

Appendices

63	Silver Supply and Demand (Tons)
64	Mine Production (Tons)
66	Recycling (Tons)
67	Industrial Demand (Tons)
67	Electrical & Electronics Demand (Tons)
68	Brazing Alloys & Solder Demand (Tons)
68	Photographic Demand (Tons)
68	Physical Investment (Tons)
68	Coins & Medals Fabrication (Tons)
69	Jewelry Demand (Tons)
69	Silverware Demand (Tons)
70	Top 30 Silver Producing Mines
71	Top 20 Silver Producing Companies (Tons)
71	Top 20 Silver Producing Countries (Tons)
71	Mine Production Forecast by Region
72	Primary Silver Production Costs (by-product)
73	Mine Production by Region & Primary Metal
74	Nominal Silver Prices
75	Real Silver Prices (Inflation Adjusted)
76	LBMA & Comex Silver Prices
77	Year-End One-Month Silver Option Volatility Skew
77	Comex Activity & Inventories
78	LBMA Silver Trading Volumes
78	Chinese Silver Exchanges' Activity
79	Physically Backed Silver ETP Holdings
80	United Kingdom Silver Bullion Trade Flows
81	Swiss Silver Bullion Trade Flows
82	Hong Kong Silver Bullion Exports
82	Indian Silver Bullion Imports
83	Value of United States Silver Jewelry Imports
83	Silver Powder Trade Flows
84	Italian Silver Jewelry Exports
84	German Silver Jewelry Imports
	Notes and Definitions

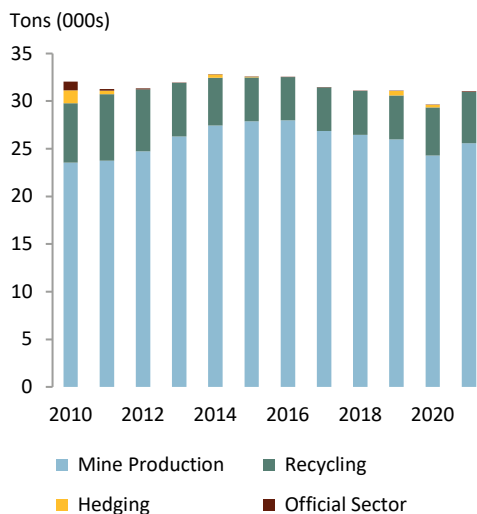
Appendix 1 - Silver Supply and Demand

Tons											Year on Year	
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022F	2021	2022F
Supply												
Mine Production	26,293	27,437	27,896	27,992	26,863	26,445	26,000	24,295	25,587	26,226	5%	2%
Recycling	5,609	5,018	4,581	4,537	4,580	4,622	4,593	5,044	5,382	5,616	7%	4%
Net Hedging Supply	-	332	67	-	-	-	473	264	-	156	na	na
Net Official Sector Sales	52	36	33	33	33	37	32	37	48	48	28%	1%
Total Supply	31,954	32,822	32,577	32,562	31,475	31,104	31,097	29,640	31,017	32,045	5%	3%
Demand												
Industrial	13,983	13,650	13,720	14,785	15,663	15,539	15,492	14,459	15,807	16,783	9%	6%
...of which photovoltaics	1,571	1,507	1,684	2,915	3,166	2,877	3,069	3,142	3,536	3,950	13%	12%
Photography	1,424	1,355	1,282	1,174	1,092	1,051	1,018	865	892	885	3%	-1%
Jewelry	5,813	6,000	6,273	5,859	6,072	6,280	6,229	4,660	5,641	6,278	21%	11%
Silverware	1,447	1,666	1,802	1,677	1,853	2,102	1,931	1,009	1,327	1,639	32%	23%
Net Physical Investment	9,351	8,806	9,654	6,594	4,843	5,139	5,809	6,377	8,668	8,686	36%	0%
Net Hedging Demand	913	-	-	374	66	239	-	-	292	-	na	na
Total Demand	32,930	31,478	32,731	30,463	29,590	30,348	30,480	27,370	32,627	34,270	19%	5%
Market Balance	-977	1,344	-155	2,099	1,885	755	617	2,270	-1,610	-2,224	na	38%
Change in ETP Holdings	148	-9	-532	1,676	223	-666	2,590	10,299	2,020	778	-80%	-62%
Market Balance less ETPs	-1,124	1,353	377	423	1,663	1,421	-1,972	-8,029	-3,630	-3,002	-55%	-17%
Silver Price (US\$/oz)*	23.79	19.08	15.68	17.14	17.05	15.71	16.21	20.55	25.14	23.90	22%	-5%

*London Price

Source: Metals Focus

Global Supply



Source: Metals Focus

Global Demand



Source: Metals Focus

Appendix 2 - Mine Production

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
North America											
Mexico	5,358	5,821	5,767	5,975	5,421	5,815	6,049	5,840	5,605	6,118	9%
United States	1,060	1,046	1,180	1,090	1,150	1,031	926	976	986	1,011	3%
Canada	666	618	472	369	361	393	368	419	293	279	-5%
Sub-total	7,084	7,485	7,419	7,433	6,931	7,240	7,344	7,235	6,884	7,409	8%
Central & South America											
Peru	3,533	3,827	3,918	4,218	4,737	4,820	4,556	4,202	3,160	3,355	6%
Bolivia	1,206	1,287	1,340	1,306	1,353	1,196	1,192	1,153	930	1,290	39%
Chile	1,191	1,169	1,562	1,496	1,448	1,257	1,243	1,189	1,474	1,281	-13%
Argentina	768	827	920	1,133	993	908	960	1,025	707	823	16%
Dominican Republic	27	82	136	95	122	152	159	141	129	106	-18%
Brazil	17	27	35	49	77	87	71	69	69	80	17%
Panama	3	2	0	-	-	-	-	27	50	78	58%
Guatemala	205	283	858	863	840	337	-	-	-	-	na
Others	105	103	106	80	64	62	77	92	89	131	47%
Sub-total	7,055	7,607	8,875	9,241	9,635	8,819	8,258	7,898	6,608	7,144	8%
Europe											
Poland	1,159	1,208	1,195	1,218	1,272	1,297	1,272	1,257	1,226	1,307	7%
Sweden	306	337	396	492	511	484	467	446	417	432	4%
Portugal	34	45	47	46	43	40	91	95	96	98	2%
Spain	34	36	35	44	46	59	66	65	78	82	6%
Finland	2	2	2	3	3	3	2	33	50	46	-8%
Others	68	82	79	74	71	74	62	62	72	84	16%
Sub-total	1,602	1,711	1,755	1,876	1,946	1,957	1,959	1,958	1,939	2,050	6%
Africa											
Morocco	220	230	244	281	311	319	243	284	249	288	16%
Eritrea	30	16	53	98	98	79	54	61	99	97	-2%
South Africa	88	75	55	59	61	69	51	62	39	49	24%
Botswana	12	26	26	4	4	0	0	-	-	18	na
Others	94	148	105	112	72	77	79	79	79	80	1%
Sub-total	444	495	482	554	547	544	428	486	467	532	14%
Commonwealth of Independent States											
Russia	1,411	1,381	1,434	1,588	1,450	1,305	1,341	1,391	1,323	1,212	-8%
Kazakhstan	638	663	562	500	542	589	615	530	541	477	-12%
Uzbekistan	149	182	182	182	185	185	185	189	195	212	9%
Armenia	64	72	75	77	74	82	63	75	82	81	-2%
Tajikistan	19	18	31	35	40	47	46	45	47	48	3%
Others	5	7	7	11	20	15	18	20	18	19	6%
Sub-total	2,286	2,324	2,291	2,392	2,311	2,223	2,268	2,250	2,206	2,050	-7%

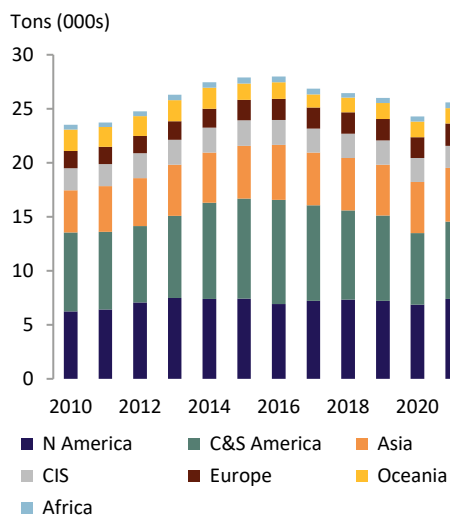
Source: Metals Focus

Appendix 2 - Mine Production (continued)

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
Asia											
China	3,503	3,674	3,701	3,705	3,774	3,620	3,439	3,468	3,407	3,510	3%
India	289	333	261	374	436	526	658	633	671	689	3%
Indonesia	192	244	219	308	335	311	314	226	259	336	30%
Turkey	221	201	199	205	209	152	147	99	123	170	38%
Iran	71	67	70	67	77	79	79	82	84	85	2%
Mongolia	24	39	52	62	68	54	53	51	51	55	6%
Laos	19	33	40	52	51	43	37	34	35	35	2%
Philippines	49	40	23	30	35	32	30	31	24	23	-6%
Thailand	35	36	34	24	39	4	4	4	4	4	0%
Others	51	55	55	51	67	61	71	69	74	67	-10%
Sub-total	4,455	4,722	4,654	4,878	5,091	4,881	4,832	4,698	4,732	4,974	5%
Oceania											
Australia	1,727	1,840	1,847	1,430	1,418	1,120	1,254	1,325	1,337	1,334	-0.3%
Papua New Guinea	84	92	95	72	100	66	93	146	119	91	-24%
Others	11	16	20	17	13	13	9	5	2	3	52%
Sub-total	1,822	1,948	1,962	1,520	1,531	1,199	1,356	1,476	1,459	1,428	-2%
Global Total	24,748	26,293	27,437	27,896	27,992	26,863	26,445	26,000	24,295	25,587	5%

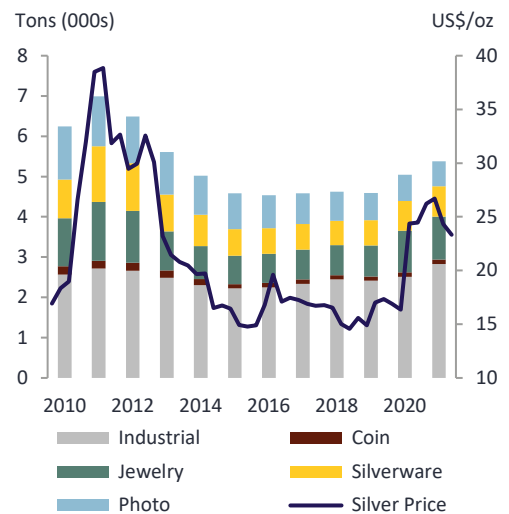
Source: Metals Focus

Mine Supply by Region



Source: Metals Focus

Recycling by Source



Source: Metals Focus, Bloomberg

Appendix 3 - Recycling

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
Europe											
Germany	363	330	318	307	303	291	306	307	297	302	2%
Italy	315	252	206	182	171	163	156	158	150	149	-0.3%
UK	203	192	182	174	168	163	159	156	148	141	-5%
France	179	156	134	118	106	101	98	97	97	104	7%
Other	351	334	317	293	291	321	291	295	294	310	5%
Sub-total	1,410	1,264	1,156	1,073	1,038	1,039	1,011	1,013	987	1,007	2%
CIS											
Russia	358	307	249	208	203	246	310	264	290	319	10%
Others	95	71	55	43	45	54	59	57	63	69	10%
Sub-total	453	378	304	251	247	300	369	321	353	388	10%
North America											
United States	1,592	1,462	1,356	1,263	1,181	1,189	1,188	1,179	1,179	1,277	8%
Others	206	176	146	127	127	126	125	125	129	132	3%
Sub-total	1,799	1,637	1,502	1,390	1,309	1,314	1,313	1,304	1,307	1,409	8%
Middle East											
Turkey	128	114	104	77	78	78	83	83	77	84	9%
Others	124	118	116	94	109	108	95	100	119	144	21%
Sub-total	252	232	220	171	187	185	177	183	197	228	16%
South Asia											
India	716	384	232	144	153	167	196	205	495	457	-8%
Others	144	72	40	21	23	24	27	28	91	82	-10%
Sub-total	860	455	272	165	176	191	223	233	586	538	-8%
East Asia											
China	722	693	693	721	714	704	705	712	780	945	21%
Japan	349	354	342	343	354	354	340	326	310	296	-4%
Taiwan	128	110	101	81	93	88	81	89	91	93	2%
Others	193	198	163	143	163	146	146	152	168	187	11%
Sub-total	1,392	1,355	1,299	1,289	1,325	1,292	1,271	1,279	1,349	1,521	13%
Other Regions											
C&S America	149	123	108	95	105	109	110	112	119	129	9%
Africa	102	94	92	86	89	90	89	89	95	112	18%
Oceania	73	70	64	61	61	60	60	58	53	49	-6%
Sub-total	324	287	265	242	255	258	259	260	266	291	9%
Global Total	6,491	5,609	5,018	4,581	4,537	4,580	4,622	4,593	5,044	5,382	7%

Source: Metals Focus

Appendix 4 - Industrial Demand

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
Europe											
Germany	758	759	772	746	753	777	805	789	721	803	11%
United Kingdom	430	431	501	461	492	595	627	692	632	697	10%
France	296	294	283	269	262	270	283	290	263	300	14%
Italy	262	259	264	264	261	271	282	286	243	285	17%
Others	367	383	376	367	370	383	393	391	352	387	10%
Sub-total	2,113	2,126	2,196	2,106	2,138	2,296	2,390	2,448	2,211	2,472	12%
North America											
United States	3,536	3,172	2,745	2,823	3,385	3,478	3,576	3,408	3,399	3,724	10%
Others	176	179	142	178	187	175	177	184	155	169	9%
Sub-total	3,712	3,351	2,887	3,002	3,572	3,654	3,753	3,592	3,553	3,893	10%
East Asia											
China	2,663	2,872	3,027	3,117	3,175	3,650	3,774	3,773	3,466	3,753	8%
Japan	2,284	2,696	2,707	2,814	3,255	3,381	2,911	3,081	3,107	3,221	4%
South Korea	682	689	629	590	561	593	595	571	541	582	8%
Taiwan	346	327	328	318	310	292	302	275	281	299	7%
Others	24	23	30	37	39	37	39	40	36	39	9%
Sub-total	5,999	6,606	6,721	6,875	7,340	7,953	7,621	7,741	7,430	7,894	6%
Other Regions											
South Asia	1,369	1,254	1,178	1,110	1,116	1,162	1,250	1,175	832	1,065	28%
Middle East	173	187	213	200	181	187	186	176	151	161	7%
Oceania	143	136	137	133	136	132	136	139	111	131	18%
C&S America	207	208	219	215	223	201	121	133	96	107	12%
CIS	92	74	59	47	50	51	53	56	48	55	15%
Africa	39	42	40	31	29	29	30	32	27	28	2%
Sub-total	2,023	1,900	1,846	1,737	1,735	1,761	1,775	1,711	1,265	1,547	22%
Global Total	13,848	13,983	13,650	13,720	14,785	15,663	15,539	15,492	14,459	15,807	9%

Appendix 5 - Electrical & Electronics Demand

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
China/Hong Kong	1,769	1,905	2,027	2,092	2,187	2,649	2,759	2,741	2,514	2,801	11%
Japan	1,859	2,245	2,290	2,358	2,830	2,941	2,465	2,634	2,704	2,767	2%
United States	2,040	1,742	1,373	1,460	2,021	2,080	2,136	1,939	1,972	2,103	7%
Germany	552	551	568	539	550	569	592	574	517	580	12%
India	499	462	444	424	428	444	475	422	365	464	27%
South Korea	260	270	290	265	259	268	262	246	229	247	8%
Others	1,447	1,390	1,402	1,333	1,335	1,315	1,306	1,292	1,157	1,301	12%
Global Total	8,426	8,566	8,393	8,470	9,609	10,266	9,996	9,849	9,457	10,263	9%

Source: Metals Focus

Appendix 6 - Brazing Alloys & Solder Demand

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
China	679	746	776	792	749	761	772	781	701	689	-2%
United States	200	190	187	177	182	192	198	202	186	203	9%
India	80	73	70	66	67	69	71	68	54	85	57%
South Korea	99	93	84	80	70	75	74	71	66	70	6%
Japan	61	61	58	56	56	64	67	65	59	66	12%
Germany	80	78	74	70	68	68	67	65	57	65	14%
Others	389	388	337	278	266	288	301	313	274	307	12%
Global Total	1,589	1,630	1,586	1,519	1,460	1,515	1,550	1,565	1,397	1,485	6%

Appendix 7 - Photographic Demand

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
Europe & N. America	1,183	1,082	1,009	942	850	780	740	703	663	665	0%
East Asia	399	304	304	299	280	270	262	259	202	226	12%
Others	52	39	41	41	45	42	49	56	1	1	15%
Global Total	1,634	1,424	1,355	1,282	1,174	1,092	1,051	1,018	865	892	3%

Appendix 8a - Physical Investment

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
United States	3,068	3,706	3,397	3,748	3,098	1,712	1,357	1,438	2,465	3,683	49%
Germany	715	844	608	654	743	718	778	1,061	1,326	1,411	6%
India	1,682	2,719	3,136	3,435	1,136	1,259	1,680	1,757	269	858	219%
Canada	150	206	230	237	225	147	142	156	232	329	42%
China	713	660	364	357	346	238	210	193	214	192	-10%
Other Europe	225	246	226	302	337	282	340	364	434	515	19%
Others	935	970	845	920	709	488	630	839	1,435	1,680	17%
Global Total	7,488	9,351	8,806	9,654	6,594	4,843	5,139	5,809	6,376	8,668	36%

Appendix 8b - Coins & Medals Fabrication

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
Canada	578	913	959	1,102	1,045	588	572	715	897	1,155	29%
United States	1,123	1,425	1,444	1,527	1,225	601	532	637	1,018	1,001	-2%
Australia	328	267	266	394	409	333	325	394	537	622	16%
UK	23	78	67	109	109	96	109	99	302	489	62%
Austria	274	451	144	227	107	64	65	90	224	382	71%
South Africa	0	26	0	18	0	36	116	112	244	320	31%
China	373	373	362	359	355	248	233	217	238	215	-10%
India	70	140	176	224	220	257	328	351	161	210	30%
Germany	40	40	40	60	135	125	125	120	120	120	0%
Mexico	40	21	22	33	36	38	19	12	14	18	30%
Others	245	286	272	283	198	189	223	238	230	261	14%
Global Total	3,094	4,021	3,754	4,334	3,839	2,574	2,647	2,986	3,985	4,791	20%

Source: Metals Focus

Appendix 9 - Jewelry Demand

Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
Europe											
Italy	479	556	606	622	586	605	601	619	504	636	26%
Germany	105	109	105	108	104	107	108	109	95	112	18%
Others	192	204	208	209	204	205	203	203	169	195	15%
Sub-total	775	869	919	938	894	917	912	931	768	943	23%
North America											
United States	365	384	404	425	403	410	404	402	359	412	15%
Canada	110	115	121	110	112	105	101	101	83	115	39%
Mexico	155	141	168	177	180	153	155	139	97	68	-30%
Sub-total	629	640	693	711	695	668	659	642	539	595	10%
Middle East											
Turkey	125	151	195	208	152	153	184	186	138	215	56%
Others	75	78	82	97	92	87	107	93	73	88	21%
Sub-total	200	230	277	305	244	240	291	279	210	303	44%
South Asia											
India	708	990	1,404	1,760	1,677	1,995	2,256	2,148	1,260	1,827	45%
Others	28	30	35	38	37	42	47	45	27	34	29%
Sub-total	736	1,020	1,438	1,799	1,715	2,038	2,303	2,193	1,287	1,862	45%
East Asia											
Thailand	632	812	769	877	828	837	785	886	745	771	4%
China	1,458	1,662	1,280	1,050	893	794	755	709	589	648	10%
Indonesia	92	128	191	152	163	157	163	175	149	119	-20%
Others	173	194	182	187	177	179	179	183	157	165	5%
Sub-total	2,355	2,797	2,421	2,267	2,060	1,967	1,881	1,953	1,639	1,702	4%
Other Regions	256	257	251	253	251	243	234	232	216	236	9%
Global Total	4,952	5,813	6,000	6,273	5,859	6,072	6,280	6,229	4,660	5,641	21%

Appendix 10 - Silverware Demand

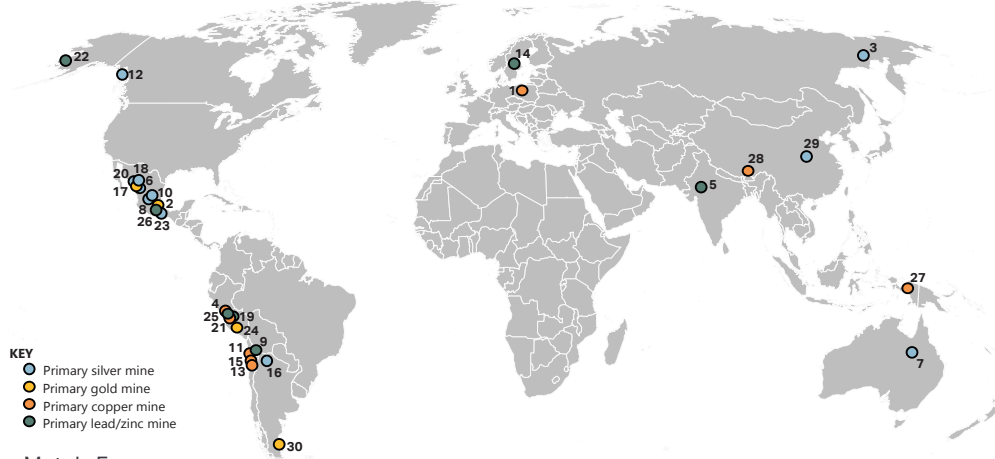
Tons	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y
India	549	702	952	1,151	1,061	1,236	1,442	1,282	541	758	40%
Nepal	82	92	114	123	136	148	183	174	102	148	45%
China	223	250	188	122	98	105	107	103	77	85	10%
Italy	92	87	88	86	78	71	68	63	39	53	35%
United States	41	39	40	40	40	40	39	39	40	41	3%
Others	279	277	285	281	264	254	262	269	209	243	16%
Global Total	1,266	1,447	1,666	1,802	1,677	1,853	2,102	1,931	1,009	1,327	32%

Source: Metals Focus

Appendix 11 - Top 30 Silver Producing Mines

Rank	Mine	Country	Ownership	Million ounces		
				2020	2021	Y/Y
1	KGHM Polska Miedz	Poland	KGHM Polska Miedz (100%)	39.2	41.9	7%
2	Peñasquito	Mexico	Newmont (100%)	30.9	34.2	11%
3	Dukat	Russia	Polymetal International (100%)	18.2	18.8	3%
4	Antamina	Peru	Glencore (33.75%) / BHP (33.75%)/Teck Resources (22.5%)	16.4	18.2	11%
5	Sindesar Khurd ^{2,3}	India	Hindustan Zinc (100%)	17.3	17.7	3%
6	San Julian	Mexico	Fresnillo (100%)	13.3	16.8	26%
7	Cannington ¹	Australia	South32 (100%)	11.6	14.4	24%
8	Saucito	Mexico	Fresnillo (100%)	15.5	12.4	-20%
9	San Cristobal ²	Bolivia	Sumitomo Corporation (100%)	5.4	12.1	124%
10	Fresnillo	Mexico	Fresnillo (100%)	13.1	12.0	-8%
11	Collahuasi	Chile	Glencore (44%) / Anglo American (44%) / Mitsui & Co (12%)	9.0	9.6	7%
12	Greens Creek	United States	Hecla Mining Company (100%)	10.5	9.2	-12%
13	Ministro Hales ¹	Chile	Codelco (100%)	8.4	9.1	9%
14	Garpenberg	Sweden	Boliden (100%)	7.9	8.8	12%
15	Chuquicamata ¹	Chile	Codelco (100%)	10.0	8.5	-14%
16	Puna	Argentina	SSR Mining Inc. (100%)	5.6	8.0	44%
17	San Dimas	Mexico	First Majestic Silver (100%)	6.4	7.6	19%
18	Cerro Los Gatos	Mexico	Gatos Silver (70%) / Dowa Metals & Mining Co. (30%)	4.2	7.6	81%
19	Yauli	Peru	Volcan Compañia Minera (100%)	5.3	7.4	40%
20	Palmarejo	Mexico	Coeur Mining (100%)	6.3	6.8	9%
21	Toromocho	Peru	Chinalco (100%)	5.7	6.7	17%
22	Red Dog ²	United States	Teck Resources (100%)	6.5	6.6	2%
23	San Jose	Mexico	Fortuna Silver Mines (100%)	6.2	6.4	4%
24	Inmaculada	Peru	Hochschild Mining (100%)	4.0	6.2	55%
25	El Brocal	Peru	Buenaventura (61.43%) / Private & Other (38.57%)	3.7	6.2	67%
26	Tizapa	Mexico	Industrias Peñoles (51%) / Dowa Mining Corporation (39%) ⁵	6.0	6.0	0%
27	Grasberg ⁴	Indonesia	Government of Indonesia (51.2%) / Freeport McMoRan (48.8%)	3.6	5.9	64%
28	Jiama ²	China	China Gold International Resource (100%)	7.3	5.7	-22%
29	Ying	China	Silvercorp Metals (77.5%) ⁶	5.2	5.7	8%
30	Cerro Moro	Argentina	Yamana Gold (100%)	5.4	5.6	2%

NB: All numbers are silver contained in concentrate or doré unless stated otherwise, 1: Payable metal, 2: Estimate, 3: Refined silver, 4: Silver sold, 5: Sumitomo Metal Mining Company (10%), 6: Henan Non-Ferrous Geological & Mineral Resources Co (22.5%)



Source: Company Reports, Metals Focus

Appendix 12a - Top 20 Producing Companies

Tons	2020	2021	Y/Y
Fresnillo ¹	1,564	1,554	-1%
KGHM Polska Miedz ²	1,353	1,366	1%
Glencore	1,019	980	-4%
Newmont ²	865	976	13%
Codelco ²	767	735	-4%
Hindustan Zinc ^{3,4,5}	671	689	3%
Polymetal International	586	636	8%
Pan American Silver	538	596	11%
Southern Copper	670	590	-12%
Volcan Cia Minera	376	467	24%
Industrias Peñoles ⁶	382	450	18%
South32 ²	361	447	24%
Sumitomo Corporation	230	420	82%
Buenaventura ⁷	390	406	4%
Hecla Mining Company	421	401	-5%
First Majestic Silver	361	399	11%
BHP ²	374	388	4%
Hochschild Mining	305	379	24%
Boliden ²	354	371	5%
Teck Resources ⁸	316	331	5%

NB: 1 - Excludes Silverstream contract, 2 - Payable production, 3 - Hindustan Zinc is a Vedanta Group company, 4 - Production from integrated operations only, 5 - Refined Silver, 6 - Excludes 100% Fresnillo, 7 - Equity weighted production including silver from copper ore processed at El Brocal, 8 - Estimated attributable mined production

Source: Company Reports, Metals Focus

Appendix 12b - Top 20 Producing Countries

Tons	2020	2021	Y/Y
Mexico	5,605	6,118	9%
China	3,407	3,510	3%
Peru	3,160	3,355	6%
Australia	1,337	1,334	-0.3%
Poland	1,226	1,307	7%
Bolivia	930	1,290	39%
Chile	1,474	1,281	-13%
Russia	1,323	1,212	-8%
United States	986	1,011	3%
Argentina	707	823	16%
India	671	689	3%
Kazakhstan	541	477	-12%
Sweden	417	432	4%
Indonesia	259	336	30%
Morocco	249	288	16%
Canada	293	279	-5%
Uzbekistan	195	212	9%
Turkey	123	170	38%
Dominican Republic	129	106	-18%
Portugal	96	98	2%
Others	1,165	1,257	8%
Global Total	24,295	25,587	5%

Source: Metals Focus

Appendix 12c - Mine Production Forecast by Region

Tons	2021	2022F	Y/Y
N America	7,409	8,028	8%
C&S America	7,144	7,013	-2%
Asia	4,974	5,059	2%
CIS	2,050	2,115	3%
Europe	2,050	1,976	-4%
Oceania	1,428	1,466	3%
Africa	532	570	7%
Global Total	25,587	26,226	2%

Source: Metals Focus

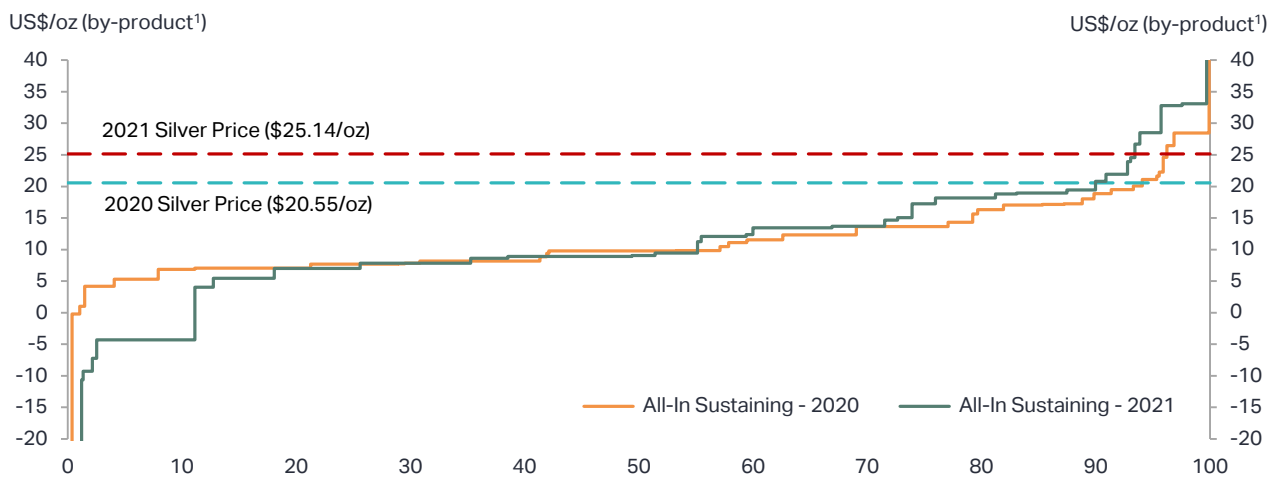
Appendix 13 - Primary Silver Production Costs (by-product¹)

Year on Year

US\$/oz (by-product)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020	2021
North America												
Total Cash Cost	5.42	7.94	7.50	6.43	3.47	2.17	2.64	4.13	3.66	4.38	-11%	20%
Total Production Cost	11.80	14.28	13.43	11.66	8.63	8.20	8.48	10.53	10.01	10.27	-5%	3%
All-In Sustaining Cost	14.14	15.66	14.49	12.59	8.54	9.19	10.53	11.97	11.01	12.82	-8%	16%
Central & South America												
Total Cash Cost	14.25	12.43	10.65	9.75	7.43	7.41	5.74	7.37	9.29	6.85	26%	-26%
Total Production Cost	19.10	17.95	14.68	14.07	10.35	10.36	8.97	11.28	14.41	11.07	28%	-23%
All-In Sustaining Cost	21.87	19.36	15.51	13.92	10.77	12.36	11.70	13.06	15.85	13.17	21%	-17%
CIS												
Total Cash Cost	10.18	10.27	7.21	4.99	4.35	6.98	7.60	9.12	7.64	5.71	-16%	-25%
Total Production Cost	11.83	13.02	9.43	6.39	5.81	9.19	10.28	10.91	9.31	7.38	-15%	-21%
All-In Sustaining Cost	13.43	13.90	9.32	6.41	5.85	9.46	9.76	11.86	9.81	8.93	-17%	-9%
Asia												
Total Cash Cost	-1.94	1.52	1.03	1.11	-2.02	-4.58	-4.42	-2.36	-0.35	0.43	na	na
Total Production Cost	-0.43	4.00	4.58	4.92	0.88	-1.84	-1.29	0.84	3.30	4.34	294%	31%
All-In Sustaining Cost	18.63	37.81	8.89	9.59	3.53	3.61	1.42	3.68	6.23	6.90	69%	11%
Oceania												
Total Cash Cost	5.86	3.55	1.99	2.16	-1.90	-3.72	-0.47	2.02	1.20	-7.64	-41%	na
Total Production Cost	7.34	5.15	4.21	4.59	1.22	0.60	3.21	7.22	15.80	11.41	119%	-28%
All-In Sustaining Cost	8.81	6.93	5.41	5.67	1.08	1.02	5.51	7.85	7.70	-4.32	-2%	na
Global Total												
Total Cash Cost	8.32	8.63	7.79	6.88	4.38	3.73	3.48	5.04	4.76	3.88	-6%	-18%
Total Production Cost	12.89	13.61	12.23	11.06	8.13	8.24	8.12	10.16	10.89	10.02	7%	-8%
All-In Sustaining Cost	15.53	15.67	13.20	11.62	8.35	9.61	10.11	11.61	11.24	10.88	-3%	-3%

Source: Metals Focus

Global Primary Silver Mine Production Costs in 2021 (by-product)



1: Costs shown on a by-product accounting basis; Source: Metals Focus Silver Mine Cost Service

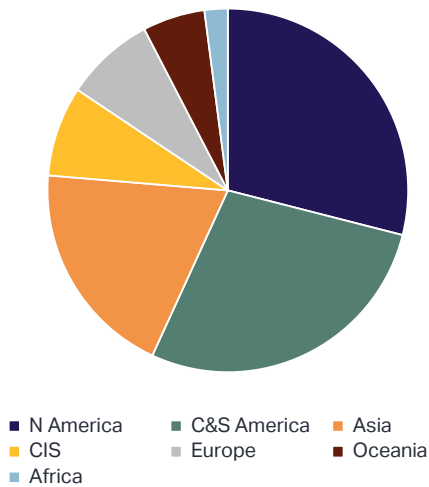
Appendix 14 - Mine Production by Region & Primary Metal

Year on Year

Million ounces	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2020	2021
Regional Breakdown												
North America	227.8	240.7	238.5	239.0	222.8	232.8	236.1	232.6	221.3	238.2	-5%	8%
C&S America	226.8	244.6	285.3	297.1	309.8	283.5	265.5	253.9	212.5	229.7	-16%	8%
Asia	143.2	151.8	149.6	156.8	163.7	156.9	155.3	151.0	152.1	159.9	1%	5%
CIS	73.5	74.7	73.7	76.9	74.3	71.5	72.9	72.3	70.9	65.9	-2%	-7%
Europe	51.5	55.0	56.4	60.3	62.6	62.9	63.0	63.0	62.3	65.9	-1%	6%
Oceania	58.6	62.6	63.1	48.9	49.2	38.6	43.6	47.4	46.9	45.9	-1%	-2%
Africa	14.3	15.9	15.5	17.8	17.6	17.5	13.7	15.6	15.0	17.1	-4%	14%
Global Total	795.7	845.3	882.1	896.9	900.0	863.7	850.2	835.9	781.1	822.6	-7%	5%
Global Breakdown												
Primary Silver	252.7	266.4	285.9	290.9	288.4	263.6	247.0	236.1	208.6	229.9	-12%	10%
Gold	125.5	132.9	142.6	150.1	134.4	130.4	130.4	130.1	120.5	127.6	-7%	6%
Copper	165.3	170.4	182.7	188.9	205.5	199.6	197.0	192.2	206.7	208.2	8%	1%
Lead/Zinc	246.4	270.0	265.3	261.6	265.1	263.3	268.7	272.4	240.5	252.8	-12%	5%
Other	5.7	5.7	5.5	5.3	6.5	6.7	7.0	5.1	4.8	4.2	-6%	-12%
Global Total	795.7	845.3	882.1	896.9	900.0	863.7	850.2	835.9	781.1	822.6	-7%	5%
Global Breakdown (Percentage)												
Primary Silver	31.8%	31.5%	32.4%	32.4%	32.0%	30.5%	29.1%	28.2%	26.7%	27.9%		
Gold	15.8%	15.7%	16.2%	16.7%	14.9%	15.1%	15.3%	15.6%	15.4%	15.5%		
Copper	20.8%	20.2%	20.7%	21.1%	22.8%	23.1%	23.2%	23.0%	26.5%	25.3%		
Lead/Zinc	31.0%	31.9%	30.1%	29.2%	29.5%	30.5%	31.6%	32.6%	30.8%	30.7%		
Other	0.7%	0.7%	0.6%	0.6%	0.7%	0.8%	0.8%	0.6%	0.6%	0.5%		

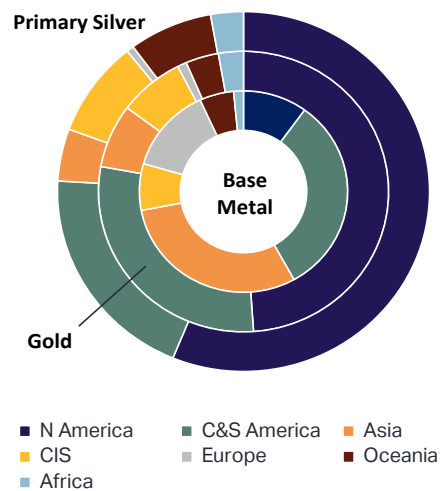
Source: Metals Focus

Mine Production by Region in 2021



Source: Metals Focus

Mine Production by Source Metal in 2021



Source: Metals Focus

Appendix 15 - Nominal Silver Prices

Year	Average ¹ US\$/oz	Low ² US\$/oz	High ² US\$/oz	€/kg ³	CNY/kg ⁴	INR/kg	JPY/g	A\$/oz	MXN/oz	PEN/oz
1990	4.83	3.95	5.35	120.24	742.93	2,713	22.57	6.18	13.69	n/a
1991	4.06	3.61	4.57	103.83	696.01	2,970	17.55	5.20	12.24	n/a
1992	3.95	3.65	4.34	96.01	701.10	3,563	16.08	5.37	12.21	5.95
1993	4.31	3.56	5.50	116.86	801.22	4,334	15.33	6.34	13.43	8.60
1994	5.28	4.54	5.95	141.23	1,462.51	5,335	17.36	7.22	17.90	11.61
1995	5.20	4.32	6.15	125.98	1,394.85	5,419	15.71	7.01	33.34	11.71
1996	5.20	4.68	5.88	129.41	1,389.91	5,917	18.16	6.64	39.48	12.69
1997	4.90	4.18	6.40	139.28	1,305.19	5,726	19.09	6.59	38.78	13.01
1998	5.54	4.60	7.93	160.42	1,473.76	7,322	23.31	8.80	50.66	16.21
1999	5.22	4.84	5.81	157.47	1,388.99	7,227	19.08	8.09	49.85	17.65
2000	4.95	4.56	5.56	172.64	1,318.16	7,152	17.16	8.51	46.85	17.28
2001	4.37	4.04	4.86	156.90	1,162.98	6,628	17.06	8.44	40.79	15.33
2002	4.60	4.23	5.15	156.79	1,223.84	7,185	18.50	8.45	44.46	16.17
2003	4.88	4.34	6.01	138.66	1,297.84	7,294	18.14	7.47	52.65	16.96
2004	6.66	5.46	8.45	172.08	1,771.68	9,693	23.12	9.03	75.16	22.71
2005	7.31	6.33	9.27	189.58	1,924.82	10,378	25.97	9.59	79.63	24.10
2006	11.55	8.69	15.22	295.04	3,091.08	16,831	43.17	15.33	125.96	37.81
2007	13.38	11.06	16.22	314.15	3,029.76	17,779	50.64	15.95	146.26	41.87
2008	14.99	8.46	21.36	324.36	3,014.45	20,648	50.16	17.59	167.31	43.81
2009	14.67	10.35	19.46	336.95	2,810.23	22,768	44.01	18.50	198.11	44.16
2010	20.19	14.66	30.95	489.62	3,920.91	29,632	56.54	21.93	255.04	57.03
2011	35.12	26.09	49.80	809.49	6,496.25	52,523	89.92	34.00	437.00	96.70
2012	31.15	26.15	37.48	778.30	5,532.74	53,380	79.93	30.07	409.80	82.17
2013	23.79	18.22	32.46	576.50	4,132.84	44,480	74.25	24.58	303.63	64.32
2014	19.08	14.42	22.18	460.87	3,421.89	37,405	64.64	21.14	254.00	54.17
2015	15.68	13.65	18.49	454.23	2,918.65	32,289	61.00	20.84	249.01	49.95
2016	17.14	13.75	21.14	497.60	3,262.84	37,004	59.56	23.03	320.28	57.83
2017	17.05	15.19	18.65	486.59	3,356.49	35,700	61.46	22.23	322.44	55.59
2018	15.71	13.90	17.70	427.23	3,094.63	34,462	55.73	21.01	302.06	51.63
2019	16.21	14.29	19.65	465.80	3,416.90	36,719	56.77	23.31	311.99	54.08
2020	20.55	11.64	29.86	575.02	4,149.86	48,907	70.33	29.73	441.46	71.82
2021	25.14	21.42	30.10	682.61	4,608.13	59,729	88.66	33.46	509.90	97.66

1: Average US\$ prices are based on the daily London Silver Fixing and (since 08/15/2014) the daily LBMA Silver Price. Unless otherwise specified, these US\$ prices in conjunction with Bloomberg Closing exchange rates have been used to illustrate annual average prices in other currencies.

2: High and low derived from intra-day spot prices

3: Euro price based on euro-quoted LBMA PM Fix from 1999 onwards and the dollar price converted into euros using Bloomberg synthetic exchange rates prior to that time

4: CNY price is the SGE AG (T+D) from 2006 onwards and based on London Silver Fixing converted into renminbi using Bloomberg exchange rates prior to that time. VAT has been subtracted from the quoted price.

Currency key: € - Euro, CNY - Chinese Yuan, INR - Indian Rupee, JPY - Japanese Yen, AUD - Australian dollar, MXN - Mexican peso, PEN - Peruvian nuevo sol

Source: Metals Focus, Bloomberg

Appendix 16 - Real Silver Prices (Inflation Adjusted)

Year	Average ¹ US\$/oz	Low ² US\$/oz	High ² US\$/oz	€/kg ³	CNY/kg ⁴	INR/kg ⁵	JPY/g	A\$/oz	MXN/oz	PEN/oz
1990	10.07	8.23	11.15	227.04	2,379.63	22,643	24.83	12.70	166.68	n/a
1991	8.20	7.30	9.24	186.00	2,155.64	21,764	18.81	10.54	125.44	n/a
1992	7.75	7.17	8.52	165.40	2,040.98	23,363	17.04	10.83	111.79	n/a
1993	8.25	6.81	10.52	193.40	2,033.51	26,725	16.09	12.57	113.84	n/a
1994	9.84	8.46	11.08	226.66	2,990.31	29,840	18.08	13.94	141.62	30.69
1995	9.44	7.85	11.17	196.25	2,435.93	27,498	16.43	12.89	173.83	28.05
1996	9.14	7.03	10.34	197.86	2,240.98	27,551	18.88	12.02	161.07	27.21
1997	8.46	6.70	11.06	209.83	2,047.24	24,881	19.49	11.96	136.64	26.18
1998	9.42	7.48	13.49	239.88	2,330.10	28,096	23.66	15.74	150.59	30.85
1999	8.65	8.01	9.62	231.46	2,227.57	26,493	19.58	14.19	131.89	32.31
2000	7.94	6.46	9.61	247.59	2,105.22	25,207	17.69	14.13	113.73	30.48
2001	6.90	6.26	7.77	220.49	1,844.62	22,509	17.79	13.58	94.89	27.08
2002	7.09	6.52	7.93	215.34	1,956.83	23,398	19.35	13.22	97.80	28.14
2003	7.38	6.58	9.09	186.75	2,050.56	22,882	19.05	11.40	111.40	28.81
2004	9.75	7.99	12.38	226.50	2,694.19	29,304	24.24	13.45	151.20	37.27
2005	10.36	8.96	13.13	244.04	2,875.34	30,096	27.34	13.88	155.06	38.97
2006	15.96	11.80	21.03	372.71	4,548.90	46,135	45.29	21.47	235.65	60.44
2007	17.77	14.68	21.53	385.04	4,254.52	45,813	52.80	21.72	263.73	64.40
2008	19.88	11.22	28.32	391.38	3,997.37	49,106	52.09	23.10	283.13	63.19
2009	18.95	13.34	25.13	402.83	3,753.12	48,835	46.47	23.80	323.78	63.55
2010	25.69	18.65	39.36	572.69	5,069.42	56,752	59.89	27.45	399.20	80.39
2011	43.39	32.23	61.53	921.44	7,969.52	92,408	95.45	41.33	658.90	130.12
2012	37.82	31.76	45.51	866.73	6,615.37	85,916	85.03	35.77	596.61	107.72
2013	28.46	21.80	38.83	636.60	4,816.10	64,460	77.75	28.45	425.31	81.97
2014	22.65	17.13	26.34	509.79	3,909.40	50,827	66.10	24.06	341.69	66.88
2015	18.48	16.09	21.79	501.18	3,288.39	41,823	62.24	23.33	328.03	59.07
2016	19.79	15.87	24.41	543.07	3,604.12	45,671	60.59	25.40	408.16	66.25
2017	19.28	17.18	21.10	524.00	3,649.41	42,641	61.90	24.06	384.94	62.83
2018	17.43	15.42	19.65	453.18	3,295.33	39,600	55.95	22.33	343.90	57.09
2019	17.59	15.51	21.32	487.63	3,535.86	40,679	56.54	24.33	345.53	58.69
2020	21.99	12.46	31.96	603.57	4,194.10	50,816	70.90	30.77	473.94	76.44
2021	25.14	21.42	30.10	682.61	4,608.13	59,729	88.66	33.46	509.90	97.66

Based on respective countries' CPI. €/kg based on Eurozone CPI Index (Values until 1996 calculated using the Harmonized Index of Consumer Prices).

1: Average US\$ prices are based on the daily London Silver Fixing and (since 08/15/2014) the daily LBMA Silver Price. Unless otherwise specified, these US\$ prices in conjunction with Bloomberg Closing exchange rates have been used to illustrate annual average prices in other currencies.

2: High and low derived from intra-day spot prices

3: Euro price based on euro-quoted LBMA PM Fix from 1999 onwards and the dollar price converted into euros using Bloomberg synthetic exchange rates prior to that time.

4: CNY price is the SGE AG (T+D) from 2006 onwards and based on London Silver Fixing converted into renminbi using Bloomberg exchange rates prior to that time. VAT has been subtracted from the quoted price.

5: Indian prices were calculated based on the average CPI in the first nine months in 2021.

Currency key: € - Euro, CNY - Chinese Yuan, INR - Indian Rupee, JPY - Japanese Yen, AUD - Australian dollar, MXN - Mexican peso, PEN - Peruvian nuevo sol

Source: Metals Focus, Bloomberg

Appendix 17 - LBMA & Comex Silver Prices

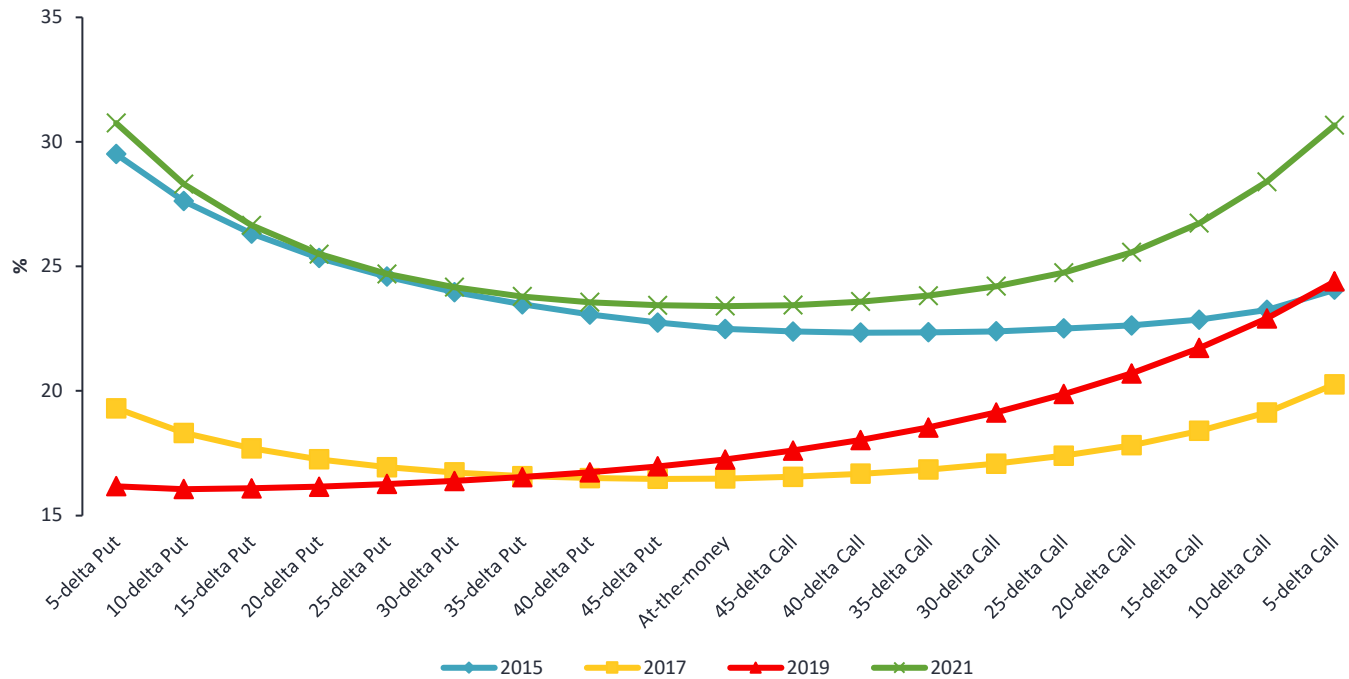
US\$/oz	LBMA ¹			Comex ²		
	Year/Month	Low	High	Average	Low	High
2003	4.37	5.97	4.88	4.35	5.99	4.90
2004	5.50	8.29	6.66	5.52	8.22	6.70
2005	6.39	9.23	7.31	6.45	9.10	7.36
2006	8.83	14.94	11.55	8.87	14.94	11.62
2007	11.67	15.82	13.38	11.50	15.55	13.47
2008	8.88	20.92	14.99	8.79	20.79	15.00
2009	10.51	19.18	14.67	10.44	19.33	14.71
2010	15.14	30.70	20.19	14.83	30.94	20.26
2011	26.16	48.70	35.12	26.81	48.60	35.27
2012	26.67	37.23	31.15	26.29	37.21	31.19
2013	18.61	32.23	23.79	18.55	32.44	23.78
2014	15.28	22.05	19.08	15.41	22.09	19.07
2015	13.71	18.23	15.68	13.70	18.36	15.68
2016	13.58	20.71	17.14	13.75	20.70	17.18
2017	15.22	18.56	17.05	15.43	18.51	17.08
2018	13.97	17.52	15.71	13.98	17.62	15.72
2019	14.38	19.31	16.21	14.32	19.55	16.24
2020	12.01	28.89	20.55	11.77	29.26	20.72
2021	21.53	29.59	25.14	21.49	29.42	25.17
Jan-21	24.87	27.53	25.90	24.64	27.64	25.93
Feb-21	26.40	29.59	27.35	26.23	29.42	27.34
Mar-21	24.00	26.89	25.61	24.14	26.88	25.71
Apr-21	24.32	26.30	25.64	24.78	26.61	25.70
May-21	26.30	28.48	27.46	26.52	28.33	27.59
Jun-21	25.77	28.21	26.98	25.86	28.20	27.08
Jul-21	24.80	26.61	25.75	24.65	26.50	25.72
Aug-21	23.21	25.67	24.02	23.12	25.58	24.00
Sep-21	21.53	24.71	23.31	21.49	24.80	23.22
Oct-21	22.10	24.38	23.30	22.51	24.59	23.43
Nov-21	22.87	25.27	24.20	22.82	25.35	24.22
Dec-21	21.81	23.09	22.47	21.55	23.35	22.52
Jan-22	22.24	24.32	23.13	22.19	24.72	23.19
Feb-22	22.36	25.32	23.47	22.38	24.71	23.56

1: Prices are based on the daily London Silver Fixing and (since 08/15/2014) the daily LBMA Silver Price.

2: Prices are based on the generic 1st futures contract.

Source: LBMA, CME Group, Bloomberg

Appendix 18 - - Year-End One-Month Silver Option Volatility Skew



Source: Bloomberg

Appendix 19 - Comex Activity & Inventories

Year/Month	Futures		Managed Money Positions in Comex Futures				Comex Inventories ²
	Volume ¹	Open Interest ²	Long ²	Short ²	Net ²	Net Change ³	
2016	91,094	824	291	95	196	160	183
2017	115,175	966	242	278	-36	-232	243
2018	119,935	881	267	223	44	80	294
2019	120,746	1,149	429	135	294	250	317
2020	130,633	857	361	131	230	-64	397
2021	98,348	701	252	165	87	-143	356
Jul-21	6,362	725	254	150	105	-60	354
Aug-21	8,469	705	245	184	61	-43	362
Sep-21	5,718	702	237	220	18	-44	361
Oct-21	5,922	710	263	118	146	128	353
Nov-21	9,404	690	244	107	138	-8	352
Dec-21	5,041	701	252	165	87	-50	356
Jan-22	6,446	753	258	121	137	50	354
Feb-22	8,008	753	234	105	128	-9	347

1: Aggregate volume over the period, 2: Position at end-period, 3: Net change versus previous end-period

Source: Comex - CME Group, CFTC, Bloomberg

Appendix 20 - LBMA Monthly Silver Trading Volumes

Moz	Spot	Swap & Forward	Option	Loan, Lease & Deposit	Total
Month					
Jan-21	6,150	3,210	578	304	10,241
Feb-21	6,805	3,173	342	351	10,672
Mar-21	6,221	2,746	215	381	9,561
Apr-21	4,550	2,041	155	310	7,056
May-21	6,562	2,697	584	384	10,228
Jun-21	4,992	2,494	761	349	8,596
Jul-21	4,788	2,237	222	331	7,578
Aug-21	5,181	2,784	602	438	9,004
Sep-21	4,167	1,672	214	388	6,441
Oct-21	4,191	2,012	221	420	6,844
Nov-21	5,160	2,500	305	534	8,498
Dec-21	3,685	1,598	91	338	5,711
Jan-22	4,824	2,846	295	542	8,508
Feb-22	3,032	1,708	137	371	5,247

Source: LBMA, Nasdaq, Bloomberg

Appendix 21 - Chinese Silver Exchanges' Activity

Moz	Shanghai Gold Exchange		Shanghai Futures Exchange		
	Ag (T +D) Volume ¹	Ag99.99 Volume ¹	Futures Volume ¹	Futures Open Interest ²	SHFE Inventories ²
2016	17,954	10.9	41,765	179	60
2017	18,564	7.5	25,670	145	43
2018	12,596	6.1	20,428	174	36
2019	27,824	3.7	68,878	370	63
2020	67,191	5.7	172,279	349	95
2021	22,150	4.3	111,623	321	76
Jul-21	1,496	0.2	7,285	266	66
Aug-21	1,332	0.2	7,224	283	65
Sep-21	1,090	0.3	6,506	297	68
Oct-21	838	0.9	5,980	310	72
Nov-21	1,133	1.0	8,402	337	75
Dec-21	796	0.4	7,788	321	76
Jan-22	712	0.5	6,032	305	75
Feb-22	565	0.0	4,702	308	73

1: Aggregate volume over the period, 2: Position at end-period;

N.B. Both the SGE and SHFE record each transaction twice, from the point of view of the buyer and also the seller. However, to compare these volumes with other exchanges, such as the Comex, the figures in the table have been halved (as shown above). From 2020 onward, SHFE has been reporting the trading volume and open interest single-sided.

Source: SGE, SHFE, Bloomberg

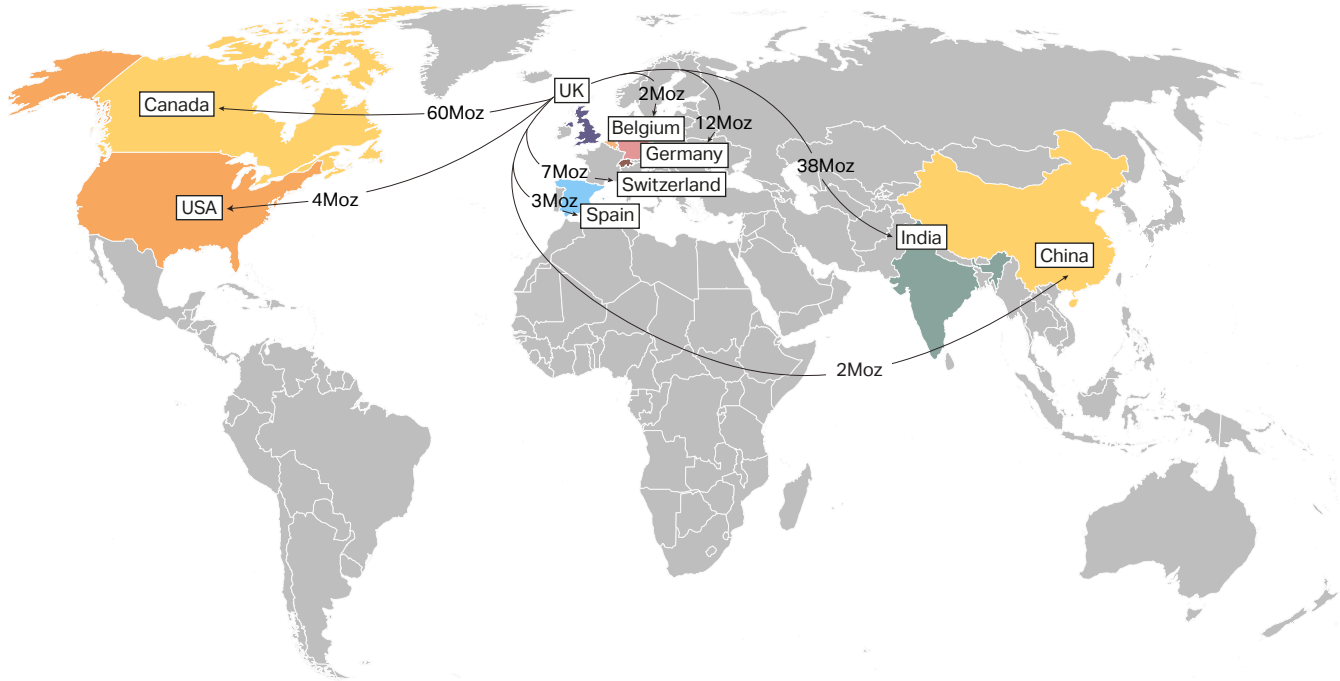
Appendix 22 - Physically Backed Silver Exchange-Traded Product Holdings*

Moz	iShares Silver Trust	ZKB	WisdomTree	Sprott Silver	Sprott Gold & Silver	Others	Total Holdings (Moz)	Total Value (\$M)
Year/Month								
2012	324	90	29	49	76	57	625	18,732
2013	320	85	35	49	77	63	630	12,288
2014	330	77	37	49	77	59	629	10,060
2015	318	69	41	49	77	58	612	8,469
2016	341	72	53	56	76	65	663	10,827
2017	321	80	60	56	75	78	670	11,364
2018	317	79	52	56	64	78	647	10,090
2019	363	83	69	60	58	96	729	13,276
2020	559	93	94	91	60	170	1,067	28,255
2021	531	100	95	154	60	191	1,132	26,127
Jan-20	362	84	70	61	57	96	729	13,178
Feb-20	368	84	74	61	57	98	742	12,888
Mar-20	395	86	72	65	59	109	786	10,956
Apr-20	413	88	75	71	59	113	819	12,553
May-20	463	92	77	76	60	121	890	15,662
Jun-20	498	93	80	78	60	143	952	16,991
Jul-20	568	94	93	86	60	151	1,052	25,310
Aug-20	574	91	93	90	60	165	1,074	29,365
Sep-20	549	91	92	90	60	163	1,044	24,778
Oct-20	560	93	96	91	60	165	1,064	25,145
Nov-20	544	94	94	91	60	168	1,051	23,290
Dec-20	559	93	94	91	60	170	1,067	28,255
Jan-21	602	94	97	93	60	176	1,123	30,783
Feb-21	616	95	98	123	60	183	1,176	31,378
Mar-21	575	95	101	131	60	181	1,144	27,457
Apr-21	567	97	100	139	60	179	1,143	29,567
May-21	577	98	101	146	60	181	1,162	32,115
Jun-21	558	98	101	150	60	183	1,150	29,625
Jul-21	553	99	101	151	60	184	1,149	29,288
Aug-21	551	100	99	151	60	184	1,144	27,512
Sep-21	549	100	100	152	60	191	1,153	24,815
Oct-21	547	101	101	153	60	190	1,152	27,657
Nov-21	549	100	100	154	60	189	1,153	26,363
Dec-21	531	100	95	154	60	191	1,132	26,127
Jan-22	534	100	98	154	60	191	1,137	25,571
Feb-22	546	100	101	154	60	188	1,148	27,959

*Holdings at end-period; value calculated basis end-period price.

Source: Respective ETP providers, Bloomberg

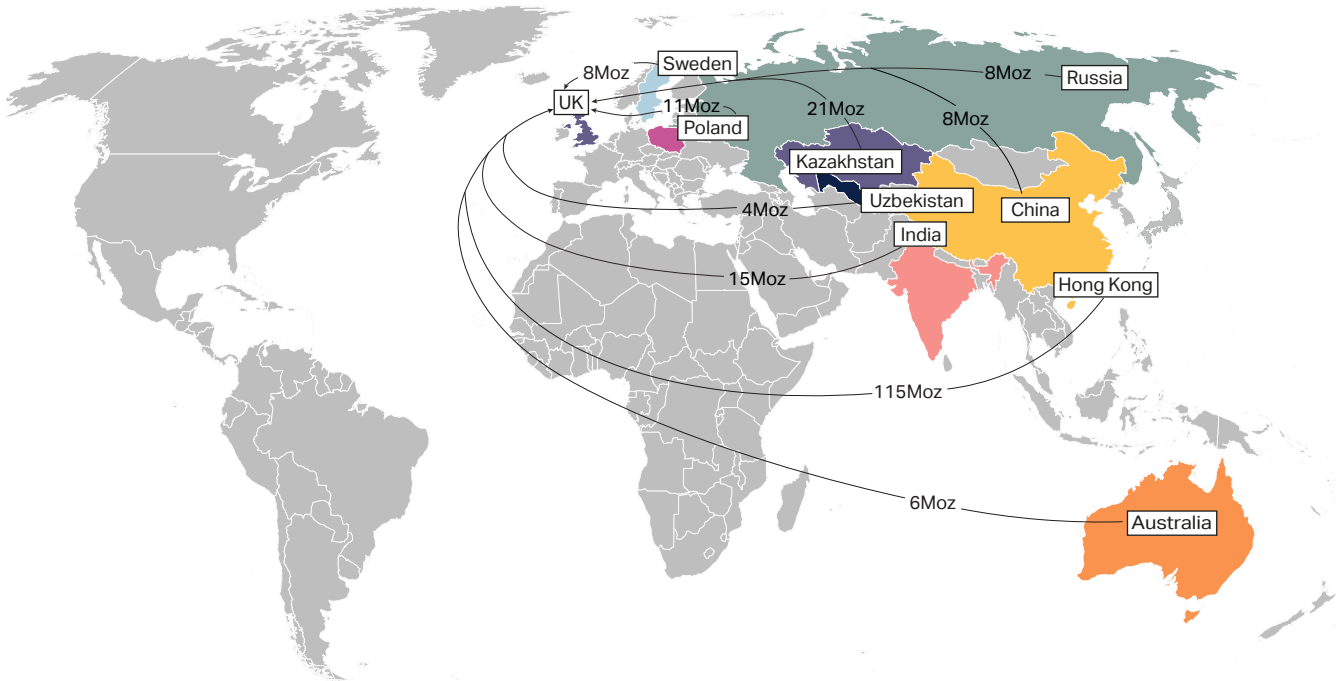
Appendix 23a - Selected United Kingdom Silver Bullion Exports in 2021



NB: In gross weight terms, exports shown account for 99% of total UK silver bullion exports in 2021

Source: HM Customs & Excise, Metals Focus

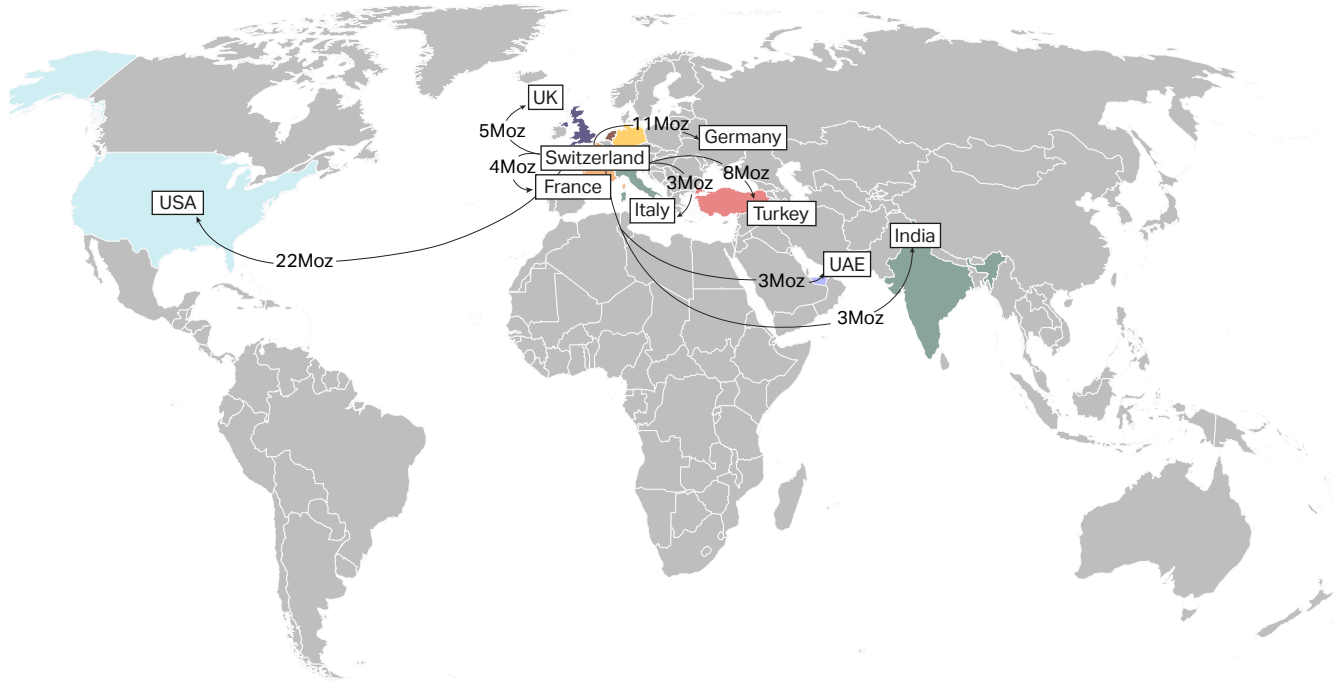
Appendix 23b - Selected United Kingdom Silver Bullion Imports in 2021



NB: In gross weight terms, imports shown account for 95% of total UK silver bullion imports in 2021

Source: HM Customs & Excise, Metals Focus

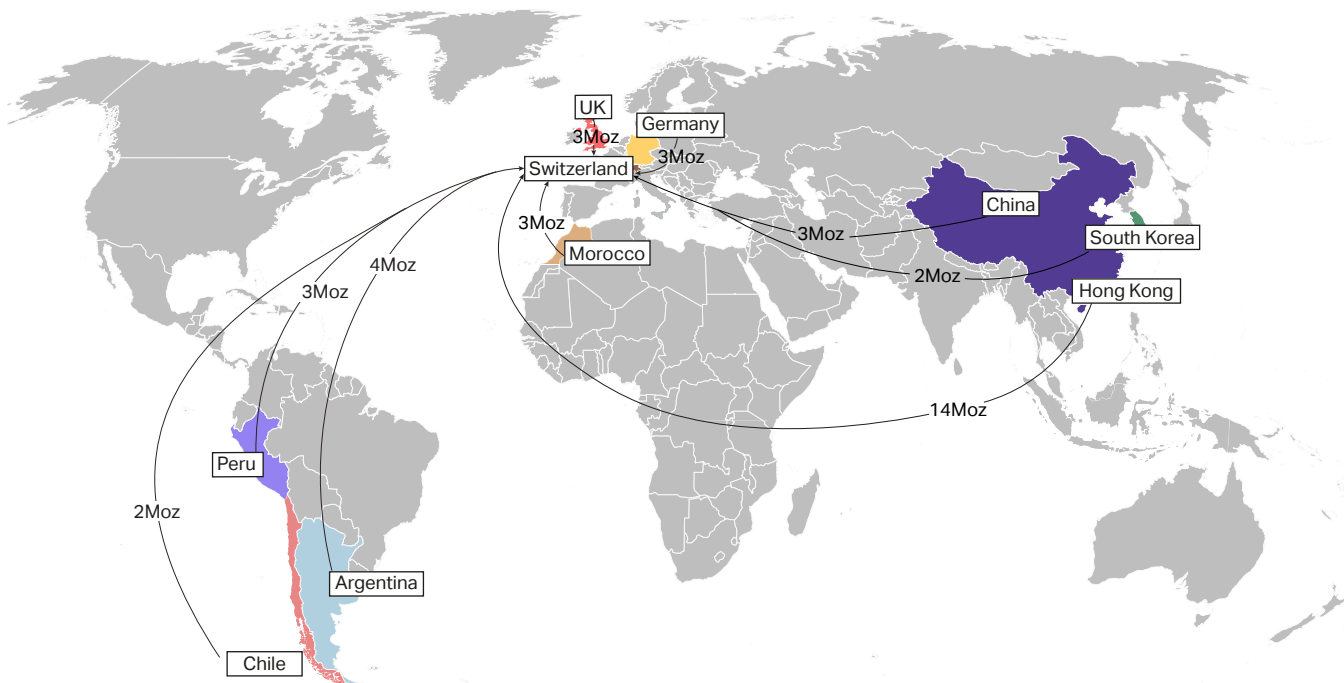
Appendix 24a - Selected Swiss Silver Bullion Exports in 2021



NB: In gross weight terms, exports shown account for 80% of total Swiss silver bullion exports in 2021

Source: Swiss Customs Administration, Metals Focus

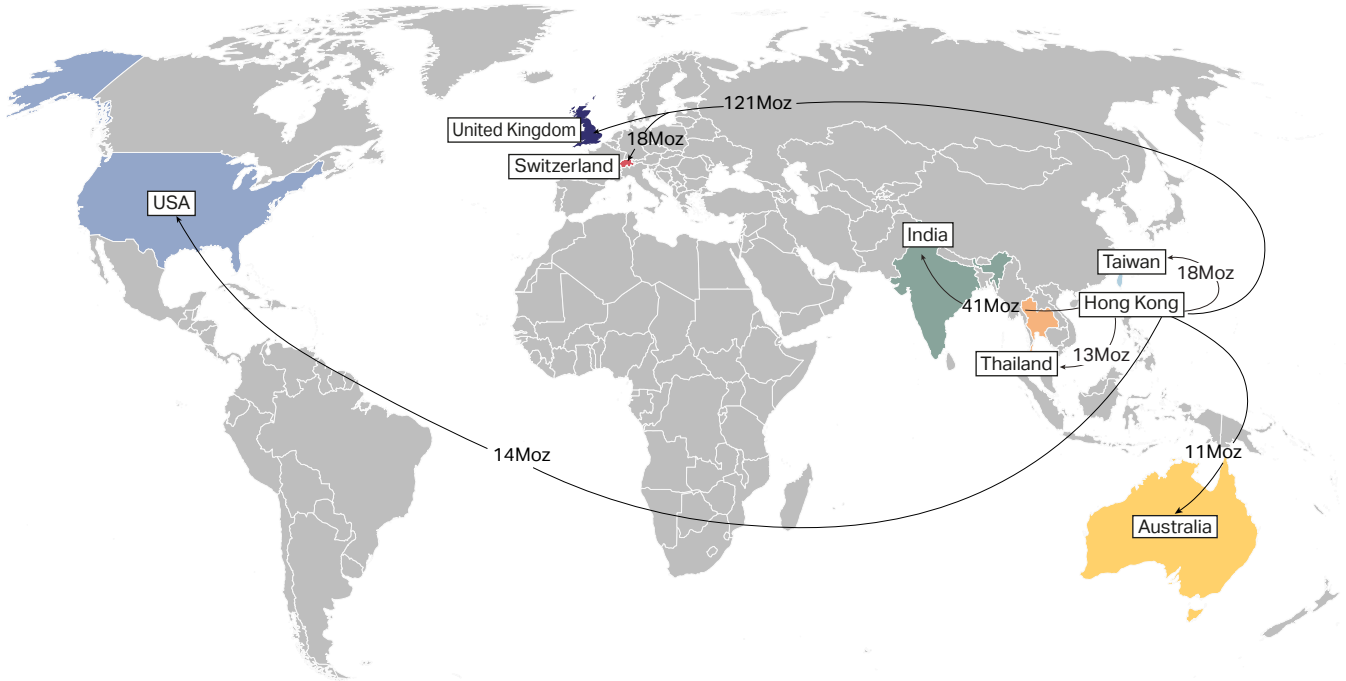
Appendix 24b - Selected Swiss Silver Bullion Imports in 2021



NB: In gross weight terms, imports shown account for 81% of total Swiss silver bullion imports in 2021

Source: Swiss Customs Administration, Metals Focus

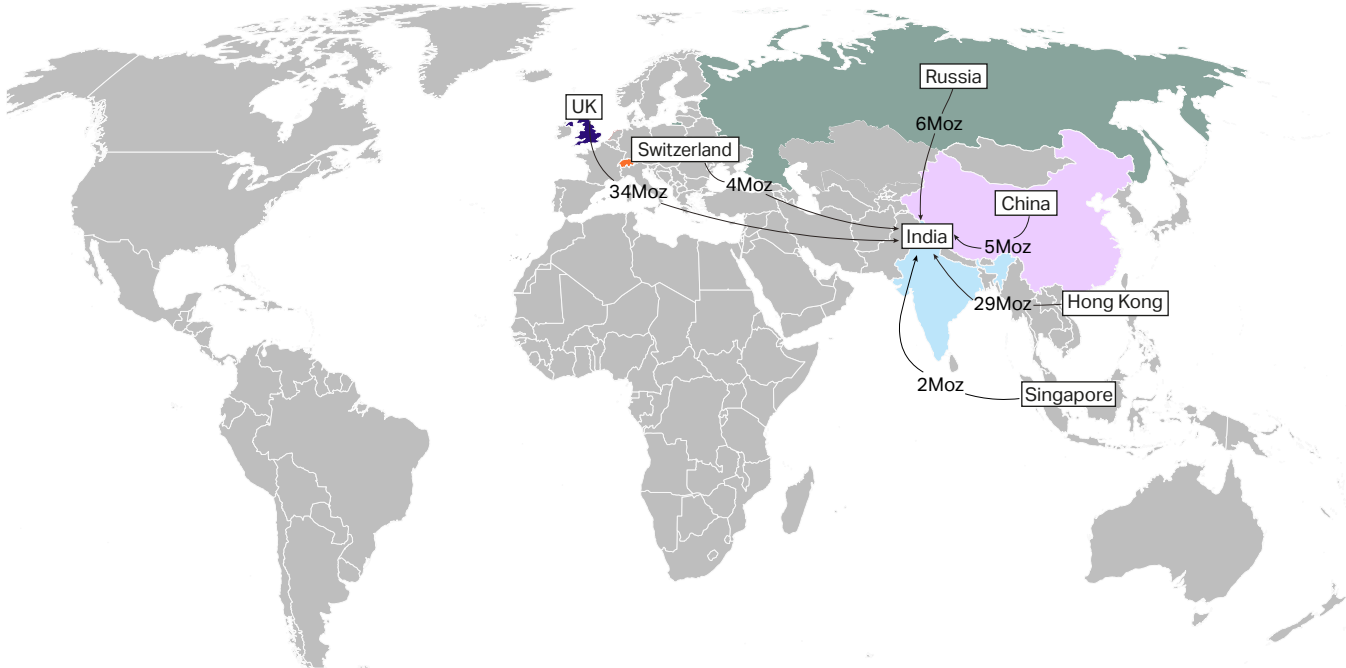
Appendix 25 - Selected Hong Kong Silver Bullion Exports in 2021



NB: In gross weight terms, exports shown account for 92% of total Hong Kong silver bullion exports in 2021

Source: Hong Kong Census & Statistics Department, Metals Focus

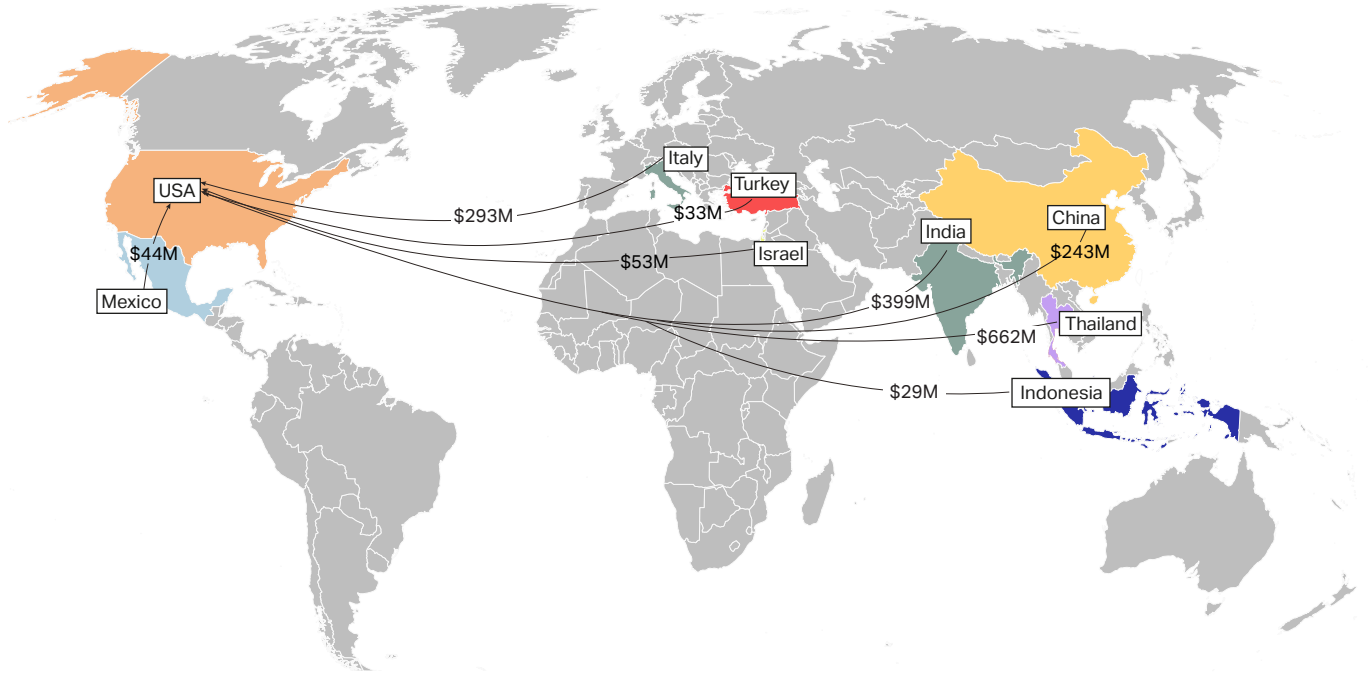
Appendix 26 - Selected Indian Silver Bullion Imports in 2021



NB: In gross weight terms, imports shown account for 90% of total Indian silver bullion imports in 2021

Source: Ministry of Commerce, Metals Focus

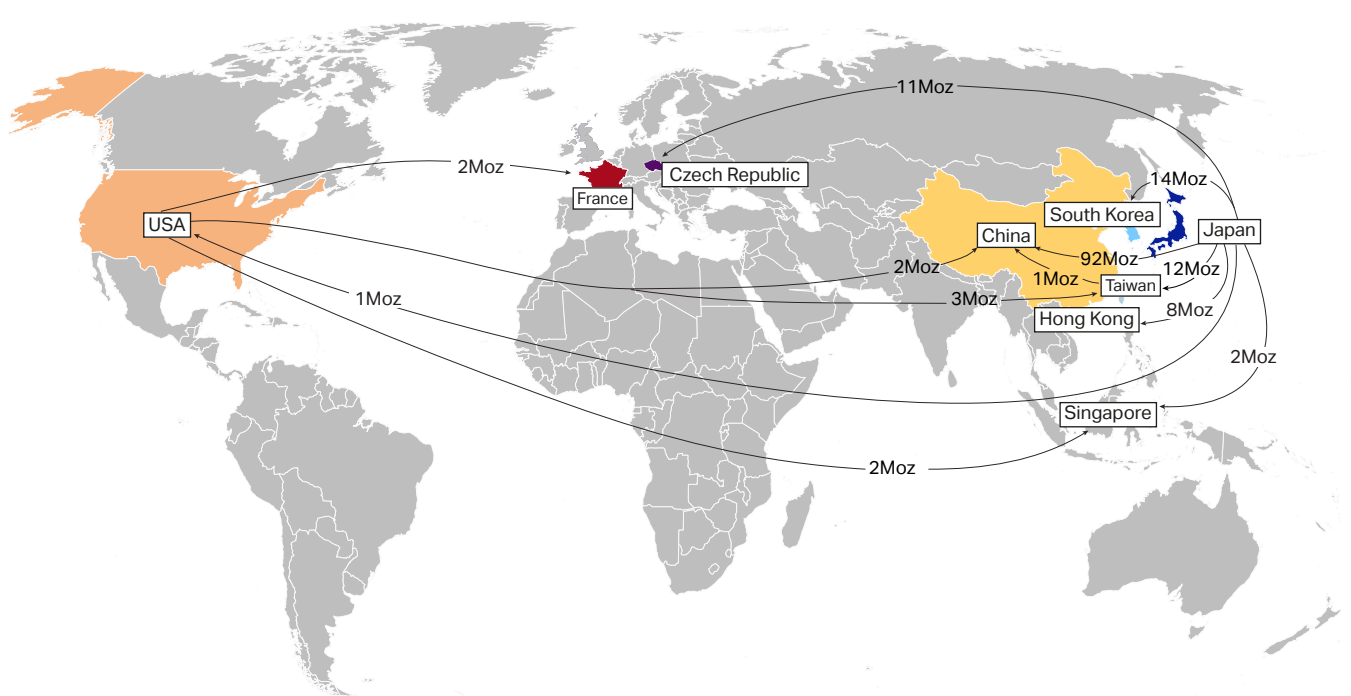
Appendix 27 - Value of Selected US Silver Jewelry Imports in 2021



NB: Imports shown represent around 91% of the total value of US silver jewelry imports in 2021

Source: Various

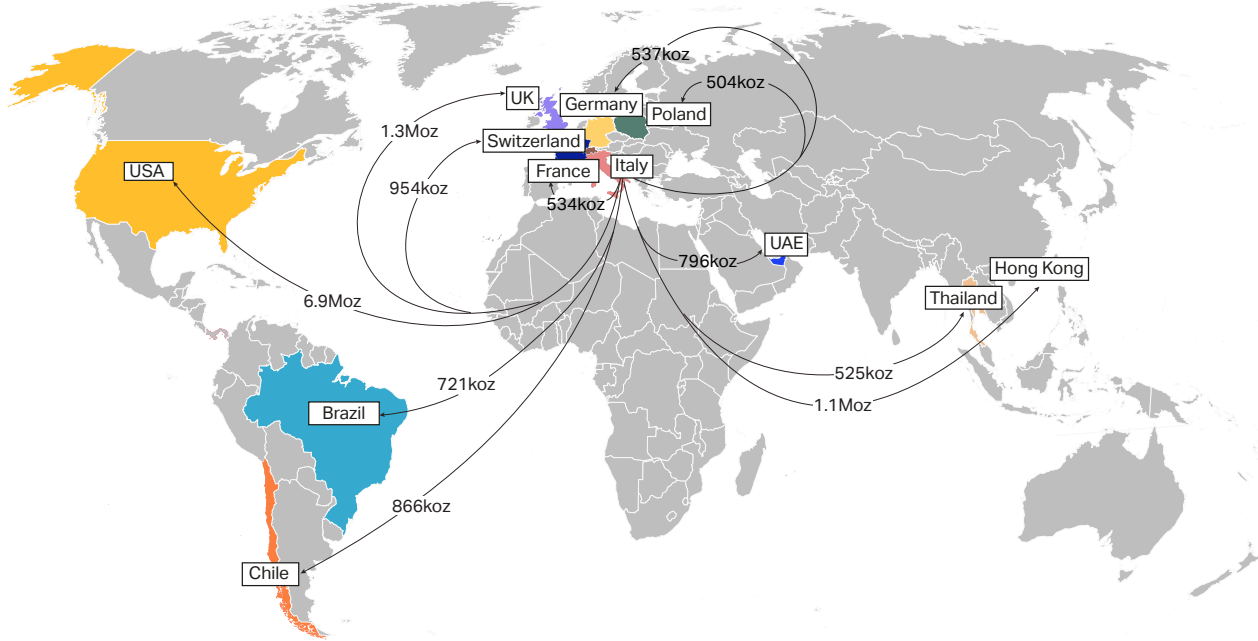
Appendix 28 - Selected Silver Powder Trade Flows in 2021



NB: Figures stated represent reported gross volumes of material shipped

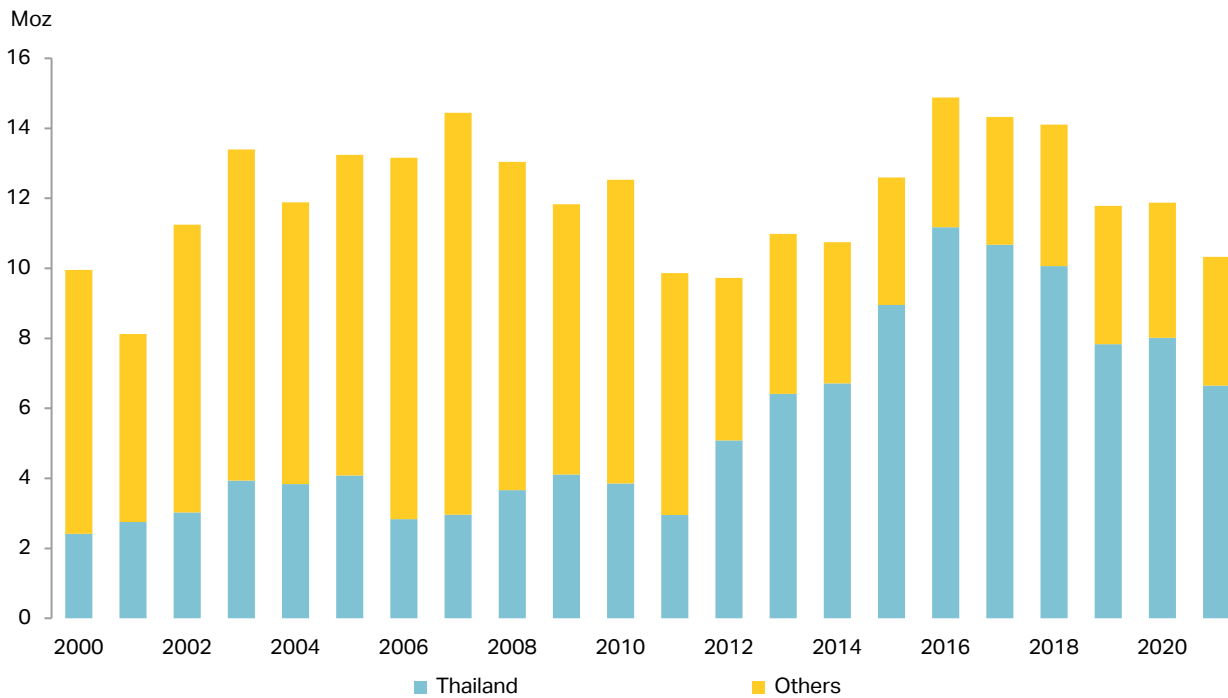
Source: Various, Metals Focus

Appendix 29 - Selected Italian Silver Jewelry Exports in 2021



NB: In gross weight terms, excluding re-exports. Shipments shown account for 76% of total Italian silver jewelry exports in 2021.
 Source: Metals Focus, S&P Global

Appendix 30 - German Silver Jewelry Imports



NB: In gross weight terms
 Source: Metals Focus, S&P Global