

SELECT GHANA GOLD PRODUCING COMPANIES WITH STABLE OPERATIONS (11 COMPANIES):

<b>GOLD PRODUCTION FORECASTS (GHANA 2018-2023)</b>						
<b>Indicator</b>	<b>2018</b>	<b>2019</b>	<b>2020f</b>	<b>2021f</b>	<b>2022f</b>	<b>2023f</b>
Gold Mine Production, moz	4.58	4.85	5.05	5.25	5.46	5.62
Gold Mine Production Volumes, % y-o-y	1.55	6.00	4.00	4.00	4.00	3.00

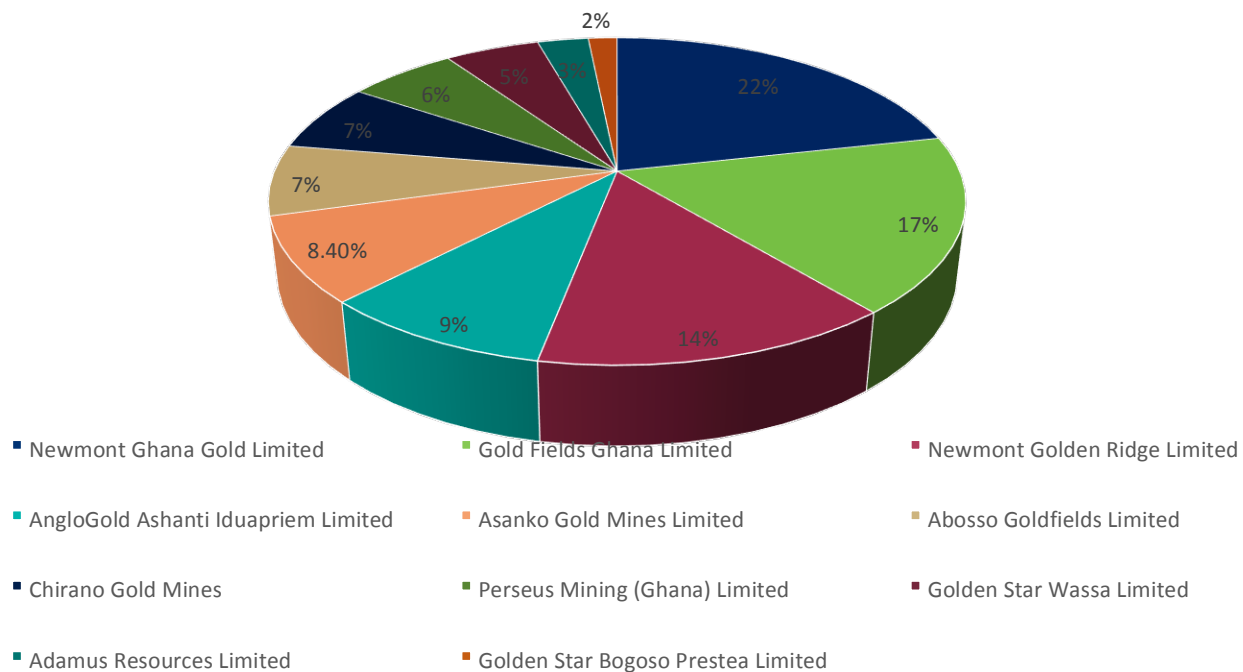
# Gold Production by company

Source: Ghana Chamber of Mines (2020 report for FY19)

Table 1: PROJECTED YEARLY ROYALTY AMOUNTS PAYABLE BY ELEVEN PRODUCING COMPANIES TO GOVERNMENT

Notes on the computations:

- The Newmont and Goldfields groups on the average produce about 60% of the total yearly gold production shown. The two groups pay royalties at the rate of 3.5% at gold prices of US\$1,300/oz and US\$1,400/oz and 4% at gold prices of US\$1,500/oz,



US\$1,600/oz, US\$1,700/oz, US\$1,800/oz, US\$1,900/oz and US\$2,000/oz. All other producing companies in the list pay a 5% royalty rate at all gold prices.

Therefore the weighted average of royalty rates that should be applicable to the total yearly productions are as follows:

- a) For gold prices of US\$1,300/oz and US\$1,400/oz the weighted average royalty rate is:
  - $0.60 * (3.5\%) + 0.40 * (5\%) = 4.10\%$
  
- b) For gold prices of US\$1,500/oz, US\$1,600/oz, US\$1,700/oz, US\$1,800/oz, US\$1,900/oz and US\$2,000/oz the weighted average royalty rate is:
  - $0.60 * (4\%) + 0.40 * (5\%) = 4.40\%$
  
2. The Royalty amount is:
  - $\text{Royalty Rate} * \text{Gross Gold Revenue} = \text{Royalty Rate} * \text{Price} * \text{Volume(oz)}$
  
3. The Royalty amounts for gold prices of US\$1,300/oz, US\$1,400/oz, US\$1,500/oz, US\$1,600/oz, US\$1,700/oz, US\$1,800/oz, US\$1,900/oz and US\$2,000/oz are shown in Table 1.

*Table 1: Projected Yearly Royalty Amounts Payable by Eleven Producing Companies*

<b>Royalty Amounts at Different Gold Prices (US\$ Million)</b>
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Year	Total Production (Million oz)	US\$1,300/oz	US\$1,400/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1,800/oz	US\$1,900/oz	US\$2,000/oz
2020	5.05	269.17	289.87	333.30	355.52	377.74	399.96	422.18	444.40
2021	5.25	279.83	301.35	346.50	369.60	392.70	415.80	438.90	462.00
2022	5.46	291.02	313.40	360.36	384.38	408.41	432.43	456.46	480.48
2023	5.60	298.48	321.44	369.60	394.24	418.88	443.52	468.16	492.80

#### NOTE

a) a) For gold prices of **US\$1,300/oz** and **US\$1,400/oz** the weighted average royalty rate is 4.1%

b) For gold prices of **US\$1,500/oz**, **US\$1,600/oz**, **US\$1,700/oz**, **US\$1,800/oz**, **US\$1,900/oz** and **US\$2,000/oz** the weighted average royalty rate is 4.40%

## Table 2: AMOUNTS TO BE ASSIGNED TO AGYAPA

- 75.6% of all Government's total royalty amounts is to be assigned to Agyapa.

*Table 2:*

Assigned Amounts to Agyapa (US\$ Million)								
Year	US\$1,300/oz	US\$1,400/oz	US\$1,500/oz	US\$1,600/oz	US\$1,700/oz	US\$1,800/oz	US\$1,900/oz	US\$2,000/oz
2020	203.49	219.14	251.97	268.77	285.57	302.37	319.17	335.97
2021	211.55	227.82	261.95	279.42	296.88	314.34	331.81	349.27
2022	220.01	236.93	272.43	290.59	308.76	326.92	345.08	363.24
2023	225.65	243.01	279.42	298.05	316.67	335.30	353.93	372.56
PV @ 2020 @ 3% Discount	822.69	885.97	1,018.71	1,086.63	1,154.54	1,222.45	1,290.37	1,358.28
PV @ 2020 @ 5% Discount	799.51	861.01	990.01	1,056.01	1,122.02	1,188.02	1,254.02	1,320.02