

Investing in America: Building an Economy That Lasts

January 2012

Summary

The economy has added private sector jobs for 22 straight months, a total of 3.2 million jobs over that period. In 2011 alone, nearly 2 million private sector jobs were created, more than in any year since 2005. While the economy is moving in the right direction, we need faster economic growth to address the more than 8 million jobs lost from the recession and put more Americans back to work.

The Administration is working to restore economic security for the middle class and rebuild an economy based on investment, production, and innovation. Creating an economy built to last means that we must make investments that will equip our workers to compete effectively in the global economy, today and tomorrow.

Over the past decade, real business investment in production capacity stagnated. Economic growth in the U.S. relied far too heavily on an unsustainable boom in residential and commercial real estate fueled by an unchecked financial sector. The bubble created by this boom distorted our economy and undercut the international competitiveness of our products and services. Companies increasingly chased low-cost labor outside of the U.S., moving their manufacturing production, and some of their services, like call centers and software development, abroad.

- From 2001 to 2007, investment in equipment and software to make companies more productive declined by 15% as a share of GDP.¹
- Over this same period, the U.S. manufacturing sector lost more than 3 million jobs.² For the first time in decades, real net investment in manufacturing capacity stagnated for years, even as the economy expanded.³
- The U.S. trade deficit grew to unprecedented levels in the 2000s, in absolute terms, and as a fraction of GDP. This growth was fueled by our trade deficit in goods. By 2006, the U.S. trade deficit in goods exceeded \$835 billion, greater than 6 percent of our GDP.⁴

¹ Department of Commerce, Bureau of Economic Analysis. "National Income and Product Accounts, Table 1.1.5."

² Department of Labor, Bureau of Labor Statistics. "Current Employment Statistics."

³ Department of Commerce, Bureau of Economic Analysis. "Fixed Assets Accounts, Table 3.8ES."

As the recovery has started to take hold, we have begun adding private sector jobs. Amidst this early progress, we see an emerging pattern of growth that rests on a far more sustainable foundation than that of the past decade, but it is still in its early stages.

- Real business fixed investment has begun to rebound, growing by 18% since the end of 2009.⁵ As this has happened, we have seen a shift in the composition of investment by the private sector towards the types of investments that expand capacity, help workers become more productive, and develop a foundation for future sustainable growth.
- The manufacturing sector has recovered faster than the rest of the economy, supporting growth and job creation. Over the past two years, the economy has added 334,000 manufacturing jobs – the strongest two-year period of manufacturing job growth since the late 1990s.⁶ Manufacturing production has surged 5.7% on an annualized basis since its low in June of 2009, the fastest pace of growth of production in a decade.⁷ However, we still have a long way to go to recover from the more than 2 million manufacturing jobs lost in the recession.⁸
- The competitiveness of America's producers of goods and tradable services has improved, and with it we have seen strong growth in exports. Over the past twelve months, exports have been growing at an annualized rate of 16.1% when compared with 2009, meaning that America is ahead of schedule in meeting the President's goal of doubling exports over 2009 levels by the end of 2014. As of October, American exports of goods and services over the past 12 months totaled over \$2 trillion, a 31.6% increase over the level in 2009.⁹

Over recent months, outside analysts, including the Boston Consulting Group, Accenture, and Booz & Company have examined the increasing relative attractiveness of the U.S. as a location for manufacturing. The Boston Consulting Group noted that “the U.S. will become an increasingly attractive option, especially for products consumed in North America,” as the “total cost of doing business” – after taking into account the productivity of U.S. workers as well as transportation, supply chain risks, and other costs – are now making production in a range of industries as economical in the United States as in other parts of the world, including China.

⁴ Department of Commerce, Census Bureau and Bureau of Economic Analysis. “U.S. International Trade in Goods and Services.”

⁵ Department of Commerce, Bureau of Economic Analysis. “National Income and Product Accounts, Table 1.1.6.”

⁶ Department of Labor, Bureau of Labor Statistics. *op. cit.*

⁷ Federal Reserve Board. “G.17 Statistical Release: Industrial Production and Capacity Utilization.”

⁸ Department of Commerce, Bureau of Economic Analysis. “National Income and Product Accounts, Table 1.1.6.”

⁹ Department of Commerce, Bureau of Economic Analysis. “National Income and Product Accounts, Table 1.1.6.”

While these reports have identified the emerging trend of companies bringing production back to the U.S., our analysis, official data, and examination of the behavior of particular firms support the view that investment has been growing and a new, promising trend of ‘insourcing’ is beginning to take shape. While ‘insourcing’ is often used to describe a company bringing activities back in-house, we use the term to refer to bringing activities and jobs back to the U.S. or choosing to invest in the U.S. instead of overseas. We find that these jobs are coming back to the U.S. from a wide range of locations, including advanced industrial countries and some emerging economies.

- Large U.S. manufacturers like Ford and Caterpillar have announced major investments in the U.S., ‘insourcing’ jobs to the U.S. from places like Japan, Mexico, and China.
- Smaller manufacturers across a range of industrial and consumer products are also making decisions to return production and bring jobs back. KEEN, a footwear design and manufacturing company, has moved production to Oregon from China, and Master Lock has brought back jobs to its facility in Milwaukee, Wisconsin.
- Services firms that sought to take advantage of low-cost labor abroad are re-examining those decisions and investing in the U.S. for their operations – ranging from customer support centers to software developers, engineers, and other high-tech, high-skill service industries. GalaxE Solutions is ‘insourcing’ jobs to its location in Detroit, with plans to hire hundreds of IT services professionals, and call center company Novo1 has opened facilities in Michigan and Texas, bringing back jobs to the U.S. from all over the world.
- Foreign-domiciled firms invest in the United States to take advantage of a dependable pro-growth business climate, productive workforce, and innovative culture. The U.S. market is open to products, ideas, and inward investment in ways that few other countries are.¹⁰ Approximately \$228 billion in FDI flowed into the United States in 2010, an increase from \$153 billion in 2009 and the largest FDI inflow of any economy in the world by a large margin.¹¹

The analysis we have undertaken identifies economic shifts that could help propel investment in the U.S. and economic expansion for many years to come. Much more must be done to ensure that our progress is able to take hold:

- **U.S. manufacturing has improved its cost competitiveness:** In recent years, American manufacturing has improved its cost competitiveness vis-à-vis other countries.

¹⁰ Council of Economic Advisers. “U.S. Inbound Foreign Direct Investment.” June 2011.

¹¹ United Nations Conference on Trade and Development (UNCTAD). World Investment Report. Annex Table 01.

- *Relative costs in the U.S. have improved with productivity growth:* U.S. manufacturing productivity – which has always been strong – continues to improve, rising nearly 13% since the first quarter of 2009. Combined with an increased cost of labor elsewhere in the world, it is now more cost competitive to invest in American manufacturing workers. The U.S. Bureau of Labor Statistics tracks manufacturing unit labor costs, which reflect productivity changes, for a range of industrial countries, in a manner that allow for direct international comparisons. Between 2002 and 2010, only one of the 19 countries managed to improve its unit labor cost position in manufacturing more than the U.S.¹²

- *A boom in natural gas production has supported manufacturing:* The surge in domestic natural gas production can lower energy costs, reduce pollution and drive investment in the industries that supply equipment the natural gas sector and those that use natural gas as an input to production, like the chemical industry. Recent data from the Energy Information Administration indicate that by the end of 2011 natural gas extraction increased by over 24% since 2006.¹³

- **High-value U.S. service sectors have been able to take advantage of an expanded marketplace:** The increasing tradability of business services allows one of America's most productive and dynamic sectors to expand its exports, fueling jobs and investment. Services like engineering, research and development, finance and software production– which typically pay high wages – can now be more easily traded across countries. As a result, the United States is poised to expand its trade surplus in services, which has already grown substantially, nearly tripling in size since 2003, to \$146 billion in 2010.

- The highly-skilled U.S. workforce continues to be a source of advantage across the service sector. Companies ‘insourcing’ to the U.S. points to better performance in U.S. service centers relative to many foreign locations, off-setting the benefits of lower wages abroad.

As these economic shifts occur, they have encouraged companies – both large and small – to reevaluate whether it makes sense to locate abroad as opposed to in the United States. As the U.S. becomes more cost competitive, the other advantages of locating here, including access to a high-skilled workforce, proximity to customers, reduced cultural and linguistic barriers, the strength of intellectual-property protection, and access to the world’s leading research universities, are becoming increasingly important.

¹² The BLS unit labor cost data do not track many emerging markets, but BLS hourly compensation data for manufacturing, which contain more complete coverage of developing countries, suggest the presence of similar trends.

¹³ This projection is taken from the EIA’s *Short Term Energy Outlook*.

Over the past three years, the President has taken steps to stabilize the financial system, rescue the auto industry, cut taxes for the middle class, and make investments to get Americans back to work. The Administration's policies have helped arrest the greatest financial shock since the Great Depression, get credit flowing more freely to businesses and consumers, and return our economy to growth within six months of the President taking office – all key elements in making the U.S. more attractive for investment in very challenging times and going forward. In addition, the President has signed into law policies specifically targeted towards making it more competitive for companies to locate and invest in the United States, including the passage of three new Free Trade Agreements, increased aid through Pell Grants and community colleges to improve workers' skills, tax incentives to encourage investment at home - including 100% expensing and the 48C investment tax credit for advanced energy technologies - measures to expand access to capital for small businesses, and investments to rebuild our infrastructure. But there is still more to be done. Additional measures to ensure workforce skills are aligned with industry needs, rebuild our infrastructure, invest in the technologies of the future, and reform our corporate tax system to encourage investment at home can help strengthen our ability to attract more businesses to invest, grow, and create jobs in the U.S.

From Boom to Bubble to Bust: American Economic Growth in the 1990s and the 2000s

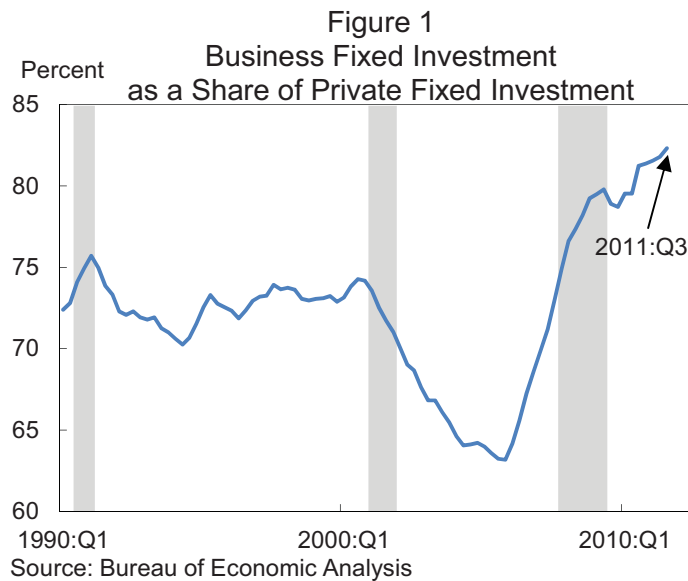
The 1990s began with a recession, a slow recovery, and mounting concern about the long-run prospects for U.S. economic performance. During the previous decade, U.S. productivity had grown relatively slowly and there was concern that American productivity growth had permanently stalled. In the 1980s, business fixed investment as a share of GDP had declined, despite years of robust economic expansion. American industries faced unprecedented global competition, and leading experts worried that the nation was losing its competitive edge.

In the 1990s, however, America's industrial fortunes improved. Export growth had fallen below long-term trends in the 1980s, but it resumed historical patterns of growth in the 1990s. This was stimulated by lower relative production costs and robust economic growth outside the United States.¹⁴ By the middle of the decade, fundamental breakthroughs in information technology appeared to be driving a reengineering of the American economy. Productivity growth accelerated significantly and private fixed investment as a fraction of GDP rose from 13.1% in the first quarter of 1992 to 17.1% by the third quarter of 1999. The health of the manufacturing sector improved in the 1990s, and manufacturing capacity expanded at the fastest rate in decades. The boom helped drive unemployment to the lowest

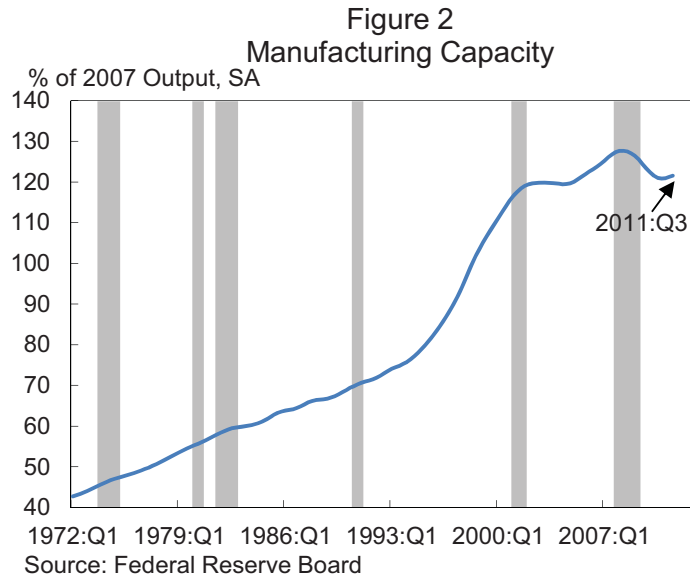
¹⁴ This export growth is carefully documented by Bernard and Jensen (2004), "Entry, Expansion, and Intensity in the US Export Boom, 1987-1992." During this period, US exports were dominated by manufactured goods.

levels in a generation while inflation remained low. Even when a series of financial crises struck developing countries at the end of the 1990s, America's economic expansion remained robust.

Recession hit again at the beginning of the 2000s. As growth resumed, the composition of investment in the U.S. economy was quite different in the 2000s than in previous decades. Total private fixed investment, which includes residential investment as well as business fixed investment in equipment, software, and structures, rose in the 2000s about as quickly as it had in late 1990s. However, as Figure 1 shows the share of business fixed investment in total private fixed investment fell dramatically, reflecting the decade's unsustainable boom in residential real estate.



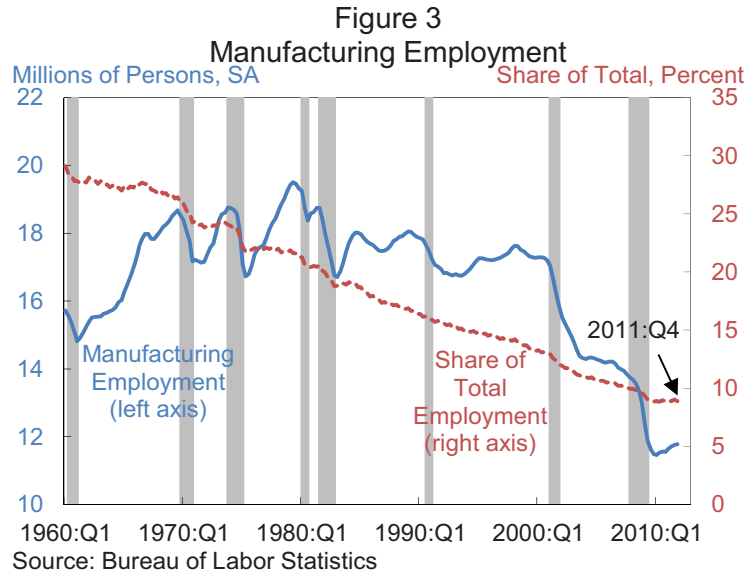
Capacity utilization in manufacturing fell sharply during the recession of the early 2000s and recovered with a slowness unprecedented in post-war history, even as real estate investment boomed. After surging in the 1990s, manufacturing capacity remained stagnant for much of 2000s, as is shown in Figure 2. In fact, for most of the decade prior to the most recent recession, manufacturing investment was barely sufficient to keep pace with depreciation. As the decade stretched on, it was increasingly hard to deny that something fundamental had changed.



Import Surge and Manufacturing Decline

Since World War II, the manufacturing sector has declined as a share of the overall economy, whether measured by GDP or by employment. However, from the late 1960s until the end of the 1990s, the level of manufacturing employment stayed at approximately 18 million. For decades, American manufacturing firms had cut jobs in recessions, but increased them during recoveries. Over time, some jobs and output connected to low-wage, low-tech products had disappeared for good, but American manufacturers had also *created* jobs associated with more sophisticated, technologically advanced products. This shift reflected America's comparative advantage in advanced manufacturing, and it contributed to the measured productivity growth in American manufacturing as U.S. industry increasingly focused on the relatively sophisticated, capital- and skill-intensive activities in which it was relatively more efficient. As shown in Figure 3, over the business cycle, job loss and job creation happened at roughly the same rate, preserving a fairly stable *level* of employment in manufacturing through the late 1990s, even as the *share* of manufacturing workers in the total workforce declined.¹⁵

¹⁵ The stability of employment does not imply that manufacturing faced no challenges or that there were no worrisome trends prior to the end of the 1990s. Some of these are reviewed in the “The Competitiveness and Innovation Capacity of the United States,” a comprehensive report undertaken by the Department of Commerce and available online at <http://www.commerce.gov/americancompetes>.



The dramatic decline in the level of manufacturing employment after 2000 signaled that something fundamental had changed. A complete review of the challenges and difficulties faced by American manufacturing at this point in history are beyond the scope of this report.¹⁶ Instead, the analysis of economic events and their consequences described below deliberately focuses on only part of the multifaceted challenge that has confronted U.S. manufacturing in recent years. The components of the challenge we focus on in this document appear to be improving in recent years, suggesting the possibility for greater strength and improved competitiveness on the part of American manufacturers.

In the late 1990s as a series of financial crises began to erupt in emerging markets, starting with five major Asian economies and extending to Brazil and Russia. As these countries succumbed, their currencies depreciated sharply against the dollar. This shift occurred in the midst of a broad depreciation of the currencies of America's advanced country trading partners, raising the cost of production of American manufacturers relative to their international competitors. These shifts were then followed by a domestic recession at the beginning of the 2000s, creating a perfect storm for America's manufacturing sector. The confluence of adverse circumstances helps explain the sharp contrast in the data between the relative mildness of the early 2000s recession and the sharp decline in manufacturing employment and manufacturing capacity utilization.

As the shock induced by the Asian, Brazilian, and Russian financial crises was abating, China took off. U.S. imports of manufactures from all low wage countries surged from roughly 3 percent of U.S. trade in

¹⁶ Readers seeking a more comprehensive analysis are referred to The Department of Commerce report, "The Competitiveness and Innovation Capacity of the United States."

1991 to about 12 percent in 2007, with China accounting for approximately 92 percent of this surge.¹⁷ China's growing import penetration in the U.S. market accelerated sharply after 2001.¹⁸ China's exports may have been elevated by the country's exchange rate policies, which led to a fundamental misalignment of the renminbi-dollar exchange rate.¹⁹

The Impact of the 2000s Financial Bubble on Manufacturing and the Real Economy

Throughout much of the 2000s, America's trade deficit in goods widened both with respect to emerging market economies and with respect to some of our advanced country trading partners. For a time, this widening deficit was financed by capital inflows that helped feed America's real estate boom. As investors around the world poured capital into the U.S. financial sector's products in pursuit of high returns with low perceived risk, these capital inflows effectively pushed relative U.S. production costs above the level that we would have seen in the absence of such strong, sustained inflows. The resulting elevated level of relative production costs mattered. While U.S. trade in manufactured goods with emerging markets grew rapidly in the 2000s, there were important categories of goods in which domestic producers' primary competitors tended to be based in advanced industrial countries – goods like aircraft, automobiles, and specialized capital equipment.²⁰ The trends in production costs limited America's attractiveness as a manufacturing location for these more sophisticated goods relative to other advanced industrial countries, and that raised additional concerns. Loss of manufacturing in these categories could threaten America's strength and innovation if the ability to innovate is linked to the presence of a robust manufacturing base.²¹

From Crisis to Recovery and Beyond: Investment and Growth in the Next Decade

When the financial bubble of the 2000s finally burst, the impact on America's real economy was devastating. Trillions of dollars in household wealth were lost as the stock market and the real estate market collapsed at roughly the same time, and households cut back sharply on consumption. At the

¹⁷ See David Autor, David Dorn, and Gordon Hanson (2011), "The China Syndrome: Local Labor Market Effects of Import Competition," available at <http://econ.www.mit.edu/files/6613>. The set of "low wage" countries examined in this study includes many of the world's poorest nations, as of 1989, but omits some of America's middle income developing country trading partners.

¹⁸ See Autor et al. (2011).

¹⁹ Lardy (2011) offers a systematic analysis of China's exchange rate intervention and its likely impact on Chinese trade flows, as well as the structure of the Chinese economy.

²⁰ As Feldstein (2008) notes, about half of U.S. imports at this point were coming from other advanced industrial countries.

²¹ See the President's Council of Advisers on Science and Technology (PCAST), "Report to the President on Ensuring American Leadership in Advanced Manufacturing," released in June 2011.

peak of the crisis, financial markets seized up, and companies were unable to finance investment. Global demand collapsed, and manufacturing activity contracted sharply. However, as the recovery has started to take hold, we have begun to see an emerging pattern of growth that rests on a far more sustainable foundation than the bubble-driven excesses of the past decade. Investment and manufacturing are playing a more prominent role during the first two years of America's current expansion than they did at a similar point in the previous recovery. This revival of investment and growth in the real economy is supported by fundamental shifts that could continue to drive growth for years to come: the recovery of American manufacturing competitiveness, America's natural resource boom, and the continued growth in demand for high-skill, high-wage tradable services.

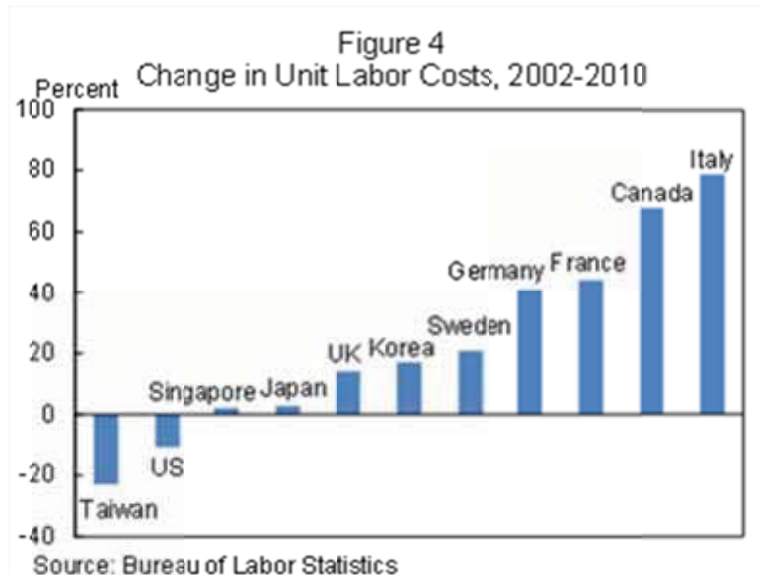
Increased U.S. Competitiveness

U.S. workers are more productive than those of any other G-20 economy, and U.S. productivity growth has been especially strong in the manufacturing sector. However, even highly productive U.S. workers can be placed at a competitive disadvantage due to low labor costs abroad.²² This disadvantage was especially severe in the early years of the 2000s when the enduring effects of financial crises in many parts of the world depressed production costs in much of Asia, Brazil, Russia, and elsewhere.

Since then, continued robust productivity growth in the U.S., particularly in the manufacturing sector, has been reinforced by a gradual realignment of many trading partner currencies. The result has been a sharp improvement in the relative unit labor cost in the U.S. For example, the U.S. Bureau of Labor Statistics (BLS) tracks changes over time in the unit labor cost of manufacturing in the U.S. and in key trading partners. U.S. hourly compensation in manufacturing has grown over the past decade, but rapid productivity growth has reduced the cost of producing a unit of manufactured output in the U.S. Meanwhile, when measured in U.S. dollars, the cost of producing a unit of manufactured output in key trading partners has risen, in some cases substantially, as is shown in Figure 4. Of the 19 countries tracked by the BLS, only Taiwan managed to improve its unit labor cost position more than the U.S.²³

²² We acknowledge that productivity growth has been even more rapid in the tradable goods sectors of some developing countries, such as China. This growth usually leads to exchange rate adjustments via the well known "Belassa Samuelson" effect, but some trading partners, including China, have intervened in foreign exchange markets to limit this natural adjustment.

²³ Chinese unit labor costs are not tracked by the BLS. However, the BLS has tracked an index of import prices from China since 2003, and the most recent movements in this index suggest that Chinese unit labor costs are also rising.



The impact of America's improved position can already be seen in some industries, like autos, an industry that has accounted for 23.2 percent of the increase in manufacturing industrial production since the recovery began.²⁴ As U.S. auto demand recovers, the Big 3 domestic auto companies and the foreign-domiciled companies have been expanding U.S. production. This expansion is not only designed to serve the U.S. market but also to use their U.S. production sites as an export platform from which to serve other markets within the Americas and beyond. Ford has announced intentions to ramp up investment in the U.S., both to serve the U.S. market and to export. Recent announcements include moving its commercial F-650 and F-750 lines to Ohio from Mexico and components like transmission oil pumps from China to Michigan. Ford's internal studies indicate that about 30 percent of the value of a vehicle's content consists of elements like electronics, software, and intellectual property. As cars become a higher-tech product, they may fit even better with America's comparative advantage.²⁵ Honda is seeking to bolster its production capacity in North America by as much as 40%, and BMW already exports over 70 percent of the vehicles that are built at its plant in South Carolina to more than 100 markets around the world.

Of course, the differences in labor costs that remain between the advanced industrial economies, including the U.S., on the one hand, and emerging markets on the other, suggest some limitations to the return of low-tech, labor-intensive manufacturing. Recent evidence suggests that China is starting to lose competitiveness in the most labor-intensive goods to even lower-wage economies. Further

²⁴ This is large relative to the size of the motor vehicles and parts industry, which constitutes 5.2 percent of the manufacturing sector.

²⁵ Deloitte, an international consulting firm, suggests in a 2009 study that the share of auto costs accounted for by electronics will grow substantially in coming decades.

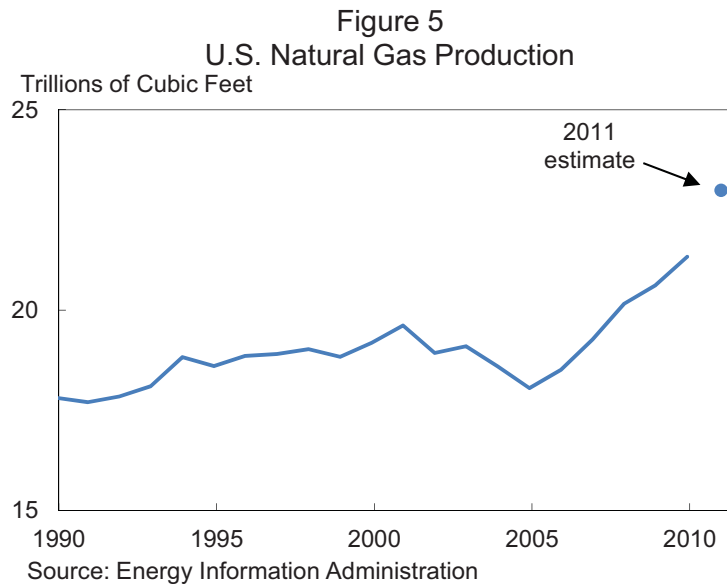
increases in wages and other factor costs are likely to lead to further erosion of China's advantages in these kinds of goods. That said, even studies that have suggested the economics of offshoring manufacturing to China are less compelling than they used to be do not predict large-scale shifts of low value-added, labor-intensive, commodity manufacturing back to the U.S.

On the other hand, the data clearly point to an improvement in America's ability to compete across the range of more skill- and capital-intensive products in which America has traditionally had a comparative advantage. Even in recent years, the relatively small share of labor costs in total production for many of these goods has tended to limit the role played by developing countries in their manufacture and exports. The secondary role that labor costs play in these goods – which limits inroads from low wage countries – and the improvement of America's competitive position vis-à-vis other advanced industrial countries amount to an important, positive shift for U.S.-based manufacturing. In addition, natural disasters, such as the devastating earthquake and resulting tsunami in Japan, have heightened the awareness of manufacturers to the risks created by moving production overseas. Where the shift in total unit production costs reinforces America's comparative advantage, we are likely to see continued growth in investment, output, and exports, suggesting that the comparative benefits of operating in the U.S. will grow in importance.

America's Natural Resource Boom

Only a few years ago, fears of a looming natural gas shortage led to significant investments in the rapid construction of liquefied natural gas (LNG) port facilities that could enable the United States to import vast quantities of natural gas. Projections from the Energy Information Administration (EIA) as recently as 2005 suggested expanding natural gas imports for decades. Just several years ago, leaders of the domestic organic chemical industry predicted that shortages in natural gas would dramatically raise the domestic price of natural gas, one of their key inputs. Without the prospect for adequate domestic supplies of natural gas at reasonable prices, companies increasingly pointed to overseas operations where they could access large quantities of low-cost natural gas.

Since the mid-2000s, however, the discovery of new natural gas reserves, such as the Marcellus Shale, and the development of hydraulic fracturing techniques to extract natural gas from these reserves has led to rapidly growing domestic production and relatively low domestic prices for households and downstream industrial users. Appropriate care must to be taken to ensure that America's natural resources are extracted in a safe and environmentally responsible manner with the safeguards in place to protect public health and safety. Provided these precautions are taken, the potential benefits to the U.S. economy are substantial.



Of the major fossil fuels, natural gas is the cleanest and least carbon-intensive for electric power generation. By keeping domestic energy costs relatively low, this resource also supports energy intensive manufacturing in the United States. In fact, companies like Dow Chemical and Westlake Chemical have announced intentions to make major investments in new facilities over the next several years. In addition, firms that provide equipment for shale gas production have announced major investments in the U.S., including Vallourec’s \$650 million plant for steel pipes in Ohio.

An abundant local supply will translate into relatively low costs for the industries that use natural gas as an input. Expansion in these industries, including industrial chemicals and fertilizers, will boost investment and exports in the coming years, generating new jobs. In the longer run, the scale of America's natural gas endowment appears to be sufficiently large that exports of natural gas to other major markets could be economically viable.

Tradable Services as a Source of Jobs, Business Investment, and Exports

Even before the recession hit, business services, a collection of industries that includes engineering services, research and development services, finance, and software production, employed 25% of the U.S. workforce at an average annual wage of \$56,000.²⁶ Recent developments in communications technologies and the growing ease and declining expense of international travel are making business services increasingly tradable across countries. As the IT revolution has made business services more tradable, employment in the U.S. business service sector *increased* almost 30 percent over the decade

²⁶ J. Bradford Jensen provides a comprehensive overview of tradable business services and their growing role in world trade in his 2011 book, *Global Trade in Services: Fear, Facts, and Offshoring*.

1997-2007. Services exports, as measured in the official data, have expanded dramatically, nearly doubling between 1997 and 2007, and now accounting for nearly 30% of U.S. exports.²⁷ This growth was disproportionately driven by business services, broadly defined. Imports of services have also expanded rapidly, but the United States has maintained a large surplus in services trade that has grown substantially over the course of the 2000s, nearly tripling in size since 2003 to \$146 billion in 2010.

Most tradable business services intensively rely on highly skilled experts with which the U.S. is well endowed. In other words, the growing tradability of business services plays to America's comparative advantage. Despite the media emphasis on U.S. imports of services from developing countries like India, most U.S. service imports come from other high-wage, high-skill countries, reinforcing the expectation that expansion of international trade in these industries is likely to benefit relatively high-wage workers in advanced industrial countries. Beyond the return of services jobs like call centers is the more economically significant story of America's enduring and growing strength in advanced, high valued-added services. These trends are likely to continue, possibly even accelerate as the IT revolution renders a broader range of industries services tradable and demand for America's sophisticated services grows in rapidly developing emerging markets.

America's competitive strength in advanced services is driven, in part, by an effective use of information technology and sophisticated data analysis; the robust expansion of firms in these advanced services industries will spur additional investment. The rise of business services has even started to blur the traditional lines separating services from manufacturing. Within U.S. manufacturing firms, it is already true that more workers are providing services than actually making products. That is likely to strengthen as global manufacturers increasingly seek to enhance their products through the sophisticated analysis of data generated by their products while in use.²⁸ As global manufacturers seek to acquire these capabilities, they are finding that the world's leading providers of these services are almost all based in the U.S.

Conclusion

Over the last decade, the U.S. followed a pattern of growth and investment that failed to lay the foundation for sustained prosperity. In 2008, that path led to the worst economic downturn since the Great Depression. The last decade and the recession we have emerged from point to the critical importance of ensuring an economy that is built to last.

²⁷ These developments were noted by Jensen (2011).

²⁸ These same global firms are likely to demand more detailed and data-driven market research, more sophisticated consulting services, and more comprehensive international legal advice – all trends that will benefit leading U.S. exporters of these services.

We are seeing some encouraging economic signs, including 22 straight months of private sector job creation, a measurable improvement in the competitive position of U.S. manufacturing, and an expansion of our domestic natural resources that further supports business investment. The composition of investment has shifted, with a focus, once again, on building the equipment and the plants that produce the real goods and services our people need and the world demands. We also see evidence of the continued growth of America's tradable services sector.

While the emerging evidence is positive, more must be done to realize the promise that these recent trends offer. From investments in our workforce and infrastructure to measures to support innovation, this Administration is committed to helping American workers and American companies together realize the potential we have documented in this report. By taking these steps, we can create an economy that is built to last.

References

1. Accenture. 2011. "Manufacturing's Secret Shift: Gaining Competitive Advantage by Getting Closer to the Consumer."
2. Autor, David, David Dorn, and Gordon Hanson. 2011. "The China Syndrome: Local Labor Market Effects of Import Competition." MIT Working Paper. August.
3. Bernard, Andrew B. and J. Bradford Jensen. 2004. "Entry, Expansion, and Intensity in the US Export Boom, 1987-1992." *Review of International Economics*, 12 (4), 662-675
4. Booz & Company. 2011. "Manufacturing's Wake-Up Call." Fall.
5. Boston Consulting Group. 2011. "Made in America, Again: Why Manufacturing will Return to the U.S." August.
6. Council of Economic Advisers. 2011. "U.S. Inbound Foreign Direct Investment." June.
7. Department of Commerce. 2012. "The Competitiveness and Innovative Capacity of the United States." January.
8. Deloitte. 2009. "A New Era: Accelerating Toward 2020 – An Automotive Industry Transformed." September.
9. Energy Information Administration (EIA), Office of Oil and Gas. 2007. "U.S. Natural Gas Imports and Exports: Issues and Trends 2005." Washington, DC.
10. EIA, "Short-Term Energy Outlook: January 2012." Washington, DC.
11. Feldstein, Martin S. 2008. "Resolving the Global Imbalance: The Dollar and the U.S. Saving Rate." Working Paper 13952. Cambridge, MA: National Bureau of Economic Research. April.
12. Jensen, J. Bradford. 2011. *Global Trade in Services: Fear, Facts, and Offshoring*. Peter G. Peterson Institute for International Economics. Washington, DC.
13. Lardy, Nicholas. 2011. *Sustaining China's Economic Growth After the Global Financial Crisis*. Peterson G. Institute for International Economics. Washington, DC.
14. President's Council of Advisers on Science and Technology (PCAST). 2011. "Report to the President on Ensuring American Leadership in Advanced Manufacturing." June.