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Capitalight
Research Inc.

The Future of American Mining

MM Steel Club
March 26, 2021

Dr. Tom Brady

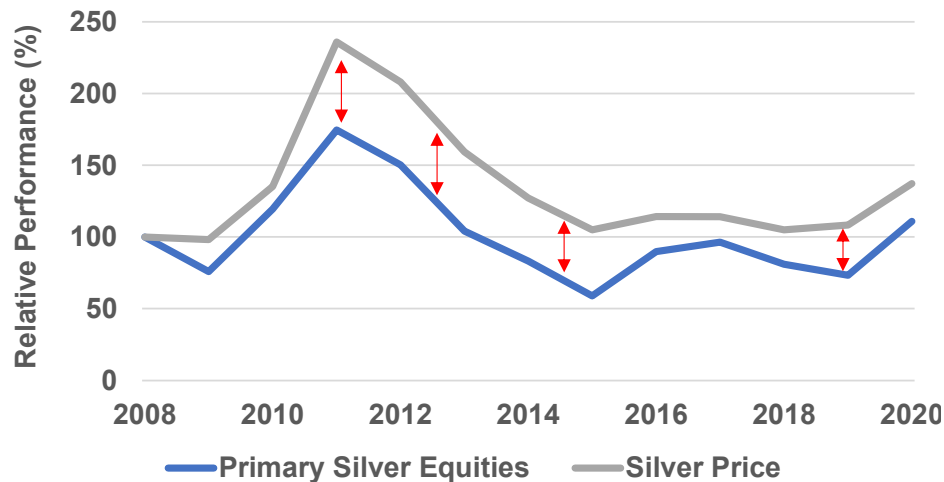
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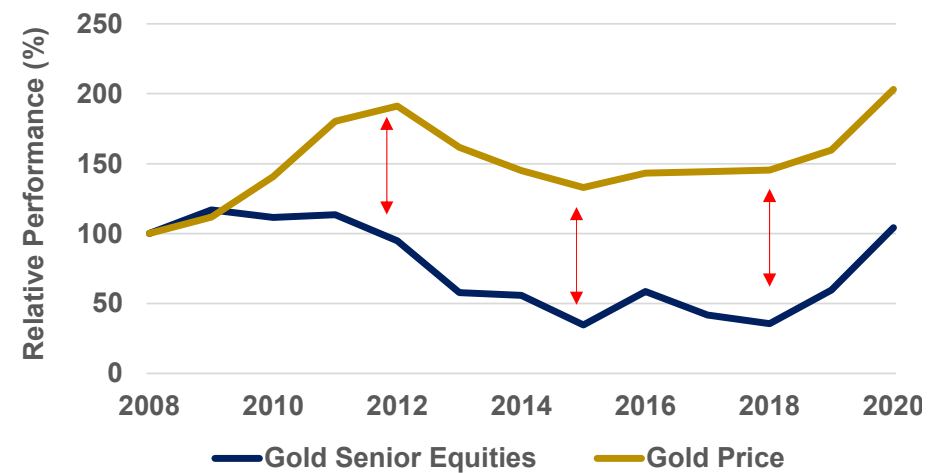
Precious Metal Miners: Equity Underperformance Capitalight Research Inc.

Primary Silver Equity Underperformance¹



Source: Capitalight Research; Bloomberg

Gold Senior Equity Underperformance²



Source: Capitalight Research; Bloomberg

- Since 2008:
 - Silver prices are up ~240% vs. a primary silver equity index (up ~140%)
 - Gold prices are up ~200% vs. gold senior equity index (up ~100%)



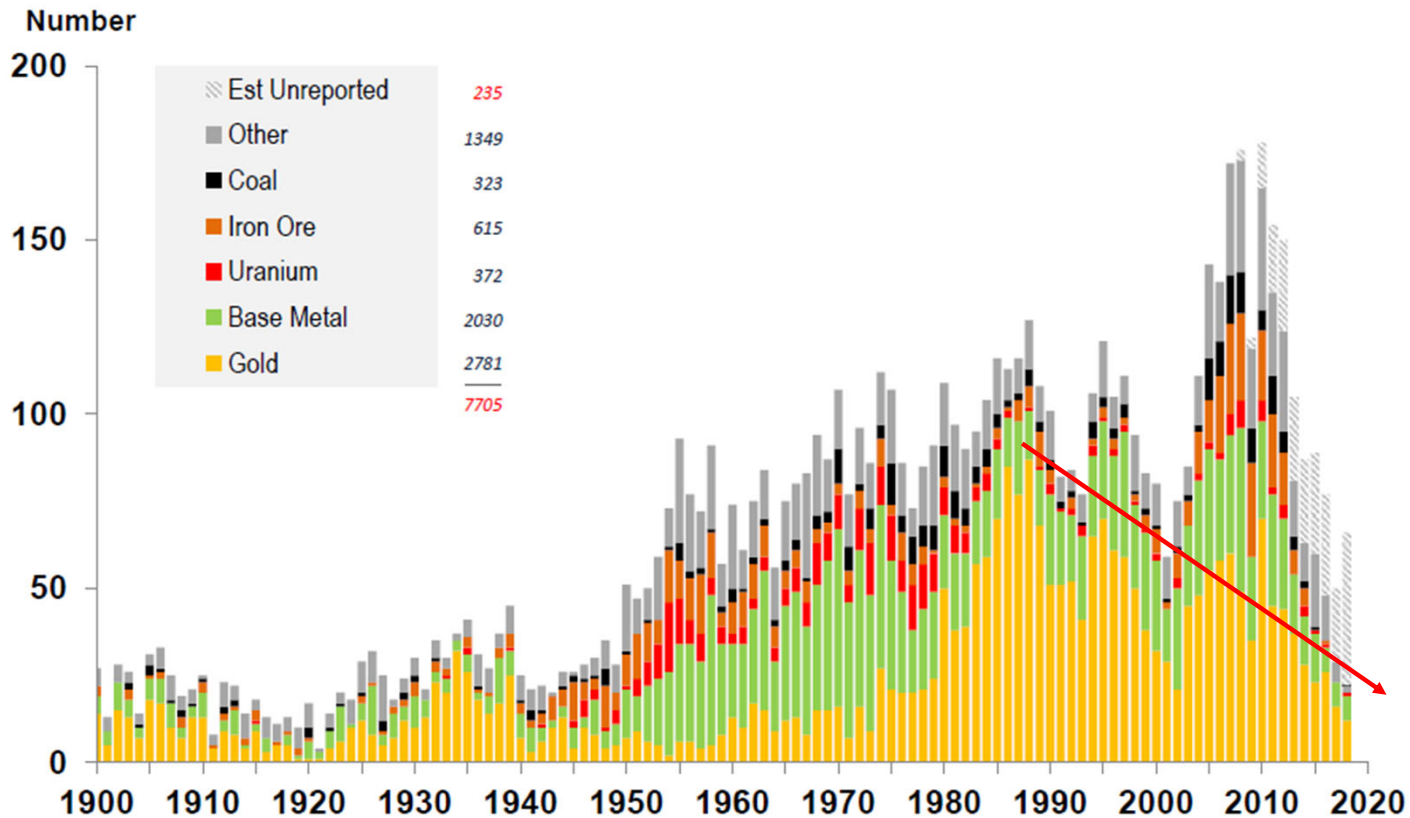
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¹ The Capitalight Primary Silver index includes companies that generate > 50% of total revenues from silver production sales

² Gold Senior producers include the largest 10 gold producing companies annually

Precious Miners: Lack of Exploration Success

of Global Discoveries by Commodity Type

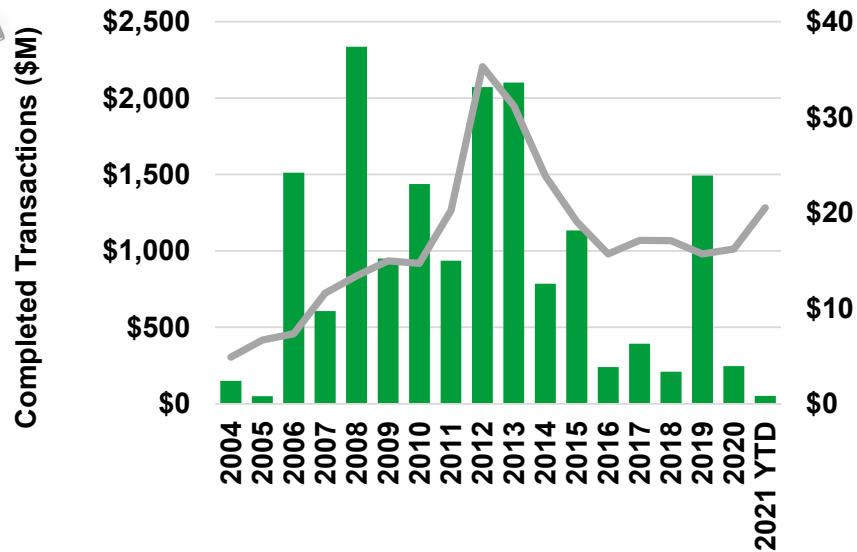


- Gold ounces discovered has declined since 2000
- In late 1990s, >100M ounces/year in new discoveries announced
- In 2017, <13M ounces announced

Source: Richard Schodde, MineEx Consulting (2019)

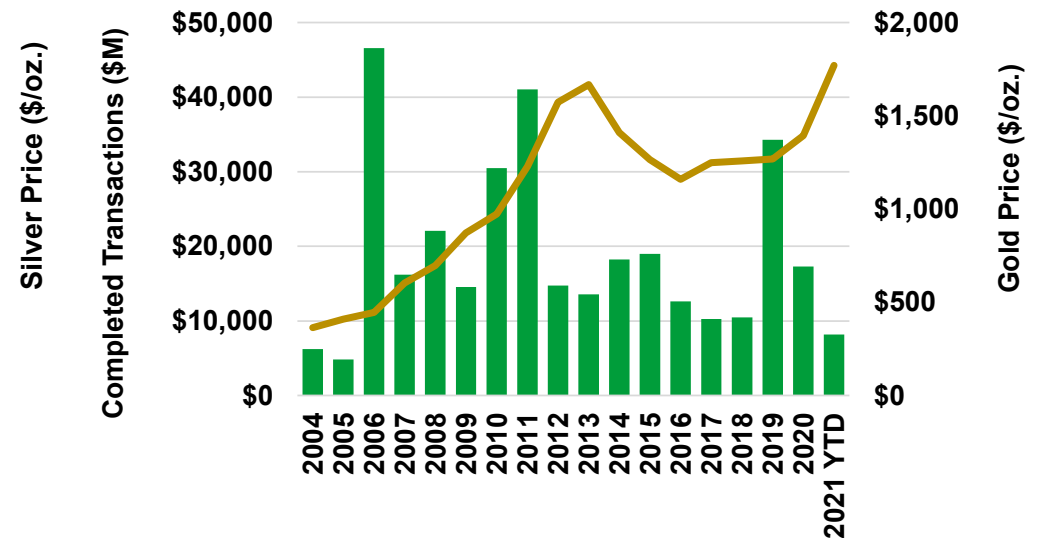
Precious Metal Miners: M&A Transactions

Primary Silver Closed Transactions



Source: Capitalight Research; Bloomberg

Gold Seniors Closed Transactions



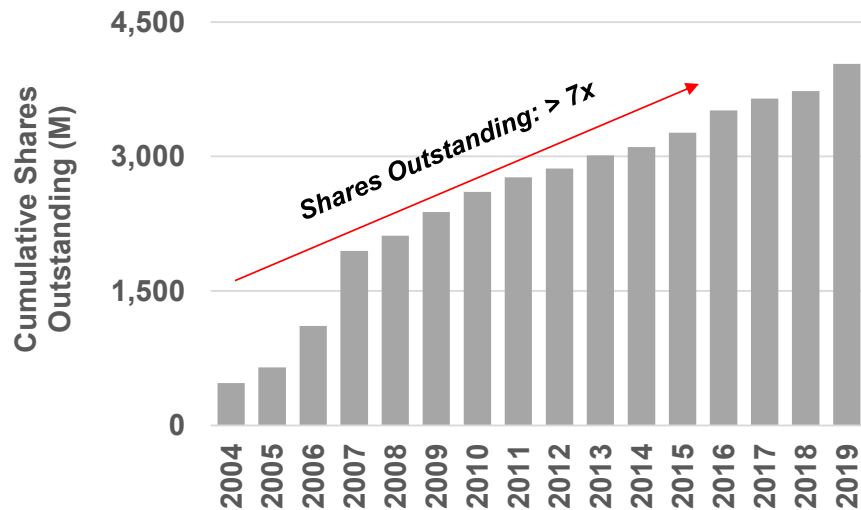
Source: Capitalight Research; Bloomberg

- 2006 – 2012 gold and silver miners focus on top-line (or ounce production) growth led to significant M&A transactions
- Silver Primaries: ~\$9B; Gold Seniors: ~\$186B



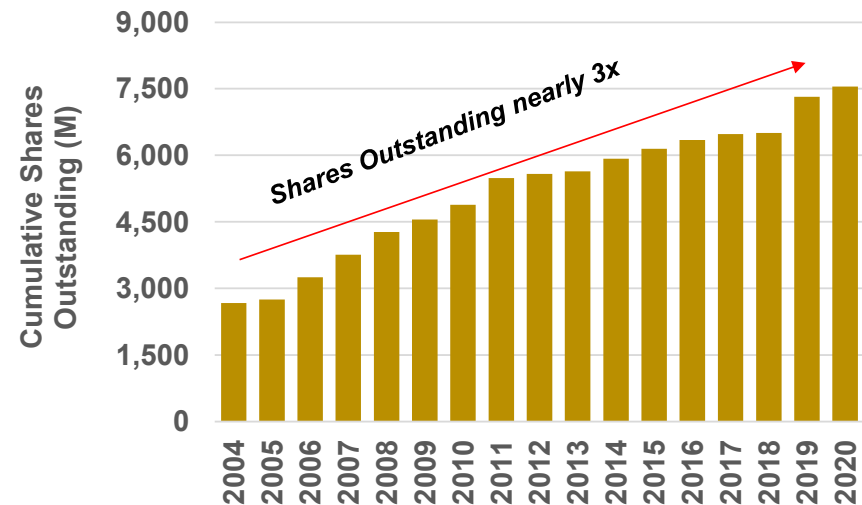
Precious Metal Miners: Shareholder Dilution

Primary Silver Equity Shares Outstanding



Source: Capitalight Research; Bloomberg

Gold Senior Equity Shares Outstanding

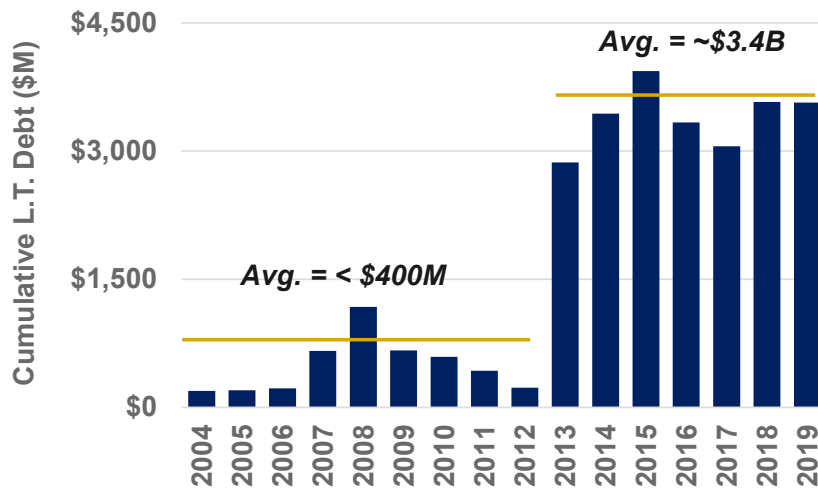


Source: Capitalight Research; Bloomberg

- Cumulative shares outstanding for the primary silver producers has increased from approximately 475M in 2004 to over 4B in 2019 (a 750 percent increase)
- Gold Sr. shares up from 2.7B to over 7.5B

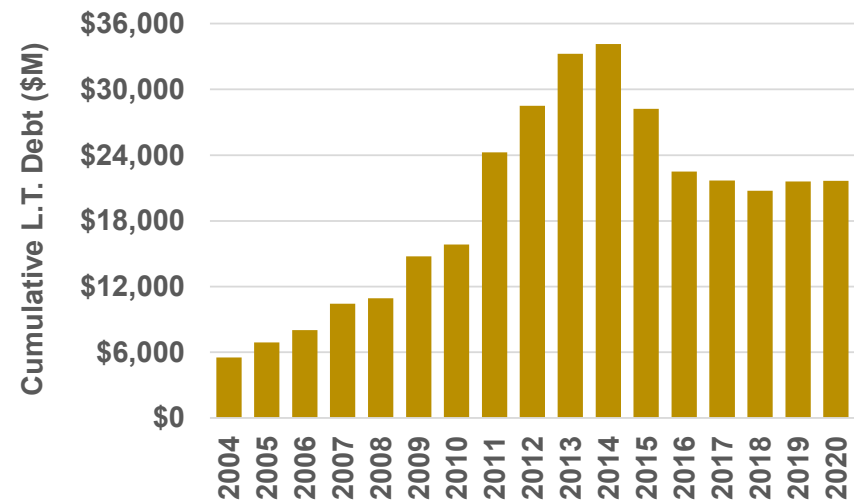
Precious Metal Miners: Investor Dilution

Primary Silver L.T. Debt Outstanding



Source: Capitalight Research; Bloomberg

Gold Seniors L.T. Debt Outstanding

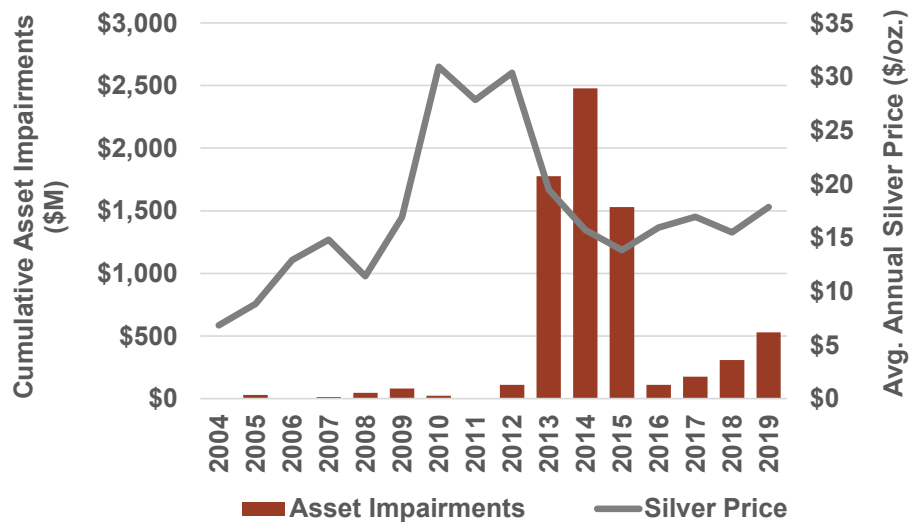


Source: Capitalight Research; Bloomberg

- For primary silver equities cumulative average aggregate debt outstanding was less than \$400M from 2004 through 2012. This has increased 6-fold to average ~\$3.4B since 2013
- Gold seniors cumulative l.t. debt peaked >\$34B in 2014; averaging ~\$22B/year since 2016

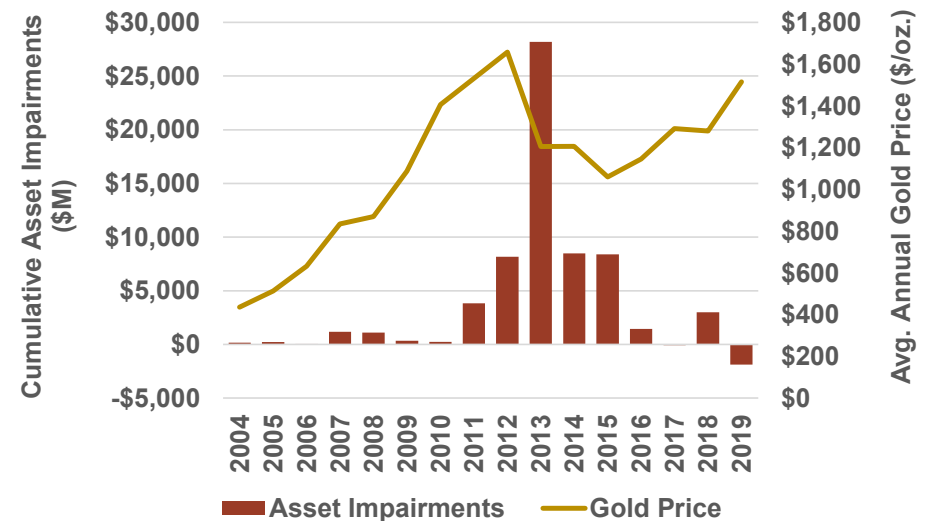
Precious Metal Miners: Asset Impairments

Primary Silver Impairments



Source: Capitalight Research; Bloomberg

Gold Seniors Impairments

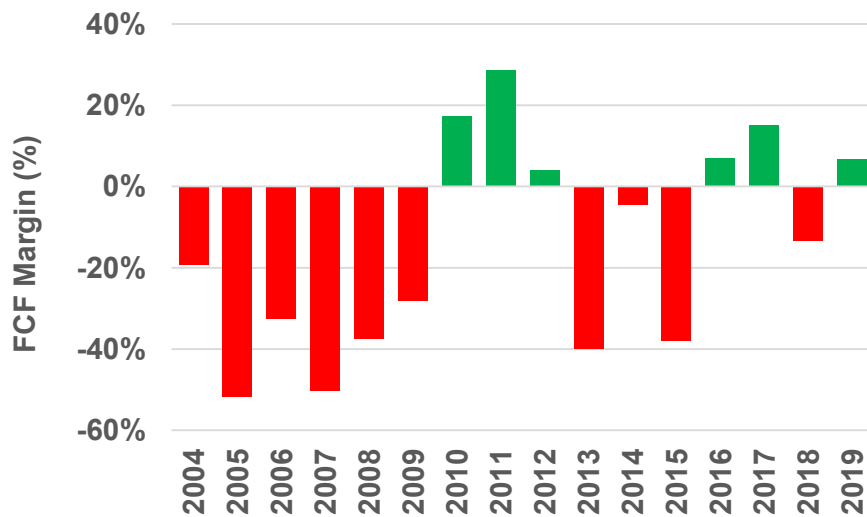


Source: Capitalight Research; Bloomberg

- Silver primaries cumulative write offs over \$6B from 2010 - 2016
- Gold seniors cumulative write offs nearly \$60B from 2010 - 2016

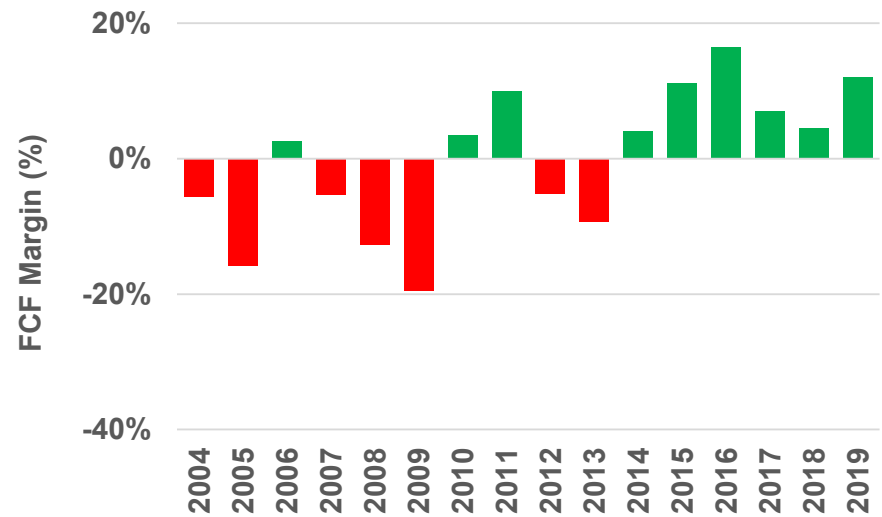
Precious Metal Miners: FCF Margin

Primary Silver FCF Margin



Source: Capitalight Research; Bloomberg

Gold Seniors FCF Margins



Source: Capitalight Research; Bloomberg

- Silver primaries aggregate FCF margin has primarily been negative (in two-thirds of the years since 2004)
- Gold seniors FCF margin has been positive since 2014 due to emphasis on capital discipline and efficiency focus



Precious Metal Miners: Outlook

Review

- **~2005 – 2012:** “Growth at any cost / fear of missing out” mindset led to massive value destruction
- **2013 – 2015:** Huge write-downs, debt reduction and cost reductions and to repair balance sheets (as well as management turnover)
- **2016 to present:** Outside of a few transformational transactions in 2019 (*PanAm Silver/Tahoe Resources; Newmont/Goldcorp; Barrick/Randgold*), a general reluctance for widespread M&A activity

Outlook

- Relatively low exploration success to persist, M&A to emphasize bolt-on transactions (with jurisdictional/operation synergies) and/or development assets