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So You Want to Finance a Mine!

Hint: It is (not that) hard!!

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(of EDC, NYC Banks and World Bank fame)

Terms and Concepts for this Presentation

- **Capital** - Changed market: pensions must fund longer; want less risk, more dividends
  - **FAAMA** - Facebook/Apple/Amazon/Microsoft/Alphabet (US$4.3Tn market cap)
- **Annuity** - A fixed-term investment that returns investment plus interest/dividends
- **A New Industry** - Paris Accord, EVs, environmental reforms require change
  - Mines harder to find; now seen as decreasing LOM annuities
  - Slow-motion consolidation
    - -Seniors hedging seed money in juniors until F/S done (Barrick/Midas)
    - -Cream bought first (Barrick, Goldcorp, Red Chris, Atlantic Gold)
    - -B2Gold offloads high-cost producing Nicaraguan assets on a junior
- **TGTR** - Short for “thin grade, too remote”; public sectors now shy on infra costs
- **AID** - Additional infill drilling; overlooked in feasibility study to maximize NPV
- **ADD** - Additional definitional drilling; again, overlooked in feasibility study

Step One

- **The Metal Markets: Demand, Supply, Capital and the “Fog”**
  - **Fewer assets found, both to replace and in play**
  - **Metal prices weaken with trade spats (except for Au)**
  - **TGTR means fewer mines, costs rise and LOM an issue**

First, the industry in detail: The "Fog"

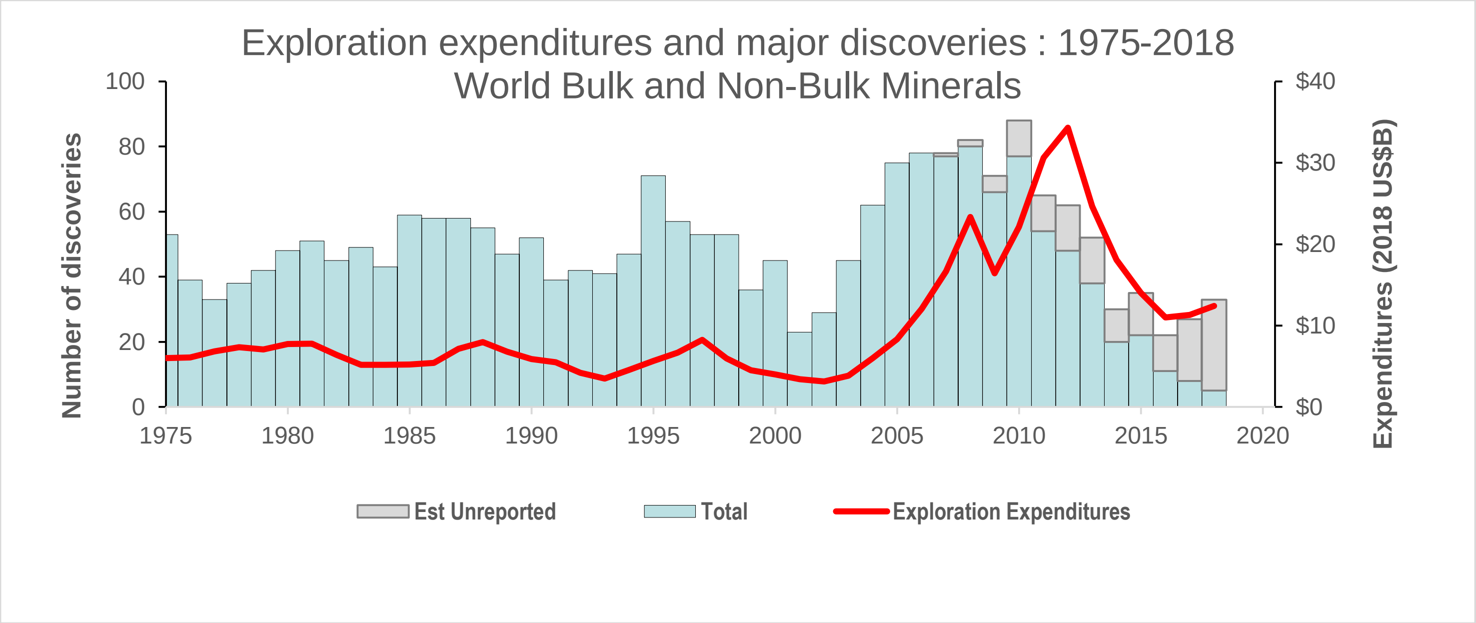
- **OECD Demand**: USA at full bore yet talking tariffs; EU in Brexit; Japan in QE
  - Real interest rates are below 0%; not good for most base metals; good for Au, Ag, Ni
- **BRICS Demand**: Emerging market the largest; but Russia, Brazil, S. Africa fading
  - China, second largest in GDP; in top 7 with SE Asia; India in next 11 with 5 FSUs & former Indochina
  - Growing source of "local" capital/skills, as 18 countries are "positive global" (20 yrs at 5% or more)
  - Asia estimated at 52% of global GDP by 2040 (McKinsey Sept.20 article);compares to 40% for G7.
  - India's households grew from 3.4 m '95 to 35 m by '15; internet connections 5m in 2000; 560m in '19
- **Displacement**: EVs could alter demand by -80%; urban living alters (ride-share, no cars)
- **Displacement**: Re-cycling to further increase supply and reduce demand
- **Existing Supply**: Assets being depleted with growing costs; fewer bargains
- **New Supply**: New projects are fewer, weaker, further afield (TGTR: next slide)
- **Capital**: Happy with FAAMA (US$ 4.3 tn cap); for many, mining <u>non-essential</u>

Bottom Line: Uncertainty prevails; <u>low cost</u> needed; consolidate; capital is cautious

Then the Projects: New Finds Fading; Consolidation

Graph: Discoveries vs. Exploration- Running on Empty (Source: UBC Keevil)

- M&A overbidding of 2009-2012, $160bn in write-offs; loss of Wall Street support
- Dearth explains why Majors want a NI 43:101 F/S from the Juniors, before buying
- Dearth explains why mining companies go from growth stocks, to being annuities; fast
- Better productivity, reinvestment and new technologies needed; **in the meantime**, **more M&A's!**



Footnote: (Deposits >1 Moz Au; > 1 Mt of Cu;>100 kt Ni; >100 Mt Fe; >200 Mt thermal coal; > 3Mt Zn+Pb; >30Mt P2O5 (Phosphorus Oxide); >30Mt K2O (Potassium Oxide); >25 Kt U3O8 (Ph. Pentoxide). (Court. of MinEx Consulting (08/19)).

For the Future, Forget the Past !!

- **The Past:**
  - Majority of Vancouver companies formed in 1995-2007
    - "globalization", no Iron Curtain, EU, BRICS with up-side
    - Average price was 42 cents on the dollar
  - Non-producing Reserves then re-stated upwards as metal prices rose
  - Public sector had surpluses; hence was very supportive

  Result: Investors got growth from discounted assets and new assets
    - Played out in bitumen as well: majors have discounted and sold to the locals

- **The Present:**
  - New assets weaker, further afield (ie: TGTR; prior slide)
  - Mining now seen by capital market as LOM annuities with increasing costs
  - Flat prices and increasing costs leave few Reserves to be re-stated upwards
  - Permits, access, politics, internet add complexity and delays
  - Investors now have FAAMAs: need growth **and dividends or you pay!!**

  Result: Majors buy competitors, or hedge on juniors: purchase only if F/S is acceptable

- **The Future**: Consolidation (Barrick; Goldcorp; Imperial's Red Chis; Atlantic Gold; B2Gold)

Step Two: The Capital Market and Its Needs

- **The demands of the new capital markets**
  - **Retirees living longer, need longer–life growth assets**
  - **Interest is trivial (pre-tax), need more dividends (after-tax)**
  - **Cannot afford write-offs, need lower risk**

For the New Markets, Do The Homework

1. Be a mine operator, and not a flip artist
2. Board and management must have the experience in building/operation
3. Finance a project and not a downtown office
4. You are an annuity; not a growth stock
    - Solve the ADD/AID issue to achieve a growth stock
5. The Feasibility Study that meets the Five-Cs
    - Solve the ADD/AID issue, before the dividends
    - Solve the political risk issue, and attract the best locals to boot
6. You need infrastructure for access, but it is not free anymore
    - Solve for the “shadow cost” beforehand or simply “share”
7. You have the political risk minimized; often with common sense
8. You have paid your consultants in cash, beforehand

For Your New Markets, Do Your Homework

1. You need to be a builder/operator, and not a flip artist

- In the past many got the financial term sheet, to “flip” the asset
- Banks do not make money off term sheets, so now smarter
  - Banks find themselves “blind” and embarrassed on the flip
  - Worse: it’s now a buyer’s market for flips
- Better to present your company as a prospective operator
  - Who then may qualify for a financial term sheet
- Does not impede the flip to the next buyer
- Buyer now has the option of retaining an operating team
- Financial term sheet may cost in terms of cost and due diligence, but priceless

For Your New Markets, Do Your Homework

2. Your Board and Management have the consistent experience

- Board must have the skills you are aiming towards
- Board may have flip artists that got you the past, but not the future
  - Send the past on its way, with a massive “thank you”
- Board has EPC, EPCM, project management and operations experience
- Management must also have the above experience
  - Preferably experience that is consistent with the project needs
- Must have a contingent plan (b) and a plan (c) handy
  - you will be asked, especially in non-precious metals

For Your New Markets, Do Your Homework

3. Equity funds (and debt) finance a project; not a downtown office

- Traditionally, downtown was the source
  - With the internet now, location is no longer critical
- Please re-think your head office needs long and hard
- Equity firms want to finance a project and not a downtown lease
  - Mining business does not walk in downtown
  - The revenue, the net cash flow and the equity source is the project
- Capital is very familiar with having financed “out of parents’ garage”
- Downtown lease cost automatically equated to ADD/AID-equivalent
  - Done by financier automatically; the “opportunity cost” of mining
- If you’ve a fantastic sub-sub-lease downtown, make sure ALL know it

For the New Markets, Do Your Homework

4. You are an annuity and not a growth stock; go growth with AID/ADD

- A financial market, with rising dividend demands, for example:
  - Major gold producers have a 14x P/Cash-Flow ratio (six of seven pay dividends)
  - Mid-size producers, 11x (six of 17 do not pay dividends; their ratio is 7.8x)
  - Small producers, 9x (12 of 20 do not pay dividends; their ratio is 8x)
- Most small producers now are annuities, with a decreasing LOM
  - If a mining company keeps the Reserve inventory up, it is a growth stock
  - 43:101 reviews essential for one-mine operations (i.e. recent Pretium 43:101)
- Most mines now have increasing costs
  - mines go deeper and costs and environmental liabilities grow
  - Low interest rates place onus on higher dividends (for pensioners), so go “debt”
- The emphasis therefore on:
  - All those Inferred Resources now need a budget
  - AID, ADD, once forgotten, now not clash with dividends which are after-tax
  - Shedding of higher cost, older mines (Barrick, Newmont, B2Gold)

For the New Markets, Do Your Homework

5. You have a NI 43-101 - compliant Feasibility Study (F/S)

- Was once an anal pre-bank financing need; now a pre-equity investment

- Better be clear, concise, consistent, current and complete (the five Cs)
    - Costs little to remain “current”, if the initial variables are comprehensive

- Many Majors now feed a minority stake with cash to get the Feasibility Study
    - Barrick/Midas is an excellent example

- F/S looks at NPV maximization, rather than risk minimization and longevity
    - Can overlook AID and ADD in the interest of NPV maximization; dividends may clash
    - Can keep power to mine vs. distributing power to a blacked-out nearby village
    - Provide schools and clinics can attract the best locals (Lundin) and improve costs
    - “Local” technical capacity often overlooked in F/S; “colonialism”, perhaps

- Still does not reflect reality; go to ‘reality’ or others will do it for you
    - Greenfield mine projects are 43% cost overruns; often sensitivity is +/- 10 or 15%

For New Markets, Do Your Homework

6. You have a TGTR situation, and it needs infrastructure

- Perhaps the most cursed change in the last 30 yrs; less public money
- Share! (i.e.: Yamana to share road in Argentina with Glencore/Newmont and <u>save $1.5bn</u>)
- Overlooked in many feasibility studies, to maximize profit and/or satisfy egos
- The P3 structure is still reviled, but with TGTR, it is “holy”
  - Grassberg got its power system this way
- Essential that you negotiate “track pricing” to any government
  - Pricing that tracks a hypothetical cost for infrastructure
  - Easy to track the current cost of urban and rural infrastructure; use it either way
  - BANANNA rule applied (build absolutely nothing, absolutely nowhere near anything)
- If in a developing country, you could benefit from developmental financing
  - Needs ample time for preparation, presentation and decision-making

Deal with the New Markets, Do Your Homework

7. You have political and social risk in hand

- Map your permits based on known history
  - Often the two are at odds, therefore reconcile or contingency plan
- Map your political risk assessment
  - Hire a former diplomat beforehand (B2Gold)
  - Poor countries love any forex at all (10% of something beats 50% of nothing)
- Map your regional risk assessment
  - Share the infrastructure to reduce permits required (i.e.: Yamana in Argentina)
- Use common sense and go as local as possible
  - Clinic or classroom access (i.e.: Lundin) or power and water source (i.e.: B2Gold) wins
  - Locals provide excellent political feedback (Lundin); ex-pats do not!!!
- Map EDC and MIGA risk costs and benefits
  - This can be a deterrent for the host government
  - World Bank's ICSID came to rescue Barrick in Pakistan for $5.3 bn

Deal with the New Markets, Do Your Homework

8. Your Consultants and/or Advisers are PAID IN CASH

- Consistency is paramount
  - If you cannot get the same team, explain why beforehand
- Quality is paramount
  - With the internet, B/S is flushed out in a femtosecond (10^{-15th})
- Availability is paramount; be on hand to answer questions, before and after
- Updated reports are paramount
  - Definitely needed; project gestation period is longer
  - Especially if ADD/AID is involved in a single-mine producer (i.e.: Pretium)
- Make sure that everyone is paid in cash before the “show”
  - HOLY!!

A Review of the Presentation

- Capital-intensive industry; once darling of the capital markets, now gone
- The industry - New mines are harder to find; future remains “foggy”

  - while capital needs dividends and/or good growth prospects and less “risk”
- Capital markets changed, now want FAAMAs with growth and dividends

  - with the recent decrease in interest rates, dividend pressure only increases
- MineCo must pay attention to growing the asset and reducing risk; MUST:

  - be more operational, “cash-prudent” re HQ and paying consultants
  - have good 43:101, political risk-reduction, co-share on infrastructure all going
  - go local, as much as possible re cost and political risk reduction
- Believable story for AID and ADD spending, before dividends, for longevity

  - and get an updated 43:101 compliant report to extend that LOM
  - otherwise your Price/Cash-Flow ratio will suffer……heavily
- Mining is NOT dying, it is only in transition as capital has, and is, changing

Mining: More Complex, But Still (Relatively) Simple!!

- **A “thanks”, un “merci” e una “mille ringrazie”, to all**

- **Questions, and (*hopefully*) some answers**

- **Rumors are true, I was born in Italy and I am addicted to espressos…**

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