

Financial Review of the Global Oil and Natural Gas Industry: Third-quarter 2016



Markets and Financial Analysis Team

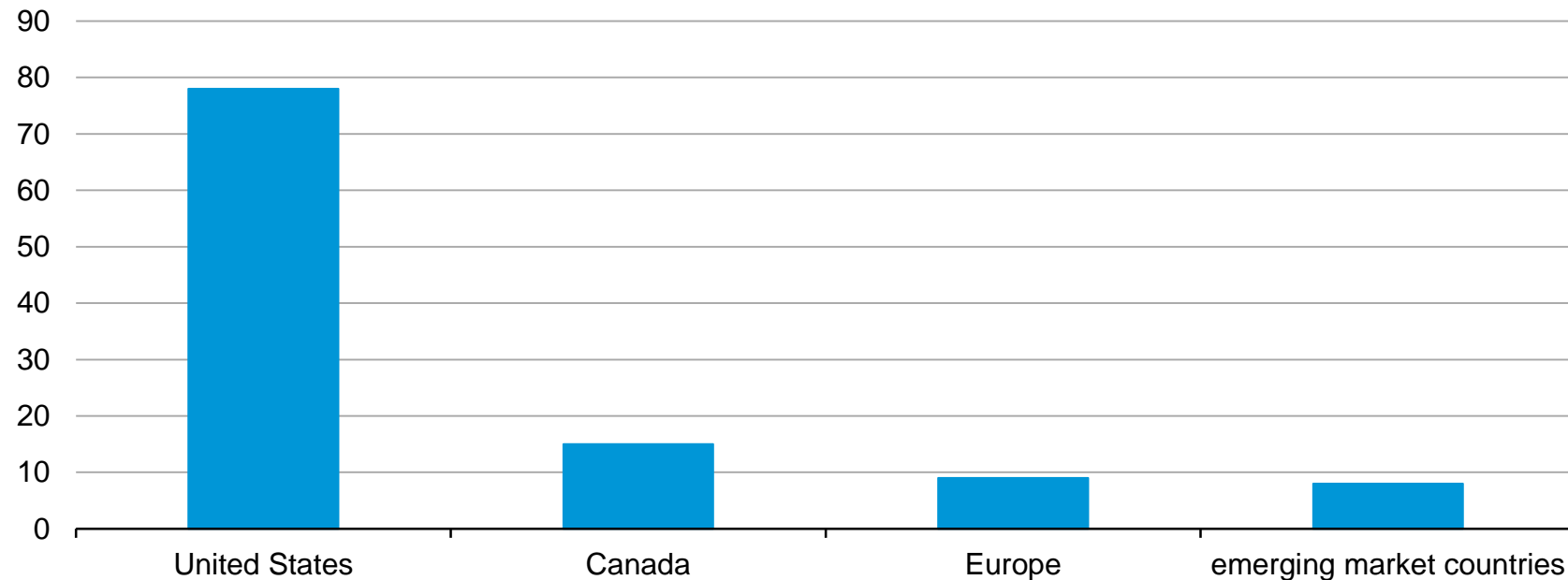
December 2016

Key findings for third-quarter 2016

- Brent crude oil prices averaged 10% below the third quarter of 2015 and contributed to year-over-year declines in cash from operations and capital expenditures
- Reductions in capital expenditures contributed to a decline in production of petroleum liquids and natural gas compared to the third quarter of 2015
- Almost half of the energy companies reported positive earnings from upstream operations, the highest percentage since the 2011–14 period

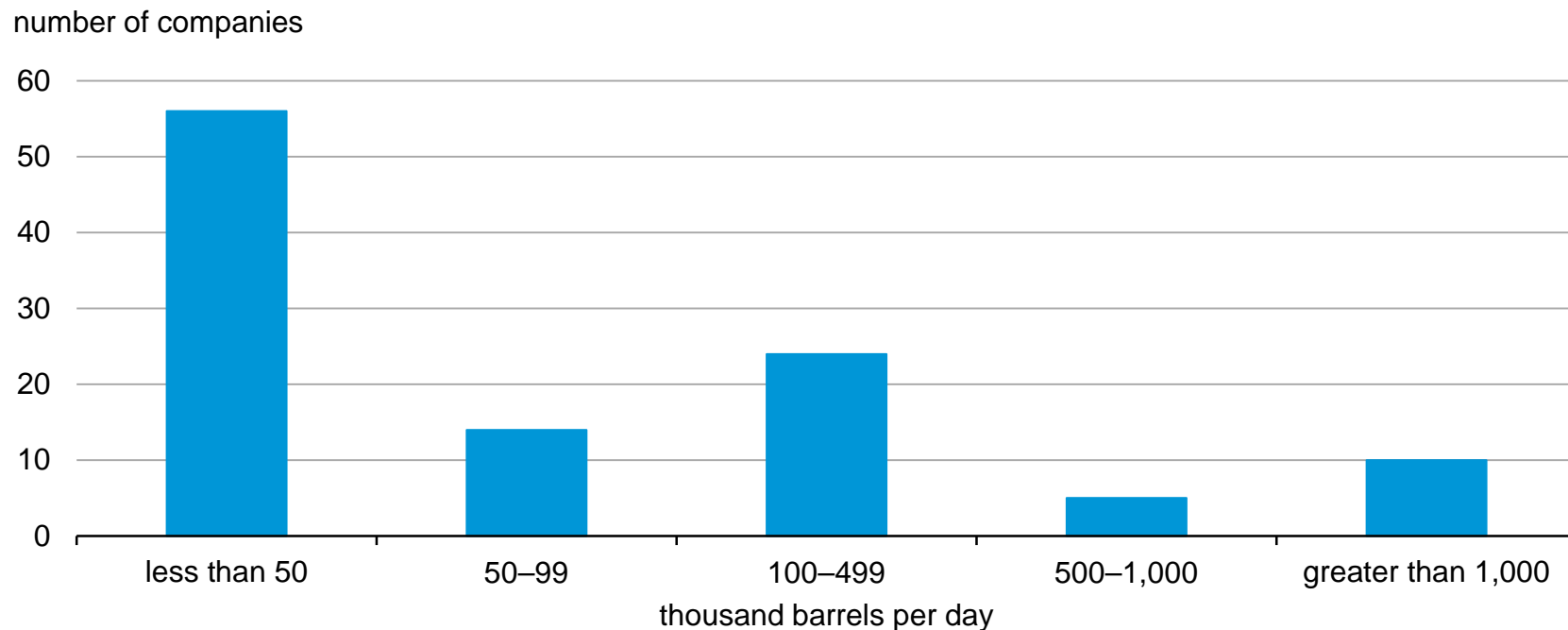
Geographic distribution of global oil and natural gas companies, third-quarter 2016

number of companies



Source: U.S. Energy Information Administration, *Evaluate Energy*

Distribution of global energy companies by production of petroleum liquids, third-quarter 2016

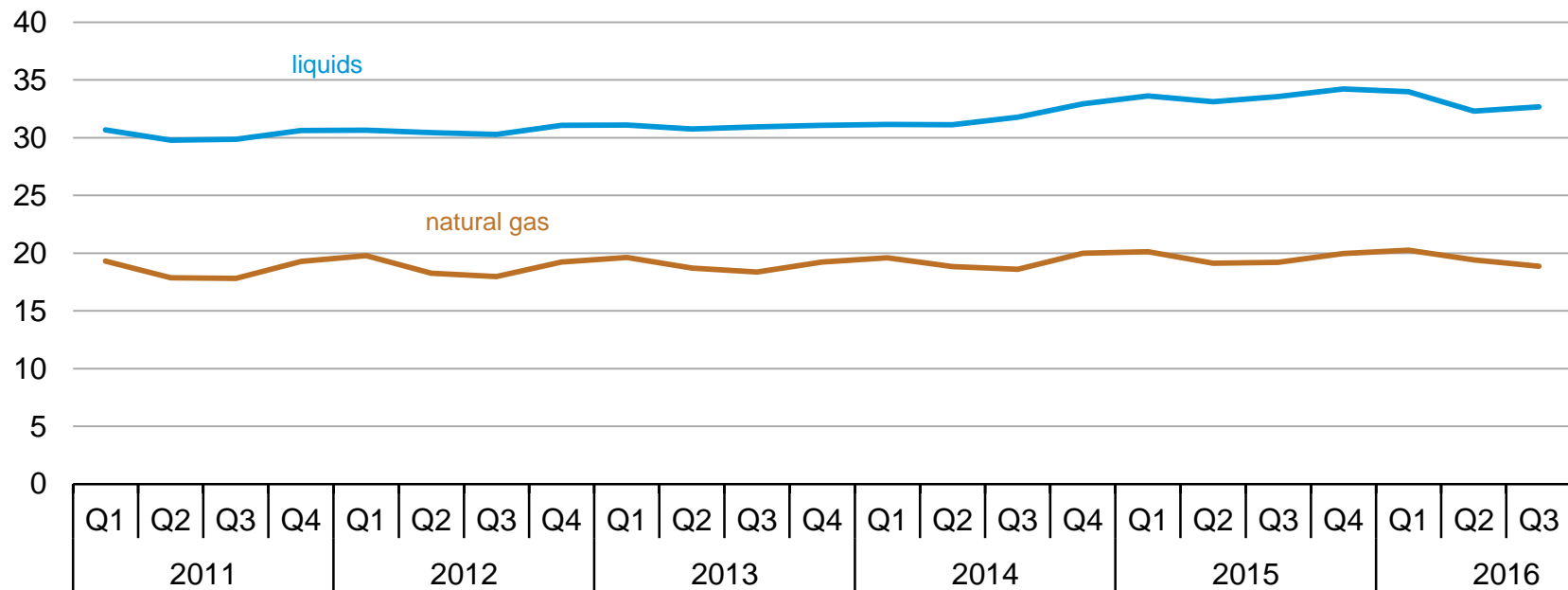


Source: U.S. Energy Information Administration, *Evaluate Energy*

Production from global oil and natural gas companies

liquids and natural gas production

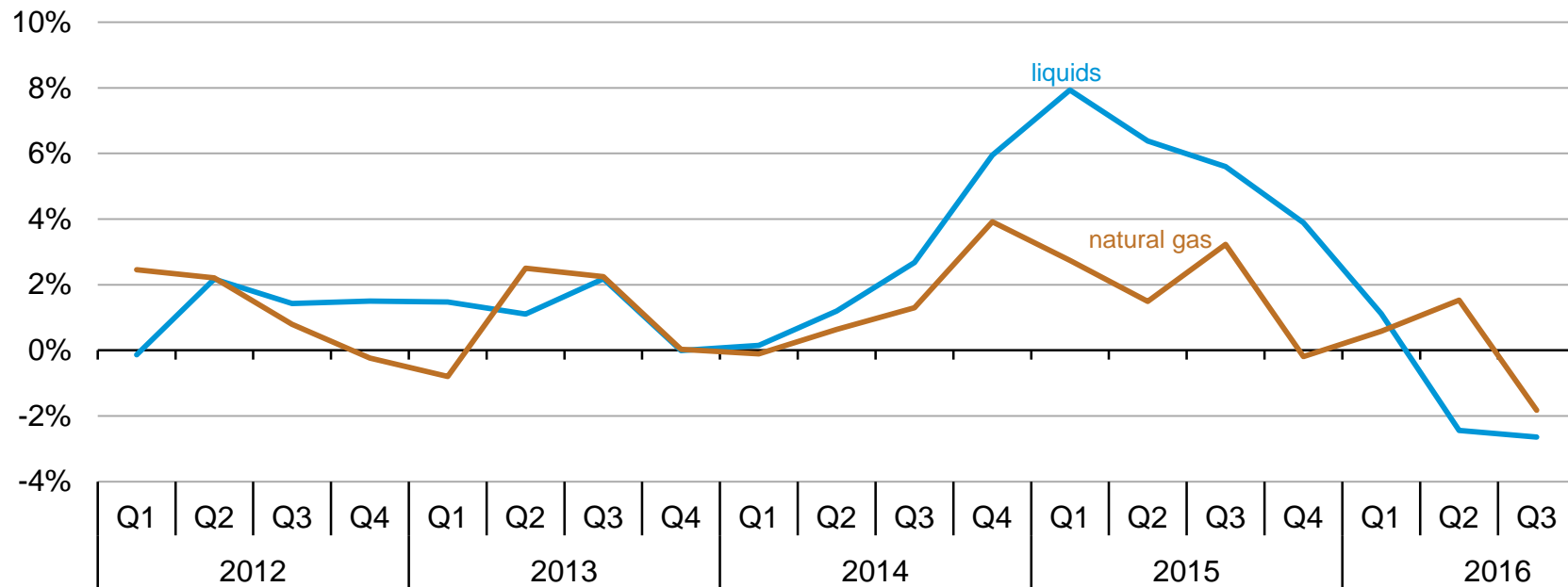
million barrels of oil equivalent per day



Source: U.S. Energy Information Administration, Evaluate Energy

Global liquids production in third-quarter 2016 decreased 2.6%, and natural gas production decreased 1.8% from third-quarter 2015 levels

liquids and natural gas production
year-over-year change

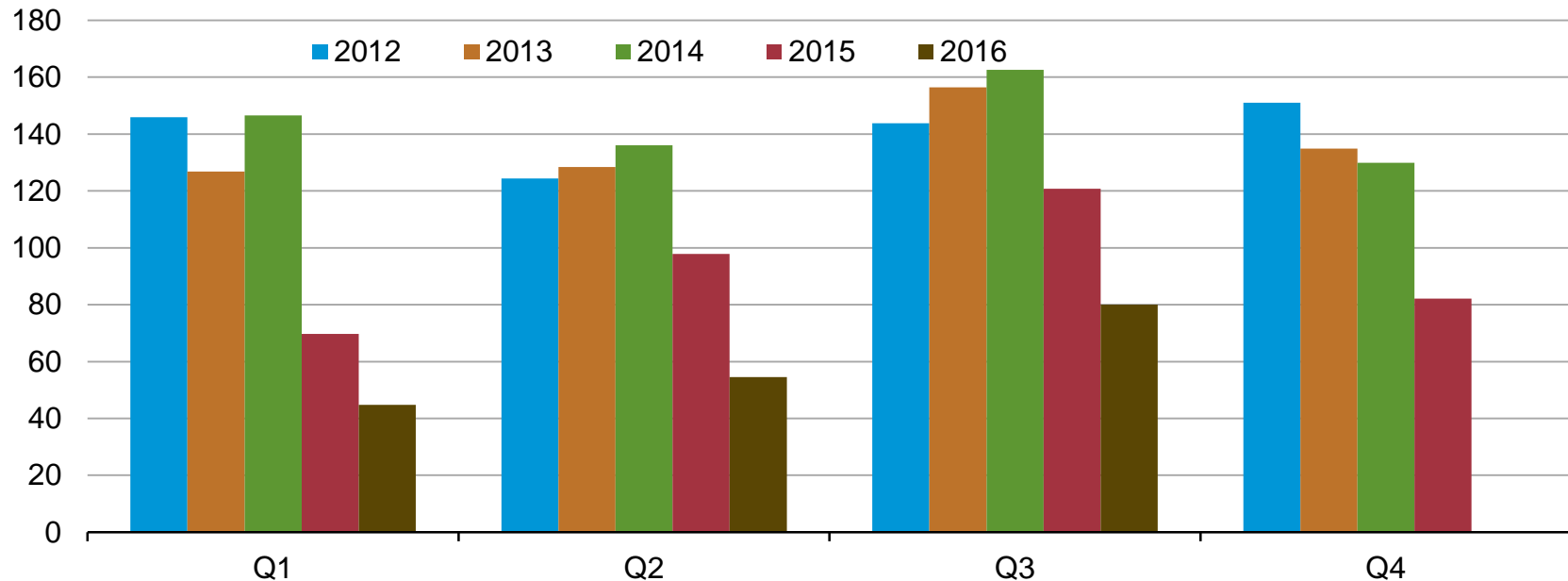


Source: U.S. Energy Information Administration, *Evaluate Energy*

Operating cash flow for energy companies declined 34% from third-quarter 2015 to \$80 billion in third-quarter 2016

cash from operations

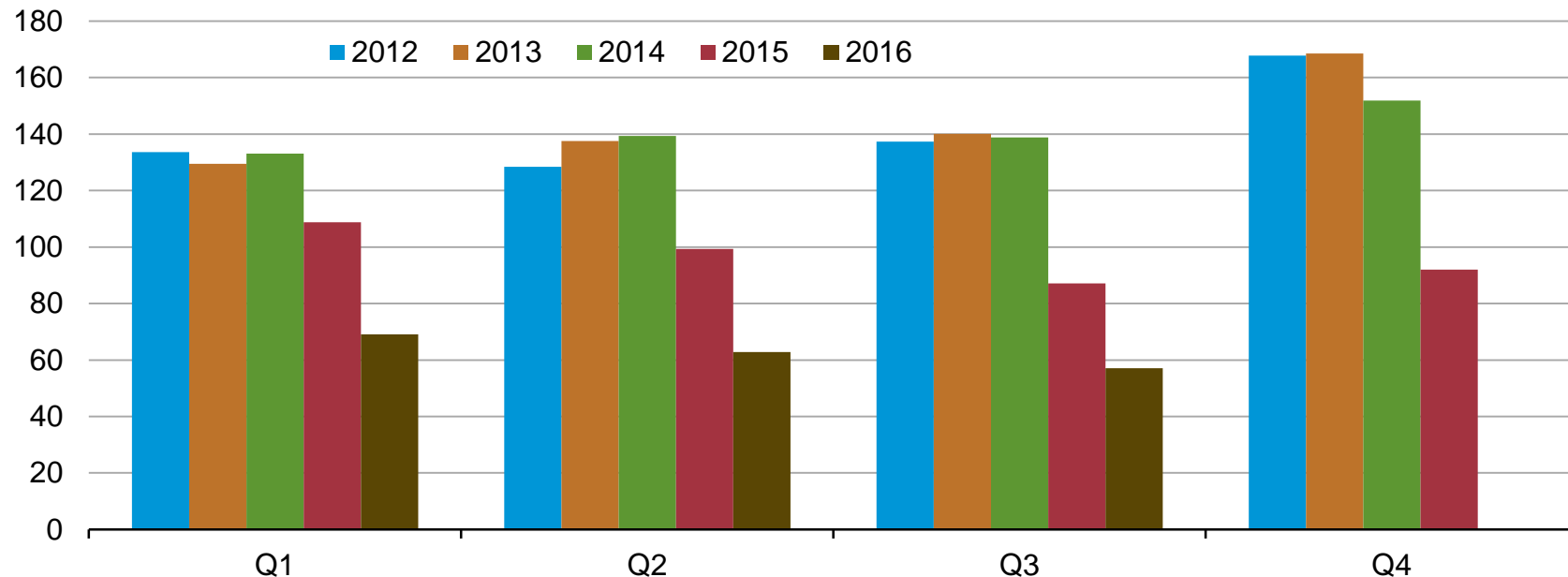
billion 2016\$



Source: U.S. Energy Information Administration, *Evaluate Energy*

Capital expenditure in third-quarter 2016 totaled \$57 billion, 35% lower than in third-quarter 2015

capital expenditure
billion 2016\$

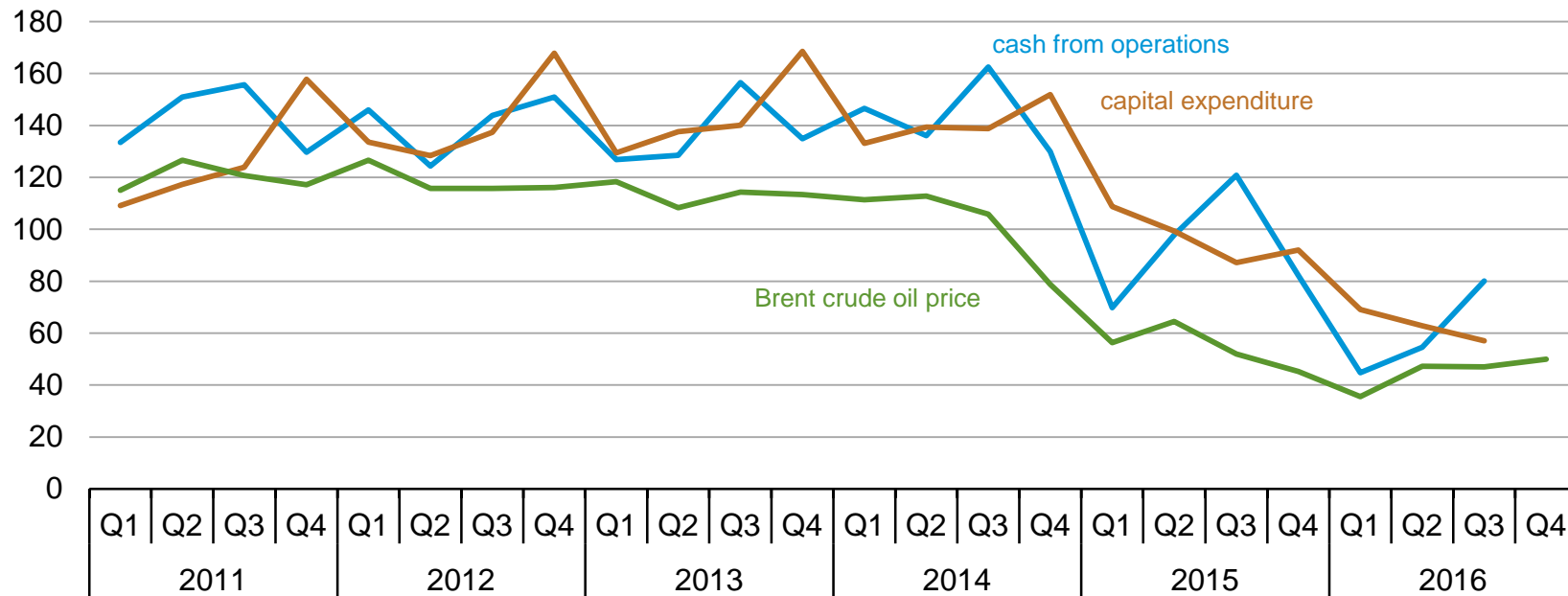


Source: U.S. Energy Information Administration, *Evaluate Energy*

Capital expenditure declines slowed and cash from operations increased from the second quarter of 2016 as crude oil prices stabilized

cash flow items and Brent price

billion 2016\$; Brent in 2016 \$/b



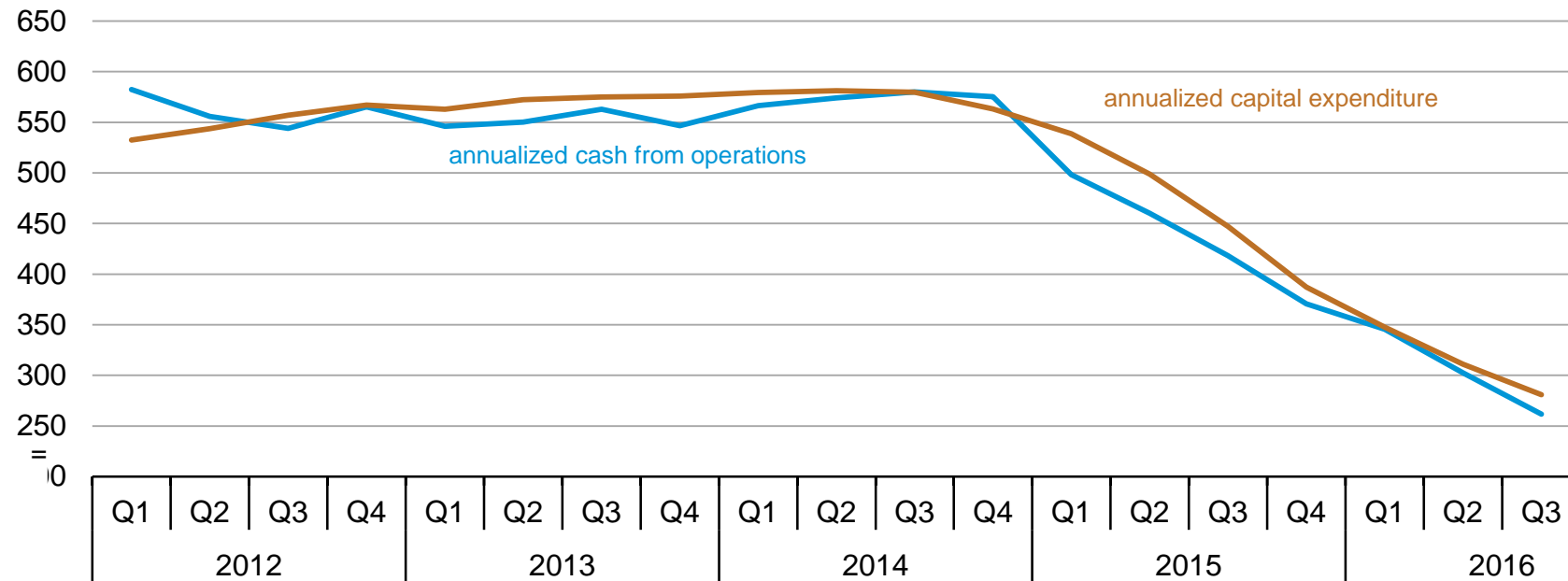
Source: U.S. Energy Information Administration, Evaluate Energy, Bloomberg

Note: b=barrel

Cash flow was more than \$19 billion less than capital expenditure for the four quarters ending September 30, 2016

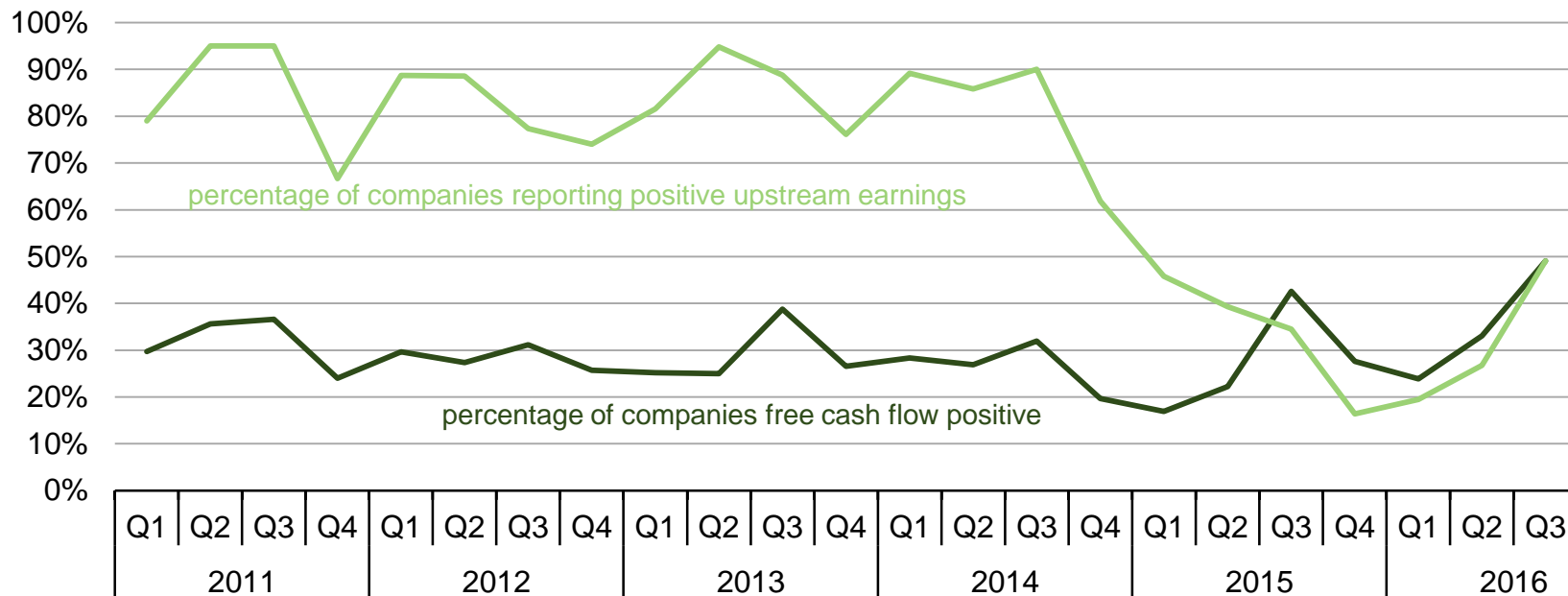
annualized cash flow items

billion 2016\$



Source: U.S. Energy Information Administration, Evaluate Energy

Almost half of companies were free cash flow positive and reported positive earnings from upstream operations in the third quarter of 2016



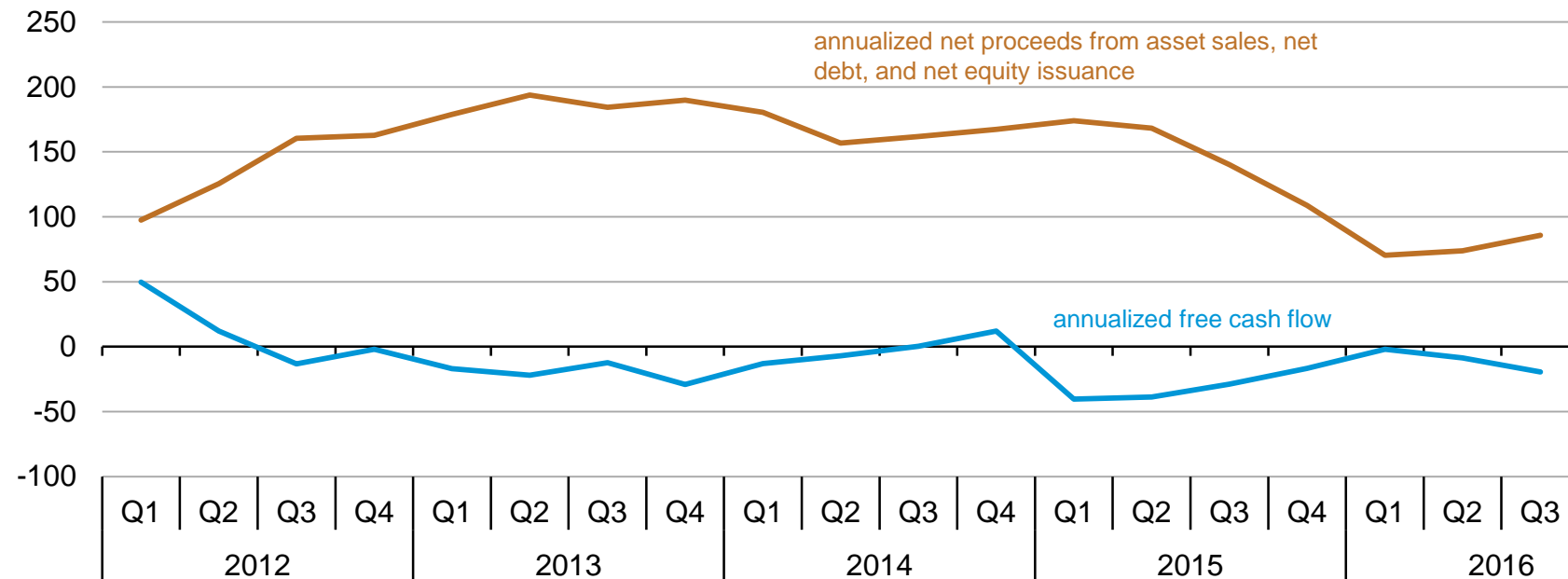
Source: U.S. Energy Information Administration, Evaluate Energy

Note: free cash flow=cash from operations minus capital expenditure

Companies raised \$86 billion from asset sales, debt issuance, and equity issuance for the four quarters ending September 30, 2016

annualized cash flow items

billion 2016\$

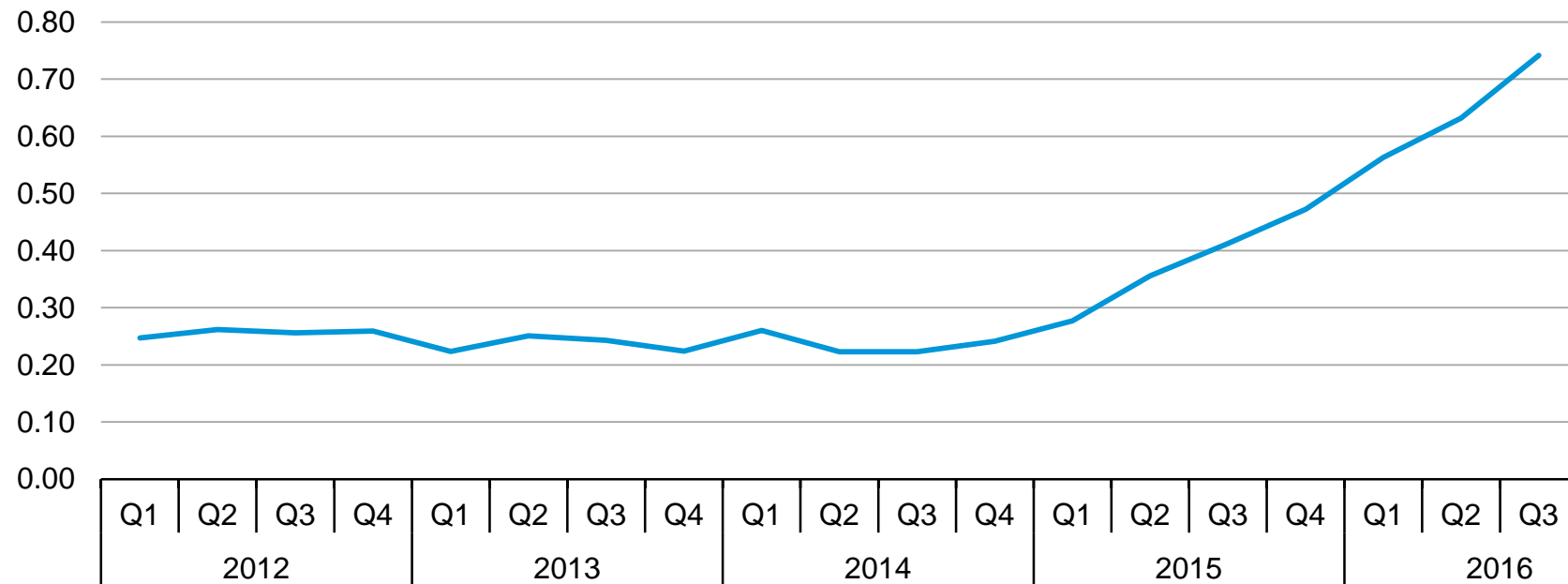


Source: U.S. Energy Information Administration, Evaluate Energy

Note: free cash flow=cash from operations minus capital expenditure

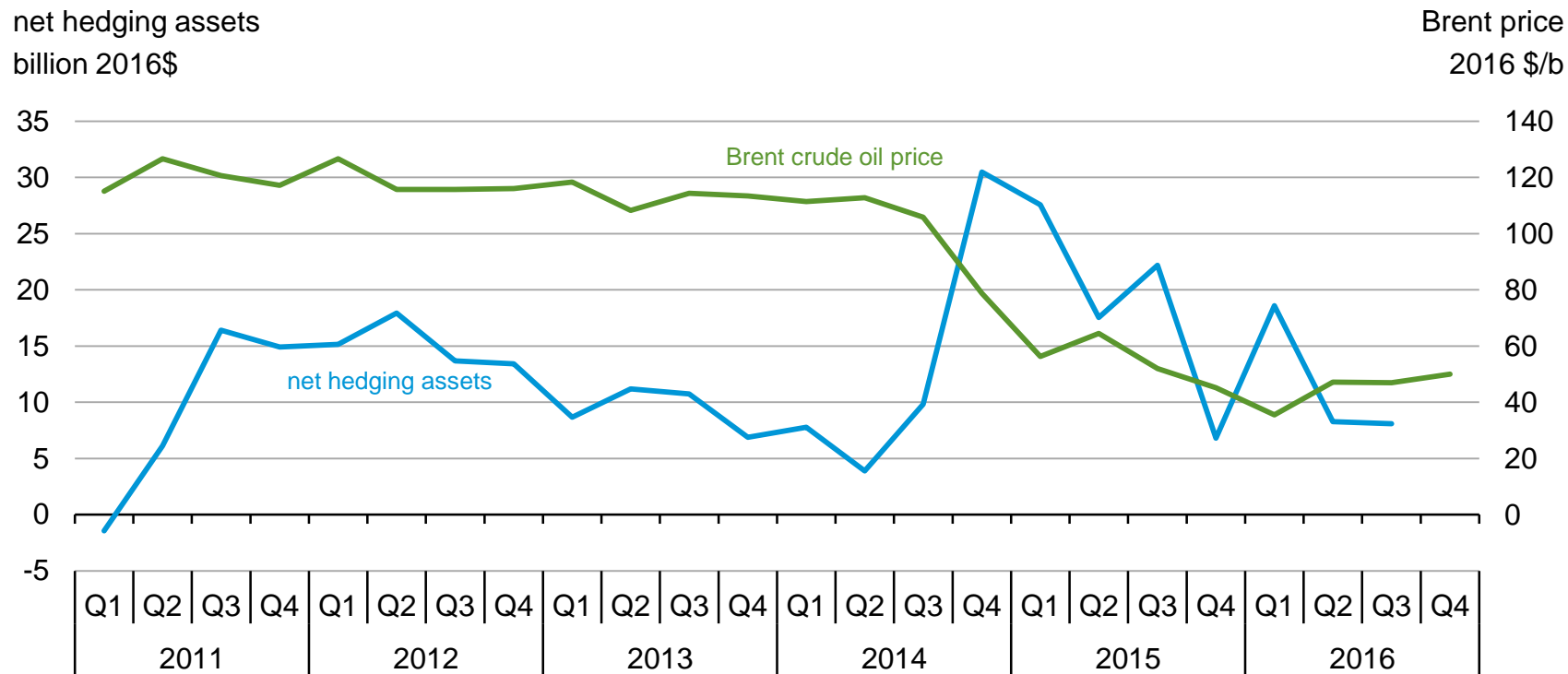
Debt servicing payments as a share of operating cash flow increased as cash flow declined and companies refinanced

Annualized ratio of debt repayments to cash flow



Source: U.S. Energy Information Administration, *Evaluate Energy*

Net hedging assets, which tend to increase in value when oil prices decline, decreased slightly from second-quarter 2016 to third-quarter 2016



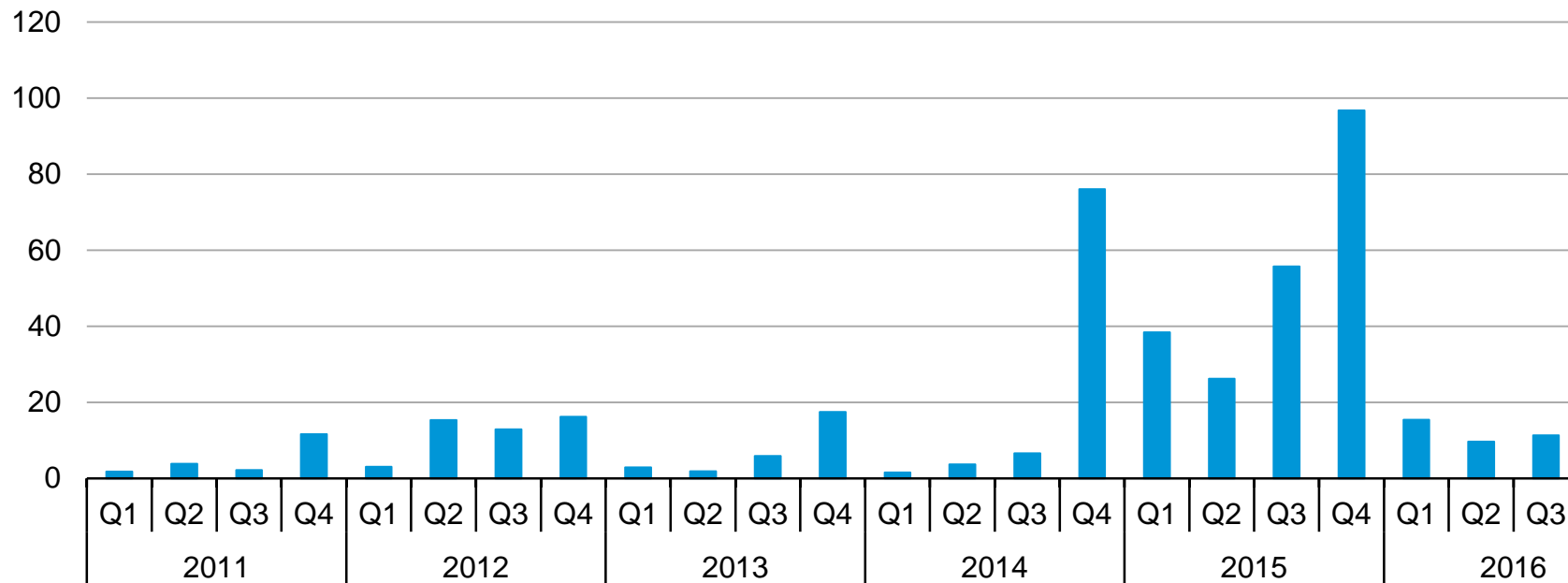
Source: U.S. Energy Information Administration, Evaluate Energy, Bloomberg

Note: b=barrel

Impairments fell to \$11 billion in third-quarter 2016, \$44 billion below third-quarter 2015

impairments

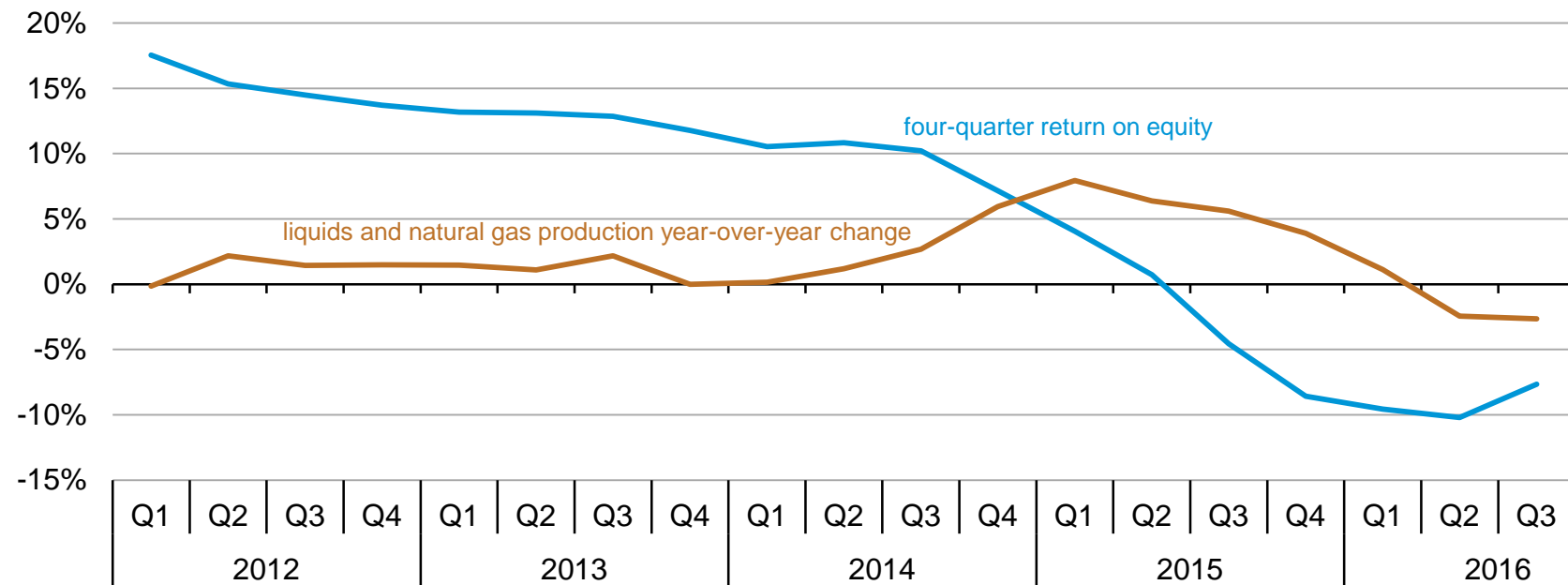
billion 2016\$



Source: U.S. Energy Information Administration, Evaluate Energy

Falling profits for the energy companies contributed to declines in production of petroleum liquids and natural gas

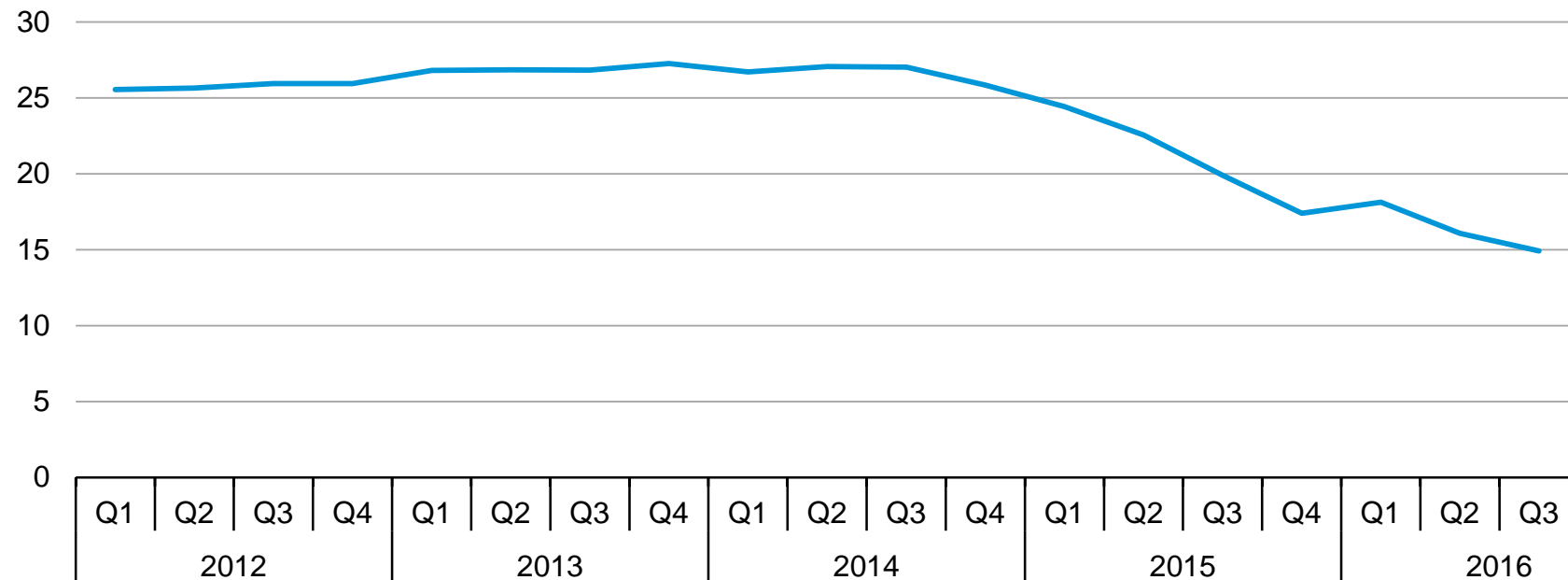
profitability and production



Source: U.S. Energy Information Administration, *Evaluate Energy*

Upstream investment in third-quarter 2016 on a per-barrel basis was the lowest since at least 2012

upstream capital expenditure per barrel of oil produced
2016 \$/boe, four-quarter moving average

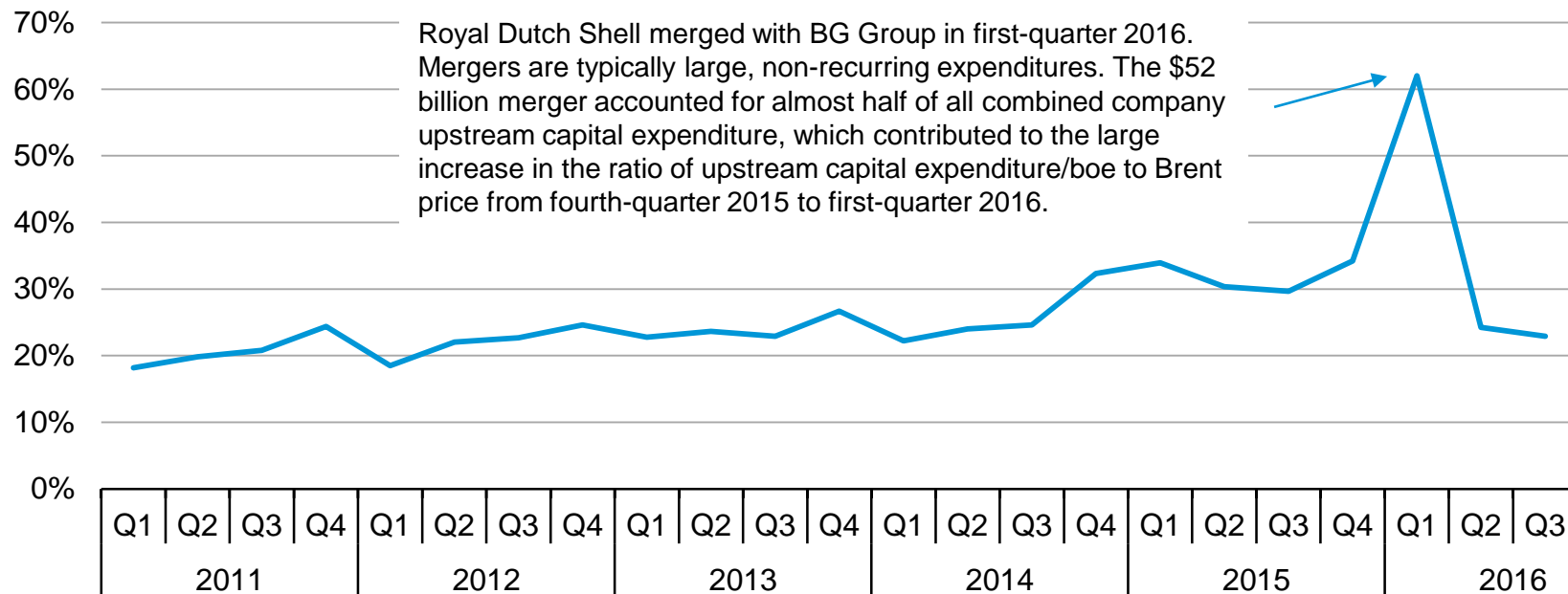


Source: U.S. Energy Information Administration, Evaluate Energy

Note: boe=barrel of oil equivalent

The ratio of upstream capital expenditures to Brent prices fell to 23% in third-quarter 2016, similar to the ratio in 2012–14

ratio of upstream capital expenditures/boe to Brent price

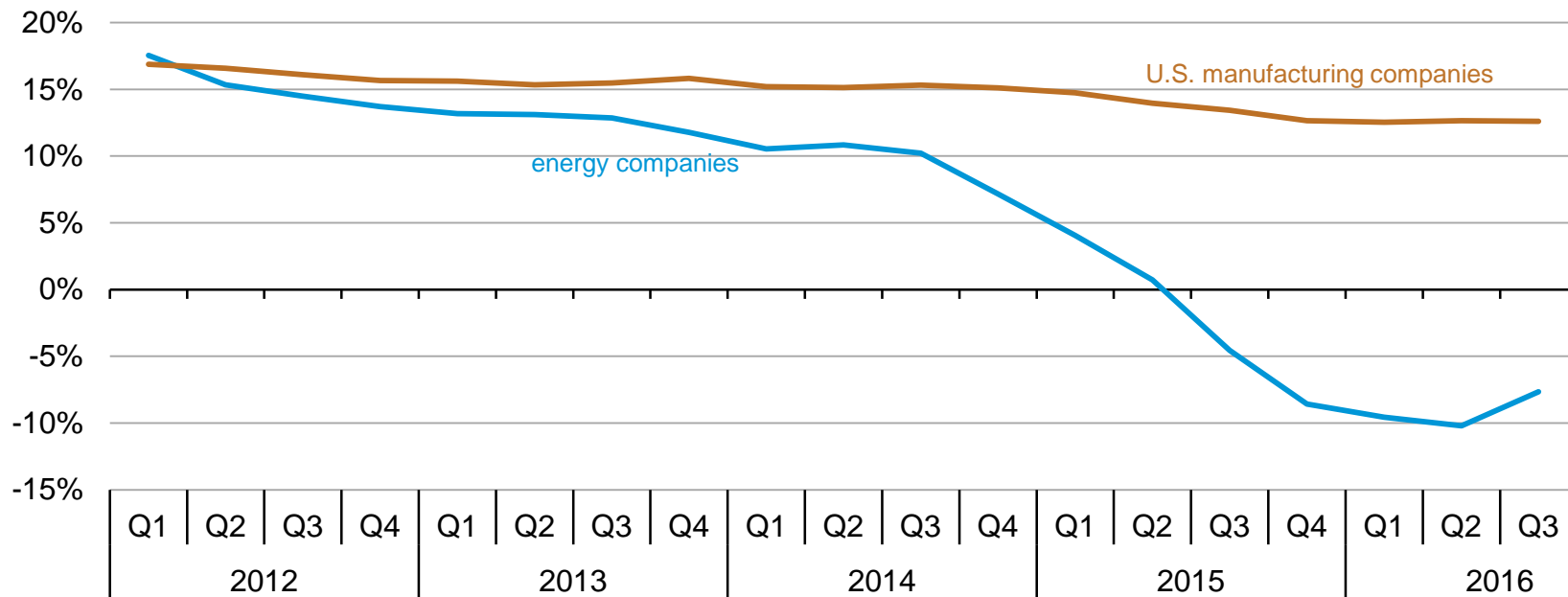


Source: U.S. Energy Information Administration, *Evaluate Energy*

Note: boe=barrel of oil equivalent

Profits for global energy companies in third-quarter 2016 remained negative, while profits for U.S. manufacturing companies were stable

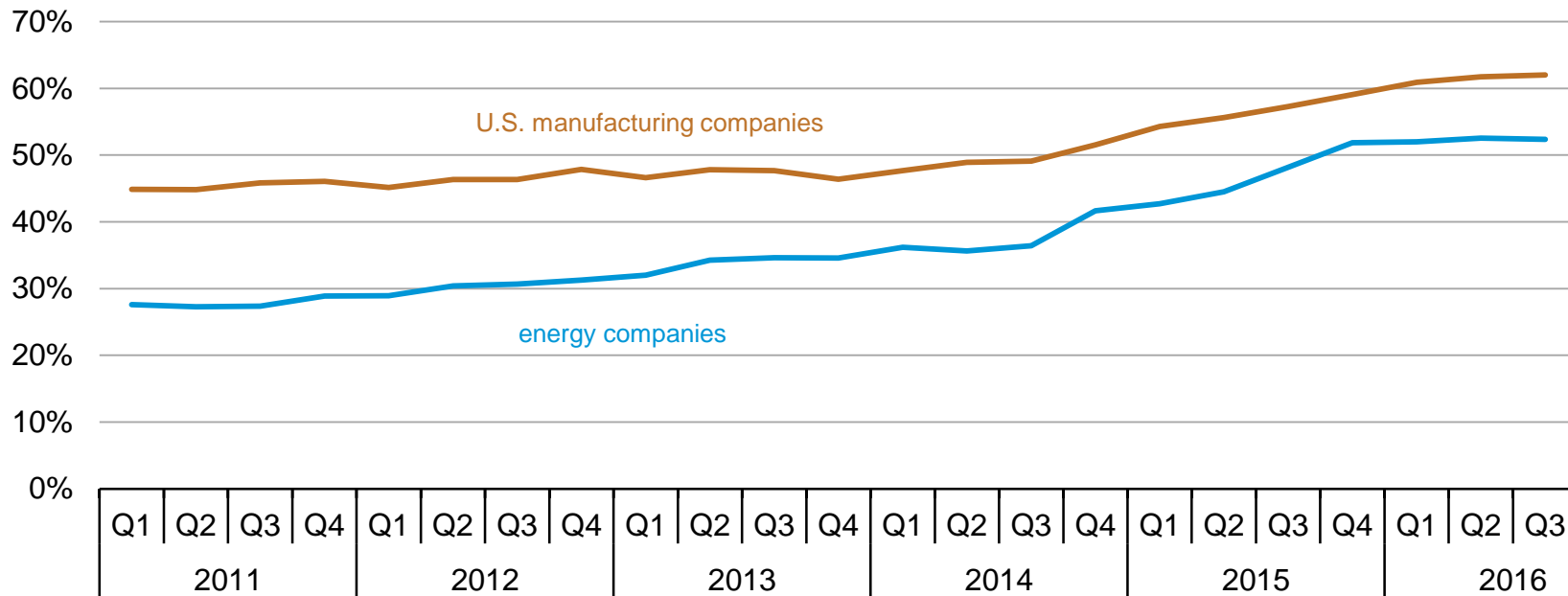
four-quarter return on equity



Source: U.S. Energy Information Administration, Evaluate Energy, U.S. Census Bureau

Global energy companies' long-term debt-to-equity ratio remained near 53% for the fourth consecutive quarter

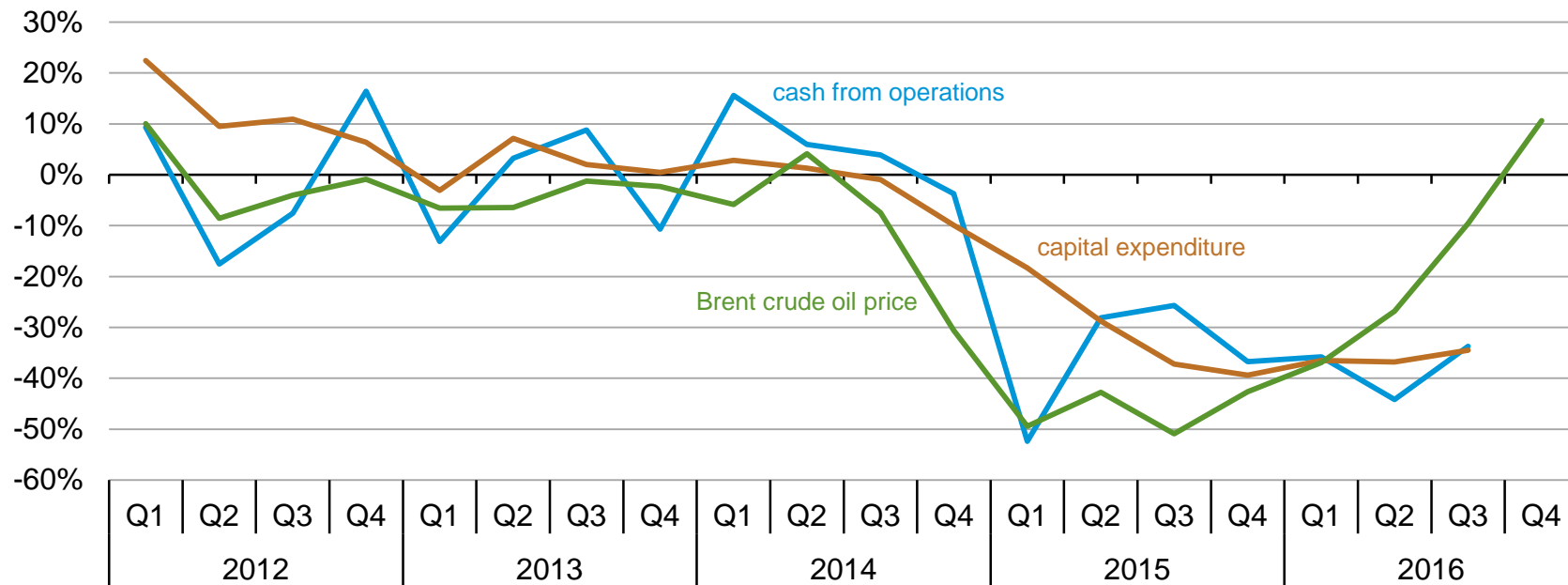
long-term debt-to-equity ratio



Source: U.S. Energy Information Administration, Evaluate Energy, U.S. Census Bureau

Cash flow could increase because fourth-quarter 2016 oil prices through December 12 are higher than fourth-quarter 2015 prices, the first year-over-year increase since 2014

cash flow items and Brent prices
year-over-year change



Source: U.S. Energy Information Administration, Evaluate Energy, Bloomberg

Appendix: List of companies

Abraxas Petroleum Corporation	Carrizo Oil & Gas, Inc	EP Energy Corporation	Lundin Petroleum	Petrominerales Ltd.	T-Rex Oil, Inc.
Adams Resources & Energy Inc.	Cenovus Energy Inc.	EPL Oil & Gas Inc	Magnum Hunter Resources	PetroQuest Energy, Inc	Thunderbird Resources Equity Inc.
Aker BP ASA	Chesapeake Energy Corp.	ExxonMobil	Marathon Oil Corp.	Pioneer Natural Resources Company	TNK-BP International Ltd
Anadarko Petroleum Corp.	Chevron Corporation	Forest Oil Corporation	Matador Resources Company	QEP Resources Inc	Total
Antero Resources Corporation	Cimarex Energy Co.	Gazprom Neft	Memorial Production Partners LP	Range Resources Corp	TransAtlantic Petroleum Ltd.
Apache Corporation	Clayton Williams Energy	Goodrich Petroleum Corp	Mid-Con Energy Partners, LP	Repsol	TransGlobe Energy Corporation
Approach Resources Inc	Comstock Resources	Gran Tierra Energy Inc.	Murphy Oil Corporation	Repsol Oil & Gas Canada Inc.	Triangle Petroleum Corporation
Arete Industries, Inc.	Concho Resources Inc	Gulfport Energy Corporation	Newfield Exploration Company	Resolute Energy Corporation	Unit Corp
Athlon Energy Inc.	ConocoPhillips	Halcon Resources Corporation	Noble Energy	Ring Energy Inc	Vaalco Energy Inc
ATP Oil & Gas Corp.	Contango Oil and Gas Company	Harvest Natural Resources Inc.	Northern Oil & Gas, Inc	Rosetta Resources Inc.	Vanguard Natural Resources LLC
Bankers Petroleum Ltd	Continental Resources	Hess Corp	Novatek	Rosneft	Vermilion Energy Inc.
Baytex Energy Corp.	Denbury Resources Inc.	Houston American Energy Corp	Oasis Petroleum Inc.	Royal Dutch Shell	W & T Offshore
Berry Petroleum Co.	Devon Energy Corporation	Husky Energy Inc.	Occidental Petroleum Corporation	RSP Permian Inc	Whiting Petroleum Corporation
BG Group	Diamondback Energy Inc.	Imperial Oil Limited	OMV	Sabine Oil & Gas Corporation	WPX Energy
Bill Barrett Corporation	Earthstone Energy Inc.	Isramco, Inc	Pacific Exploration and Production Corporation	Sanchez Energy Corp	YPF Sociedad Anonima
BP PLC	Ecopetrol	Ithaca Energy Inc.	Parsley Energy Inc.	SandRidge Energy	Yuma Energy, Inc.
BPZ Resources Inc	Encana Corporation	Jones Energy, Inc.	PDC Energy, Inc.	SM Energy Company	
Breitburn Energy Partners	Endeavour International Corp	Kodiak Oil & Gas Corp.	PEDECO Corp.	Sonde Resources Corp.	
Brigham Exploration Company	Energren Corp	Kosmos Energy	Penn Virginia	Statoil ASA	
California Resources Corporation	Energy XXI	Laredo Petroleum	Penn West Petroleum Ltd.	Stone Energy	
Callon Petroleum	Enerplus Corporation	Lilis Energy Inc.	Petrobras (IFRS US\$ Current)	Suncor Energy Inc.	
Canacol Energy Ltd.	ENI	Linn Energy	PetroChina	Swift Energy Co	
Canadian Natural Resources Limited	EOG Resources	Lukoil (IFRS)	PetroMagdalena Energy Corp.	Synergy Resources Corporation	

Source: U.S. Energy Information Administration, Evaluate Energy

Note: Some companies merged or split before 2016. A total of 110 companies existed in third-quarter 2016.

Background

- This analysis focuses on the financial and operating trends of 110 global oil and natural gas companies (called *energy companies*)
- The data come from the public financial statements each company submits to the U.S. Securities and Exchange Commission, which a data service (Evaluate Energy) aggregates for ease of data analysis
- Several charts show comparisons between energy companies and the U.S. manufacturing industry, collected from U.S. Census Bureau's *Quarterly Financial Report*
- For consistency, an energy company's assets that were acquired by another company in the group after first-quarter 2011 were kept in the prior-year data

Brief description of terms

- *Cash from operations* is a measure of income
- *Capital expenditure* represents cash used for property, plant, and equipment
- *Financing activities* measure inflows/outflows in debt or equity markets including dividends, share issuance or repurchases, and debt issuance or repayments
- *Return on equity* is a measure of the profit a company earns on money shareholders have invested
- *Market capitalization* is the total value of all of a company's publicly traded shares outstanding

Brief description of terms

- *Net income* represents profit after taxes and depreciation
- *Asset impairments* occur when a company lowers the estimated value of a property to reflect current market value, which may result from loss of production potential or declining oil prices
- *Upstream* refers to crude oil exploration, production, and other operations prior to refining
- *Downstream* refers to refinery operations, product sales, and marketing at the wholesale and retail levels