

## The Long View

**July 2012** 

## A nation re-energized

The energy industry in the United States is in the midst of an extraordinary transformation, and the changes may have the potential to redefine America's economic future.

The most dramatic element may be the realization that, because of relatively new drilling technology, the amount of accessible natural gas and oil in the U.S. is far greater than believed just a few years ago. Numerous companies and agencies, including the Department of Energy, now estimate the

nation's natural gas resource base is so vast that its development is potentially a game changer for the American economy and a competitive advantage for many U.S. companies.

Recently retired portfolio counselor Jim Dunton says the breakthroughs may profoundly affect the country's economy and policies for years to come. "I believe that in five or six years, the U.S. is going to be once again the major energy producer in the world," Jim says. "The breakthroughs in drilling in shale for both oil and natural gas have sparked almost a revolution in terms of business activity in this country."

U.S. manufacturers may be among the biggest beneficiaries of abundant and affordable natural gas, portfolio counselor Barry Crosthwaite says. "This very low-cost natural gas should enable U.S. companies to be more competitive

globally in petrochemicals and energy-intensive industries, as well as fill a growing portion of our transportation fuel needs," says Barry.

The development of natural gas faces some headwinds. Hydraulic fracturing of shale, or "fracking," which is the technology used to recover natural gas from shale, has raised a variety of environmental concerns, including the potential contamination of drinking water. In some areas, there are tempo-

rary moratoriums on the process.

Barry and Jim caution that natural gas may not be the silver bullet that immediately slays the nation's energy problems, and political and environmental issues will need to be addressed. But already, natural gas has been embraced by industry, trucking fleets and electric utilities. It's also playing a role in the agriculture boom in the nation's heartland.

Indeed, the enhanced production of natural gas has the potential to bolster the nation's economy, decrease our dependence on foreign oil, revitalize many U.S. industries and provide employment for perhaps thousands.

"The great news for the U.S. is that it may have a supply of natural gas at very low cost relative to oil for many years to come, perhaps decades," Barry says.

Investments are not FDIC-insured, nor are they deposits of or guaranteed by a bank or any other entity, so they may lose value.

"I believe that in five or six

years, the U.S. is going to be

once again the major energy

producer in the world."

— Jim Dunton

Past results are not predictive of results in future periods.

## American renaissance



Jim Dunton
50 years of investment experience

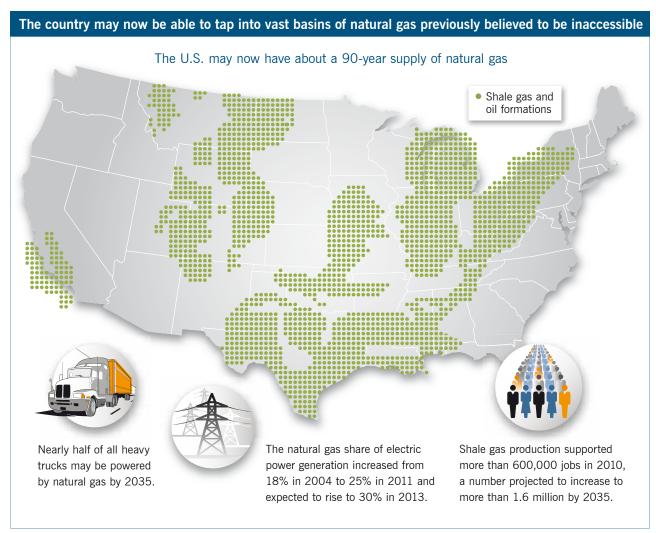
I think we are really at a renaissance point in this country, and that things might be changing for the better in a dramatic way.

Much of my optimism stems from the fact that there have been significant technological developments that have improved our ability to drill for oil and natural gas in this country. A couple of years ago, we thought we only had six or seven years of natural gas left, and suddenly we've got nearly 100 years of natural gas, and its cost has declined dramatically. The U.S. is also producing far more oil than we did just a few years ago.

These changes have sparked a revolution in terms of business activity, especially in North Dakota, Pennsylvania and Texas. Eventually, the entire nation is likely to benefit from lower energy costs and reduced dependence on imported oil. Already, we're seeing a revival of manufacturing in the U.S. because of the reduced cost of powering a plant.

There is another potentially transformative technological change on the horizon: the small but powerful and very fuel-efficient three-cylinder engine (see p. 5).

Because of these changes, and the historic resilience of our economy, I now believe the outlook for this country is the best I've seen for some time.

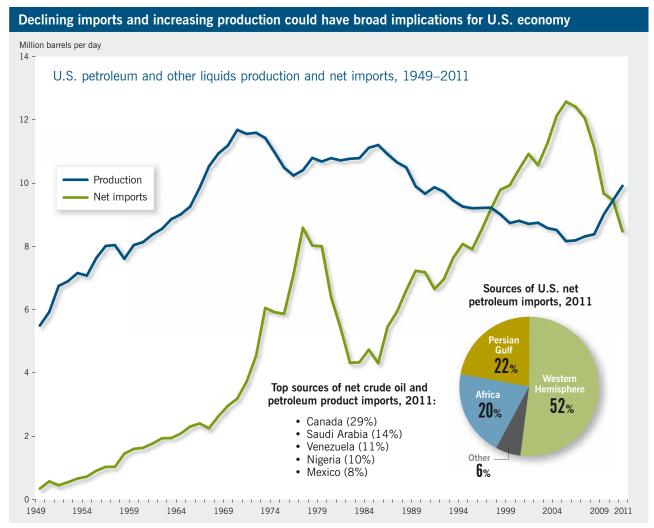


Sources: U.S. Energy Information Administration (EIA); EIA's *Annual Energy Outlook 2012*; Center for American Progress, "American Fuel: Developing Natural Gas for Heavy Vehicles," April 2010; EIA's *Short-Term Energy Outlook*, May 2012; and *IHS CERA Alert*, "The Economic Contributions of Shale Gas in the United States." December 2011.

- During the past few years, there has been a dramatic re-evaluation of the amount of natural gas that can be recovered in North America. In a recent report, the U.S. Energy Information Administration estimated the potential natural gas resources in the United States were sufficient to meet more than 90 years of demand, based on consumption in 2010.
- Shale gas refers to natural gas that is trapped deep within shale formations. During the past decade, horizontal drilling and hydraulic fracturing, or "fracking," have allowed companies to tap into large volumes of shale gas that were previously uneconomical to produce. Although the estimates of the amount of recoverable gas vary, there's agreement that the shale formations contain vast amounts of natural gas that are now accessible.
- The techniques have rejuvenated the natural gas industry, but face political and environmental headwinds. Some contend fracking, which involves forcing pressurized fluids into shale formations to fracture the rock and release the gas, can contaminate ground water. Some states and municipalities have imposed moratoriums on the process pending further study.

"This very low-cost natural gas should enable U.S. companies to be more competitive globally in petrochemicals and energy-intensive industries, as well as fill a growing portion of our transportation fuel needs."

- Barry Crosthwaite, portfolio counselor



Source: U.S. Energy Information Administration (EIA); EIA's *Monthly Energy Review*, April 2012, and *Annual Energy Review*, October 2011, and *Petroleum Supply Monthly*, February 2012; and EIA, "How Dependent Are We on Foreign Oil," May 2012. Production and net imports trend lines reflect crude oil, natural gas plant liquids, ethanol and biofuels. Data for 2011 are preliminary.

- Produce less. Consume more. When it comes to energy, that's been the story in the U.S. for several decades. Now, that's changing. In a shift that could have broad implications for the country, the consumption of energy has been declining, and the production of oil, natural gas and other fuels, has been increasing.
- During the past few years the oil and gas industry has vastly increased production. About a decade ago, the natural gas industry faced the possibility of running out of domestic gas. Now the supply may be so vast that the U.S. may become an exporter of natural gas to Europe and Asia. The U.S. production of petroleum and other liquids totaled nearly 9.9 million barrels a day in 2011, the highest level since 1988.
- The transformation may help the U.S. finally achieve energy independence. During the last three years, the U.S. has not only reduced oil imports from members of the Organization of Petroleum Exporting Countries by more than 20%, the country has become a net exporter of refined petroleum products like gasoline for the first time since the 1950s.
- The increased production is happening at the same time that Americans are consuming less gasoline. The decline is partly due to the recession and higher gas prices, but Americans are also driving fewer miles and replacing older cars with more fuel-efficient vehicles.

<sup>&</sup>quot;Looking out 5 or 10 years, the U.S. could stop being a net energy importer. The U.S. could be exporting natural gas to the rest of the world."

<sup>-</sup> Mark Brett, portfolio counselor



Sources: Articles in various publications and on various websites, including: ASSEMBLY, Associated Press, Bloomberg, Business Wire, Daily Journal of Commerce, Greater Phoenix Economic Council, KPAX, McClatchy-Tribune Regional News, The News & Observer, The New York Times, NPR, PR Newswire, Rolls-Royce, Volkswagen, The Wall Street Journal and Wyoming Business Report; and PricewaterhouseCoopers, Shale Gas: A Renaissance in U.S. Manufacturing?, December 2011.

- A significant swath of the U.S. economy may benefit from the relatively low cost and availability of natural gas, ranging from the trucking industry to companies producing petrochemicals, steel, fertilizers and other products. The manufacturing sector may be among the biggest winners, with a December 2011 PricewaterhouseCoopers study estimating that high rates of shale gas recovery could result in a million new manufacturing jobs by 2025.
- The development and availability of relatively inexpensive natural gas has prompted a variety of companies to build or expand in the U.S. In some cases, companies have returned to the U.S. after relocating overseas. Methanex, a Canadian company that makes methanol from natural gas, is planning to move a plant from Chile to Louisiana, due partly to the abundance and low cost of natural gas.
- For steel companies, it may be a virtuous cycle: More drilling requires more steel, and lower energy costs give U.S. steel producers a cost edge. At a March 2012 Congressional hearing, U.S. Steel CEO John Surma said the development of shale resources has the potential to be a source of economic growth for the country and many companies.

"This goes beyond just the companies pulling gas out of the ground. This could have a profound impact on many companies and change the landscape of industrial production.

And it could change the balance of the energy platform globally."

Martin Romo, portfolio counselor

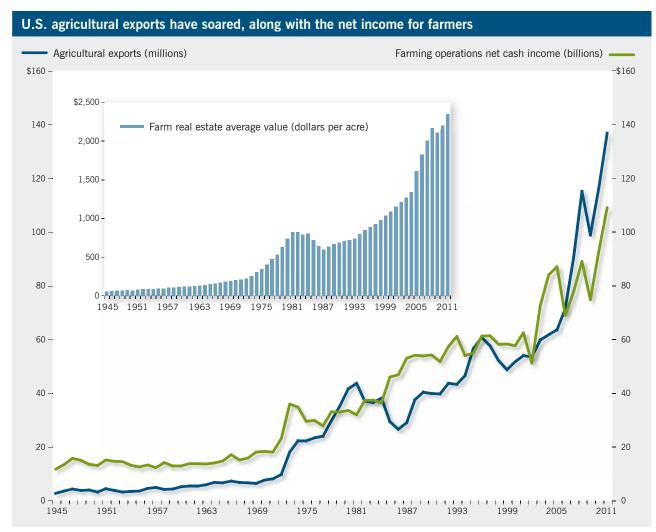


Source: United States Environmental Protection Agency, *Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2011*, March 2012. Car and truck trend lines represent three-year moving averages. Data for 2011 are projections.

- There may be a new generation of cars in the near future that are equipped with small but relatively powerful engines. Several car companies, including Ford, Volkswagen and BMW, are pushing development of three-cylinder engines that provide improved fuel economy without sacrificing much power.
- The development underscores changes under way in the industry as automakers work to meet federal fuel economy standards. By the 2016 model year, cars and trucks must get 35.5 miles per gallon on average. Vehicles made by the top 14 automakers for the 2010 model year averaged 22.5 miles per gallon.
- There have been previous efforts to sell cars powered by three-cylinder engines, but the cars usually struggled to go uphill and were noisy. The new generation is expected to have more oomph, thanks to the adoption of turbocharging and the direct injection of fuel into a combustion chamber of each cylinder, which provides better performance and fuel efficiency. Several carmakers say their turbocharged, directinjection engines will produce about 118 horsepower, with more powerful versions on the drawing board.

"We are right on the cusp of a major breakthrough in engine design. The three-cylinder engine is expected to be as smooth and as powerful as the four-cylinder engines and more efficient, getting about 50 miles per gallon on the highway."

— Jim Dunton



Sources: U.S. Department of Agriculture (USDA) and USDA's *Land Values 2011 Summary*, August 2011. Net cash income from farming operations for 2011 is a forecasted figure.

- The nation's agricultural sector has endured some lean years since the 1980s, but things have changed down on the farm. The U.S. Department of Agriculture reported in November 2011 that the net value added to the U.S. economy by agriculture was the highest since 1974, adjusted for inflation. The federal agency and other sources also said that in 2011, U.S. farmers for the first time earned about \$100 billion in a year.
- Farming, together with the production of natural resources, has been one of the bright spots, or pockets of growth, for the U.S. economy. The boom has its roots in strong demand for agricultural commodities in developing countries, particularly China and India.
- The boom has been significant for the U.S. agribusiness sector. Companies that manufacture tractors and combine harvesters, those that produce seed and fertilizer, and those that trade agricultural commodities have all benefited.
- Many of the benefits have gone directly to farmers. The price of farmland in agricultural states has surged, with gains topping 25% during 2011 in some cases. There are some clouds on the horizon. Costs of fertilizers and fuel have increased, and historically production of food commodities eventually outruns demand, triggering a period of low prices. For now, times are good down on the farm.

<sup>&</sup>quot;The middle class in emerging markets is growing, and their ability to afford more — to move up in terms of their categories in consumption — is going to be a very, very compelling theme for investment."

<sup>—</sup> Winnie Kwan, portfolio counselor

Investors should carefully consider investment objectives, risks, charges and expenses. This and other important information is contained in fund prospectuses and summary prospectuses, which can be obtained from a financial professional and should be read carefully before investing. Investing outside the United States involves risks, such as currency fluctuations, periods of illiquidity and price volatility, as more fully described in the prospectus. These risks may be heightened in connection with investments in developing countries. The statements in *The Long View* are the opinions and beliefs of the speaker expressed when the commentary was made and are not intended to represent that person's opinions and beliefs at any other time.

