



2015 Minerals Yearbook

GOLD [ADVANCE RELEASE]

GOLD

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In 2015, domestic mine production of gold increased, for the first time since 2012, to 214,000 kilograms (kg) from 210,000 kg in 2014 (tables 1, 2). In 2015, the value of domestic production decreased by 6.7% to \$8.0 billion, owing to an 8.4% decrease in the average price of gold but a 1.8% increase in domestic gold production. Nevada and Alaska, the two leading producing States, accounted for about 76% and 13%, respectively, of domestic gold production in 2015 (table 2). The remaining production, in descending order of quantity, came from mines in Colorado, California, Utah, Washington, South Dakota, Montana, New Mexico, Idaho, and Arizona. Gold was recovered at lode mines in all the gold-producing States, at two large placer mines in Alaska, and at numerous small placer mines, mostly in Alaska. About 6% of domestic mined gold was recovered as a byproduct of processing base metals, primarily copper, and precious metals, primarily silver. The 26 leading operations, listed in table 3, accounted for 99% of domestic gold production.

In 2015, gold was the leading nonfuel mineral exploration target; overall, the global exploration budget for gold decreased by 14% from that in 2014 to \$3.94 billion and accounted for about 45% of the budgeted nonfuel mineral exploration expenditures of \$8.77 billion. Gold exploration in Australia, Canada, and the United States accounted for 39% (\$1.52 billion) of the budgeted 2015 global gold exploration expenditure. The next 10 countries—in descending order of expenditures, Mexico, China, Chile, Russia, Peru, Colombia, Burkina Faso, Brazil, Ghana, and Argentina—accounted for an additional 37% (\$1.46 billion) (SNL Metals & Mining, 2015, p. 1–4).

In 2015, the five leading global gold-producing companies—in descending order of mine production, Barrick Gold Corp. (Canada), Newmont Mining Corp. (Greenwood Village, CO), AngloGold Ashanti Ltd. (South Africa), Goldcorp Inc. (Canada), and Kinross Gold Corp. (Canada)—accounted for about 21% [655.9 metric tons (t)] of world gold mine production (O’Connell and others, 2016, p. 25).

Total world mine production of gold in 2015 was about 3,100 t, 2.6% more than production in 2014. In 2015, the top 5 gold-producing countries, in order of production, were China, Australia, Russia, the United States, and Canada; these accounted for 43% of global gold production (table 8).

Commercial-grade refined gold was produced by about two dozen domestic companies. Among several thousand companies and artisans, a few dozen companies dominated the fabrication of gold into commercial products. Jewelry manufacturing in the United States was heavily concentrated in the New York, NY, and Providence, RI, areas, with other manufacturers in California, Florida, and Texas. In 2015, the estimated percentages of gold consumed for commercial products (excluding investment products but including official coinage)

were jewelry, 41%; electrical and electronics, 34%; official coins, 20%; dental and medical, 3%; and other, 2%.

Through 2015, global estimated historical gold mine production has totaled more than 186,000 t of gold. Because gold has been nearly 100% recycled and is resistant to corrosion and oxidation, about 98% of the gold that has been produced throughout history is still available. As of yearend 2015, about 30,900 t was held by central banks worldwide as official stocks, about 38,100 t was held privately as investments, about 88,000 t was held privately as jewelry, and about 29,200 t was in other fabricated products and unaccounted for (O’Connell and others, 2016, p. 32).

Legislation and Government Programs

Gold mining has been identified as a potential source of funding for armed groups engaged in civil unrest in the Democratic Republic of Congo [Congo (Kinshasa)] and adjoining countries. The United States, through the enactment of Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) on July 21, 2010, made it a statutory obligation for all companies registered with the U.S. Securities and Exchange Commission (SEC) to perform due diligence to determine whether the products they manufacture, or the components of the products they manufacture, contain tantalum, tin, tungsten, or gold (3TG) minerals and, if so, to determine whether these minerals were sourced from Congo (Kinshasa) and (or) its bordering countries. Accordingly, companies were required to file a specialized disclosure form (SD form) with the SEC including their findings as to whether 3TG minerals used in their products and components were sourced from the conflict region. Companies that determined that their products or components include 3TG minerals from the conflict region were required to trace those minerals back through the supply chain to the mine of origin (U.S. Government Printing Office, 2010, p. 2213–2220). Under rules issued by the SEC, publicly traded companies were required to begin reporting the sources of 3TG materials used by May 2014. However, the U.S. Federal Appeals Court ruled twice in 2015 that the requirement that companies publish on their public Web sites a list of their products that could not be considered conflict free was a violation of a company’s First Amendment right because the law forces companies to incriminate themselves (Browning, 2015). Although the United States was the only country to enact “conflict” legislation, other groups, international organizations, and countries, including but not limited to Canada, the Electronic Industry Citizenship Coalition (EICC), the European Union, the London Bullion Trade Association (LBMA), the Organisation for Economic Co-operation and Development (OECD), the Public Private Alliance on Responsible Mineral Trade, the

Responsible Jewellery Council, the United Nations, and the World Gold Council, were developing programs to assist companies in avoiding contributing to regional conflicts. Some have reported that this type of legislation has hampered legal and informal mining while encouraging criminal mining activities in the region. Once gold is melted down and combined with other sources of gold, it is difficult to track (Webb, 2015).

Production

Domestic lode mine production data for gold were compiled by the U.S. Geological Survey (USGS) from two separate voluntary monthly surveys of U.S. mining operations and from publicly available sources and represented 99% of this report's tabulated domestic gold production. Data on placer gold production in Alaska, provided by the Alaska Division of Geological & Geophysical Surveys, was included in the domestic production figures. However, individual company production and performance data listed in table 3 or cited elsewhere in this report were obtained from published sources, such as company annual reports.

Alaska.—In 2015, Alaska produced 28,000 kg of gold, from both lode and placer operations, valued at \$1.05 billion. This was 11% less by weight and 18% less by value than that produced in 2014. Gold was produced at one open pit gold mine, two underground gold mines, one underground zinc-silver mine, and various placer operations. Kinross' open pit Fort Knox Mine near Fairbanks, Alaska's leading gold producer, produced 12,500 kg of gold equivalent in 2015, about 6% more than in 2014, as a result of an increase in ore grade (Kinross Gold Corp., 2016, p. MDA 17).

The underground Pogo Mine, 145 kilometers (km) southeast of Fairbanks, a joint venture between Sumitomo Metal Mining Co., Ltd. (85%) and Sumitomo Corp. (15%), produced about 8,800 kg of gold during 2015, a 17% decrease compared with output in 2014 (Athey and others, 2016, p. 32). The underground Kensington Mine, 74 km northwest of Juneau, owned by Coeur Mining, Inc., produced 3,930 kg of gold, a 7% increase from that in 2014 owing to an increase in ore throughput and ore grade (Coeur Mining, Inc., 2016, p. 24, 28).

Other lode-gold production in Alaska was as a byproduct from Hecla Mining Co.'s underground Greens Creek zinc-silver mine on Admiralty Island near Juneau, which produced 1,880 kg of gold (Hecla Mining Co., 2016, p. HL 8).

Because the State changed the way data were collected and reported, data on placer gold production were limited for 2015. For the past 5 years, placer production of gold was about 2,300 kg, or about 8% of the State's total gold production. In 2015, Taiga Mining Co.'s Hogatza placer mine, in the Western Region, and Goldrich NyacAu Placer LLC's Chandalar placer mine, in the Northern Region, reported significant gold production in Alaska (Athey and others, 2016, p. 22).

California.—In 2015, gold was produced at Atna Resources Ltd.'s Briggs Mine and New Gold Inc.'s Mesquite Mine. The Mesquite Mine, 70 km northwest of Yuma, AZ, produced 4,200 kg of gold, 26% more than that produced in 2014, owing to the increase in the size of the leach pad (New Gold Inc., 2016, p. 11). The Briggs Mine, about 110 km southeast of Lone Pine, CA, discontinued mining and crushing operations in July 2015.

Production will continue from residual production from the leach pad. In November 2015, Atna filed for bankruptcy protection (Atna Resources Ltd., 2016).

Small quantities of gold were also produced in California as a byproduct from industrial mineral operations (such as limestone and sand and gravel operations) and from several small underground mines that primarily recovered specimen gold products. This production was not included in the USGS production data.

Colorado.—AngloGold sold Cripple Creek & Victor Gold Mining Co., operator of the Cripple Creek Mine, to Newmont in August 2015. The open pit Cripple Creek Mine produced 6,160 kg of gold in 2015, a 6% decrease from that in 2014 (AngloGold Ashanti Ltd., 2016, p. 99; Newmont Mining Corp., 2016b, p. 1).

Montana.—Gold production at Barrick's Golden Sunlight Mine, 48 km east of Butte, decreased by 21% in 2015 compared with that in 2014 to 2,120 kg as a result of a decrease in the average ore grade (Barrick Gold Corp., 2016a). Other gold production in the State was as a byproduct of Stillwater Mining Co.'s Stillwater platinum-group-metals mine near Nye.

Nevada.—In 2015, Nevada produced about 162,000 kg of gold valued at \$5.20 billion, which was 7.2% more by weight but slightly less by value than that produced in 2014, and retained its long-standing position as the Nation's leading gold-producing State.

In 2015, Barrick produced 82,800 kg of gold, 13% more than in 2014, from its wholly owned Bald Mountain Mine, Cortez Operations, and Goldstrike Mine; partial-year production from the Ruby Hill Mine (sold on December 17 to Waterton Global Resource Management); its 75% share of the Turquoise Ridge Mine (a joint venture with Newmont, 25%); and its 50% share of the Round Mountain Mine (50% owned and operated by Kinross). In 2015, gold production from the Cortez Operations increased by 11% to 31,100 kg owing to a 29% increase in ore grade as the mine transitioned to a high-grade underground mine. Production from the Goldstrike Mine was 32,800 kg, 17% more than 2014 production because of the operation of the thiosulfate circuit and increased throughput. Production from the Ruby Hill Mine was 311 kg, a 70% decrease from that in 2014. There was no active mining at Ruby Hill in 2015; only stockpiled ore was processed. Production from the Bald Mountain Mine was 5,940 kg, a 19% increase because of an increase in ore grade following a mine development phase. Production from the Turquoise Ridge Mine in 2015 increased by 11% compared with that of 2014 owing to higher ore throughput. A 17% increase in gold production at the Round Mountain Mine was attributed to a higher ore grade and increased recovery (Barrick Gold Corp., 2016a; 2016b, p. 50, 61). Barrick announced plans to sell Bald Mountain and their 50% ownership of Round Mountain to Kinross in early 2016 (Barrick Gold Corp., 2016b, p. 27).

Newmont's operations in Nevada produced 48,600 kg of gold, a 4% increase compared with that of 2014, from the Carlin Mines Operations and the Phoenix, Twin Creeks, and the joint-venture Turquoise Ridge (25% share) Mines. In 2015, gold produced at Twin Creeks (including Turquoise Ridge) increased by 21% owing to an increase in the amount

of ore leached as a result of completing a stripping campaign in 2014 and an increase in the average mill-head grade at the Twin Creeks Mine. The Phoenix Mine produced 3% less gold owing to lower mill throughput, partially offset by a higher average ore grade and gold recovery rate at the mill. The Carlin operations produced 27,600 kg, slightly less than 2014 production, primarily because of less ore placed on the leach pads and lower gold recoveries at the mills (Newmont Mining Corp., 2016a, p. 72–73; 2016b).

In 2015, Klondex Mines Ltd. produced 3,290 kg, 23% more than it produced in 2014 owing to the increased amount of ore processed. Klondex owned and operated the Fire Creek and Midas Mines, which produced 2,400 kg and 890 kg of gold, respectively. The ore from both mines was processed at the Midas mill (Klondex Mines Ltd., 2016, p. 15–18).

Other mines in Nevada increased gold production in 2015. Silver Standard Resources Inc.'s Marigold Mine produced 6,440 kg of gold in concentrates, 27% more than that in 2014 because of a higher average gold ore grade (Silver Standard Resources Inc., 2016, p. 3). Gold production at Coeur's Rochester silver mine was about 1,640 kg in 2015, a 17% increase from production in 2014 owing to an increase in the amount of ore processed (Coeur Mining, Inc., 2016, p. 24, 28).

South Dakota.—On February 20, Coeur acquired the Wharf Mine near Lead from Goldcorp Inc. In 2015, the mine produced about 2,790 kg of gold, 24% more than that in 2014 (Coeur Mining, Inc., 2016, p. 24, 28; Goldcorp Inc., 2016, p. 19).

Utah.—Rio Tinto plc's Bingham Canyon Mine near Salt Lake City, operated by Kennecott Utah Copper Corp., produced 4,070 kg of gold as a byproduct from copper mining. Gold production was 50% lower than that of 2014 owing to the continued recovery efforts from the massive landslide that occurred at the mine in 2013. The company expected production to return to normal levels in 2016 after recovery work was completed (Rio Tinto plc, 2016, p. 34, 215).

Washington.—In 2015, Kinross's underground Kettle River-Buckhorn Mine in the north-central part of the State produced about 3,030 kg of gold equivalent, 21% less than in 2014. The company processed more low-grade stockpile ore as the mine neared the end of its life (Kinross Gold Corp., 2016, p. MDA 19).

Consumption

Thomson Reuters Gold Fields Mineral Services Ltd. (GFMS) reported that total global fabrication in 2015, including scrap, consumed 2,790 t of gold, almost 3.5% less than in 2014, despite the lower gold price. Jewelry used 2,170 t of gold, 3.4% less than in 2014. The six leading jewelry manufacturing countries were, in descending order by gold consumed for jewelry, India (736 t), China (580 t), Turkey (91.6 t), Italy (84.9 t), the United States (66.8 t), and Indonesia (42.2 t). Combined, they accounted for 74% of the world's gold jewelry fabrication. In 2015, seven countries had significant (more than 3 t) decreases in gold consumed for in jewelry; China (down by 61.7 t), Turkey (23.2 t), Russia (17.6 t), and Brazil (9.3 t) had the largest decreases. Three countries had significant increases (of more than 3 t) in gold used in jewelry fabrication—India (up by 46.2 t), Saudi Arabia (3.6 t), and the United States (3.0 t) (O'Connell and others, 2016, p. 40–46).

In 2015, consumption of gold for industrial uses decreased owing to the strength of the U.S. dollar, a sluggish economy in many countries, and increasing substitution. Globally, gold consumption for electronics (254 t) and dentistry (32 t) decreased by 11% and 7%, respectively. Gold used in other industrial and decorative applications (76 t) decreased by 4.7%, owing to decreases in China, Brazil, India, and Republic of Korea (O'Connell and others, 2016, p. 46–48).

Prices and Investment

The Engelhard daily price of gold continued to be volatile. The price began the year at \$1,174.24 per troy ounce, increased to the yearly high of \$1,304.66 per troy ounce on January 21, trended downward to the yearly low of \$1,057.44 per troy ounce on December 3, and ended the year at \$1,199.68 per troy ounce. The yearly low was the lowest average daily price since October 2009. The annual average daily price for 2015 of \$1,163.33 per troy ounce was 8% or \$106.12 per troy ounce less than the average annual price in 2014 and was the lowest average annual price since 2009.

Global net gold investment in 2015 increased to 990 t, a 5% increase compared with that in 2014. The components of gold investments are the retail investments—gold bars, official coins, medals, and imitation coins—and the change in physical gold held by gold exchange-traded funds (ETFs). The bulk of the global net investment was purchases of gold bars totaling 851 t, which was the same as the revised total for 2014 purchases. In 2015, global purchases of official coins, medals, and imitation coins increased by 5% to 263 t owing to an increase in purchases in the third and fourth quarter of 2015 in response to lower gold prices. Declining gold prices led to a 124-t decrease in gold held by ETFs to 1,529 t; however, this decrease was significantly smaller than the 157-t decline in 2014 and that of 880 t in 2013 (O'Connell and others, 2016, p. 13–15). In 2015, the U.S. Mint sold 24,929 kg of American Eagle gold coins and 6,858 kg of American Buffalo gold coins, increases of 53% and 24%, respectively, from quantities sold in 2014 because of lower prices (U.S. Mint, 2016).

According to GFMS estimates, the official sector (Governments and national banks) purchased a net 483 t of gold in 2015, which was 4% more than 2014 net purchases and the sixth consecutive year of net purchases. Some of the leading buyers in 2015 were Russia (206 t), China (104 t), Kazakhstan (30 t), and Jordan (22 t). Venezuela was a net seller of 44 t (O'Connell and others, 2016, p. 36).

Foreign Trade

The United States was a net exporter (exports minus imports) of 276,000 kg of refined bullion in 2015 (tables 1, 4, 6). Based on unrounded data, refined bullion constituted 34% of U.S. total gold imports and 74% of exports (tables 4, 6). In 2015, imports of refined bullion decreased by 26%, and exports of refined bullion decreased by 5% from those in 2014. Hong Kong (33%), Switzerland (28%), and the United Kingdom (26%) were the principal destinations for refined bullion exports. Canada (74%) and Mexico (14%) were the two leading sources of refined bullion imported in 2015.

World Review

According to GFMS' annual review of world gold supply and demand, total global supply of gold in 2015 was 4,306 t, essentially unchanged from 4,310 t in 2014. It included an estimated 27-t increase in global primary production and 128-t net increase in producer stocks. Gold recovery from old scrap increased for the first time in 5 consecutive years and increased by 15 t to 1,173 t. Currency devaluations, especially those in Indonesia, Russia, and Turkey, motivated sellers to liquidate gold scrap stocks (O'Connell and others, 2016, p. 7, 32).

In 2015, world mine output of gold from almost 100 countries having reported or estimated quantities of production was about 3,100 t, 2.6% more than that in 2014 (table 8). It was the seventh consecutive year that world production increased. Gold production increased significantly in Indonesia (by 27,600 kg), Mexico (17,042 kg), and Kazakhstan (13,275 kg). These increases were partially offset by significant gold production decreases in Bolivia (by 12,633 kg), South Africa (7,107 kg), and Turkey (7,000 kg).

The 12 leading gold-producing countries, in decreasing order of production, were China, Australia, Russia, the United States, Canada, Peru, South Africa, Mexico, Uzbekistan, Indonesia, Ghana, and Sudan; these accounted for about 70% of global production. The next 12 leading gold-producing countries accounted for about 20% of global gold production.

Argentina.—In 2015, gold production was estimated at 64,000 kg, 7% more than 2014 production. Much of the increase was due to the first full year of production from Goldcorp's Cerro Negro Mine, which produced 15,800 kg of gold during the year. This more than offset production declines at Goldcorp's Alumbreira Mine, resulting from lower ore grades, throughput, and recovery rates (Goldcorp Inc., 2016, p. 19, 39). In 2015, Barrick's Veladero Mine produced 18,700 kg of gold, a 17% decrease compared with 2014 gold production owing to lower ore grade (Barrick Gold Corp., 2016a).

Australia.—In 2015, gold production in Australia was 277,800 kg, 3,837 kg more than that in 2014. Much of the increase was from the two leading gold producing mines—Newmont's Boddington and Tanami Mines—both of which increased their throughputs of higher grade ore. Together, these mines produced about 5,880 kg more gold in 2015 than in 2014 (Newmont Mining Corp., 2016a, p. 34–36; 2016b). Production increases also were associated with recently restarted or newly commissioned mines, which included Kathleen Valley (Ramelius Resources Ltd.) and Old Pirate (ABM Resources NL), which together contributed about 3,000 kg of gold in 2015 (O'Connell and others, 2016, p. 23). Production declines were reported by the Sunrise Dam Mine (AngloGold), which had lower ore grades, and the Telfer Mine (Newcrest Mining Ltd.), which had a scheduled mine shutdown in 2015 (AngloGold Ashanti Ltd., 2016, p. 56; Newcrest Mining Ltd., 2016, p. 5).

Canada.—Canada's gold mine output increased slightly in 2015 to 152,747 kg. Production increased primarily owing to the startup of Goldcorp's Eléonore Mine, which produced 8,340 kg of gold in 2015 (Goldcorp Inc., 2016, p. 19). Production increases were reported by a number of other mines. The Detour Lake Mine (Detour Gold Corp.) produced 15,700 kg of gold in 2015, 11% more than that in 2014 (Detour Gold Corp., 2016). Agnico Eagle

Mines Ltd.'s LaRonde and Goldex Mines produced 8,330 kg (up by 31%) and 3,590 kg of gold (up by 15%), respectively. This more than offset the 16% production decrease from the company's Meadowbank Mine, which produced 11,900 kg (Agnico Eagle Mines Ltd., 2016, p. 57–59).

Chile.—In 2015, gold production was 42,501 kg, an 8% decrease compared with 2014 production primarily owing to production decreases at the country's leading gold mines—Centinela (Antofagasta plc, 70%, and Marubeni Corp., 30%), El Peñón (Yamana Gold Inc.), and Maricunga (Kinross). In 2015, gold production at the Centinela copper-silver-gold mine decreased by 20% from that of 2014 to 5,050 kg owing to a decrease in the average gold mill-head grade and lower throughput (Antofagasta plc, 2016, p. 44, 197). The El Peñón Mine, the country's leading gold mine, produced 7,070 kg of gold in 2015, a 20% decrease compared with that of 2014 because of a decrease in the amount of ore mined and lower ore grades (Yamana Gold Inc., 2016, p. 61). The 14% decrease in gold production at Maricunga was due to the decreased amount of ore placed on the heap leach because of heavy rain that occurred in March (Kinross Gold Corp., 2016, p. MDA 21). These production decreases more than offset a production increase at the Minera Florida Mine (Yamana), which produced 3,500 kg of gold, or 12% more than that in 2014, because of an increase in mill throughput and average ore grade (Yamana Gold Inc., 2016, p. 65).

China.—In 2015, production was estimated to have been unchanged from that of 2014 at 450,000 kg. Although gold production from gold mines decreased slightly, production from nonferrous metal mining increased by 7%. The combined mined production from the top four companies—China Gold International Resources Corp. Ltd., Zijin Mining Group Co. Ltd., Shandong Gold Group Co. Ltd., and Shandong Zhaojin Group Co. Ltd. (in descending order)—produced almost one-half of the country's gold production (Precious Metals Monthly, 2016).

According to the China Gold Association, China's gold consumption (which includes bullion consumption) in 2015 was 985,000 kg, a 4% increase compared with 2014 consumption. The largest contribution to the higher overall consumption was a 78% increase in the consumption of gold coins. Jewelry consumption was 722,000 kg of gold, slightly more than 2014 consumption, whereas bullion consumption was 173,000 kg, an increase of 5% compared to that of 2014 (Precious Metals Monthly, 2016).

Congo (Kinshasa).—In 2015, estimated gold production increased by 6,000 kg to 37,000 kg owing to the continued establishment of the formal mining sector. In 2015, the Kibali Mine (Randgold Resources Ltd., 45%; AngloGold, 45%; and Société Minière de Kilo-Moto, 10%) produced 20,000 kg of gold, a 3,600-kg increase compared with 2014 production (Randgold Resources Ltd., 2016, p. 65). Banro Corp.'s (Canada) Twangiza Mine produced 4,220 kg of gold in 2015, a 38% increase compared with production in 2014 owing to higher ore grades. Banro's Namoya Mine, which broke ground in the first quarter of 2014, commenced production in 2015 and produced 1,490 kg of gold by yearend (Banro Corp., 2016, p. 5–6).

Côte d'Ivoire.—In 2015, gold production in Côte d'Ivoire was estimated to be 26,000 kg, an increase of 50% compared with that of 2014. The increase was as a result of higher output at the country's large-scale gold mines. In 2015, the Agbaou Mine

[Endeavour Mining Corp., 80%; Côte d'Ivoire Government, 10%; and Société d'Etat pour le Développement Minier de Côte d'Ivoire (SODEMI), 10%] produced 5,640 kg of gold in its first full year of production, 24% more than that in 2014. The Ity Mine (Endeavour Mining Corp., 55%; SODEMI, 30%; Côte d'Ivoire Government, 10%; and Didier Drogba Group, 5%) produced 2,510 kg of gold, slightly more than 2014 production (Endeavour Mining Corp., 2016, p. 6). The Tongon Mine (Randgold Resources Ltd., 89%; Côte d'Ivoire Government, 10%; and New Mining Cl, 1%) produced 7,560 kg of gold, a 7% increase compared with production in 2014 (Randgold Resources Ltd., 2016, p. 55). The Bonikro Mine (Newcrest, 89.89%; Côte d'Ivoire Government, 10%; and private interest, 0.11%) produced 4,530 kg of gold, 42% more than 2014 production (Newcrest Mining Ltd., 2015, p. 2; 2016, p. 2).

Dominican Republic.—In 2015, gold production in the Dominican Republic was 30,816 kg, 12% less than that in 2014. Gold production at the Pueblo Viejo Mine, a joint venture between Barrick (60%) and Goldcorp (40%), decreased by 11% in 2015 to 29,700 kg owing to lower ore grades and recovery rates (Goldcorp Inc., 2016, p. 40–41).

Egypt.—After a plant expansion completed in 2014, the Sukari Mine (Centamin plc, 50%, and Egyptian Mineral Resource Authority, 50%) produced 13,700 kg of gold in 2015, about 16% more than that in the prior year. The mine was the sole large-scale, gold-producing mine in Egypt and was projected to produce 14,600 kg of gold in 2016 (Centamin plc, 2016, p. 1, 3).

Ghana.—Estimated production of gold in 2015 was 88,000 kg, which was 3% less than that of 2014. The Obuasi Mine has been on limited operations since December 2014 and produced 1,650 kg of gold in 2015, compared with 7,560 kg of gold produced in 2014 (AngloGold Ashanti Ltd., 2016, p. 5, 98). Newmont's Ahafo operation produced 10,300 kg of gold, 25% less than in 2014 because of a lower average ore grade and power supply problems (Newmont Mining Corp. 2016a, p. 24; 2016b).

Indonesia.—In 2015, estimated gold production was 96,700 kg, a 40% increase from the 2014 estimated production. Freeport-McMoRan Copper & Gold Inc.'s (Phoenix, AZ) Grasberg operations (including the Grasberg open pit mine and the Deep Ore Zone and Deep Mill Level Zone Mines) accounted for 40% of gold production in Indonesia. Production operations at the Big Gossan underground mine were suspended in 2015, but were expected to resume in the first half of 2017. Gold production at Grasberg increased by 9% in 2015 from that of 2014 to 38,300 kg owing to an increase in the amount of ore mined and milled from the Grasberg open pit, which more than offset the drop in the average gold ore grade (Freeport-McMoRan Inc., 2016, p. 22, 42). Newmont's Batu Hijau copper mine produced 21,000 kg, an almost eightfold increase over 2014 production. Newmont attributed the production increase to starting a new phase of exploiting higher grade ores, an increase in ore throughput, and the absence of the export delay that the company experienced in 2014 (Newmont Mining Corp., 2016a, p. 37; 2016b).

Mexico.—In 2015, reported gold mine production in Mexico increased by 14% from that of 2014 to 134,759 kg owing mostly to increased production at Goldcorp's Peñasquito Mine. A 53% increase in the average gold ore grade at Peñasquito resulted in production increasing by 52% to 26,800 kg of gold in 2015 as

compared with that in 2014 (Goldcorp Inc., 2016, p. 29–31). Also, the Herradura Mine (Fresnillo Plc) resumed full operation and increased capacity in the fourth quarter of 2015. The mine produced 12,400 kg of gold, 50% more than the 2014 production (Fresnillo Plc, 2016, p. 56).

Mongolia.—In 2015, gold production was reported as 14,556 kg, a 27% increase compared with 2014 production. Most of the country's production was from the Oyu Tolgoi Mine (Turquoise Hill Resources Ltd., 66%, and Government of Mongolia, 34%); an increase in the amount of ore processed more than offset a decrease in the average gold mill-head grade (Turquoise Hill Resources Ltd., 2016, p. 12).

Namibia.—In 2015, gold production was reported as 6,105 kg, 157% more than in 2014, because of the startup of the Otjikoto Mine (B2Gold Corp., 90%, and Evi Mining Co. Ltd., 10%) in February. The mine produced 4,530 kg of gold during the year, and the company anticipated 2016 production to increase to between 4,980 and 5,290 kg of gold (B2Gold Corp., 2016, p. 9–10).

Papua New Guinea.—In 2015, production was 60,046 kg of gold, a 4% increase compared with 2014 production. Production increases at the Lihir (Newcrest) and Simberi Island (St Barbara Ltd.) Mines more than offset production decreases at the Ok Tedi (Ok Tedi Mining Ltd.) and Hidden Valley (Harmony Gold Mining Company Ltd., 50%, and Newcrest, 50%) Mines (Newcrest Mining Ltd., 2016, p. 2; O'Connell and others, 2016, p. 23; St Barbara Ltd., 2016, p. 8).

Peru.—In 2015, gold production was 145,031 kg, 4% more than in 2014, mostly owing to the startup, in June, of the gold and silver Inmaculada Mine, owned by Hochschild Mining Plc (United Kingdom). By yearend, Inmaculada produced 2,630 kg of gold (Hochschild Mining Plc, 2016, p. 6). The Yanacocha Mine, jointly owned by Newmont and Compañía de Minas Buenaventura S.A.A., produced about 28,600 kg of gold in 2015. Production was 5% less in 2015 than in 2014 owing to lower mill throughput, average ore grade, and recovery rate, despite an increase in the amount of ore placed on the leach pads (Newmont Mining Corp., 2016a, p. 74). Buenaventura ceased mining operations at its Breapampa Mine in 2014 but continued to produce gold and silver from ore on the leach pads. In 2015, the mine produced 428 kg of gold, 80% less than 2014 production (Compañía de Minas Buenaventura S.A.A., 2016).

Russia.—In 2015, Russia was estimated to have produced 252,000 kg of gold, slightly more than 2014 production. Gold production from Nordgold SE's (United Kingdom) Neryungri Mine increased to 2,620 kg, a 28% increase compared with 2014 production owing to the startup of production at the satellite Gross deposit (Nordgold SE, 2016, p. 49). Production also increased at PJSC Polyus Gold's Blagodatnoye operation, by about 1,000 kg, owing to an increase in the amount of ore processed, albeit at a lower grade (PJSC Polyus Gold, 2016, p. 32). Production at Highland Gold Mining Ltd.'s (United Kingdom) Belaya Gora Mine increased to 1,910 kg from 1,210 kg in 2014 owing to the addition of a second stage gravity circuit, which increased the plant's ore processing rate by 26% and its recovery rate by 22% (Highland Gold Mining Ltd., 2016, p. 10).

Partially offsetting these increases was a production decrease at Polymetal International Plc's (United Kingdom) Omolon

operations, where gold production decreased by 12% to 5,850 kg. The operations processed lower grade ore from the Dalneye and Sopka Mines' stockpiles (Polymetal International Plc, 2016, p. 27–28).

South Africa.—In 2015, gold production decreased to 144,515 kg, a nearly 5% decrease compared with 2014 production owing to decreased production from Sibanye Gold Ltd.'s Kloof Mine and AngloGold's Great Noligwa and Mponeng Mines. Lower ore grades and recovery rates at Kloof caused a 3,000-kg reduction in gold production (O'Connell and others, 2016, p. 22). During 2015, the Great Noligwa Mine was placed on care-and-maintenance status and its infrastructure was merged into the Moab Khotsong Mine. Gold production at the Mponeng Mine decreased by 30% (2,920 kg) in 2015 to 6,810 kg owing to work stoppages related to safety issues (AngloGold Ashanti Ltd., 2016, p. 67, 98).

Tanzania.—In 2015, gold production was 45,777 kg, a 13% increase compared with 2014 production. Acacia Mining plc (United Kingdom) operated three mines in Tanzania and produced 22,800 kg of gold in 2015, slightly more than that in 2014. Of Acacia's operations, the Bulyanhulu and North Mara Mines increased production by 17% and 5%, respectively, owing to increased throughput, whereas production at the Buzwagi Mine decreased by 19% owing to a decrease in ore grade (Acacia Mining plc, 2016). In 2015, AngloGold's Geita Mine produced 16,400 kg of gold, a 10% increase compared with 2014 production, owing to an increase in ore grade (AngloGold Ashanti Ltd., 2016, p. 78, 98).

Turkey.—In 2015, gold production was estimated to have decreased by 22% to 25,000 kg. Gold production from the Çöpler Mine [Alacer Gold Corp. (Denver, CO), 80%, and Çalık Holding AŞ, 20%] decreased by 10% to 6,370 kg owing to a decrease in the amount of high-grade oxide ore mined (Alacer Gold Corp., 2016, p. 4–5). In 2015, Eldorado Gold Corp.'s (Canada) Kışladağ Mine produced 8,750 kg of gold, a 10% decrease compared with that of 2014 owing to lower ore grades (Eldorado Gold Corp., 2016, p. 7).

Outlook

Historically, investors have purchased gold as a safe haven, hedge against economic failures, portfolio diversifier, and store of wealth. In 2016, anticipated global consumption of gold is expected to increase, because gold consumption in jewelry and other industries is expected to remain flat while gold demand from investors is expected to increase alongside the increasing gold price. Domestic gold production is expected to increase, and worldwide gold production is expected to remain unchanged in 2016 owing to the startup of new mines, the rampup of recently developed mines, and the selective mining at some mines to increase ore grades and reduce operating costs being offset by the shutdown of high-cost operations.

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TABLE 1
SALIENT GOLD STATISTICS¹

		2011	2012	2013	2014	2015
United States:						
Production:						
Mine:						
Quantity	kilograms	234,000	235,000	230,000	210,000	214,000
Value	thousands	\$11,800,000	\$12,600,000	\$10,400,000	\$8,570,000	\$8,000,000
Gold recovered by cyanidation, leached in open heaps or dumps ²						
	kilograms	201,000	206,000	196,000	173,000 ^r	187,000
Refinery:						
Concentrates and dore	do.	220,000	218,000 ^r	223,000	253,000 ^r	248,000
Recycled materials (new and old scrap)	do.	263,000	215,000	210,000	135,000 ^r	124,000
Exports, refined bullion	do.	430,000 ^r	375,000 ^r	487,000 ^r	387,000 ^r	366,000
Imports for consumption, refined bullion	do.	156,000	107,000	98,700 ^r	121,000	89,800
Net deliveries from foreign stocks in the Federal Reserve						
Bank of New York	do.	3,670	--	-5,160	-177,000 ^r	-129,000
Stocks, December 31:						
Industry ³	do.	6,470	4,070	5,940	7,540 ^r	7,330
Gold exchange traded funds holdings ⁴	do.	2,410,000	2,690,000	1,810,000	1,650,000 ^r	1,530,000
COMEX inventories	do.	353,000	344,000	243,000	325,000	198,000
U.S. Department of the Treasury	do.	8,140,000	8,140,000	8,140,000	8,140,000	8,140,000
Consumption:						
American Buffalo gold bullion coin ⁵	do.	5,430	2,460	7,430	5,520 ^r	6,860
American Eagle gold bullion coin ⁵	do.	31,100	23,400	24,100	16,300 ^r	24,900
Jewelry industry and the arts	do.	168,000	147,000	160,000	152,000 ^r	164,000
Price, average ⁶	dollars per troy ounce	1,572.48	1,672.75	1,414.80	1,269.45	1,163.33
Employment, mine and mill only ⁷		11,100	12,700	12,500 ^r	12,000 ^r	11,900
World:						
Production, mine	kilograms	2,680,000 ^r	2,750,000	2,920,000	3,020,000 ^r	3,100,000 ^c
Official bullion reserves ⁸	do.	31,100,000	31,700,000	31,900,000	31,400,000	32,800,000

^cEstimated. ^rRevised. do. Ditto. -- Zero.

¹Data are rounded to no more than three significant digits, except prices.

²May include tailings, waste-ore dumps, and previously mined ore at some inactive mines.

³Unfabricated refined gold held by refiners, fabricators, dealers, and the U.S. Department of Defense.

⁴Data from GFMS, Thomson Reuters.

⁵Data from the U.S. Mint.

⁶Annual average daily Engelhard quotation.

⁷Data from the U.S. Mine Safety and Health Administration.

⁸Held by central banks, governments, and international monetary organizations. Data from the International Monetary Fund.

TABLE 2
MINE PRODUCTION OF GOLD IN THE UNITED STATES, BY STATE¹

(Kilograms)

State	2014	2015
Alaska	31,400	28,000
Nevada	151,000	162,000
Other States ²	27,800	24,200
Total	210,000	214,000

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes Arizona, California, Colorado, Idaho, Montana, New Mexico, South Dakota, Utah and Washington.

TABLE 3
LEADING GOLD-PRODUCING OPERATIONS IN THE UNITED STATES IN 2015, IN ORDER OF OUTPUT¹

Rank	Operation	County and State ²	Majority owner ³	Quantity (kilograms)
1	Goldstrike	Elko and Eureka, NV	Barrick Gold Corp.	32,800
2	Cortez Operations	Eureka and Lander, NV	do.	31,100
3	Carlin Mines Operations ⁴	Elko, Eureka, and, Humboldt, NV	Newmont Mining Corp.	27,600
4	Twin Creeks	Humboldt, NV	do.	14,700
5	Fort Knox	Eastern Interior Region, AK	Kinross Gold Corp.	12,500 ⁵
6	Round Mountain ⁶	Nye, NV	Kinross Gold Corp. (50%), Barrick Gold Corp. (50%)	11,900
7	Turquoise Ridge	Humboldt, NV	Barrick Gold Corp. (75%), Newmont Mining Corp. (25%)	9,000
8	Pogo	Eastern Interior Region, AK	Sumitomo Metal Mining Co., Ltd. (85%), Sumitomo Corp. (15%)	8,800
9	Marigold	Humboldt, NV	Silver Standard Resources Inc.	6,440 ⁷
10	Phoenix	Lander, NV	Newmont Mining Corp.	6,380
11	Cripple Creek	Teller, CO	do. ⁸	6,160
12	Bald Mountain	White Pine, NV	Barrick Gold Corp.	5,940
13	Mesquite	Imperial, CA	New Gold Inc.	4,200
14	Bingham Canyon	Salt Lake, UT	Kennecott Utah Copper Corp. ⁹	4,070
15	Kensington	Southeastern Region, AK	Coeur Mining, Inc.	3,930
16	Midas and Fire Creek	Elko and Lander, NV	Klondex Mines Ltd.	3,290
17	Kettle River-Buckhorn	Okanogan, WA	Kinross Gold Corp.	3,030 ⁵
18	Wharf	Lawrence, SD	Coeur Mining, Inc. ¹⁰	2,790
19	Golden Sunlight	Jefferson, MT	Barrick Gold Corp.	2,120
20	Greens Creek	Southeastern Region, AK	Hecla Mining Co.	1,880
21	Rochester	Pershing, NV	Coeur Mining, Inc.	1,640
22	Mineral Ridge	Esmeralda, NV	Scorpio Gold Corp.	1,230
(11)	Florida Canyon	Pershing, NV	Jipangu Inc.	NA
(11)	Hycroft	Humboldt and Pershing, NV	Hycroft Mining Corp. ¹²	NA
(11)	Jerritt Canyon	Elko, NV	Jerritt Canyon Gold LLC ¹³	NA
(11)	Robinson	White Pine, NV	KGHM International Ltd.	NA

do. Ditto. NA Not available from publicly available information.

¹Data are rounded to no more than three significant digits; the operations listed accounted for more than 99% of U.S. output in 2015.

²For Alaska, mines are located by geographic region, as delineated by the Alaska Division of Geological & Geophysical Surveys in its Special Report 70, Alaska's mineral industry 2014—Exploration activity.

³When multiple owners are listed, the operating owner is listed first, and when only one owner is listed, the company has full ownership.

⁴Includes four open pit operations and four underground operations. Does not include Phoenix, Twin Creeks, and joint-venture underground Turquoise Ridge mines, which are listed separately.

⁵Quantity refers to total gold equivalent.

⁶Formerly listed as the Smoky Valley Common Operation.

⁷Quantity refers to total quantity of gold content of concentrates produced.

⁸Newmont Mining Corp. acquired 100% interest from AngloGold Ashanti Ltd. on August 3, 2015.

⁹Wholly owned subsidiary of Rio Tinto plc.

¹⁰Coeur Mining, Inc. acquired 100% interest from Goldcorp Inc. on February 20, 2015.

¹¹The rank order is not shown to avoid disclosing company proprietary data.

¹²In October 2015, Allied Nevada Gold Corp. changed its name to Hycroft Mining Corp.

¹³Jerritt Canyon Gold LLC acquired 100% interest from Veris Gold Corp. in the second quarter of 2015.

Sources: Company annual reports, company 10-K reports submitted to the U.S. Securities and Exchange Commission, and company news releases.

TABLE 4
U.S. EXPORTS OF REFINED GOLD, BY COUNTRY^{1,2}

(Kilograms, gold content, and thousand dollars)

Year and country	Ores and concentrates ³		Dore and precipitates		Refined bullion ⁴		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
2014	4,350 †	178,000	120,000 †	4,880,000 †	387,000 †	15,600,000 †	511,000 †	20,600,000 †
2015:								
Australia	(5)	10	3	123	333	13,200	336	13,300
Austria	--	--	--	--	209	7,240	209	7,240
Belgium	54	2,120	--	--	4	155	58	2,280
Canada	1	59	13	524	2,640	101,000	2,650	102,000
Cayman Islands	--	--	2,120	77,500	152	5,920	2,280	83,400
Chile	--	--	--	--	32	1,440	32	1,440
China	3,640	130,000	(5)	5	2,090	69,900	5,730	200,000
Czech Republic	--	--	--	--	5	195	5	195
Dominican Republic	664	24,800	--	--	4	177	668	25,000
France	--	--	--	--	5	180	5	180
Germany	200	6,790	(5)	14	494	17,900	694	24,700
Guatemala	--	--	--	--	17	642	17	642
Hong Kong	60	2,490	1	23	120,000	4,580,000	120,000	4,580,000
India	--	--	41,800	1,590,000	18,800	698,000	60,500	2,290,000
Indonesia	--	--	--	--	176	6,210	176	6,210
Israel	--	--	30	1,200	1	37	31	1,230
Italy	--	--	--	--	16	770	16	770
Japan	599	24,200	--	--	259	11,700	857	35,800
Jordan	--	--	--	--	254	9,070	254	9,070
Korea, Republic of	55	2,250	--	--	--	--	55	2,250
Laos	--	--	--	--	12	456	12	456
Liechtenstein	--	--	--	--	19	594	19	594
Mexico	--	--	--	--	2,910	109,000	2,910	109,000
New Zealand	--	--	--	--	5	200	5	200
Oman	--	--	--	--	760	28,700	760	28,700
Pakistan	--	--	2	77	58	2,170	60	2,250
Panama	(5)	18	--	--	54	2,100	54	2,120
Philippines	--	--	--	--	9	398	9	398
Poland	--	--	--	--	22	947	22	947
Singapore	(5)	19	2	92	6,580	249,000	6,590	250,000
Sint Maarten	--	--	--	--	12	493	12	493
Switzerland	--	--	64,100	2,480,000	103,000	3,890,000	167,000	6,380,000
Taiwan	--	--	--	--	1,000	34,700	1,000	34,700
Thailand	--	--	--	--	6,490	242,000	6,490	242,000
Trinidad and Tobago	--	--	--	--	3	117	3	117
Turkey	(5)	10	139	4,940	10	425	149	5,370
United Arab Emirates	--	--	14,700	552,000	3,190	122,000	17,900	674,000
United Kingdom	--	--	1	38	96,200	3,640,000	96,200	3,640,000
Vietnam	--	--	--	--	6	238	6	238
Other	(5)	10	--	--	10	387	10	398
Total	5,280	193,000	123,000	4,710,000	366,000	13,800,000	494,000	18,800,000

†Revised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Ash and residues data were zero for listed years.

³Includes base-metal ores, concentrates, and matte destined for refining.

⁴Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold is excluded.

⁵Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF GOLD, BY COUNTRY¹

(Kilograms, gross weight, and thousand dollars)

Year and country	Waste and scrap		Metal powder		Gold compounds	
	Quantity	Value	Quantity	Value	Quantity	Value
2014 ^f	149,000	814,000	1,220	46,300	13,000	102,000
2015:						
Australia	--	--	--	--	18	357
Austria	--	--	--	--	113	420
Belgium	76,800	9,110	--	--	104	37
Bolivia	--	--	4	119	--	--
Canada	51,300	695,000	4	48	1,060	6,680
China	237	2,440	49	1,450	776	10,500
Columbia	--	--	--	--	75	155
Costa Rica	--	--	2	65	188	2,540
Dominican Republic	--	--	8	140	348	742
Ecuador	--	--	--	--	336	21
France	--	--	(2)	6	20	142
Germany	7,430	23,000	4	132	420	142
Hong Kong	6090	218	31	645	10	294
India	144	651	69	2,560	11	105
Italy	25,200	8,240	1	6	82	75
Japan	1,190	13,800	21	444	212	59
Korea, Republic of	189	1,380	1	35	563	8,390
Luxembourg	82	1,670	--	--	--	--
Malaysia	--	--	2	47	442	9,580
Mexico	--	--	1	23	1,310	29,800
Netherlands	--	--	--	--	9	125
Singapore	17	20	1	5	5,530	21,000
Switzerland	38,400	641,000	--	--	6	16
Taiwan	--	--	7	142	940	2,570
Thailand	(2)	4	242	2,370	10	70
Trinidad and Tobago	--	--	--	--	120	52
United Arab Emirates	7	109	13	463	2	6
United Kingdom	165,000	41,700	64	1,430	91	239
Vietnam	--	--	12	371	2	5
Other	14	184	4	92	44	276
Total	372,000	1,440,000	542	10,600	12,800	94,400

^fRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF REFINED GOLD, BY COUNTRY¹

(Kilograms, gold content, and thousand dollars)

Year and country	Ores and concentrates ²		Dore and precipitates		Refined bullion ³		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
2014	410 ^r	16,200 ^r	186,000	7,740,000	121,000	5,000,000 ^r	308,000	12,800,000
2015:								
Argentina	--	--	650	26,800	--	--	650	26,800
Aruba	--	--	36	1,320	--	--	36	1,320
Australia	--	--	40	1,500	136	5,280	176	6,790
Bahamas, The	--	--	2	96	(4)	20	3	116
Belgium	--	--	--	--	22	888	22	888
Bolivia	--	--	13,800	520,000	--	--	13,800	520,000
Brazil	--	--	1,280	52,500	2,790	100,000	4,070	153,000
Canada	52	1,760	1,970	76,000	66,600	2,510,000	68,700	2,590,000
Cayman Islands	--	--	2,130	78,300	6	230	2,130	78,600
Chile	--	--	2,940	116,000	91	3,650	3,030	119,000
China	--	--	(4)	18	9	382	10	400
Colombia	--	--	30,300	1,100,000	96	3,590	30,400	1,100,000
Costa Rica	--	--	168	6,070	45	1,730	213	7,800
Curacao	--	--	4,690	174,000	53	1,910	4,750	176,000
Czech Republic	--	--	3	126	--	--	3	126
Dominican Republic	--	--	1,460	53,500	--	--	1,460	53,500
Ecuador	--	--	15,800	591,000	34	1,380	15,800	593,000
France	--	--	--	--	298	11,500	298	11,500
Ghana	--	--	49	1,840	45	1,720	94	3,560
Greece	395	16,600	--	--	--	--	395	16,600
Guatemala	--	--	4,440	241,000	--	--	4,440	241,000
Guinea	--	--	3	132	--	--	3	132
Guyana	--	--	7,420	277,000	244	9,690	7,660	286,000
Honduras	--	--	863	32,900	2,590	97,200	3,450	130,000
Hong Kong	--	--	(4)	18	43	1,750	44	1,760
Israel	--	--	(4)	4	140	5,190	140	5,190
Jamaica	--	--	14	516	--	--	14	516
Japan	--	--	--	--	5	197	5	197
Mexico	--	--	55,900	2,200,000	12,400	465,000	68,300	2,670,000
Mongolia	--	--	6	302	--	--	6	302
Netherlands	--	--	1	39	3	123	4	163
Nicaragua	--	--	8,590	327,000	4	147	8,590	327,000
Panama	--	--	382	14,200	229	8,610	611	22,800
Paraguay	--	--	582	20,900	15	555	597	21,500
Peru	--	--	19,500	738,000	23	852	19,500	738,000
Sierra Leone	--	--	52	1,770	--	--	52	1,770
South Africa	--	--	--	--	136	5,050	136	5,050
Suriname	--	--	249	9,380	--	--	249	9,380
Switzerland	--	--	169	6,940	3,540	135,000	3,710	142,000
United Arab Emirates	--	--	8	271	46	1,580	54	1,850
United Kingdom	--	--	--	--	113	4,520	113	4,520
Venezuela	--	--	898	34,600	23	840	921	35,400
Other	--	--	5	198	4	139	9	337
Total	447	18,400	174,000	6,710,000	89,800	3,380,000	265,000	10,100,000

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes base metal ores, concentrates, and matte destined for refining.

³Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold is excluded.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF GOLD, BY COUNTRY¹

(Kilograms, gross weight, and thousand dollars)

Year and country	Waste and scrap		Metal powder		Gold compounds	
	Quantity	Value	Quantity	Value	Quantity	Value
2014	58,100 ^r	973,000 ^r	588 ^r	7,140 ^r	1,810	4,230 ^r
2015:						
Antigua and Barbuda	8	151	--	--	--	--
Aruba	120	2,790	--	--	--	--
Bahamas, The	84	1,510	--	--	--	--
Barbados	78	1,320	--	--	--	--
Bermuda	34	696	--	--	--	--
Bolivia	227	6,800	--	--	--	--
Brazil	23	751	--	--	--	--
Canada	17,600	121,000	7	35	--	--
Cayman Islands	56	1,060	1	38	--	--
Chile	173	4,310	--	--	--	--
China	25	300	(2)	12	--	--
Colombia	432	9,160	--	--	--	--
Costa Rica	16,500	13,500	5	184	--	--
Curacao	9	206	1	15	--	--
Dominica	15	333	--	--	--	--
Dominican Republic	2,000	28,300	--	--	--	--
Ecuador	--	--	40	1,400	--	--
El Salvador	685	10,900	--	--	--	--
France	16	195	1	37	--	--
French Polynesia	39	469	--	--	--	--
Germany	1,330	29,900	100	3,310	11,600	325
Grenada	8	123	--	--	--	--
Guadeloupe	39	836	--	--	--	--
Guatemala	1,300	13,400	--	--	--	--
Honduras	1,740	41,700	--	--	--	--
Hong Kong	12	313	--	--	--	--
India	7	209	--	--	--	--
Italy	9	239	(2)	19	341	57
Jamaica	565	9,690	--	--	--	--
Japan	--	--	(2)	15	42,100	5,630
Malaysia	15	272	--	--	--	--
Martinique	80	2,200	4	118	--	--
Mexico	13,700	225,000	183	3,850	--	--
Netherlands	11	205	--	--	--	--
Nicaragua	780	17,800	--	--	--	--
Panama	478	8,870	--	--	--	--
Philippines	269	6,640	--	--	--	--
Portugal	34	807	--	--	--	--
Singapore	92	865	--	--	--	--
Spain	431	9,570	--	--	--	--
St. Lucia	37	236	--	--	--	--
St. Vincent and the Grenadines	8	150	--	--	--	--
Switzerland	1	25	16	494	--	--
Trinidad and Tobago	20	120	(2)	3	--	--
United Kingdom	1,810	43,700	12	475	9	21
Other	41	784	2	67	1	3
Total	60,900	618,000	373	10,100	54,000	6,040

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
GOLD: WORLD MINE PRODUCTION, BY COUNTRY^{1,2}

(Kilograms, metal content)

Country ³	2011	2012	2013	2014	2015 ^c
Afghanistan	NA	NA	30	50	40 ⁴
Algeria	449	264	140	200 ^e	200
Argentina	59,140	54,651	50,650	59,700 ^{r,e}	64,000
Armenia	2,736	2,896	3,473	4,700 ^e	5,500
Australia	260,000	252,000	268,000	273,963	277,800 ⁴
Azerbaijan	1,775	1,563	1,619	1,873	2,229 ⁴
Bolivia	6,513	7,047	18,127	24,803 ^r	12,170 ⁴
Botswana	1,562	1,096	1,205 ^r	958 ^r	756 ⁴
Brazil	65,209	66,773	79,573	81,038 ^r	80,800
Bulgaria ^c	5,300	7,060	7,390	7,900 ^r	7,300
Burkina Faso ⁵	31,774	28,939	32,714	36,075 ^r	36,210 ⁴
Burma	NA	787	893	1,315 ^r	1,692 ⁴
Burundi ^c	400 ^r	500 ^r	400	500 ^r	500
Cameroon ^c	1,600	1,500	1,600	1,500	1,500
Canada	102,624	107,498	124,054	151,472 ^r	152,747 ^{p,4}
Central African Republic ^{c,6}	53 ^{r,4}	55 ^{r,4}	60	60	60
Chile	45,137	49,936	51,309	46,031	42,501 ⁴
China ^c	362,000	405,000	430,000	450,000	450,000
Colombia	55,908	66,178	55,745	57,015	59,202 ⁴
Congo (Brazzaville) ^c	150	150	150	150	150
Congo (Kinshasa) ^c	12,000 ^r	14,000	17,000	31,000 ^r	37,000
Costa Rica ^c	500	400	400	400	400
Côte d'Ivoire	11,009	10,943	12,949	17,318	26,000
Denmark ⁷	103	307	100	--	--
Dominican Republic	495	4,106	26,083	35,081	30,816 ⁴
Ecuador	4,923	5,139	8,676	7,323	7,112 ⁴
Egypt	6,304	8,175	11,101	11,734	13,700 ⁴
Eritrea	11,788	9,735	3,008 ^r	905 ^r	1,390
Ethiopia ⁸	10,891	12,311	12,581	11,600 ^r	9,200
Fiji	1,622	1,653	1,240	1,160	1,360
Finland	8,461	10,814	9,981	8,700 ^r	9,300
French Guiana ^c	1,130	1,460	1,600	1,600	1,200
Gabon	--	666 ^r	1,136	1,012 ^r	1,244 ⁴
Georgia ^c	7,000	3,900 ⁴	4,300 ⁴	3,600 ^r	3,600
Ghana	82,598	86,972	89,224	90,754	88,000
Greece ^c	500	600	1,400	800	500
Guatemala	11,898	6,473	6,386	5,928	5,600
Guinea	15,695	14,790	14,147	16,955	17,000
Guyana	11,293	13,643	14,964	12,053	14,029 ⁴
Honduras	1,893	1,858	1,985	2,762	2,598 ⁴
India ⁹	2,245	1,740	1,570	1,600 ^c	1,400
Indonesia ¹⁰	77,722	69,291	59,804	69,100 ^c	96,700
Iran ^{c,11}	2,000	2,500	3,000	3,000	3,000
Italy ^c	450	--	--	--	--
Japan	8,691	7,233	7,411	7,115	7,700
Kazakhstan	36,846	39,903	42,552	50,339 ^r	63,614 ⁴
Kenya	1,636	3,600	2,100	200 ^r	300 ⁴
Korea, Republic of	209	336	413	267	300
Kyrgyzstan ^c	18,647 ⁴	10,333 ⁴	19,000	18,000	17,000
Laos	3,984	6,414	6,838	5,265	6,893 ⁴
Liberia	448	641	587 ^r	620 ^r	883 ⁴
Madagascar ¹²	1	157	-- ^r	-- ^r	--
Malaysia	4,219	4,625	3,822	4,308 ^r	4,732 ⁴
Mali	35,728	40,132	41,392	39,724	41,186 ⁴
Mauritania	8,172	7,652	9,517	9,600 ^c	8,800

See footnotes at end of the table.

TABLE 8—Continued
GOLD: WORLD MINE PRODUCTION, BY COUNTRY^{1,2}

(Kilograms, metal content)

Country ³	2011	2012	2013	2014	2015 ^e
Mexico	88,648	102,802	119,773	117,717	134,759 ⁴
Mongolia	5,703	5,995	7,244	11,504 ^r	14,556 ⁴
Morocco ^e	520 ⁴	519 ^{r,4}	550	500	500
Mozambique	111	178	198	197 ^r	250
Namibia	2,053	2,302	1,960	2,377 ^r	6,105 ⁴
New Zealand	11,761	10,164	12,468	13,500 ^{r,e}	11,600
Nicaragua	6,395	6,981	8,611	8,648	8,200
Niger	1,934	1,662	1,150	732	1,209 ⁴
Nigeria	2,782 ^r	4,303 ^r	6,261 ^r	7,100 ^{r,e}	7,700
Panama	1,675	2,115	2,141	12	--
Papua New Guinea	62,200	59,100	54,092	57,939 ^r	60,046 ⁴
Peru ¹³	166,187	161,544	151,486	140,097 ^r	145,031 ⁴
Philippines	31,120	14,596	17,248	18,423	20,643 ⁴
Poland	704	916	1,066	2,575	2,703 ⁴
Russia	199,642	217,800	229,982	249,100 ^r	252,000
Rwanda	-- ^r	-- ^r	-- ^r	160 ^{r,e}	319 ⁴
Saudi Arabia	4,612	4,286	4,158	4,789	5,100
Senegal	4,089	6,666	6,445	6,588	5,670 ⁴
Serbia	1,032	900	866	1,310	628 ⁴
Sierra Leone	164	135	98	43	40
Slovakia	398	546	533	582	600
Solomon Islands	1,641 ^r	2,180	1,886 ^r	1,403 ^r	--
South Africa	180,293	155,286 ^r	160,016 ^r	151,622 ^r	144,515 ⁴
Spain ^e	529 ^{r,4}	1,529 ⁴	1,870	2,100 ^r	1,800
Sudan ^e	23,379 ¹⁴	46,133 ¹⁴	70,000	73,300	82,400
Suriname	32,308	33,474	34,213	33,000 ^e	30,000
Sweden	5,935	6,015	6,530	6,849	4,500
Tajikistan	2,240	2,401	3,000	3,477	3,500
Tanzania	42,300	40,650	42,534	40,481	45,777 ⁴
Thailand	2,860	4,895	4,419	4,514 ^r	3,305 ⁴
Togo ¹⁵	16,469	18,551	21,086	20,585	15,568 ⁴
Turkey	24,400	29,390	33,980	32,000 ^r	25,000
Uganda	1	4 ^r	5 ^r	20 ^r	4 ⁴
United Kingdom	202	102	42	--	--
United States	234,000	235,000	230,000 ^r	210,000	214,000 ⁴
Uruguay ¹⁶	1,736	1,725	2,022	1,889	1,664 ⁴
Uzbekistan ^e	91,000	93,000	98,000	100,000	102,000
Venezuela	4,608	1,981	1,691	1,500 ^e	1,500
Vietnam ^e	1,330	600 ^r	1,870 ^r	164 ^r	--
Zambia ^e	3,800	4,500	5,400	5,000	4,500
Zimbabwe	12,824	14,742	14,065	14,500 ^e	20,000
Total	2,680,000	2,750,000	2,920,000	3,020,000 ^r	3,100,000

^eEstimated. ^pPreliminary. ^rRevised. NA Not available. -- Zero.

¹Totals, U.S. data, and estimated data are rounded to no more than three significant digits; may not add to totals shown.

²Includes data available through August 22, 2017.

³In addition to the countries listed, Benin, Cambodia, Chad, Cuba, El Salvador, Equatorial Guinea, Haiti, Macedonia, Malawi, North Korea, Pakistan, Paraguay, Portugal, and South Sudan may have produced gold (either as undocumented artisanal or byproduct production), but available information was inadequate to make reliable estimates of outputs.

⁴Reported figure.

⁵Does not include artisanal or byproduct production.

⁶Production from artisanal mining.

⁷All production from Greenland.

⁸Data are for fiscal year ending on July 7 of that stated.

⁹Refinery output.

¹⁰Does not include production from so-called people's mines, which may be as much as 20,000 kilograms per year, but includes gold recovered as byproduct of copper mining.

¹¹Includes gold recovered from the Moutheh gold mine and from the Sarcheshmeh copper complex.