progressive policy institute ppi

U.S. INVESTMENT HEROES OF 2013: The Companies Betting on America's Future

BY DIANA G. CAREW AND MICHAEL MANDEL SEPTEMBER 2013

Total domestic investment fell drastically during the recession and has yet to fully recover.

For too long, U.S. policymakers have focused narrowly on boosting consumers' buying power, assuming that the productive end of the economy will take care of itself. Yet the last decade of slow growth shows that debt-driven consumption is not a sustainable strategy for expanding economic opportunity or lifting U.S. living standards. In contrast, a high-growth strategy requires strong investment—private and public—in our nation's productive and knowledge capacities.

It's time for progressives to rebalance the consumption-investment equation. Total domestic investment fell drastically during the recession and has yet to fully recover. A big part of the problem is the public sector. With gridlock in Washington and financial troubles at the state and local level, government real spending on productive assets from highways and bridges to computer equipment, net of depreciation, is down by half compared to the average level of the 2000s.

About the authors

Diana G. Carew is an economist at the Progressive Policy Institute and director of PPI's Young American Prosperity Project. Michael Mandel is the chief economic strategist at the Progressive Policy Institute and the founder of South Mountain Economics LLC.

Investment by the private sector is doing better, but taken as a whole still falls way short of what the country needs to generate jobs and growth. As shown in Figure 1, business investment, outside of housing, is still 20 percent below its long-term trend. There are several reasons why private business investment is failing to reach its potential. Globalization, weak demand, deleveraging and a shortage of workers with technical skills all contributed to the investment fall-out and subsequent investment gap. And as PPI has documented elsewhere, the sheer accumulation of regulations over time can discourage capital investment and innovation.[1]

The top five U.S. Investment Heroes of 2013 are AT&T, Verizon, Exxon-Mobil, Chevron, and Intel.

Within this gloomy picture, however, are some bright spots—companies that continue to place big bets on America's future, creating jobs and raising productivity in the process. Surprisingly, in a world of information overload, identifying these major contributors to the U.S. economy is not an easy task, since most companies do not break out their domestic capital spending. That's why we undertook our second annual report on "U.S. Investment Heroes," making a systematic analysis of publicly available information to rank nonfinancial companies by their capital spending in the U.S.

PPI's ranking of U.S. Investment Heroes for 2013 is once again led by AT&T, which invested almost $20 billion in the U.S. in 2012. The list then follows with Verizon, Exxon, Chevron, Intel and Walmart.[2] Together, we estimate these companies invested almost $75 billion in the U.S. in 2012, an astonishing total almost twice the GDP of Wyoming.[3] Over the last year, these companies have poured capital investment into the deployment of high-speed broadband, oil and natural gas production, and new corporate and retail facilities.

As a general principle such spending provides both direct and indirect benefits to Americans. For example, a variety of studies suggest that investment in fixed and mobile broadband creates jobs. In fact, PPI Chief Economic Strategist Michael Mandel estimates that since Apple introduced the iPhone in 2007, the economy has created over 750,000 jobs related to mobile apps.[4]

Indeed, telecommunications and cable companies are a major driver of U.S. investment today, sparking the rise of what we call "the data-driven economy." The digital transformation of the U.S. economy would not be possible if high-speed fixed and mobile broadband networks were not in place. That's why encouraging private investment in our nation's broadband infrastructure is rightly a major priority for the Obama administration.[5] Beyond that, robust private investment in smart devices, sensors, and "big data" analytics is sparking the emergence of the "Internet of Everything," which could boost productivity and job creation in 'physical' industries such as manufacturing and transportation.[6]

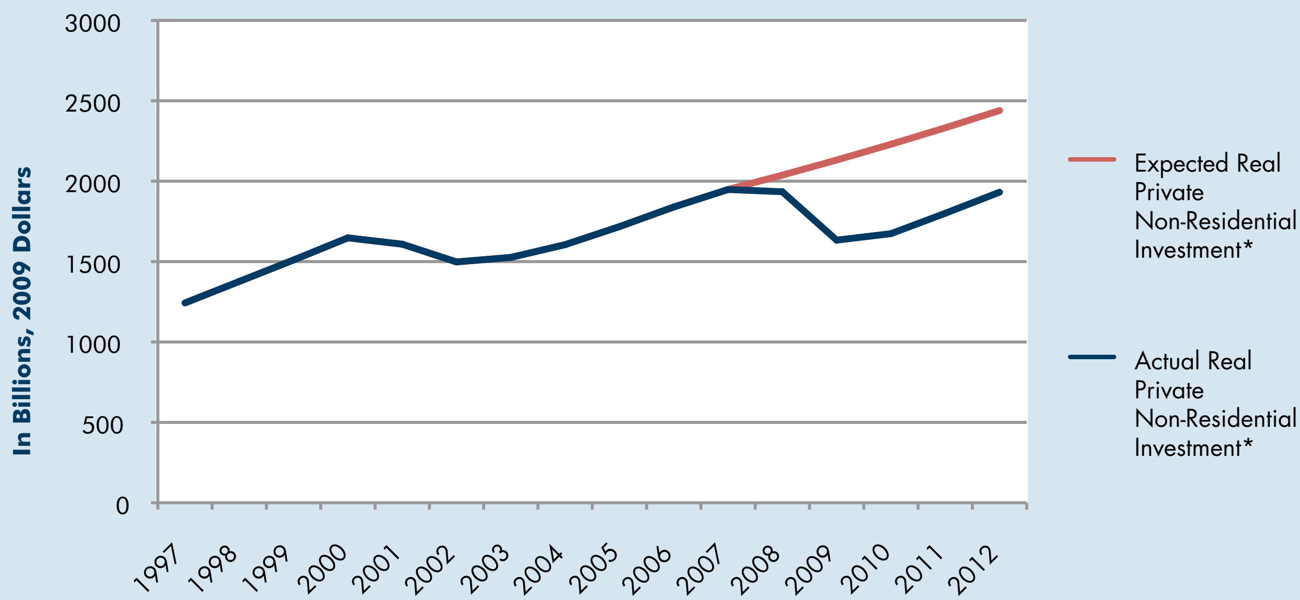
Our ranking of U.S. companies investing in America also shows the tremendous role energy—oil and natural gas production and power generation—has on U.S. economic growth. The shale oil and gas boom has turned old assumptions about energy scarcity on their head. It is lowering input costs for U.S. chemical companies and helping to revive U.S. manufacturing. It may also turn the United States into a major energy exporter, while creating jobs at home.

This report is the third in PPI's "Investment Heroes: Who's Betting on America's Future" research series. That so many companies are choosing to invest elsewhere—or not at all—makes it all the more important to recognize those that are placing their bets on America's future.

IMPORTANT NOTES ABOUT THE RANKING

As with last year's ranking,[7] in this paper we present two lists of "U.S. Investment Heroes": one that includes energy companies and one that does

FIGURE 1: THE U.S. PRIVATE FIXED INVESTMENT DROUGHT CONTINUES



**Assumes real investment grew over 2008-12 at average annual rate over 1997-07*
Source: BEA, PPI

not (our "Non-Energy U.S. Investment Heroes" ranking can be found at the end of this paper). We include a non-energy list to tell the story of what U.S. industries are investing in America outside of the sector that provides a necessary input to them all.

Most companies do not report their U.S. capital expenditures separately from their global (gross) capital expenditures. Therefore, we designed a novel methodology to calculate what share of their global capital expenditures were in the United States. This methodology incorporates certain assumptions, which we detail in the complete methodology found at the end of this paper, and incorporates publicly available annual reports and financial statements. In many cases, no other estimates of U.S. capital expenditures currently exist outside of our calculations.

Our U.S. Investment Heroes ranking for 2013 followed a similar methodology to last year. We started with the 2013 Fortune 150 list as our universe of companies. We removed all financial and insurance companies, since their reporting of capital expenditures is not consistent with our interpretation of plants, property, and equipment. We then estimated the amount of gross capital expenditures in the United States, and finally ranked the companies on our list in order of their total estimated U.S. capital expenditures. For these rankings, we used each company's most recent fiscal year statements. In most cases, the fiscal year is the calendar, in which case we used 2012. For a handful of companies, the fiscal year did not match up with the calendar year, but the most recent fiscal year statement did capture a large portion of calendar year 2012.[8]

We note that the companies in these rankings are all based in the United States. Non-U.S. based companies were not included in this list because of data comparability issues, but certainly there are non-U.S. companies that invest in America. In fact, our recently released report "Non-U.S. Investment Heroes: Foreign Companies Betting on America" highlights those foreign companies that are investing in America's plants, properties, and equipment.[9]

We would also like to offer several caveats associated with these rankings. First, some of the companies on our list have been criticized for a wide variety of issues, including broadband pricing, environmental impacts, privacy concerns, and low tax payments. Without minimizing these potential problems, we don't want to discount the positive impact these companies are having in terms of creating U.S. jobs and generating economic growth through their U.S. investments.

Second, a company's absence from the list does not mean they did not invest domestically in 2012. We cut the list at the top 25 companies for both our energy and non-energy rankings. Mainstay U.S. companies like UPS, Dow Chemical, and Google are investing domestically, just not as much as the other companies on the list.

Finally, we note that if our universe was expanded to include companies in the Fortune 200, additional energy and power companies would have made the list. For example, we estimate Apache invested $5.2 billion in 2012, while Southern Power invested $4.8 billion and PG&E invested $4.6 billion. We do not discount this investment, and certainly the investment in our nation's power infrastructure by these companies is essential. Rather, we decided to stay in the Fortune 150 to make our findings comparable with last year's results.

U.S. INVESTMENT HEROES

This year's ranking of "U.S. Investment Heroes" tells a clear story about which types of companies are investing in America's future. Our 2013 list is comprised significantly of three types of companies: cable and telecommunications, technology, and energy. In fact, companies in these three categories make up 18 out of the 25 on our list.

The top five U.S. Investment Heroes of 2013 are AT&T, Verizon, Exxon-Mobil, Chevron, and Intel. Together, these five companies invested over $66 billion in 2012 on U.S. plants, property, and equipment according to our estimates. The complete list of PPI's top 25 U.S. Investment Heroes for 2013 is below.

Telecom giants AT&T and Verizon again lead this year's ranking. Exponential growth in demand for mobile data, video streaming, and other high-speed broadband services makes investing in fixed and wireless broadband infrastructure essential.[10] Together, we estimate these two companies invested $34.5 billion in building out their high-speed national broadband networks in 2012.

Similarly, Sprint and CenturyLink also invested in the deployment of the latest generation high-speed broadband network. For example, Sprint spent much of its 2012 capital expenditures on the transition from the now legacy Nextel platform to its newer, high-speed Network Vision platform.

The demand for mobile internet connections is also being met in part by the cable companies on our list. In 2012, both Comcast and Time Warner Cable invested in a joint network of 150,000 "wi-fi hotspots" nationwide, as part of the CableWiFi Alliance.[11] These cable providers also spent much of their investment on updating equipment and expanding existing network capacity, according to their annual reports.

Building off the availability of high-speed internet connections, the technology companies on our list spent 2012 investing in the hardware and software that goes into smart devices. According to press reports, Intel announced it was expanding its D1X research facility in Hillsboro, Ore. by an additional 2.5 million square feet.[12] In

U.S. INVESTMENT HEROES: TOP 25 NONFINANCIAL COMPANIES BY ESTIMATED U.S. CAPITAL EXPENDITURE[1]

Rank	Company	Estimated 2012 US Capital Expenditure[2] (in $ mns)	Rank	Company	Estimated 2012 US Capital Expenditure[2] (in $ mns)
1	AT&T[3]	19,465	14	Union Pacific[3]	3,738
2	Verizon Communications[4]	15,000	15	General Motors	3,650
3	Exxon Mobil	12,157	16	Enterprise Products Partners[3]	3,622
4	Chevron	10,738	17	Time Warner Cable[3]	3,095
5	Intel	8,769	18	Microsoft	3,044
6	Walmart Stores	8,257	19	Amazon[6]	2,945
7	Occidental Petroleum	7,592	20	CenturyLink[3]	2,919
8	ConocoPhillips[5]	6,079	21	Ford Motor[7]	2,693
9	Exelon[3]	5,789	22	Walt Disney	2,671
10	Comcast[3]	5,714	23	FedEx	2,575
11	Duke Energy	5,407	24	Apple	2,553
12	Hess	4,740	25	Target	2,345
13	Sprint Nextel[3]	4,261	**Total**		**149,817**

Source: PPI estimates based on 2012 and 2013 company financial reports & filings. Totals do not include R&D, only capital expenditures in plants, property, and equipment.

1. Universe includes nonfinancial Fortune 150 companies from 2013
2. For all but six companies, fiscal year 2012 was calendar year 2012. For Walmart, Microsoft, Walt Disney, FedEx, Apple, and Target, we used the most recent fiscal year statement as of August 2013
3. Predominately U.S. Operations
4. Reduced total capital expenditures by the share of international employment, to adjust for global investment activities
5. May include a small amount of investment in Latin America
6. Includes Canadian investment, but our assessment finds this amount was minimal
7. Adjusted for net investment in operating leases by removing it from long-lived assets in proportion to the country share

2012, Microsoft expanded its U.S. retail presence with the launch of Microsoft Surface and Windows RT, and in July the company opened a new corporate office in Silicon Valley.[13] Apple also invested its U.S. capital expenditures in retail stores, new corporate facilities, and updates to its information systems hardware and software.

The eight energy companies on this year's list invested a combined $56 billion in 2012. The oil and natural gas companies in our ranking all invested in expanding their oil and gas exploration, production, and refining in 2012. For example, according to company reports, Occidental Petroleum's average U.S. operated-rig activity increased 25 percent in 2012 over 2011, from 51 rigs to 64 rigs in California and the Permian Basin in Texas. ConocoPhillips spent its estimated $6.1 billion U.S. investment in 2012 on oil and natural gas development in Texas, New Mexico, North

Dakota, Oklahoma, Montana, Colorado, Wyoming, Alaska, and the Gulf of Mexico. The power companies on our list, Exelon and Duke Energy, invested primarily in expanding their capacity to generate and distribute power.

Ford and General Motors, two major U.S. motor vehicle manufacturers, were also on last year's list. As was the case last year, annual reports show much of the capital expenditures from these companies were focused on their existing automobile and light truck product lines. Moreover, in addition to expanding its Texas production footprint, in September 2012 General Motors announced the creation of its first "IT Innovation Center" in Austin where it intends to hire up to 500 IT professionals to "drive breakthough ideas into GM vehicles."[14]

This year's list also includes several retailers, all of which have an expansive internet presence. Two retailers on the list, Walmart and Target, also have a major brick and mortar presence that is integrated with their online services. Walmart, sixth on our 2013 ranking, spent much of its $8.3 billion U.S. investment in building out new stores and remodels, information systems, and eCommerce capabilities.

Though most of the companies on this year's list were also U.S. Investment Heroes in 2012, there are several new additions to the list worth noting. Amazon, the giant Internet-based retailer, substantially increased its U.S. investment in 2012. According to company records, Amazon is significantly expanding its network of local "fulfillment" centers across the country, in addition to spending on software enhancements and website development. Moreover, in 2012 the company invested $1.4 billion to purchase three square blocks in Seattle, Wash. for its office headquarters.

Union Pacific, a railroad company, is also new to this year's list. The company, whose railroads cover 23 states in the Western U.S., invested $3.7 billion in updating 1,051 miles of railroad track infrastructure, adding 139 miles of new rail lines, and on new locomotives and freight cars.

POLICY IMPLICATIONS

Given the importance of investment as a path to sustainable growth, it is essential that our economic policies make domestic business investment a priority. Investment in the key sectors highlighted in this report—telecommunications and cable, technology, and energy—generates very positive spillover effects for the rest of the economy.

We can see the impact of the data-driven economy in our rankings with the rise of Amazon's investment over the last year. Amazon's rapid expansion—and the growth in all eCommerce[15]—would likely not be possible if it wasn't for the ongoing investment by telecommunications and cable providers in ever faster fixed and mobile broadband networks.

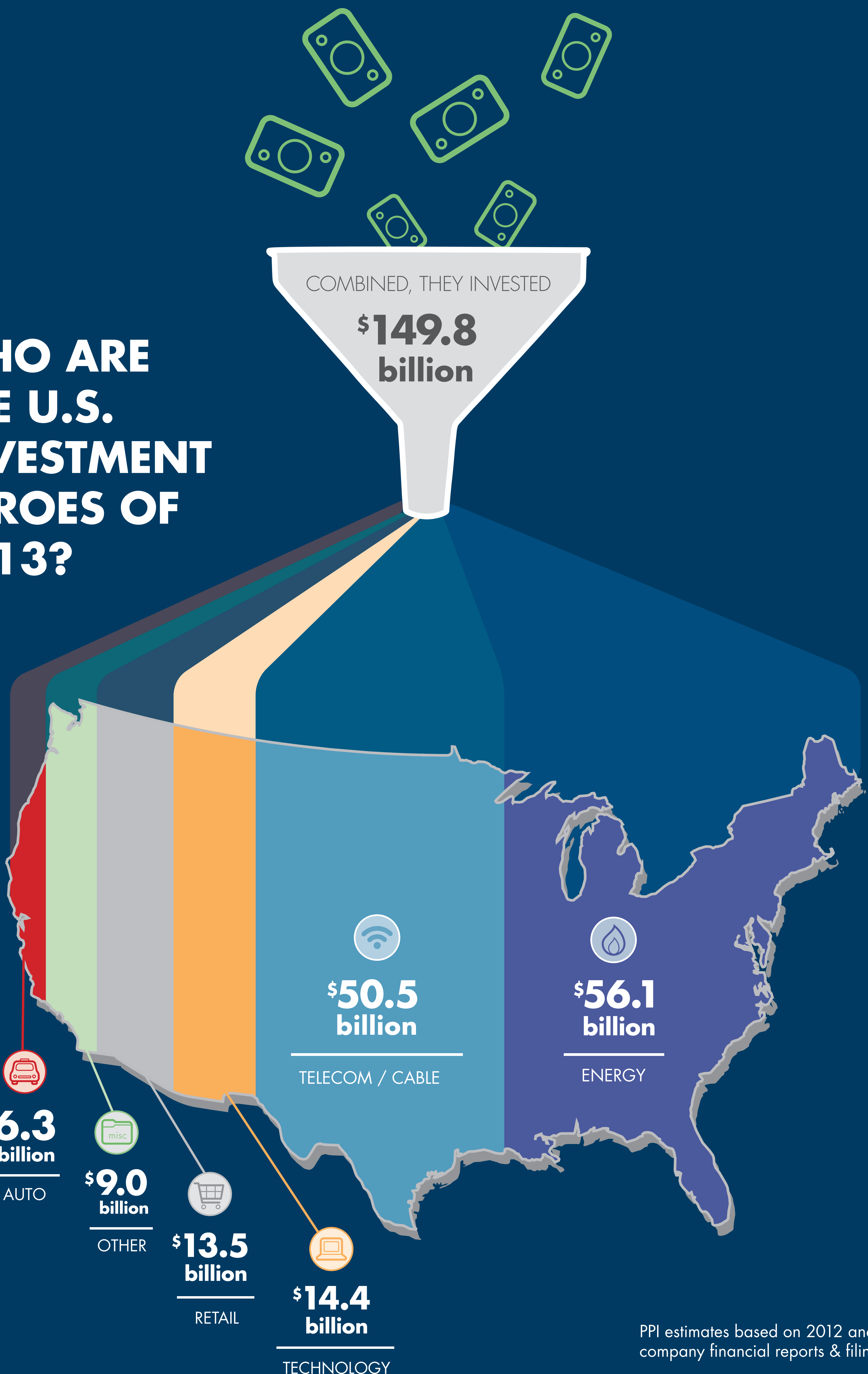
That means it is essential to have policies that facilitate continued investment in cable and telecommunications, technology, and energy, while simultaneously encouraging more investment from other sectors not heavily represented in our rankings.

> The eight energy companies on this year's list invested a combined $56 billion in 2012.

The last year has seen some progress to this end. The American Tax Payer Relief Act of 2012, passed in January 2013, allows for a 50 percent deduction in capital expenditure-related depreciation that was retroactive to January 2012. Several companies on our list highlighted this measure in their discussion of 2012 capital investments.

In June 2013, President Obama issued an Executive Order directing all federal agencies to review spectrum needs within 6 months.[16] The intention of this order is to reallocate or repurpose unused and unneeded spectrum held by the government to telecommunications companies that need more spectrum to meet growing consumer

WHO ARE THE U.S. INVESTMENT HEROES OF 2013?



PPI estimates based on 2012 and 2013 company financial reports & filings.

FOUR WAYS TO ENCOURAGE MORE INVESTMENT:

Simplify the
CORPORATE TAX SYSTEM

Invest in
WORKFORCE TRAINING

Don't over regulate
INNOVATIVE INDUSTRIES

Free up more
SPECTRUM

demand for wireless communication. A finite resource, current spectrum constraints threaten the mobile revolution from reaching its potential.

Also in 2013, the Obama administration announced a new "ConnectEd" initiative that will accelerate broadband access and technology adoption at schools,[17] and the government implemented FirstNet, the first nation-wide wireless emergency response network.[18] On the manufacturing front, a February 2013 evaluation of the Obama administration's grant-making program for "regional innovation clusters", designed to boost U.S. production, showed the initial funding is having a positive economic impact.[19]

But more needs to be done. We are still a long way from meeting the spectrum goals outlined in the 2010 Broadband Agenda.[20] And the effectiveness of upcoming voluntary spectrum auctions, remains uncertain, as many of the terms are still undecided. Recent PPI research on the auction concluded that picking and choosing which providers can participate may come at a social and economic cost.[21] That means it is essential to open these auctions to all companies that need spectrum, in order to effectively spur continued broadband investment.

> It is essential our economic policies make domestic business investment a priority.

In energy, the debate over natural gas fracking, along with territorial disputes over interstate and oil and natural gas pipelines, could eventually hinder investment if issues remain unresolved. It is important that U.S. energy policy embrace the potential of low-cost natural gas, while encouraging producers to adopt "best practice" drilling and production techniques that minimize health risks and environmental damage. Our research has shown both U.S. and non-U.S. energy companies are among the largest investors in America's plants, properties, and equipment.

Policy makers also can encourage more companies across all sectors to invest domestically. Through responsible regulatory reform, we can clear bureaucratic red tape by removing or improving the many outdated and duplicative regulations imposed on U.S. businesses at the federal, state, and local levels. PPI has proposed Congress authorize a Regulatory Improvement Commission (RIC) that would accomplish this task in a politically viable way.[22] Indeed legislation called for the establishment of a RIC was recently introduced in the Senate as the *Regulatory Improvement Act of 2013*.[23] Should such legislation move forward at the federal level, there is great potential for the RIC to be replicated by both state and local governments.

Simplifying the corporate tax system is another way to encourage businesses to invest in America. Our tax system should reward companies that produce domestically. And a simpler, streamlined tax code for small businesses could go a long way toward enabling entrepreneurs to grow their business for the first time. Moreover, U.S. businesses of all shapes and sizes are spending millions each year on patent litigation. Patent reform could free up funding for these companies to expand and innovate without having to worry about getting hit by frivolous lawsuits.

Encouraging private investment also means ensuring there is a qualified workforce whose skills meet employer needs. It is well-documented that for today's fast-growing data-driven jobs, there is a skill mismatch that is forcing too many Americans—especially young college graduates—into lower-paying jobs they are overqualified for.[24] The *Workforce Investment Act of 1998*, having just cleared the Senate HELP Committee for reauthorization,[25] could provide a powerful opportunity to bridge the skills gap by targeting recent college graduates that lack the skills they need to get a high-paying job.

Finally, to invest effectively in U.S. manufacturing, PPI proposes Congress fund a global "Competitiveness Audit."[26] The global Competitiveness Audit would tell us in which sectors the U.S. is at or near competitive in terms of pricing by comparing U.S. production costs to the cost of comparable goods imported from overseas. For example, we think the U.S. has a competitive edge in hi-tech manufacturing, such as 3-D printing, but we don't actually have any official statistics to tell us in which areas we are and are not internationally competitive. Having a formal measure of competitiveness could help target private investment funding more effectively.

CONCLUSION

U.S. economic policy is strongly biased toward stimulating consumption, not investment. This is wrongheaded, because investment in America's capacity to produce both tangible and intangible goods and services is the surest way to put our economy back on a high-growth trajectory. Such investment not only boosts output, but also creates the high-skill, high-wage jobs we need to lift the middle class and reverse today's troubling trend toward greater inequality.

> Telecom and cable, technology, and energy currently dominate the sectors betting on America's future.

Our analysis shows that private domestic investment continues to be well below where it could have been had it not fallen during the recession. Only now is real private non-residential fixed investment reaching its pre-crisis levels. And public investment, constrained by pressures to reduce the federal deficit, will not be able to counteract this missing private investment. In fact, real public investment has been falling, and is currently at 2002 levels, adjusted for inflation.

Our research suggests that while there are some policies in place to facilitate private U.S. investment, more can be done. This year's rankings highlight the very important fact that telecom and cable, technology, and energy currently dominate the sectors betting on America's future. At the same time, our research indicates very few U.S. and foreign based manufacturers outside of motor vehicles are actively investing in America. This suggests policies that aimed at increasing investment in U.S. industrial capacity could have a sizable impact on creating new sources of sustainable economic growth.

NON-ENERGY U.S. INVESTMENT HEROES

As a complement to our complete U.S. Investment Heroes ranking, PPI also created a ranking of the top U.S. companies investing in the United States that are both non-financial and non-energy. Below is PPI's 2013 ranking of non-energy U.S. Investment Heroes according to our estimates. In addition to the non-energy U.S. companies contained in our initial ranking, this list of non-energy U.S. Investment Heroes includes two U.S.

TOP 25 NONFINANCIAL NON-ENERGY COMPANIES BY ESTIMATED U.S. CAPITAL EXPENDITURE[1]

Rank	Company	Estimated 2012 US Capital Expenditure[2] (in $ mns)	Rank	Company	Estimated 2012 US Capital Expenditure[2] (in $ mns)
1	AT&T[3]	19,465	14	Walt Disney	2,671
2	Verizon Communications4	15,000	15	FedEx	2,575
3	Intel	8,769	16	Apple	2,553
4	Walmart Stores	8,257	17	Target	2,345
5	Comcast[3]	5,714	18	IBM	2,146
6	Sprint Nextel[3]	4,261	19	Kroger[3]	2,062
7	Union Pacific[3]	3,738	20	United Airlines[3]	2,016
8	General Motors	3,650	21	CVS Caremark[3]	2,000
9	Time Warner Cable3	3,095	22	Delta Airlines[3]	1,968
10	Microsoft	3,044	23	HP	1,798
11	Amazon[5]	2,945	24	DirecTV	1,741
12	CenturyLink[3]	2,919	25	Boeing[3]	1,703
13	Ford Motor[6]	2,693	**Total**		**109,126**

Source: PPI estimates based on 2012 and 2013 company financial reports & filings. Totals do not include R&D, only capital expenditures in plants, property, and equipment.

1. Universe includes nonfinancial Fortune 150 companies from 2013
2. For all but eight companies, fiscal year 2012 was calendar year 2012. For Walmart, Microsoft, Walt Disney, FedEx, Apple, Target, Kroger, and HP we used the most recent fiscal year statement as of August 2013.
3. Predominately U.S. Operations
4. Reduced total capital expenditures by the share of international employment, to adjust for global investment activities
5. Includes Canadian investment, but our assessment finds this amount was minimal
6. Adjusted for net investment in operating leases by removing it from long-lived assets in proportion to the country share

airlines, United Continental and Delta, which both reported investing in a new fleet of Boeing airplanes in 2012 while refurbishing aircraft in thier existing fleets. Boeing, which also makes this ranking, spent most of its capital expenditures on the production of commercial airplanes, military aircraft, and network and space systems.

Other non-energy U.S. Investment Heroes include technology giants IBM and HP, which invested heavily in new software and systems technologies. DirecTV, a satellite communications and cable provider, spent $1.7 billion in 2012 on new at-home equipment and satellite upgrades in an effort to retain its customers.

Finally, major U.S. grocery chain Kroger, and pharmacy chain CVS, spent most of their 2012 investment on new stores and maintaining existing operations.

METHODOLOGY

To develop this year's list of "Investment Heroes," we started with the 2013 list of Fortune 150 companies, ranked by revenue.[27] We omitted financial companies, because their reporting of capital expenditures is not consistent with our definition of U.S. plants, property, and equipment. For each company, we then looked at their most recent publicly available financial data, including their 2012 annual 10-K filing with the SEC, and used this information to estimate their U.S. expenditures on additions to plants, property, and equipment (but not R&D) over the last fiscal year.

To rank the remaining Fortune 150 companies by U.S. capital spending, we estimated the appropriate share of gross capital expenditures to investment in the U.S. using several different procedures, as appropriate.

In some cases, including many of the energy companies on our list, the amount of U.S. investment was given explicitly in the filing. In those cases that estimate was used.

In other cases, the company did not break out non-U.S. operations separately, suggesting that they were relatively small (non-material). In those cases, we allocated all of the capital expenditures as U.S. expenditures, and indicated that on the table.

We paid special attention to AT&T and Verizon, the top two companies on our list. In its statement, AT&T reported its assets were "predominately in the United States." For Verizon, no international distribution of assets were reported, even though there are some international operations. We adjusted our estimate for their international operations using the share of international employees as a proxy. We would like to note that based on our analysis, both companies would retain their top spots under any reasonable set of assumptions.

For companies that did significant business internationally, we used the geographic distribution of long-lived assets—plant, property, and equipment—for their two most recent fiscal years. In all but six cases, or eight cases in the non-energy ranking, the fiscal year was the calendar year, so we used fiscal year 2011 and 2012 statements. For the remaining six companies, or eight on the non-energy list, we used the two most recent fiscal years available. Once we had the latest two years of data, we added back reported depreciation for the latest fiscal year to estimate domestic capital expenditures.

ENDNOTES

1. Michael Mandel and Diana G. Carew, "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform," Progressive Policy Institute, May 2013: http://www.progressivepolicy.org/wp-content/uploads/2013/05/05.2013-Mandel-Carew_Regulatory-Improvement-Commission_A-Politically-Viable-Approach-to-US-Regulatory-Reform.pdf.
2. AT&T, Verizon, Exxon, Chevron, and Intel line up their fiscal years to the calendar year; here we considered 2012. Walmart's fiscal year ended January 31, 2013.
3. Bureau of Economic Analysis, "Widespread Economic Growth in 2012," June 2013: http://www.bea.gov/newsreleases/regional/gdp_state/gsp_newsrelease.htm.
4. Michael Mandel, "752,000 App Economy jobs on the 5th anniversary of the App Store," Progressive Policy Institute, July 2013: http://www.progressivepolicy.org/2013/07/752000-app-economy-jobs-on-the-5th-anniversary-of-the-app-store/.
5. The White House, "Four Years of Broadband Growth," Office of Technology Policy & The National Economic Council, June 2013: http://www.whitehouse.gov/sites/default/files/broadband_report_final.pdf.
6. Michael Mandel, "Can the Internet of Everything Bring Back the High-Growth Economy?," Progressive Policy Institute, September 2013: http://www.progressivepolicy.org/wp-content/uploads/2013/09/09.2013-Mandel_Can-the-Internet-of-Everything-Bring-Back-the-High-Growth-Economy-1.pdf.
7. Diana G. Carew and Michael Mandel, "Investment Heroes: Who's Betting on America's Future," Progressive Policy Institute, July 2012: http://progressivepolicy.org/wp-content/uploads/2012/07/07.2012-Mandel_Carew_Investment-Heroes_Whos-Betting-on-Americas-Future.pdf.
8. For this report, we used the most recent fiscal year statement, which typically captured the most of the 2012 calendar year. We used the most recent financial reports since companies have different definitions of their fiscal year. For the remainder of this report, we refer to our estimates as "2012."
9. Diana G. Carew, "Non-US Investment Heroes: Foreign Companies Betting on America," Progressive Policy Institute, August 2013: "http://www.progressivepolicy.org/wp-content/uploads/2013/08/08.2013-Carew_Non-US-Investment-Heroes_Foreign-Companies-Betting-On-America1.pdf.
10. Michael Mandel, "Beyond Goods and Services: The (Unmeasured) Rise of the Data-Driven Economy," Progressive Policy Institute, October 2012: http://www.progressivepolicy.org/wp-content/uploads/2012/10/10.2012-Mandel_Beyond-Goods-and-Services_The-Unmeasured-Rise-of-the-Data-Driven-Economy.pdf.
11. Ben Mitchell, "Cable WiFi Alliance triples to 150,000 hotspots," USA Today, June 10, 2013: http://www.usatoday.com/story/tech/2013/06/10/cablewifi-expands/2408829/.
12. Mike Rogoway, "Intel Set to Expand its Hillsboro research fab, D1X," The Oregonian, October 24, 2012: http://www.oregonlive.com/silicon-forest/index.ssf/2012/10/intel_set_to_expand_its_hillsb.html.
13. Microsoft News Center, "Microsoft Opens New Office in Silicon Valley," July 2012: http://www.microsoft.com/en-us/news/Press/2012/Jul12/07-09MoffettTowersPR.aspx.
14. GM News, "GM to Add 500 New I.T. Jobs in Texas," September 2012: http://media.gm.com/content/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2012/Sep/0907_austin.html.
15. eMarketer, "Smartphones, Tablets Drive Faster Growth in Ecommerce Sales," April 24, 2013: http://www.emarketer.com/Article/Smartphones-Tablets-Drive-Faster-Growth-Ecommerce-Sales/1009835.
16. The White House, "Presidential Memorandum—Expanding America's Leadership in Wireless Innovation," June 14, 2013: http://www.whitehouse.gov/the-press-office/2013/06/14/presidential-memorandum-expanding-americas-leadership-wireless-innovatio.
17. The White House Blog, "What is ConnectEd?," June 6, 2013: http://www.whitehouse.gov/blog/2013/06/06/what-connected.
18. National Telecommunications and Information Administration, "About FirstNet," Accessed September 5, 2013: http://www.ntia.doc.gov/page/about-firstnet.
19. Mark Muro, "Regional Innovation Clusters Begin to Add Up," Brookings, February 27, 2013: http://www.brookings.edu/blogs/up-front/posts/2013/02/27-regional-innovation-clusters-muro.
20. Federal Communications Commission, "National Broadband Plan: Connecting America," 2010: http://www.broadband.gov/plan/broadband-action-agenda.html.
21. David Balto and Hal Singer, "The FCC's Incentive Auction: Getting Spectrum Policy Right," Progressive Policy Institute, September 2013: http://www.progressivepolicy.org/wp-content/uploads/2013/09/09.2013-Balto-and-Singer_Getting-Spectrum-Policy-Right.pdf.

22. Michael Mandel and Diana G. Carew, "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform," Progressive Policy Institute, May 2013: http://www.progressivepolicy.org/wp-content/uploads/2013/05/05.2013-Mandel-Carew_Regulatory-Improvement-Commission_A-Politically-Viable-Approach-to-US-Regulatory-Reform.pdf.
23. Senator Angus King Press Office, "Senators King & Blunt Introduce Legislation to Review and Streamline Regulations and Stimulate Economic Growth,," July 30, 2013: http://www.king.senate.gov/newsroom/press-releases/senators-king-and-blunt-introduce-legislation-to-review-and-streamline-regulations-and-stimulate-economic-growth.
24. Diana G. Carew, "The Great Squeeze Persisted in 2012," Progressive Policy Institute, March 2013: http://www.progressivepolicy.org/2013/03/the-great-squeeze-persisted-in-2012/.
25. U.S. Senate Committee on Health, Education, Labor, and Pensions, "Murray, Isakson, Harkin, Alexander Applaud HELP Committee Passage of Workforce Investment Act Reauthorization," July 31, 2013: http://www.help.senate.gov/newsroom/press/release/?id=ae086615-51a0-43a4-a9d2-18853a4dcb4a&groups=Chair.
26. Michael Mandel and Diana G. Carew, "How A Competitiveness Audit Can Help Create Jobs," Progressive Policy Institute, November 2011: http://progressivepolicy.org/wp-content/uploads/2011/11/11.2011-Mandel-Carew_How-A-Competitiveness-Audit-Can-Help-Create-Jobs.pdf.
27. CNN Money, Full List of 2013 Fortune 500: http://money.cnn.com/magazines/fortune/fortune500/.

Acknowledgement: We would like to thank Briana Alterman for her valuable research assistance.

NOTES

About the Progressive Policy Institute

The Progressive Policy Institute (PPI) is an independent research institution that seeks to define and promote a new progressive politics in the 21st century. Through research, policy analysis and dialogue, PPI challenges the status quo and advocates for radical policy solutions.

Progressive Policy Institute
1101 14th St. NW
Suite 1250
Washington, DC 20005

Tel 202.525.3926
Fax 202.525.3941
Email info@ppionline.org
www.progressivepolicy.org