



SECTION 2 · CHAPTER 1

Create the mechanisms for an adaptive national economic strategy

Businessman Earl Kluff, who manufactures luxury mattresses, checks a machine at his factory in Rancho Cucamonga, California, May 9, 2012.

AP PHOTO/DAMIAN DOVARGANES

This report offers a strategy and a vision for U.S. economic policy. But the U.S. and world economies are constantly changing. Adapting to these changes is, of course, primarily the job of the private sector. In fact, it is imperative that government not put in place policies that impede that adaptation. But as the private sector adapts to change, so must the public sector.

Economic policy has to be dynamic to be effective, and individual policies must be evaluated continuously to see if they are working as intended and whether they are the best match for the current economic world. This is why we offer a plan for revamping the federal government's economic policymaking apparatus both in terms of decision making and data gathering.

Currently, at the macroeconomic level, the Council of Economic Advisers and the National Economic Council help guide policy, while the Federal Reserve is charged with working to ensure maximum employment and stable

prices that provide a sound environment for growth. All three are staffed by top experts and play an important part in the country's economic policymaking. When it comes to engaging businesses and industries at a more microeconomic level, however, there is more that can be done to create a streamlined institutional organization that effectively uses better data to inform sound strategy and that follows a clear set of principles for when to engage with particular industries.

In his 2011 State of the Union address, President Obama said America needs “a

government that's more competent and more efficient," and noted that "we can't win the future with a government of the past."¹

For government to more effectively engage businesses, we propose policies to:

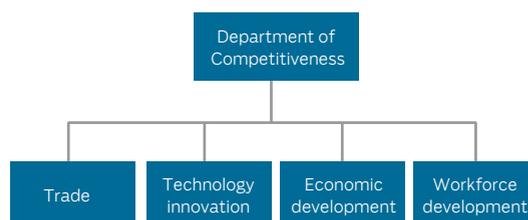
- Reorganize relevant trade- and business-focused agencies into a Department of Competitiveness or a Department of Business
- Provide better information on the economy through reform of our statistics infrastructure and creation of a National Economic Strategic Assessment, both of which will allow us to take stock of opportunities and existing investments
- Engage business with targeted, well-timed interventions

Policies that reorganize relevant trade- and business-focused agencies

The business-related economic-policy functions within the government are currently fragmented among different agencies and offices, and their activities are not adequately coordinated. This disorganization hampers the nation's ability to pursue effective economic strategies. To address this, a single cabinet-level Department of Competitiveness or Department of Business should be created to house the federal government's activities related to trade, technology innovation, economic development, and workforce development.

In December 2010 the Center for American Progress proposed the creation of such a Department of Competitiveness in our report, "A Focus on Competitiveness: Restructuring Policymaking for Results."² In January 2012 President Obama similarly called for a government reorganization that could improve competitiveness and efficiency. The president's reorganization plan is slightly less expansive than the one we proposed, but either approach would be a vast improvement over the current situation. Creating such a department would improve government efficiency, enhance information systems, and better enable policymakers to assess, understand, and augment American economic policy with a unified and comprehensive strategy.³

The department as proposed by the Center for American Progress would bring together four federal economic-policy functions:



- **Trade:** Consolidate more than seven agencies with trade-related functions that currently operate independently, thereby eliminating redundancies, improving efficiency, and allowing trade agencies to work together strategically.⁴
- **Technology innovation:** Bring together the agencies and programs that support the research, development, and commercialization of science and technology.⁵ By

Mechanisms for an adaptive national economic strategy

Problem: The federal government has a set of agencies, policies, and programs that engage, support, and protect business and industry. But the complexity of the system, the inadequacy of information on the workings of the U.S. economy, and the ad hoc nature of interventions all lead to inefficiencies and missed opportunities that could otherwise create a stronger environment for the success of America's 300 million engines of growth.

Solution: Reorganize government to foster a more disciplined and structured economic strategy, reform statistical analysis that can inform dynamic economic policy, and pursue targeted, well-timed interventions to help grow the private sector.

Key policy ideas:

- Reorganize the federal trade and business agencies into a single department focused on business and competitiveness.
 - It is necessary to respond to other countries' interventions to maintain or develop important industries.
- Conduct regular strategic economic assessments based on improved industry and sector data.
 - Losing or failing to develop a particular segment of industry would have broader supply-chain implications that would have deleterious effects for the broader economy.
- Directly partner with businesses in building the economy when:
 - Intervention is needed in an important emerging sector because the time horizon for returns is too long to attract sufficient private capital.
 - A viable firm or industry has experienced a failure and needs temporary rescue.

Other proposed policies include streamlining the ways in which businesses and entrepreneurs interact with government agencies via the common application.

Outcomes: The U.S. government will be organized effectively to support economic growth and to work with business and will monitor and facilitate the competitive environment for current industries, while making targeted interventions to stay at the cutting edge of industries of the future. ■

consolidating the programs that support innovation, the United States can spur growth by establishing a coordinated innovation strategy and streamlining industry access to these programs.

- **Economic development:** Combine economic-growth programs that are currently administered by a range of agencies such as the Economic Development Agency, the Small Business Administration, and others.⁶ Combining federal efforts that support communities and small businesses will promote U.S. economic success by improving access to programs, boosting efficiency, and better cultivating the growth of regional economies—all of which are crucial to overall economic growth.
- **Workforce development:** Combine existing programs that support state and local workforce-development programs, including the Employment and Training Administration in the Department of Labor, the Office of Vocational and Adult Education in the Department of Education, and multiple small programs in the National Science Foundation. Incorporating workforce-development administration into economic-competitiveness strategy will enhance economic success by ensuring that industries have access to the talent pool they need to be successful.

Policies to conduct regular strategic assessments of the economy using improved data

Better data and regular assessments of economic policy will improve government's ability to act strategically to support private-sector-led growth. For this reason, we propose reorganizing U.S. statistical systems and launching a quadrennial National Economic Strategic Assessment.

Reorganize U.S. statistical systems

Currently, the U.S. federal data-collection system does not provide the information needed to underpin thoughtful, comprehensive economic strategy. Instead, the goal of federal economic statistical agencies today is to provide macroeconomic data to assist policymakers in managing the business cycle.⁸

“Economic Intelligence,” a 2012 report from the Center for American Progress, offers a specific plan to address this problem. In this report, statistical expert and George Washington University Research Professor Andrew Reamer explained that “federal competitiveness policy, if one existed, would systematically identify and address barriers to the efficient functioning of markets.”⁹ Reamer estimates that the additional annual funds needed to maintain adequate statistical

The common application

A cohesive business-oriented department would make it easier for businesses to engage in the myriad programs created to help promote their success. It is often challenging, for small businesses especially, to navigate the more than 300 assistance programs for businesses, startups, and entrepreneurs that offer help for everything from starting retail businesses in economically distressed communities to working to find market uses for high-tech inventions developed in university laboratories. That’s why the Center for American Progress, in its 2012 report, “Rewiring the Government for Competitiveness,”⁷ proposed creating a “common application” across programs to simplify the assistance-application process. A single government department designed to engage business would not only make creating a common application easier to implement but would offer many other channels for improving the services government offers to business.

FIGURE 6
The current system of interaction between businesses and the government

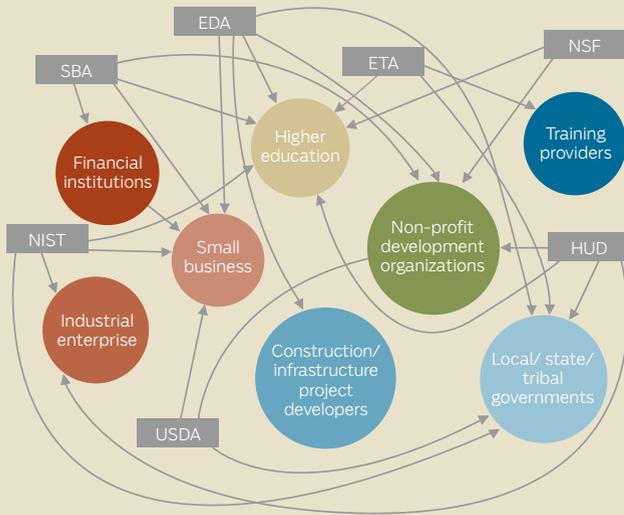
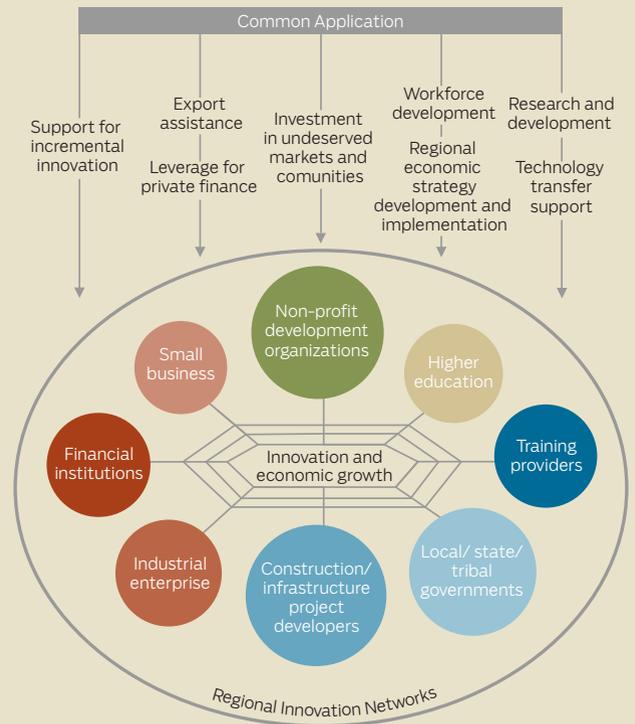


FIGURE 7
Our proposed common application system





U.S. Senator Michael Bennet, D-Colo., center, helps as Solar City employees Jarret Esposito, left, and Jake Torwatzky, right, install a solar panel on a home in south Denver on Jun. 18, 2010.

AP PHOTO/ED ANDRIESKI

programs to guide competitiveness policies would cost less than \$300 million—a small amount compared to the positive effect such data could have on overall economic growth of the nearly \$16 trillion U.S. economy.¹⁰

In particular, the United States should ensure that data systems are sufficient for:

- Traded-sector analyses through provision of data that allows analysts to assess the competitiveness of individual industries
- Measurement of intermediate outcomes using data on innovation and entrepreneurship

- Conducting of factor analyses through provision of data on factors affecting competitiveness, including research and development expenditures; workforce, education, and training; business finance; and energy

- Evaluation of the effectiveness of programs through a program within the Census Bureau to assess the effectiveness of targeted federal support to the private sector

Additionally, improved data that is publicly available can give companies and entrepreneurs more information on the dynamics of the marketplace, thereby encouraging new investment and innovation.

Launch a National Economic Strategic Assessment

With improved data, government should conduct a quadrennial comprehensive National Economic Strategic Assessment to inform our long-term national economic strategy. Such an assessment would explore the deep and interconnected relationships between industries in order to better understand both the investments government is already making, as well as the sources and potential for growth and innovation in the U.S. economy. It would identify nascent industries and determine whether interventions are needed, and would look at existing areas of strength such as aerospace, biopharma, and technology.

More specifically, the National Economic Strategic Assessment would do the following:

- **Assess how U.S. conditions compare with conditions in other countries with which we compete:** The assessment would provide detailed industry-level analysis of the competitive, technological, and regulatory landscapes and would compare these with industry-level actions being taken by other nations with which U.S. businesses and workers compete. As a result, we will be able to assess whether our market strength is rising or declining.
- **Take stock of specific industry-level government supports:** The assessment would inventory current federal policies and programs—including tax expenditures, loan guarantees, financial assistance,

research and development, procurement, trade policy, workforce training, efforts to convene government and industry, and other policy supports—that directly affect particular industries.

- **Evaluate the cost effectiveness of existing supports and recalibrate as necessary:** Based on an understanding of the overall competitive landscape and the inventory of current policies, the assessment would offer recommendations for how to better target interventions to support growth. This step would include both evaluating narrower interventions and identifying opportunities to enhance aspects of the economic environment that are important for a broad range of industries such as workforce development and specific infrastructure improvements.

As with the data collected by a reformed statistical service, the National Economic Strategic Assessment will provide valuable information to the private sector about where new investment and growth opportunities exist in the U.S. economy and where people can invest in their skills for career development.

Use targeted, well-timed interventions

Many of America's most successful businesses and industries started or grew to flourish because of government engagement. The Wright brothers' big early customer was the U.S. Army. Google started as a research project funded through the National Science

Foundation and other federal agencies.¹¹ And, of course, entire industries such as nuclear medicine owe their existence to discoveries made in national labs.

There are a number of ways governments can intervene in targeted ways to promote the advancement of sectors of the economy, industries, or technologies. These include:

- Convening/coordinating meetings and conferences
- Providing scientific or engineering research
- Procuring
- Regulating
- Directly subsidizing, through direct investments, loans/guarantees, and tax breaks

These types of supports are delivered through a variety of mechanisms. In some cases—for example, scientific research—there are institutions in place such as the National Science Foundation and the National Institutes of Health that have resources and the discretion on how to use them. In other cases, Congress makes more narrowly targeted interventions.

Investment in broad scientific research is relatively uncontroversial. The issue becomes more complicated the more the public involvement becomes associated with a specific industry or company. There are certainly examples, especially in other countries, that suggest the need

for some caution, particularly when noncompetitive industries are propped up at taxpayer expense. But there are situations where public support is more than justified—where an intervention at a critical time can be the difference between a country leading in that industry going forward or a country losing that industry to another country. This is true now more than ever, as countries around the world compete for the most lucrative industries that create the best jobs.

To ensure that interventions are made at the right places and the right times, we first need the architecture described above to make sure that there is an institutional framework conducive to smart choices and, second, we will require some guidance as to when intervention is appropriate.

We have identified four situations where we believe that targeted intervention is both justifiable and important for economic growth:

- Support for nascent industries
- International parity
- Supply-chain sustainability
- Temporary rescue of otherwise-viable industry

Support for nascent emerging industries

Government involvement can be critical where there is an industry that is primed for growth and expansion, that is likely to be important in the future, and that has the



Genentech Inc. Mark Nagel works on an experiment in a research laboratory at Genentech headquarters in South San Francisco.
AP PHOTO/PAUL SAKUMA

potential to provide good jobs but is not yet completely commercially viable.

The Wright brothers, for example, took their first flight without government assistance, but they quickly turned to looking for customers for their invention—and the only viable customer was the military.¹² The improvements in their design and the development of the aircraft industry in the United States were due to the existence of a reliable customer in the form of the U.S. Army.

International parity

Government involvement can also be merited when it is necessary to respond to other

countries' interventions to maintain or develop industries that we see as critical.

While we need to take care not to follow other countries in a race to the bottom to maintain industries that might not otherwise be viable, there are clearly examples where other countries—consistent with trade law or not—are investing in critical industries, and if the U.S. government does not take a more active role, then the industry and its jobs will leave our shores. The first priority in these situations is to use the full force of the law to enforce trade agreements, but additionally when there is a race for industrial leadership, such as in

A strong and innovative U.S. manufacturing sector

Economists and policymakers increasingly agree that manufacturing—which contributes \$1.8 trillion to U.S. gross domestic product¹⁸ and makes up 60 percent of all U.S. exports¹⁹—is one sector of the economy that deserves special attention. It is an area where there is substantial intervention by other countries, where supply-chain issues are critical, and where nascent technologies can require nurturing.

While its share of GDP since 1950 has declined from 27 percent to 12 percent²⁰ and its share of U.S. employment dropped from 36 percent to 11 percent,²¹ manufacturing is still a key sector of our economy. As Gene Sperling, President Obama’s top economic adviser, puts it, manufacturing “punches above its weight,” because it contributes to the success of a number of other sectors and to America’s ability to produce cutting-edge research and technology.²² The sector has also been a bright spot in the economic recovery, gaining 500,000 jobs since 2010.²³

Many of the policies discussed elsewhere in this document—such as trade policy, investments in education and workforce development, a strong national infrastructure network, streamlined and targeted government programs aimed at business, and improved research and development—are critical to supporting U.S. manufacturing. In addition to pursuing these broader priorities, the United States should expand and strengthen the following policies that specifically target manufacturers:

- **National Network for Manufacturing Innovation:** Fully fund the president’s \$1 billion request to establish a National Network for Manufacturing Innovation. This network, comprising up to 15 new manufacturing institutes, would help manufacturing firms overcome challenges related to innovation, product development, product design, and more.²⁴
- **Manufacturing Extension Partnership:** Double funding for the Manufacturing Extension Partnership to \$256 million. The partnership helps small- and mid-size manufacturers develop process improvements and innovation strategies.
- **Domestic Production Deduction:** Target the Domestic Production Deduction to domestic manufacturing activities and double the deduction for advanced manufacturing activities, as the president has proposed.

nanotechnology, a level of support is often necessary and justified.

Supply-chain sustainability

Government involvement can be critical where losing or failing to develop a particular segment of industry would have severe implications for the wider economy in terms of jobs and output.

Solar photovoltaic, or PV, cells are one example of an industry that has suffered as a result of a vanishing supply chain. Although the first PV devices were invented here, the United States now produces only 6 percent of the world's PV cells.¹³ A major reason the country has failed to grab more of this fast-growing market is that many of the shared technologies (for example, semiconductors, flat-panel displays, light-emitting diodes, and solid-state lighting) have already relocated to Asia.¹⁴ Had the United States not long ago ceded production of key component technologies for PV cells, we would be better positioned today to compete in the solar-energy industry.

Temporary rescue of otherwise-viable industries

Government involvement can be warranted when a firm or industry needs temporary rescue but is otherwise a viable source of economic strength and good jobs.

In 2009 U.S. automakers were producing competitive products. After all, GM had regularly produced more automobiles than any other company in the world through 2007, and it only dropped to second when

the recession hit.¹⁵ But structural problems in its business put the entire industry at risk and in the midst of the Great Recession, only the government was in a position to step in. To let GM and Chrysler fail would have had huge repercussions across the U.S. economy, leading to an estimated loss of \$97 billion in personal incomes.¹⁶ The public investment saved the industry and with it, more than 1 million jobs.¹⁷

Similar to any investment, some interventions will be more successful than others, and some will have unpredictable outcomes. But that doesn't mean we shouldn't make the effort.

In the situations we describe above, good investments can be made, as they have been in the past. And the decision making process will only be improved with a better structure for making choices about economic strategy (see our policy for a government reorganization) and a better information base (see our plans for better data via the National Economic Strategic Assessment).

There are a number of specific technologies and industries that should be given a close look right now in terms of targeted public support, as they have the potential to be an economic strength and source of good jobs for the United States going forward.

3-D printing

A quiet revolution in the manufacturing process is underway, which "may have as profound an impact on the world as the coming of the factory did,"²⁵ according to *The Economist*. Science

Progress describes tools for 3-D printing, also known as additive manufacturing, as operating much like inkjet printers “except that they can use materials like plastics, carbon fiber, or titanium to print 3-dimensional objects instead of 2-dimensional documents,”²⁶ and they will allow for rapid, custom, and inexpensive manufacturing of everything from art projects to robots to artificial organs and bones.

Recognizing this potential, the federal government has partnered with the private sector to open the Additive Manufacturing Innovation Institute in Youngstown, Ohio—a \$30 million investment in what President Obama has called “the manufacturing jobs of tomorrow.”²⁷ The institute is the pilot under the president’s proposed new National Network for Manufacturing Innovation (described above), which will “bridge the gap between basic research performed in universities and national laboratories, and production enterprises, particularly SMEs (small and medium enterprises).”²⁸

Nanotechnology

Advanced technology constructed on a microscopic scale has the potential to revolutionize numerous sectors of the economy. Some early applications of nanotechnology are already in use, as in the construction of the wingtips of Lockheed Martin’s F-35 Lightning II fighter, which uses a nanotech-reinforced plastic that is 25 percent to 30 percent lighter than the current industry standard material.²⁹

The future applications of nanotechnology are even more fascinating, from nanoparticles

that can bind to blood clots and dissolve them before they cause serious damage or death³⁰ to nanoscale transistors that could store a computer’s entire high-capacity memory on one chip.³¹ These future developments are exciting, but the government still has a role to play in getting the necessary research and infrastructure in place. The United States has already invested \$18 billion through the National Nanotechnology Initiative since its establishment in 2000.³² This initiative has had a “catalytic and substantial impact” on the growth of the U.S. nanotechnology industry, according to the latest report by the President’s Council of Advisors on Science and Technology,³³ and it should be continued.

Personalized medicine

Every human being is different, with a different genetic map, but our modern medicinal treatments treat everyone almost identically—even though the Department of Health and Human Services says that most of today’s drugs only work for 60 percent of patients or less.³⁴ The work of the Human Genome Project, funded by approximately \$3 billion in federal investments and completed in 2003,³⁵ started a revolution in genetic mapping that has the potential to change that paradigm, tailoring drugs and treatments to the individual.

But there are still many barriers that must be overcome, and the National Human Genome Research Institute says that “although genomics has already begun to improve diagnostics and treatments in a few circumstances, profound improvements in the effectiveness of healthcare cannot

realistically be expected for many years.”³⁶

There are, in fact, differing views on whether the promise of this science will ever come to fruition. Funding basic research should therefore be emphasized. If there prove to be promising possibilities in the private sector that justify government help—whether it be financial, in the form of convenings, or otherwise—then prudent seed investments should be made.

Clean energy

Clean energy represents such massive and fundamental opportunities for the American economy—both as a sector in and of itself and as an input to other sectors—that we have devoted a separate section of this report to capturing this opportunity through smart and effective interventions. ■

Endnotes

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