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GFMS GOLD SURVEY 2018

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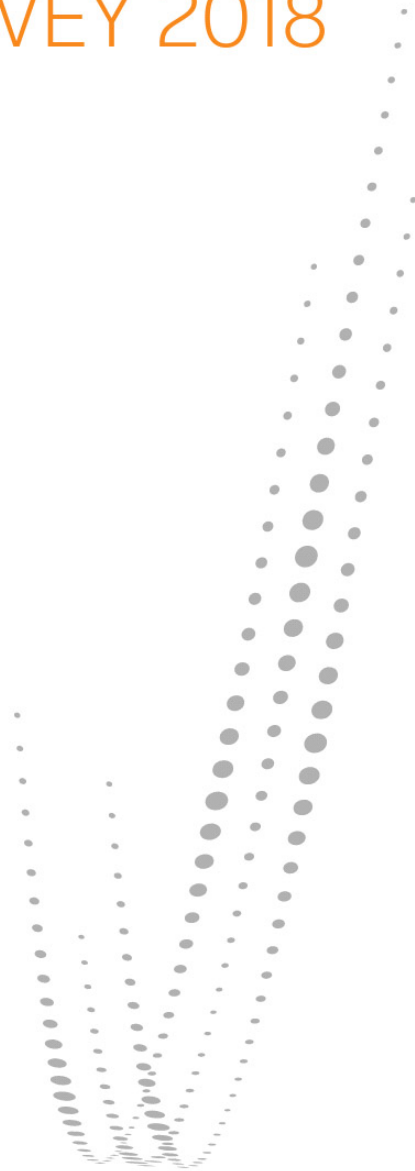
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IFR Production, Thomson Reuters

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WORLD GOLD MINE PRODUCTION

(tonnes)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Europe										
Russia	186.4	200.9	195.0	204.4	214.9	232.7	247.5	249.5	253.6	270.7
Turkey	11.4	14.5	16.6	24.1	29.6	33.5	31.0	27.5	26.0	26.1
Finland	1.7	3.8	5.6	6.4	8.9	8.6	7.6	8.2	8.8	9.0
Sweden	4.9	5.5	6.3	5.9	6.0	6.4	6.4	6.3	6.6	7.8
Bulgaria	2.8	3.3	2.5	3.4	4.3	4.6	5.4	5.4	4.7	5.5
Poland	0.8	0.8	0.8	0.7	0.7	1.1	2.6	2.7	3.5	3.6
Other	3.3	2.9	2.3	2.1	3.2	4.8	4.3	3.8	2.9	3.7
Total Europe	211.2	231.7	229.1	247.1	267.6	291.6	304.7	303.5	306.1	326.5
North America										
United States	233.6	221.4	229.7	233.5	232.4	229.6	208.7	216.2	222.0	230.0
Canada	95.0	96.0	103.5	107.8	107.8	133.6	152.5	162.5	165.0	175.8
Mexico	50.8	62.4	79.4	88.6	102.8	119.8	118.1	141.3	133.1	130.5
Total North America	379.4	379.9	412.5	429.9	443.1	483.0	479.3	519.9	520.1	536.3
South America										
Peru	195.5	201.4	184.8	189.6	184.4	187.7	173.0	177.9	168.5	162.3
Brazil	58.7	64.7	67.5	67.3	67.3	80.1	83.0	81.8	84.0	79.9
Argentina	40.3	48.8	63.5	59.1	54.6	50.1	59.7	63.8	57.9	61.0
Colombia	26.0	27.4	35.9	41.9	45.6	49.6	55.5	56.1	57.1	50.6
Chile	39.2	40.8	38.4	44.5	48.6	48.6	46.8	44.0	43.2	35.9
Dominican Republic	0.0	0.3	0.5	0.5	4.1	26.5	35.6	31.1	38.0	35.3
Suriname	17.9	20.4	20.5	20.2	20.1	18.6	18.2	17.0	20.5	33.4
Venezuela	24.3	24.8	24.9	25.5	21.8	22.9	23.2	24.2	24.8	25.4
Guyana	10.5	11.9	12.8	14.4	14.4	14.4	14.4	15.7	21.0	20.4
Ecuador	14.0	14.0	17.2	17.6	17.6	17.4	17.8	17.6	15.1	13.8
Nicaragua	2.9	2.6	4.9	6.3	6.9	8.7	8.8	8.0	8.7	7.7
Bolivia	8.4	7.2	6.4	6.5	6.4	6.1	6.3	6.1	6.3	6.4
French Guiana	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.8	2.7
Honduras	1.9	2.6	2.4	1.9	1.9	2.0	2.8	2.6	2.4	2.6
Guatemala	8.0	9.0	9.4	12.1	6.6	6.5	6.3	5.8	4.1	1.6
Other	3.5	3.9	4.4	4.8	5.2	4.3	3.2	3.1	2.3	2.4
Total South America	454.2	483.0	496.6	515.2	508.4	546.7	557.6	557.7	556.7	541.3
Asia										
China	292.0	324.0	350.9	371.0	411.1	432.2	478.2	454.1	453.5	426.1
Indonesia	135.9	204.5	184.1	165.1	131.0	152.7	158.4	176.3	174.9	154.3
Uzbekistan	72.2	70.5	71.0	71.4	73.3	77.4	81.0	83.2	82.9	84.9
Kazakhstan	22.0	22.5	29.9	36.7	40.0	42.6	46.1	48.2	49.8	55.1
Philippines	35.6	37.0	40.8	37.1	41.0	40.3	42.8	46.7	48.7	47.9
Kyrgyzstan	18.4	17.0	18.5	19.7	11.3	20.2	19.2	18.4	19.7	20.4
Mongolia	16.5	14.1	13.9	12.4	12.8	17.8	30.5	31.3	20.5	14.7
Saudi Arabia	4.0	5.1	4.5	4.6	4.7	4.5	5.2	5.6	7.4	10.8
North Korea	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Laos	4.7	5.4	5.5	4.4	6.7	7.2	5.6	5.7	7.0	6.3
Japan	6.9	7.7	8.5	8.7	7.2	6.4	7.1	7.7	6.5	6.1
Tajikistan	1.7	1.4	2.0	2.2	2.4	2.7	3.4	4.5	5.0	5.5
Armenia	0.5	1.4	1.6	2.1	2.1	3.5	4.7	4.4	4.7	4.9
Malaysia	3.8	4.2	5.2	5.0	5.3	5.1	4.5	4.2	3.6	3.0
Azerbaijan	-	0.4	2.1	1.8	1.6	1.6	2.9	3.2	2.9	2.6
Vietnam	2.7	3.1	3.4	3.7	3.9	4.1	2.6	2.4	2.4	2.4
Georgia	1.1	0.8	3.6	3.2	3.5	2.0	2.5	2.3	2.3	2.1
Myanmar	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Other	7.7	10.4	9.9	8.3	9.8	9.8	9.7	8.5	9.9	5.6
Total Asia	633.7	737.5	763.5	765.4	775.7	837.9	912.4	914.8	909.6	860.9

WORLD GOLD MINE PRODUCTION

(tonnes)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Africa										
South Africa	233.8	219.5	199.9	190.8	163.5	168.9	159.2	151.0	145.7	139.9
Ghana	80.4	90.3	92.4	91.0	95.7	107.4	107.4	95.1	94.1	101.7
Dem. Rep. of the Congo	7.2	10.0	17.0	22.0	26.1	25.3	40.0	45.7	60.4	60.1
Mali	47.0	49.1	43.9	43.5	50.3	48.2	47.4	49.0	49.8	52.2
Tanzania	35.6	40.9	44.6	49.6	49.1	46.6	45.8	46.8	49.7	49.1
Burkina Faso	6.9	13.8	25.3	34.1	31.3	35.0	38.5	38.0	40.9	49.1
Zimbabwe	8.9	9.8	16.3	19.0	19.5	19.6	18.8	22.0	21.8	23.3
Ivory Coast	5.3	8.6	7.3	13.4	14.0	13.6	18.0	22.2	22.6	22.7
Guinea	23.9	22.5	20.4	19.7	18.4	19.0	21.0	20.0	19.6	22.4
Egypt	0.0	0.0	4.7	6.3	8.2	11.1	11.8	13.7	17.1	16.9
Sudan	2.7	4.0	10.1	22.5	27.9	20.1	21.5	16.5	15.5	14.5
Ethiopia	3.8	5.5	6.6	11.5	12.0	12.0	12.0	12.0	12.0	12.0
Mauritania	6.8	8.4	9.1	8.7	8.2	10.0	10.1	9.3	7.6	9.6
Namibia	4.3	2.4	2.7	2.1	2.3	2.0	2.4	7.0	7.6	8.4
Senegal	0.1	5.2	4.5	4.3	6.8	6.5	6.7	5.8	6.8	7.4
Zambia	1.9	3.1	3.4	3.5	4.2	5.2	4.8	4.2	4.6	4.4
Other	17.6	16.7	18.6	31.0	28.3	20.7	16.6	17.3	18.9	20.2
Total Africa	486.2	509.7	526.8	572.9	565.9	571.3	582.0	575.6	594.9	613.6
Oceania & Other										
Australia	215.2	223.5	256.7	258.7	250.4	267.1	274.0	279.2	290.2	295.0
PNG	70.3	70.6	69.7	63.5	57.2	62.4	56.3	57.2	62.8	61.9
New Zealand	13.4	13.4	13.7	11.6	10.2	12.4	11.3	12.2	9.4	9.6
Fiji	1.1	1.1	2.1	1.6	1.6	1.4	1.3	1.4	1.5	1.3
Solomon Islands	0.1	0.1	0.1	1.7	2.0	2.0	0.8	0.3	0.1	0.1
Other	1.7	0.9	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Oceania & Other	301.8	309.6	342.3	337.3	321.6	345.2	343.8	350.3	364.0	368.0
World Total	2,466.5	2,651.3	2,770.9	2,867.7	2,882.2	3,075.7	3,179.7	3,221.9	3,251.4	3,246.5

Source: GFMS, Thomson Reuters

TOP 20 GOLD MINING COUNTRIES

Rank			Production (t)	
2017	2016		2016	2017
1	1	China	453.5	426.1
2	2	Australia	290.2	295.0
3	3	Russia	253.6	270.7
4	4	United States	222.0	230.0
5	7	Canada	165.0	175.8
6	6	Peru	168.5	162.3
7	5	Indonesia	174.9	154.3
8	8	South Africa	145.7	139.9
9	9	Mexico	133.1	130.5
10	10	Ghana	94.1	101.7
11	12	Uzbekistan	82.9	84.9
12	11	Brazil	84.0	79.9
13	13	PNG	62.8	61.9
14	15	Argentina	57.9	61.0
15	14	Dem. Rep. Of Congo	60.4	60.1
16	18	Kazakhstan	49.8	55.1
17	17	Mali	49.8	52.2
18	16	Colombia	57.1	50.6
19	19	Tanzania	49.7	49.1
20	22	Burkina Faso	40.9	49.1
		Rest of the World	555.5	556.4
		World Total	3,251.4	3,246.5

Source: GFMS, Thomson Reuters

2017 TOP 10 GOLD PRODUCERS

Rank			Output (t)	
2017	2016		2016	2017
1	1	Barrick Gold	171.6	165.6
2	2	Newmont Mining ¹	163.3	163.8
3	3	AngloGold Ashanti	112.8	116.8
4	5	Kinross Gold ²	84.2	81.0
5	4	Goldcorp	89.4	79.9
6	7	Navoi MMC ²	75.5	77.0
7	6	Newcrest Mining	76.7	71.1
8	9	PJSC Polyus	61.2	67.2
9	8	Gold Fields ²	63.0	62.6
10	10	Agnico Eagle	51.7	53.3

¹ Includes production from Duketon until 10th March 2016, and Batu Hijau until 2nd November 2016; ² Estimate

Source: Company Reports; GFMS, Thomson Reuters

LARGEST MINE ADDITIONS YOY

(tonnes)		Country	Production		Change yoy
Mine name			2016	2017	
1 Grasberg	Indonesia		33.0	48.3	+15.3
2 Merian	Suriname		3.2	16.0	+12.7
3 Olimpiada	Russia		25.4	31.3	+5.9
4 Bald Mountain	United States		4.0	8.8	+4.7
5 Long Canyon	United States		0.7	5.4	+4.7
6 Pyhäsalmi	Finland		5.6	9.4	+3.8
7 Gosowong	Indonesia		5.6	9.4	+3.8
8 Haile	United States		0.0	3.7	+3.7
9 Fosterville	Australia		4.7	8.2	+3.5
10 Ma'aden	Saudi Arabia		7.0	10.4	+3.4

Source: Company Reports

LARGEST MINE LOSSES YOY

(tonnes)		Country	Production		Change yoy
Mine name			2016	2017	
1 Cadia Hill	Australia		23.5	17.0	-6.6
2 Oyu Tolgoi	Mongolia		9.3	3.6	-5.8
3 Batu Hijau	Indonesia		24.9	20.0	-4.9
4 Chatree	Thailand		4.2	0.0	-4.2
5 Paracatu	Brazil		15.0	11.2	-3.8
6 Yanacocha	Peru		20.4	16.6	-3.7
7 Red Lake	Canada		10.1	6.5	-3.6
8 Bulyanhulu	Tanzania		9.0	5.5	-3.5
9 Hidden Valley	PNG		5.0	2.2	-2.8
10 Maricunga	Chile		5.5	2.8	-2.6

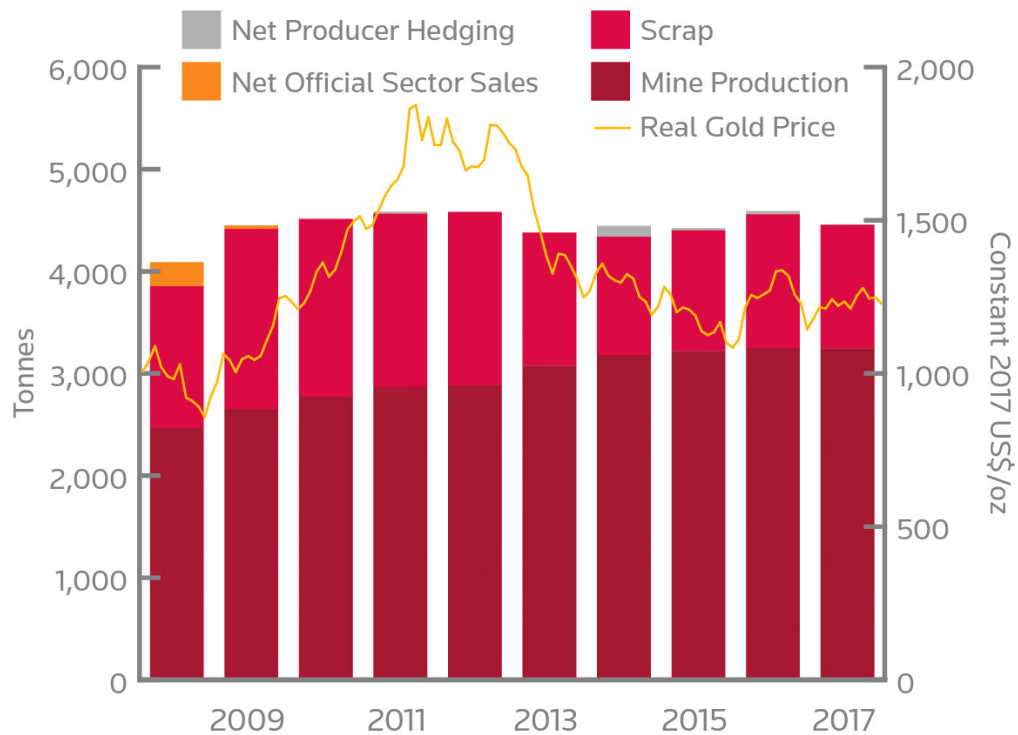
Source: Company Reports

COST OF PRODUCTION, TCC AND AISC

(US\$/oz)		2016	2017
North America	Total cash costs	639	651
	All-in Sustaining costs	804	843
South America	Total cash costs	588	618
	All-in Sustaining costs	777	825
United States	Total cash costs	598	591
	All-in Sustaining costs	732	751
Australia	Total cash costs	662	662
	All-in Sustaining costs	840	857
South Africa	Total cash costs	857	1,010
	All-in Sustaining costs	1,031	1,187
Other	Total cash costs	613	622
	All-in Sustaining costs	820	846
World	Total cash costs	649	672
	All-in Sustaining costs	837	878

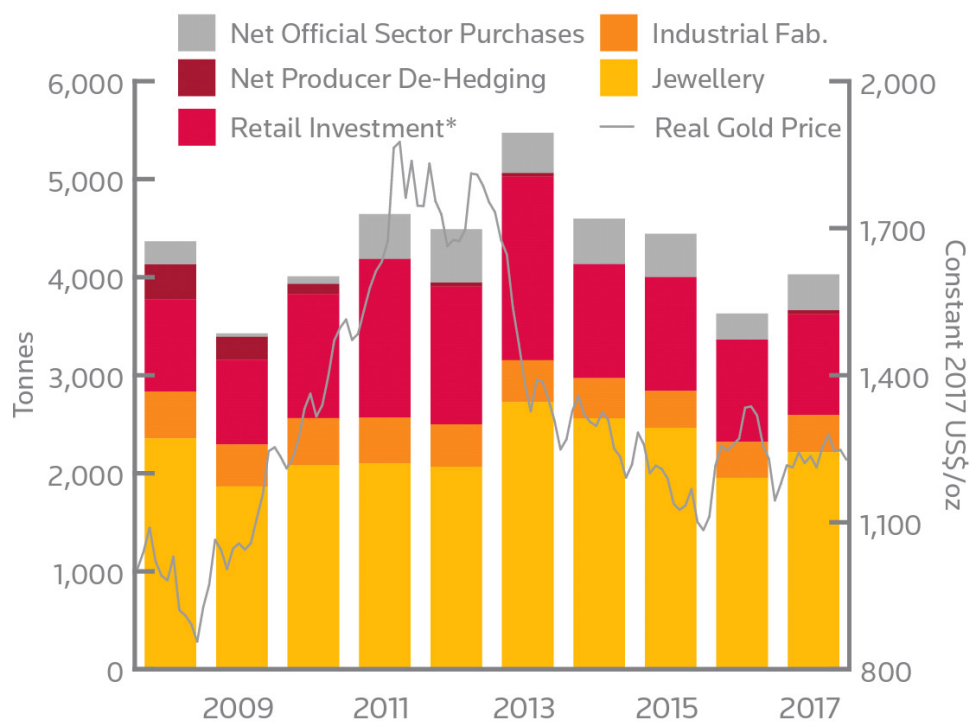
Source: GFMS, Thomson Reuters

WORLD GOLD SUPPLY



Source: GFMS, Thomson Reuters

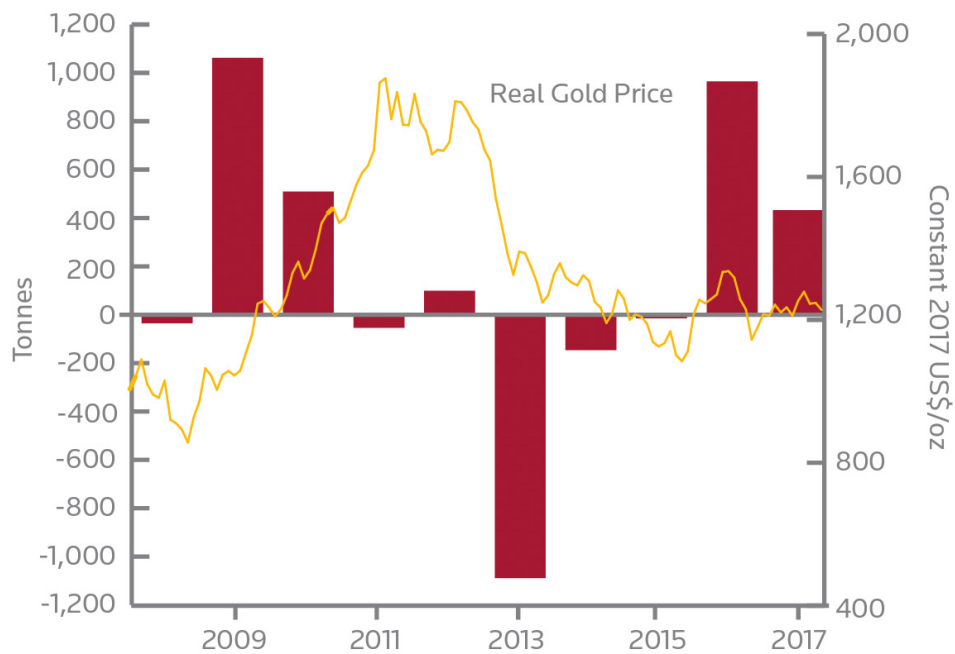
WORLD GOLD DEMAND



* Retail Investment refers to physical bar and coin investment.

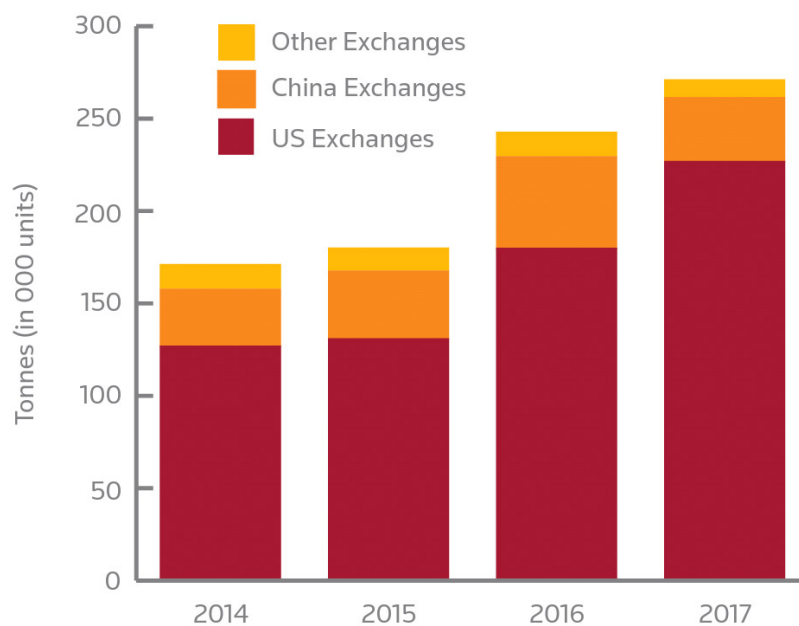
Source: GFMS, Thomson Reuters

GOLD; PHYSICAL SURPLUS / DEFICIT



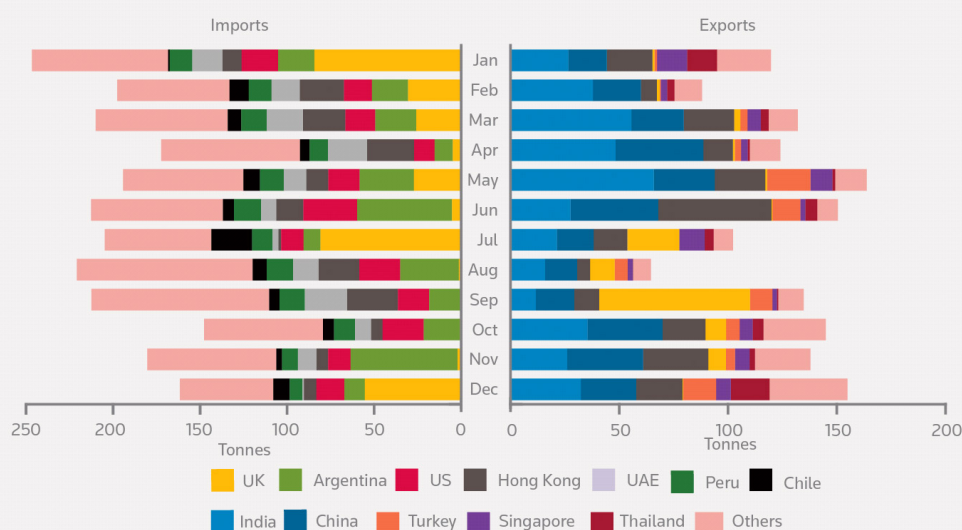
Source: GFMS, Thomson Reuters

GLOBAL EXCHANGE ACTIVITY



Source: GFMS, Thomson Reuters

2017 MONTHLY TRADE



Source: GFMS, Thomson Reuters; Swiss Impex

WORLD GOLD SUPPLY AND DEMAND

(tonnes)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Supply										
Mine production	2,467	2,651	2,771	2,868	2,882	3,076	3,180	3,222	3,251	3,247
Scrap	1,388	1,765	1,743	1,698	1,700	1,303	1,159	1,180	1,306	1,210
Net Hedging Supply	-357	-234	-106	18	-40	-39	108	21	32	-41
Total Supply	3,497	4,182	4,407	4,584	4,543	4,340	4,446	4,422	4,590	4,415
Demand										
Jewellery	2,355	1,866	2,083	2,099	2,066	2,726	2,559	2,464	1,953	2,214
Industrial Fabrication	479	426	480	470	432	428	411	376	366	380
...of which Electronics	334	295	346	342	310	306	297	267	264	277
...of which Dental & Medical	56	53	48	43	39	36	34	32	30	29
...of which Other Industrial	89	79	86	85	84	85	80	76	71	73
Net Official Sector	-235	-34	77	457	544	409	466	443	269	366
Retail Investment	939	866	1,263	1,617	1,407	1,871	1,162	1,160	1,043	1,028
...of which Bars	667	562	946	1,248	1,057	1,444	886	875	786	780
...of which Coins	272	304	317	369	350	426	276	284	257	248
Physical Demand	3,538	3,125	3,903	4,643	4,449	5,434	4,598	4,442	3,630	3,988
Physical Surplus/Deficit	-40	1,057	504	-59	94	-1,094	-151	-20	959	427
ETF Inventory Build	321	623	384	189	279	-879	-155	-117	539	177
Exchange Inventory Build	34	39	54	-6	-10	-98	1	-48	86	0
Net Balance	-396	395	67	-241	-176	-117	3	146	334	250
Gold Price (LBMA PM, US\$/oz)	871.96	972.35	1,224.52	1,571.69	1,668.98	1,411.23	1,266.40	1,160.06	1,250.80	1,257.15

Source: GFMS, Thomson Reuters

Totals may not add due to independent rounding. Net producer hedging is the change in the physical market impact of mining companies' gold loans, forwards and options positions.

