happen.

The Viral Danger

Ebola is a legitimate concern, but it is far from the only viral threat the U.S. faces. In fact, it is worth remembering that the Spanish Influenza of 1918-19 killed approximately 50 million people, including 675,000 Americans. It infected more than a quarter of the U.S. population and even reduced U.S. life expectancy by an entire decade. It even ravaged the battlefields and encampments of World War I, where it was responsible for 43,000 of America’s 116,000 deaths in that war. Even more sobering is the realization that flu is not a tropical exotic. It comes every year, in different strains. Fortunately, none of the strains over the past century have been as deadly as the 1918 flu, but flu remains a real danger.

As recently at the 1990s, the U.S. could count on an average of 36,000 deaths annually from flu. That number has gone down in recent years, in large part due to widespread use of the annual flu vaccine. But the vaccine itself, while a lifesaver, is far from perfect. In the 2014-2015 flu season, the vaccine effectiveness – the percent by which a vaccine reduces your risk of getting the disease -- was as low at 18 percent. Even in a so-called good year, the vaccine effectiveness rate is in the 60 to 90 percent range, so the possibility of vaccine failure remains a constant, if low grade threat.
Other worrisome pathogens include MERS – the Middle East Respiratory Syndrome – and SARS. MERS emerged in 2012 and infected more than 700 people. The disease, which appeared to originate in Saudi Arabia, was particularly worrisome because of the Hajj, the annual pilgrimage of 2 million Muslim worshippers to the holy city of Mecca. This annual event worried public health officials, as it threatened to carry MERS to all corners of the globe. SARS, a related coronavirus, killed about 800 people and cost the world economy about $50 billion in 2002-2003.

In addition to these naturally-occurring diseases, there is also the concern of bio-terror, a deadly man-made pathogen that could spread far and wide and overwhelm our public-health capabilities. U.S. intelligence officials know that there are people who wish to do us harm and are actively looking at ways to use bioweapons against U.S. ISIS, for example, has been looking at ways to weaponize the Bubonic plague. In addition to all of the threats that we know about are the unknown threats. A new and deadly disease is a possibility. Only 30 years ago few had heard of or understood HIV-AIDS.

Fortunately, modern medicine has made great strides in dealing with deadly diseases. A century ago, a mere infection posed a mortal threat to humans, and now antibiotics have given humankind the capacity to detect and defeat once-deadly infections. But there are limits to what modernity can accomplish, and modernity brings with it its own dangers. While we have solved many medical puzzles, far more remain unsolved, without vaccines or cures to address them. Modern air travel, so beneficial to the spread of commerce and of ideas, also brings with it vulnerability to the spread of deadly diseases. Diseases that would once stay in only one remote
corner of the world, or, if they spread, spread very slowly, can now ricochet around the globe in real time.

When it comes to deadly diseases, technology is a two way street. While we now have greater tools to combat diseases, the dangers are now greater as well. Technology allows bad actors to develop bioterror weapons that can wreak untold horrors anywhere around the world. It would be relatively simple for a competent scientist to create and distribute a deadly pathogen. Even if such a pathogen did not cause mass casualties, it could cause mass panic, with news of an outbreak spread immediately throughout the world via both the traditional and social media. In addition, modern transportation networks would not only allow the disease to spread, but would also allow the perpetrator to escape quickly to anywhere around the world within 48 hours.

In such a scenario, though, technology would be our friend as well. Both private and public sector actors have the capacity to identify and emerging disease in real time. Existing stockpiles of countermeasures mean that there is a good probability that the vaccine or treatment for the new pathogen already exists. And if no countermeasure existed, there is a good chance that one could be created and brought to market in a relatively short time. As for the modern transportation system could be an ally as well, allowing for rapid transport of disease samples to the relevant laboratories, and quick distribution of an existing countermeasure, should one exist. Modern law enforcement tools would also make it hard for the assailant to escape the long arm of the technologically-enhanced law.
The threat of a deadly disease rising to pandemic proportions highlights the need to expand U.S. efforts to prevent their spread – and if they occur, stop them. Doing so requires a number of key steps. First, we must revisit our existing capabilities and make sure we can do what we say we can do. In the run-up to the Ebola outbreak, U.S. health officials were overly optimistic about the U.S. health system’s ability to control Ebola within the United States. When the first U.S. Ebola patient arrived at a Dallas hospital, it quickly became clear that not every U.S. hospital was prepared to deal with a deadly contagion like Ebola. The hospital misdiagnosed the patient, then sent him home where he could have potentially infected others. After readmitting him a few days later when it was obvious that he had Ebola, the patient then infected two health care workers at the hospital. The patient, Thomas Eric Duncan, died, but the two health care workers survived. Following this incident, the Centers for Disease Controls changed its protocols for dealing with Ebola and later released a more limited list of hospitals that were equipped to handle Ebola patients.

We also need to improve our detection capabilities. The World Health Organization was slow to recognize what was happening with Ebola in West Africa, just as PAHO – the Pan American Health Organization – tarried in picking up the H1N1 “Swine Flu” in Mexico in 2009. U.S. officials need to improve our detection capabilities by using private-sector technology and innovation to counter the slowness and siloed nature of government bureaucracies.

Third, we need to accelerate the development of countermeasures, which is a painfully slow process. The U.S. already has existing programs to address this issue, such as 2004’s Project Bioshield to finance and promote medical countermeasures, but they have proven to be
insufficient. Just to take one example, the NIH reported promising research on an Ebola vaccine for monkeys in 2000, yet the 2014 outbreak occurred without a vaccine available for human use. Congress needs to improve the incentives and process for countermeasure development.

All of these will face resistance from entrenched bureaucracies. Public health officials do not want to hear that their protocols are insufficient or ineffective. There will be internal resistance to relying on private sector detection methods rather than existing government systems. And Congress will be reluctant to spend more money on countermeasure development. Indeed, funding for the Strategic National Stockpile has been dropping in recent years.

Despite these challenges, it is important that the U.S. government persist in developing contingency plans for potentially deadly disease outbreaks. Recent evidence shows that our existing systems are inadequate and need to be bolstered, if not overhauled. Since 9/11, we have made great strides in improving our capabilities in this area, against both natural and man-made threats. But the job is clearly not yet done. More work remains if we are going to keep the American people safe from the viral threats we face. If we fail, and a killer disease of the magnitude of the 1918 Spanish Flu, or worse, takes hold, our entire interdependent global economy could grind to a halt, taking government systems with it as well.

**Grid Collapse**

Another worrisome threat that can potentially wreak havoc and devastation on our system of government and our way of life is threats to our electric grid. The hack of Sony over the movie
The Interview, likely done by North Korea, underscores how vulnerable companies are to some kind of cyber attack. Companies differ from government, of course, but much of our vital infrastructure is privately run. Concerns about a collapse of our computer-based systems continually remain high in the public consciousness. As Peggy Noonan wrote in The Wall Street Journal, “all our essentials and most of our diversions are dependent in some way on this: You plug the device into the wall and it gets electrical power and this makes your life, and the nation's life, work. Without it, darkness descends.”\(^1\) That darkness could strain the bonds of civilization relatively quickly. According to the Brookings Institution’s Joseph Kramek, writing in 2013, “Utilities provide services which, if disrupted for long periods of time, may result in economic chaos and may even lead to social unrest.”\(^2\)

The author John Steele Gordon encapsulated our level of dependence on computers in the following “thought experiment”: “Imagine it’s 1970 and someone pushes a button causing every computer in the world to stop working. The average man on the street won’t have noticed anything amiss until his bank statement failed to come in at the end of the month. Push that button today and civilization collapses in seconds.” The starkness of our dependence happened, Gordon explained, “because the microprocessor is now found in everything more complex than a pencil.”\(^3\)

These fears have lately been manifesting in the realm of popular culture. Some kind of attack that takes out power, utilities, and our entire computer-based system remains a constant concern in movies, TV, and popular books. In Die Hard 4: Live Free or Die Hard, cyberterrorists attack multiple pieces of the web-based grid in order to pull off a massive heist. In the remake of Red
Dawn, our nation becomes vulnerable to outside attack when an EMP disrupts all of our advanced weaponry, taking out the electricity in the process. A host of recent TV shows, including the *Walking Dead*, *Revolution*, *Dark Angel*, *Falling Skies*, and *The Last Ship* – not to be confused with the similarly themed *The Last Man* – humanity must cope with a world in which most if not all of our pre-existing systems are no longer available. And the 2009 book *One Second After*, specifically designed to scare Americans about the prospects of a successful EMP attack, became a bestseller. Wikipedia even has an entry dedicated to “Electromagnetic pulse in fiction and popular culture.” Clearly there is a growing fear in the collective consciousness of the nation regarding the devastating impact such an attack could have on our way of life.

Beyond the pop culture concerns, though, there is some evidence that we do face a very real threat. In the winter of 2014, it emerged that there had been a systematic effort to disrupt the power supply in the area of Silicon Valley. Some unknown assailant or assailants cut fiber-optic cables, and fired bullets from an AK-47 into 17 of 23 transformers at the Metcalf power substation in San Jose, California. Other than the damage it caused – which took a month to repair – the general public knows little about this attack. If the upper echelons of government know more, it remains unknown.

There were a number of worrisome elements to this attack. First, it appears to have been well planned, well targeted, and strategically executed. Attacking Silicon Valley, the home of so much our cyber-intellectual capital, would have a disproportionately large impact on our nation as a whole. Effects of a coordinated attack on our power systems could have national
implications. According to The Wall Street Journal’s Rebecca Smith, disabling as few as nine of the 55,000 electric-transmission substations in the U.S. on a high usage day could lead to “a coast-to-coast blackout.”

While this particular attack appeared focused on a single area, the attackers seem to have known what they were doing, and planned the attack to inflict the maximum possible damage. As Former Federal Energy Regulatory Commission head Jon Welinghoff said, it was a “purposeful attack, extremely well planned and executed by professionals who had expert training.” Compounding all of this was the fact that the attack happened in April of 2013, and the general public did not even find out about it until February of 2014. And yet, despite that enormous time lag, the FBI still does not appear to have any idea who had carried out the attack, and at the time were unwilling to characterize it as terrorism.

Beyond this mysterious assault on one of our physical power stations, we also face the constant threat of cyber attacks, against our power supply, against weapons systems, and against our information systems. Cybercrime alone costs the U.S. $100 billion annually, and $575 billion worldwide. Another estimate, by the Center for Strategic and International Studies, found that cybercrime and economic espionage combined cost the world economy some $445 billion annually. Whichever number you pick, the sheer scale of cyber assaults is staggering. According to Politico’s Tal Kopan, “if cybercrime were a country, it would have the 27th largest economy in the world.”

 While cybercrime itself does not rise to the level of disaster, its existence speaks to the prevalence of hacking, which is the method by which an attack on the grid could happen.
Government officials are seriously concerned about this problem. The 2000 Obama presidential campaign was hit by a significant cyber attack, so top campaign officials knew about the danger even before they knew they’d be serving in government. Furthermore, according to the *New York Times’ Peter Baker*, the outgoing George W. Bush administration provided contingency plans to the incoming Obama administration on about a dozen possible scenarios that the new administration might face in its early days, among them “a cyber attack on American computer systems.” (Although that did not happen at the start of the administration, one of the other possible scenarios, renewed instability in the Middle East, did take place in Obama’s first term.)

In addition to the problems of espionage and theft, there is also the certainty that the U.S. would come under cyber assault in any future military action. This is especially so if the dispute were to be against Russia or China, or against their interests or allies, as both nations have active cyber warfare units. In the case of any attack by us, or against us, we could count on the fact that our opponents would use cyber attacks to harass and frustrate both our economic and military capabilities.

This is no longer in the realm of theory; it is a reality of modern warfare. Israel, for example, regularly experiences attempted cyber disruptions during flare-ups in conflicts with terror groups like Hamas. During 2014’s Operation Protective Edge, Palestinian hackers, with an assist from Iran, attempted what Israel characterized as “a major attack” on Israeli operations. That attack, which aimed to disable Israeli websites, failed. But Israeli security forces now recognize that cyberdefense is a standard part of modern warfare. The Israeli Defense Forces even have a division specifically dedicated to cyberdefense. According to the unnamed head of that division,
in this latest war, “For the first time, there was an organized cyber defense effort alongside combat operations in the field. This was a new reality.” The Israeli official expected the cyber struggle to intensify over time. “I won’t be surprised if, next time, we meet [terrorists] in the cyber dimension,” he warned. Going forward, the U.S. must be prepared to deal with this challenge as well.10

In addition to the certainty that we are already facing – and will continue to face – a variety of cyber threats, there is also the problem that the U.S. government does not seem prepared to work together to address these perils. The entire U.S. government seemed caught off guard by the Sony hack, but there had been warnings about this problem for years. Former U.S. Secretary of Defense Bob Gates recalled in his memoir that the nation was “dangerously vulnerable” to cyberattack. He even mentions that there were warnings of “a major cyber attack” planned against the U.S. in the fall of 2010. Despite this obvious weakness, Gates saw “a deep division within the government – in both the executive branch and progress – over who should be in charge of our domestic cyber defense.” Compounding the problem was the fact that multiple players thought that it was in their bailiwick: “government or business, the Defense Department national security agency, the department of homeland security, or some other entity.” In addition, Gates found, the government could not agree on what the strategic priority should be, national security or civil liberties. According to Gates, “[t]he result was paralysis.”11

These intra-governmental divisions were not just an abstract concern. They had real world ramifications. Gates says that he specifically requested an opinion from the DOD General Counsel’s office on the question of what level of cyberattack would prompt military retaliation.
According to Gates, in a somewhat chilling passage: “I was still waiting for a good answer to that question three years later.” What this means is that separate and apart from our capacity to mitigate or rectify such an attack, the security establishment was unable or unwilling to grapple with the question of how we should respond militarily if hit with a crippling cyberattack. And although Gates included some obligatory language about having seen “considerable progress” on his watch, the overall picture he paints of our cyber-preparedness was not remotely comforting.\textsuperscript{12}

One of the most obvious, but no less devastating dangers would be to our power systems. One reason for the potential devastation is that such attacks are theoretically multipronged. The primary threats to America’s electrical grid come from three very different sources – cyberwarfare over the net, a physical assault, or an Electromagnetic Pulse from above. This diversity of threats indicates how difficult it is for the president, or anyone, to prepare for this challenge. But the difficulty of the challenge is no excuse for failing to address – or at least better understand – it. In fact, the ability of the threat to come from so many different directions increases the likelihood that it could happen.

The first thing the U.S. needs to do to prepare for a possible assault on its electric grid is to do a realistic assessment of the threat so they are not caught unawares, as in the Sony hack. Such an assessment will reveal vulnerabilities that need to be addressed, vulnerabilities of both a physical and a cyber nature. Discovery of these vulnerabilities, however, is not enough. The U.S. needs to make a concerted effort to shore up the weaknesses – both physical and cyber – in its existing systems. In addition, the U.S. needs to respect the potential of our federal system in building a
more resilient social structure by leveraging the leadership and strengths of state and local resources, not just rely on Washington prerogatives.

Beyond assessing and fixing vulnerabilities, the U.S. also needs to develop a doctrine of war for infrastructure attacks. As Secretary Gates noted the U.S. does not know how it could or should respond to an attack on its infrastructure, and the bureaucracy has been resistant to determining that doctrine. This is not surprising. Determining how to respond to new and asymmetric attacks is not a job for the bureaucracy. But is important do so, in coordination with appropriate cabinet level officials – State, Defense, Justice, Treasury, and Homeland Security – as well as with our diplomatic partners.

Article 51 of the United Nations charter does grant states the ability to respond to a nation’s cyberspace, but it does not and cannot determine the level of the response.\(^\text{13}\) This determination needs to include some kind of scale of intensity for figuring out which attacks warrant hitting back. This review should also create a risk benefit scale for opposing targets that the U.S. targets in response. Cyber warfare differs from conventional warfare in that counterattacks can have much more unexpected ripple effects. Taking out an electrical station that powers a military base could also affect hospitals or schools in the same grid. In addition, America’s use of offensive cyber capabilities can bring about their own retaliatory efforts, and can also break down standards of restraint that currently do exist between nation-states and even criminal enterprises. These kinds of decisions cannot be made by military personnel on the ground, but need to be considered by senior military and political officials.\(^\text{14}\)
Another problem with these kinds of new and difficult question is that traditional defense and political officials will almost certainly not have experience with these questions. For this reason, the president needs to consider a designated office to cope with these questions and to lead our cybersecurity efforts. Such an office could be modeled on the Department of Homeland Security in its effort to have a crosscutting overview of U.S. government agencies, but would need to avoid the cumbersome and bureaucratic aspects of DHS as it has come to be.

This is not a call for useless rearrangement of deck chairs. Changes in doctrine, tactics, and organization must be made with security, not politics, egos, or committee jurisdictions in mind. Furthermore, empty government declarations will not do the trick. As Secretary Gates recalled about the various and periodic national strategy directive documents that emerge from the bureaucracy, “I don't recall ever reading the president's National Security Strategy when preparing to become secretary of defense. Nor did I read any of the previous National Defense Strategy documents when I became secretary. I never felt disadvantaged by not having read the Scriptures.” Obviously, some new document that goes unread by senior officials will do little to prepare the U.S. government for the very real threats it faces to its electronic infrastructure and ultimately to its way of life.15

**Economic Collapse**

One thing that connects every American to one another is the U.S. economy. You can be a banker in New York or a farmer in Nebraska, and the state of the U.S. economy will have a tangible impact on you and your well being. This interconnected and well integrated U.S.
economic system is, and has long been, the envy of the world. For generations, it has contributed to bringing millions of people out of poverty, not just in America, but around the world. This success makes many people around the world dependent on the vitality of the U.S. economic engine. As the saying goes, America sneezes and the world catches a cold.

For the most part, the primacy of the U.S. economy has been a good thing, for Americans and for the world alike. For the past two centuries, the spread of working market economies has generated untold wealth and brought up living standards for hundreds of millions of the people. In the period following World War II, U.S. leadership and innovation has improved the destiny of billions of people all the way into the 21st century.

It is important to recognize just how significant and far-reaching the increase in economic opportunity and living standards has been. The development of free markets and the rule of law, especially in Western countries and the freer parts of Asia, has reshaped international relations and the prospects of peace. Largely as a result of economic and technological improvements, the millennia-long quest for food and water is no longer a daily and life-threatening challenge in the modern world. One of the primary reasons for the lifting of that burden is the development of modern economic systems that allow for civilization-changing improvements in the production and distribution of food. Food is apparently so little of a concern in the U.S. these days that the U.S. throws away about 141 trillion calories annually, about 1,249 calories per person per day. This is the equivalent of $161.6 billion worth of food, about 31 percent of our overall food supply. This abundance (and waste), combined with the facts that Americans spend only about a tenth of their incomes on food, is mind-boggling. Even more extraordinary is that the vast
majority of Americans do almost nothing when it comes to the production of that food, freeing people to pursue other opportunities and develop new ideas and innovations.

The apparent end of the quest for food, however, is only one component of the free market revolution. The development of comfortable living quarters, sanitation systems, hospitals, safe transportation, and extensive trade means that the lifestyles of the average American are far more comfortable than even members of the royalty from previous eras. In 21st century America, for example, 99.7 percent of poor households have a refrigerator, 97.9 percent have a TV, 95.2 percent have a stove and oven, and 74.7 percent have air conditioning. And these figures are for Americans at the lowest end of the economic scale. For average Americans, the numbers are even higher, although it is difficult to get higher than figures like 99.7 percent.17 The flip side of having these modern conveniences, however, is that we have become utterly dependent on them.

Free markets and the rule of law enable the human innovation and investment that create these material blessings and put them in the hands of more and more citizens. It is no exaggeration to say that the story of the post-war era in America has for the most part been consistent periods of growth punctuated by brief recessions that bring increasing waves of opportunity and comfort. The most significant recent break in this cycle was the housing collapse and recession of 2008. Before that, there appears to have been a far-reaching trust that policymakers either knew how to create fairly regular economic growth, or knew enough to get out of the way enough to let economic growth take place. Either way, growth was the key. Growth rates of three to five percent kept the U.S. population largely well-off – recognizing, of course, certain large and
inexcusable pockets of poverty – kept the U.S. military well equipped, and allowed policymakers to push off difficult questions regarding competing spending priorities.\textsuperscript{18}

U.S. economic growth did more than just raise living standards in both the U.S. and the world. Steady U.S. growth also contributed to global stability. Other countries, many of which had less developed political systems and were rife with more intense ethnic rivalries, could be made placid in circumstances of economic growth. In periods when U.S. economic growth ground to a halt, the odds of bad things happening internationally significantly increased.

The linkage of material well-being and stability goes back centuries. Think back to the French Revolution. When the masses have food, political systems can manage strife. When basic necessities are lacking, it becomes much harder for governments to contain disagreements and class or ethnic hatred. As \textit{The Wall Street Journal’s} Dan Henninger put it, “If the American economic engine slows permanently to about 2\%, you’re going to see more fires around the world like Ukraine and Venezuela. At the margin, the world's weakest, most misgoverned countries will pop, and violently.”\textsuperscript{19}

For all of these reasons, and more, the most important job of the government is to keep the U.S. economy humming. Under a growing economy, the population is happy, foreign conflicts are less likely, the deficits remain manageable. Without a growing economy, there is the very real potential for very bad things to happen.
One problem with facing this challenge is that policymakers typically do not know when an economic collapse will occur, nor how to prevent it. The 2008 catastrophe, for example, was caused at least in part by a housing bubble, yet government policy makers, on the left and on the right, in Congress and in the executive branch, had been steadily focused on increasing homeownership, even among those who could not afford it. Furthermore, once a crisis happens, the options for stopping or ending a collapse are limited. As recent experience shows, it can take a long time to right the economic ship after things go horribly wrong.

Even in the case of 2008, in which some people did warn that there was a housing bubble, or that Wall Street was overleveraged with debt instruments, those people were not in the right places at the right times to do something about it. The president, as powerful as he may be, does not have control over all of the levers of economic policymaking. The Federal Reserve arguably holds more cards than the president. And even in the case of Fannie Mae and Freddie Mac, which the Bush administration worried about and tried to reform, bipartisan Congressional resistance prevented any of the proposed reforms to be enacted. For good or for ill, our system is designed in such a way that it would be extremely difficult for policy makers to effectuate rapid changes that could prevent a collapse, *even if the policy makers knew that a collapse was coming, and knew what steps were necessary to prevent that collapse.*

For these reasons, economic catastrophes, while rare, will almost often come by surprise. That said, there is at least one looming economic disaster that cannot be considered a surprise, namely the massive and unsustainable deficits that the U.S. is carrying. This figure, in excess of $17 trillion and expected to hit $21 trillion by 2024, is exacerbated by the long-term liabilities that
the U.S. entitlement programs face. The Medicare program, which provides health coverage for America’s growing 65 and older population, faces a short term deficit larger than that of Greece, and long-term unfunded liabilities in excess of $35 trillion. All told, long-term U.S. debt obligations are in the range of $80 to $100 trillion. By 2039, interest payments alone will cost 4.5 percent of GDP, potentially crippling the government’s ability to spend money on anything else. Our long-term unfunded obligations are a big number, but not a cause for immediate panic. After all, these obligations are long-term promises, not already-incurred debts. The words “long-term” mean exactly that, taking place over a 75-year period. And slight changes in growth rates, demographic trends, or policies can make big changes in what those long term obligations will mean at the end of the 75-year window.  

Even though we should not have to worry about paying this debt tomorrow, these long-term obligations remain a concern. Just as these numbers can change for the better, they can also change for the worse. And even if they don’t change at all, they would constitute an unmanageable obligation. Recent behavior by the U.S. government does not inspire confidence regarding the ability of the U.S. to reduce its long-term obligations. In fact, if recent behavior is a guide, the problem is likely to worsen.

The debt problem is not only a problem for the United States, but it is also a problem for the world, and the world is noticing. In 2011, Standard & Poors downgraded the U.S. governments AAA credit rating. Large holders of U.S. debt, including Russia and China, are both increasingly nervous about being stuck with these obligations. They can hardly be expected to risk their own interests. This could carry severe consequences for America. The irresponsibility
of accruing these trillions of dollars in obligations constitutes behavior that would not be tolerated elsewhere. As the financial analyst Peter Schiff has written, “We owe trillions. Look at our budget deficit; look at the debt to GDP ratio, the unfunded liabilities. If we were in the Eurozone, they would kick us out.”

The accumulation of debt has thus far not caused an economic collapse, but that does not mean it won’t happen. It only means that it has not happened yet. When it does happen, if it does happen, it will take happen very fast. Our new globalized world, with instantaneous financial transactions and information alike, will mean that a financial crisis is far less likely to be localized, and much more likely to be global. As former Treasury Secretary Larry Summers has observed, “The problem of global financial markets is that they are like modern jet planes. They get you where you need to go faster, but the crashes are far, far worse.” This is even truer if the crisis begins in the U.S., where the ripple effects will be felt more keenly.

There is no guarantee that the U.S. debt will be the cause of the next economic collapse, but it clearly is a likely culprit. For this reason, the only rational response would be to take serious steps to get our debt situation under control. This would include taking some unpopular steps, which would focus on reducing the size of our long-term obligations by adjusting inflation rates, means-testing benefits, and increasing the retirement age. Thus far, the U.S. government has been unwilling to take such steps, but if they fail to do so before a debt-fueled crisis hits, the government’s inaction will be revealed to have been extremely short-sighted.

This is not to say that steps to alleviate the debt crisis won’t be painful. They will. But not preventing a debt-fueled economic collapse will be far more painful. In fact, one of the reasons given for the reluctance to trim back unrealistic entitlement promises is that such steps could
harm the poor. If our looming debt crisis does indeed create an economic collapse, it will be a disaster to our nation and to our way of life. In such an economic catastrophe, those living at the low end of the economic ladder will be the first to suffer because they have so little to fall back on.

First, the loss of economic dynamism will mean the loss of economic opportunity for those who aspire to rise from poverty. Loss of jobs also means that low-skill low-wage jobs will be the first to go. Even now, France's anemic state-heavy economy hires only the most productive and well-educated, while the poorly educated or those without social connections are left behind. In such cases of Eurosclerosis, the highly educated often seek government positions and pensions to protect them from economic displacement caused by excessive government.

In addition, if we don’t trim our entitlement programs, they will collapse. In an economic crisis, programs for the poor will be eviscerated; they will not be sustained, as liberals want, and they will not be reformed, like conservatives want. They will be cut indiscriminately, because we will have no choice.

Finally, the poor will be disproportionately affected because they have no savings to fall back on. According to the Federal Reserve Board, families in the bottom income quintile had a median net worth of $8,500 in 2007; in 2010 the median net worth of the bottom quintile was $6,200, a decline of 27 percent. The recession reduced the holding of the poor by a quarter of its value. If a complete economic collapse takes place, it will not only be a human tragedy, but it will also be a civic disaster, as the disproportionately affected poor could be a source of major
civil and possibly global unrest. As disaster chronicler Joshua Cooper Ramo has noted, “every once in a while the physics come along and munch away decades of civilized life, the way the 1929 stock market crash tightened Europe’s downward economic spiral, helping to elevate Hitler and the whole horrible historical train wreck that came afterward.”

Fortunately, disaster is not destiny, and it is far from too late to take steps to prevent one from happening. There is even historical precedent for getting our debt under control by taking a series of measured, non-radical steps to control spending and maintain revenue levels. According to former head of the Council of Economic Advisers Martin Feldstein, “It is worth remembering that after World War II we brought our national debt down from 109% of GDP to 46 percent of GDP in 1960.” According to Feldstein, the U.S. accomplished this without major tax hikes or spending cuts, but by keeping spending steady while the economy grew. Such an event is not just doable, though, it is also necessary. Our economic future is dependent on the ability of our elected officials to manage our spending priorities responsibly and make the hard choices. Thus far they have not been up to the task.

Another possible solution to our debt and deficit troubles could come from renewed economic growth. Naysayers of previous eras have suggested that the American moment might be over, only to be surprised by the manufacturing boom of the 1950s, corporate restructuring in the 1980s, the Internet revolution in the 1990s. American innovation has defeated the nattering nabobs of negativism in the past, and could do so again. Former White House speechwriter David Frum has even identified three likely sources of an American economic resurgence: the
discovery of new energy sources, renewed innovation in pharmaceuticals and biologics, and the revitalization of America’s inner cities. 25

Frum may be right, but there are a host of other possibilities as yet unthought of as well. Economic changes often come from unanticipated places. Policymakers must therefore understand that we do not and cannot know which innovations will prove to be transformative. Despite the importance of innovation, we need policies that prepare for disasters by enabling the investment and innovation that allow for human beings to create new products and processes without the government putting its thumb on the scale in favor of one kind of innovation or another.

The Dangers Unchecked

All of the dangers listed are addressable, through smart and long-term policy improvements. Yet Washington in recent years has shown relatively little ability to engage in smart or long-term policy planning. This raises the question: what if one of the dangers outlined above does occur, and what if the government fails to prevent it – the ideal – our address it once it happens? If there were a disease or a grid meltdown or economic catastrophe so severe that it led to a complete collapse of the U.S. government, what would happen then? The answers to these questions may be terrifying to contemplate, but better to address them now, while we still have a relatively stable and secure government, economy, and society.

The truth is that the U.S. government has put at least some thinking into what happens in case of catastrophic failures, at least in terms of their jobs. The United States has an entire continuity of government, or COG plan. In National Security Policy Directive Number 51, COG is defined as
a “coordinated effort within the Federal Government's executive branch to ensure that National Essential Functions continue to be performed during a Catastrophic Emergency.” COG itself is a list of functions of the federal government, designations of responsibilities, and lines of succession. It also lists alternative sites of government, including Site R, which is the emergency evacuation location for the president, located about 6 miles from Camp David. Senior Congressional and other Governmental officials would go to the Mount Weather facility, a fortified location that is perpetually prepared to take on the role of housing governmental operations.

(A few years ago, I would have been precluded from describing even these vague details, but the Obama administration declassified the basic outlines of COG. I had previously visited Mount Weather as a senior government official, but at the time it was a classified location, and I was expressly forbidden from revealing even its general location or what kinds of capabilities exist there. Now, however, the existence of Mount Weather is public information, even if all of the details about its setup are not.)

Whether the plan is public or not makes relatively little difference. COG is designed so that the federal government would have a road map of what to do in case of a “Catastrophic Emergency” in which senior members of the government were killed, or if lines of communications were cut system wide. It is not a Constitution for a new United States so much as a list of what to do with the existing structures of government if disaster struck. The idea is that if suddenly the U.S. were caught without access to top leadership, COG would ensure that other government officials knew how to proceed with their day-to-day tasks (assuming, of course, they even stayed on the
job). It is by no means a plan for how to respond to whatever catastrophe struck that would render the government leaderless, but a game plan for how to keep the machinery of government moving.

Perhaps the best known element of COG is the annual State of the Union hold out, or the designated survivor program. This aspect of COG actually goes into effect each year. One member of the president’s cabinet intentionally does not attend the State of the Union address in order to make sure that there is at least one high-ranking official in the line of presidential succession who is not in the Capitol building during the president’s address. Think of it: the attendees at the address include the president, the vice president, the Speaker of the House, and the president pro temp of the Senate – the first wave of officials in the presidential succession plan. If some kind of mass-casualty event took place at that speech, it would singlehandedly kill or incapacitate the top levels of the United States government.

It is for this reason that the designated survivor program began in the 1960s. The program would not become public knowledge until the 1980s, and has now become part of the standard media coverage of the president’s State of the Union address. One member of the cabinet, typically not one of the big three of State, Treasury, or Defense, is designated to remain outside of Washington during the president’s address. The designee is briefed, in very general terms, about the location of key places in the White House like the Situation Room, and is then given a Secret Service detail, as opposed to their Cabinet-related security, during the course of the speech.
Interestingly, the special security coverage ends as soon as the speech ends and the various power players disperse from the Capitol. At that point, the designee goes back to his previous status. These days, most, if not all, Cabinet members have some kind of security detail, although these are not as robust as a presidential level detail. Before 9/11, though, most cabinet secretaries did not have security details. One year, Clinton Agriculture Secretary Dan Glickman was the designee and he decided to watch the speech in New York with his daughter. After the speech, the head of the security detail told him, “Mr. Glickman, the mission is terminated.” Glickman remained in New York with his daughter. After they went out to dinner, they had trouble finding a cab and walked 12 blocks in the rain back to the daughter’s apartment. According to Glickman, “it struck me that just three or four hours before, I was the most powerful man on the face of the earth for about an hour. And now, I couldn't even get a cab.”

Even if he survives, then of course, the problem with the designated survivor program is that it would leave someone in charge, but it does not guarantee that the survivor would be able to do very much. The lone survivor would likely be unknown to the public and inexperienced in serving as commander in-chief. He or she would have to get up to speed very quickly, and during a period of immense peril. Even if the designated survivor were a natural at both the communications and the command aspects of the presidency, it’s not clear what would be left of the U.S. government to command. During Katrina, for example, an estimated 15 percent of the New Orleans police force went AWOL. If the U.S. were to suffer a civilization altering catastrophe, how many federal workers would continue to show up for work? Even if they did what would or could they do? The vast majority of the 2 million or so federal employees are not engaged in public safety functions and would have little role to play in such a crisis. As NPR’s
Stephanie Foo put it, the designated survivor would be thrust into the position where they would have to “run the United States government as an amateur president, total beginner, whose first day on the job may include wreaking vengeance upon slash surrendering to whoever killed all our top leaders.”

In short, COG has some short-term value in a crisis of brief duration. It would not, however, be able to serve as an effective replacement of the U.S. government. This leads up to a broader question: Assuming all of those government fail safe efforts such as a COG failed, then what? What happens if there is a disaster that is so calamitous that all systems of government – federal, state, and local – truly collapse? If COG fails, there would be profound implications both for the entire U.S. citizenry and implications for human freedom worldwide. This would be devastating to the entire citizenry. In such a scenario, life would be, in Hobbes’ famous words, “poor, nasty, brutish, and short.”

The first and most basic collapse would be in the form of the rule of law. Forget about the thousands of pages of government regulations about drug safety, egg size, or the provision of employment benefits such as health care. In this scenario, government would not perform even basic law enforcement functions. Streets would not be safe to walk. Stores and homes would be looted, and border enforcement would be even worse than it is now. In this initial phase, the strong would prey on the weak, good people would stay off the streets, and commerce would grind to a halt. Resorting to Hobbes again, we would face a situation of bellum omnium contra omnes – a war of all against all. As a result, basic necessities would not make it to the market,
and people would die from lack of access to food and medicine. Furthermore, the nation would be vulnerable to foreign invasion with no army to stop it.

As dire as this sounds – and it would indeed be dire – it is likely that this phase would not last indefinitely. Individuals would band together to create informal associations to provide protection, associations that would likely evolve into more formal groupings, in the form of proto-police forces. These groupings would do little to prevent the possibility of foreign invasion, but the fact of the matter is that whatever catastrophe disabled the U.S. government would probably have destroyed foreign military forces as well. (If this is not the case, then an invading foreign force would solve the problem of no ruling entity, although it would of course many other problems beyond the scope of this study.) Even if these forces were relatively successful at keeping some measures of peace, and assuming foreign invasion did not happen for whatever reason, the proto police forces would likely be callous and indiscriminate. There is little to no chance they would be mindful of our current constitutional protections, and they would be erratic and unreliable. With democratic elections having become a luxury of the pre crisis era, these forces would be largely unaccountable to the body politic.

In addition to the public safety aspects of a governmental collapse, there is also the issue of the myriad government functions beyond those of keeping the peace. Approximately two-thirds of federal government spending is directed towards transfer payments of one kind or another: social security, Medicare, disability payments, welfare assistance, food stamps, farm subsidies, and so much more. The disappearance of these payments would mean that millions of Americans who rely on government checks would no longer be receiving those checks. If businesses could not
maintain operations, millions more Americans reliant on paychecks from their employers would also suddenly find themselves without regular income. Even those with at least some measure of wealth might no longer have purchasing power, as most people maintain their holdings in stocks, bonds, bank accounts, or real estate, none of which would be readily available during a system-wide collapse.

Without the United States government backing the dollar, cash itself might turn into nothing more than soft green pieces of paper. Given that toilet paper is a required and high demand commodity during times of crisis—witness the recent toilet paper shortage in Venezuela—there is the strong possibility that the most valuable use of the dollar in such a scenario would be as toilet paper. How the mighty dollar would have fallen, indeed.

If the dollar would no longer be an instrument of value, then we would have returned to a basic barter economy. Goods would be exchangeable for other goods or services rather than currency. The relative value of goods on services would also change in a significant way. Services that command large dollar amounts today – legal services, accounting, financial advice – would lose most of their value (as would, ahem, policy analysis and writing). The practice of medicine would retain or perhaps even increase in value, and the cost of other services – farmers, mechanics, carpenters – would skyrocket. Similarly, currently valuable items such as gems, precious metals, and electronic devices would lose value relative to non-perishable necessities – canned foods, water bottles, weapons, medications, and, yes, toilet paper.
The collapse of government would also have tremendous implications on the ability to transport goods and services. Government would no longer be able to maintain the quality of the roads or guarantee the safety of those traveling on those roads. The concept of travel could return to the medieval period, when night time sojourns were too dangerous to undertake and individuals sought the shelter of walled cities – think gated communities – when the sun went down. International travel, so dependent on government maintained air traffic control or government protected shipping lanes, would be almost nonexistent. Given that the U.S. currently imports 15 percent of its food (including 50 percent of fresh fruits, 20 percent of fresh vegetables and 80 percent of seafood), the loss of imports itself would drive up the cost and reduce the availability of food. Domestic travel, already made difficult by the inability of government to maintain roads or protect safety, would be further curtailed by unmanaged traffic snarls as well as the lack of availability of gasoline. These problems are only a microcosm of the full spectrum of devastating changes to our everyday lives, all of which will require a re-conception of the role of the individual in society.

Returning to a medieval system on both the governmental and technological front is a frightening prospect. The reality may even be worse, though. Mankind in a pre-technological era had the skills to take care of itself, knowing how to hunt, fish, till, and store food as well as how to fashion primitive tools. Post-modern individuals for the most part do not have these skills, and have become overly reliant on modern technologies for their everyday necessities. A generation trained on iPhones would do poorly in a world where iPhones no longer worked.
As damaging as a catastrophic collapse would be in the U.S., there is the distinct possibility that things would be even worse outside the U.S. First off, the U.S. already exerts pressure around the world on many countries to maintain democratic systems and practices. This pressure is, to be sure not always effective, but things would be even worse without it. Without such pressure, the descent into tyranny would be even more rapid. In addition, the American citizenry is already used to democratic systems and practices. Many others, especially non-Western nations, do not have such traditions and would have little compunction about resorting to tyranny. A catastrophic, systemic collapse would be a devastating blow to human freedom around the globe.

As for solutions, they are hard to come by. It is impossible to make policy suggestions for governments for how to behave in a world in which governments do not exist. The best policy advice is for the government to take the steps outlined above to try and prevent such crises from happening. Beyond that, advice is best geared for individuals. In the world of a government collapse, individuals would have to take steps to protect themselves and their communities, but also to rebuild shattered societies. Most of the preparedness strategies recommended today – have excess food and water, purchase a generator, keep cash on hand – would be effective for only a short period until those supplies ran out. Longer term strategies would require individuals to develop skills that have long been thought unnecessary in urban environments.

We would also need individuals prepared to rebuild society not only physically but from a political standpoint as well. Dangerous strains of thought that are counter to individual freedom would gain in popularity. Resilient individuals would have to have both physical skills as well
and mental and philosophical fortitude in order to rebuild America into the shining city on a hill it has been for centuries.

The unfortunate bottom line is we can’t fully prepare for such a scenario, as we can’t know with certainty what would bring it about. We can, however, recognize that we don’t have the answers and that we do require more serious thought and planning than has been done thus far. In the absence of taking steps to prepare to catastrophic collapse, we face real dangers to our systems, our way of life, and to the cause of human freedom around the world.

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14 Lewis, “Low-Level Cyberattacks Are Common but Truly Damaging Ones Are Rare.” Washington Post.
15 Gates, Duty. 144.
18 As U.S. government spending patterns over this period indicate, when forced to confront the choice between A and B, Congress has consistently chosen both.
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