Zombies in the Land of Cobalt

It’s like *Pet Sematary*. Just when you thought they were buried and gone, just when you come to terms with your losses and say goodbye, they come back. No, not recycled politicians, ex-spouses or 70 year-old rock&rollers on their fourth farewell tour. We’re talking about the metals.

There weren’t many consistent themes at PDAC in Toronto this year, but one constant credible whisper was that this will be the year gold finally makes a big move. Since hitting its high of over USD$1900 per ounce in late August, 2011, gold has given the market a few reasons to hope but few reasons to believe. The current global macroeconomic factors now in play finally add to the reasons to believe.

As stated by Jeff Currie, Goldman Sach’s global head of commodities research in early March, 2019, “We actually think this is a pound-the-table time to be buying gold right now. We’re sticking to our $1,450 target.”

When gold is alive, all the metals get to suck in a deep breath of fresh air. Our pick for the metal that should have a tremendous 2019 is our old friend, #27 on the periodic table, cobalt.

Our thesis is first, gold’s spike will renew interest in the mining sector generally, and second, the globe is facing a shortage of key minerals vital to drive the Green Revolution. The Green Revolution requires cobalt or there won’t be mass produced lithium-ion batteries. Without those batteries, there is no Green Revolution. If you think the world will produce more electric cars than last year, then be a cobalt investor.

Our last look at cobalt was in September of 2018. We looked at how the price per tonne on the London Metal Exchange had blown up from roughly $24,000 to $94,000, and then over the past year sank back around $30,000. It was not a happy time to be a shareholder in cobalt explorers, as pricing in their shares tracked downwards with the plunge in cobalt pricing.

At PDAC this year I asked the question to many industry participants, what caused the ill health in the cobalt market? There was no consistent first answer, but it seemed like everyone's second answer was to blame China for some form of market interference.

Artificial market conditions can only continue for so long before they return to the norm. That might be happening now.

In September we looked at six cobalt companies and their performance YTD. Here they are as of today's date.

Name	High	August, 2018	Today
First Cobalt	$1.65	$0.26	$0.165
Cobalt Power *	$0.50	$.045	$0.01
Cruz Cobalt	$0.41	$0.08	$0.05
eCobalt Solutions	$2.10	$0.54	$0.34
Cobalt 27	$14.00	$5.73	$4.30
CBLT **	$0.09	$0.03	$0.025

*Cobalt Power changed its name to Power Group Projects and carried out a 1-for-12 consolidation, and is now trading at $0.13 per share. The price in the table above reverses the consolidation for comparative purposes.

**The author is an insider at CBLT Inc. (TSXV: CBLT).

The numbers show the junior cobalt explorers are still in a coma.

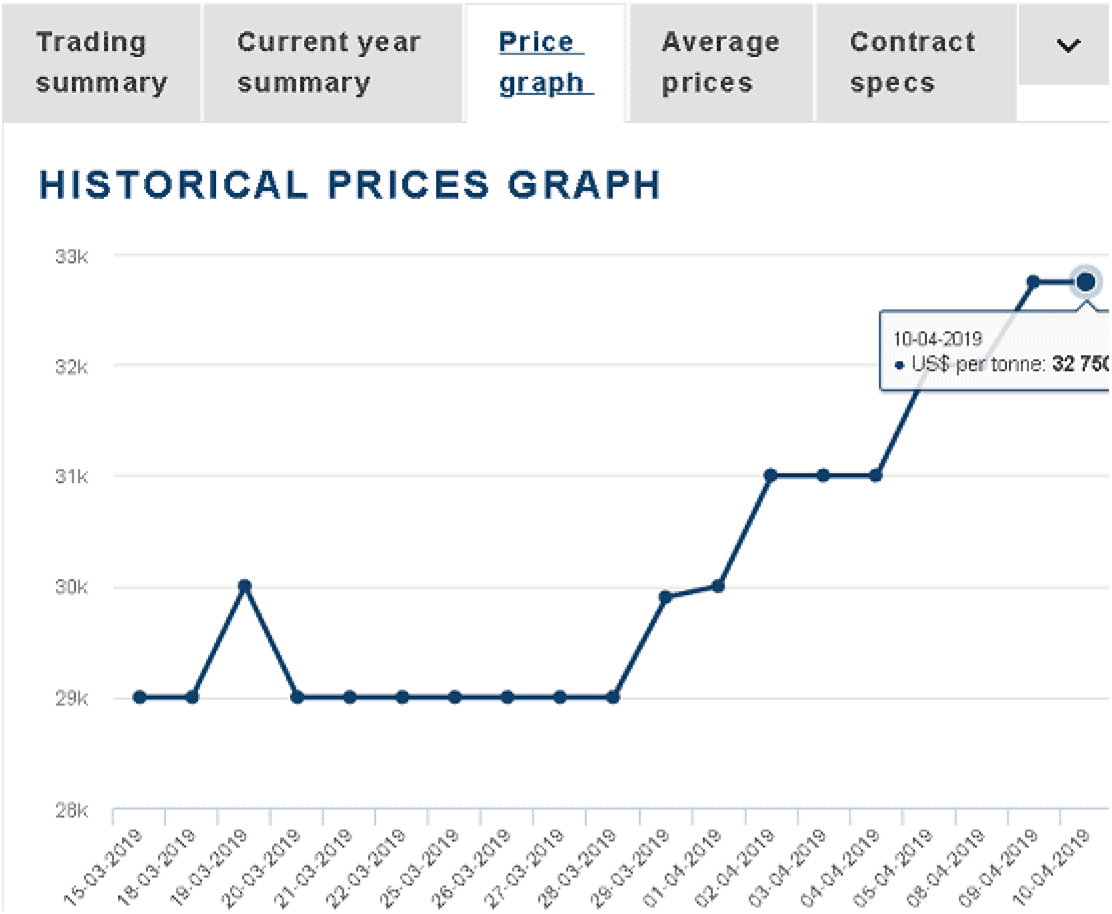
The main reason for continued enthusiasm for cobalt recovery is that the basic economics of supply and demand have not changed. Cobalt is an essential element in lithium ion batteries. The average cell phone, for example, requires roughly 12 times more cobalt than lithium. Tesla’s Model 3 requires 15 kg of cobalt per car. Assuming Tesla hits its production target of 500,000 units, an additional 7.5 million kg of cobalt will be consumed for one model for a minor car producer. That’s roughly 7% of incremental global supply needed for only that one model.

The global market for cobalt is only 100,000 tons per year. That sounds like a lot, but realize that a freighter can take a 100,000 tons of iron ore in one load and ship it across the oceans to India for processing. The cobalt market is comparatively small, leaving it more exposed to kinks in the supply chain.

The car manufacturers understand that vertical integration in their cobalt supply chains will be vital to their success, just as in the rare earths industry. We have seen Volkswagen and BMW announce forays into the cobalt market to secure a long-term cobalt source for their vehicles. They are not content to rely on the Congo (source of 60% of the world’s cobalt) or upon China who processes is more than half of the world’s cobalt.

This is part of the thinking behind FocusEconomics’ latest cobalt projection, which is calling $40,000 per tonne this year for cobalt and then $50,000 in 2021.

We are finally seeing normalization start to play out in the global pricing for cobalt. After a punishing spiral, cobalt has had a 13% jump since March 15/19. While it’s possible these are just zombies stumbling in the dark, we believe this is Life returning to a once buried market.



What the Mining Industry can Learn from the Boston Red Sox

The mining industry can learn a lot from the Boston Red Sox. I just learned that lesson at PDAC 2019, the greatest mining show on Earth. More than 25,000 people attended in Toronto to meet, mingle, learn, look at core, party, buy, sell and schmooze.

I've been attending the mining show annually since 1992. I've missed two years. Before I go I have a list of goals that I want to achieve. Overall, it was a very good year at the show as I ticked off all the items on my to-do list and as always found a few more.

Wandering the booths and hallways and seminars, one of the things I learned was that there is a dearth of good projects under development. Simply put, we are consuming metals and not replacing them, causing analysts to believe the world will be in a deficit position over the next few years. This 2015 infographic from the Visual Capitalist makes the case for the coming copper crunch or you can read it in The Mining Journal.

Similar alarms are being sounded for silver and gold. The shortages in the battery metals (nickel, manganese, lithium, graphite and of course perennial bridesmaid cobalt) are obvious as the world decentralizes grid electricity.

Refined zinc metal output is expected be 13.81 million tonnes in 2019. The problem is, the output estimate for 2019 is lagging behind the expected metal usage of 13.88 million tonnes for the year.

We are consuming the metals faster than the mining companies can replace them.

How does this relate to Boston Red Sox, winners of last year's World Series?

The Bosox over many years invested heavily in scouts to find a larger pool of young possible players, signed players at a young age, developed them patiently through the system, and brought them to the major leagues at the appropriate time. Not downplaying Steve Pearce's World Series, the most important players on Boston's championship run throughout the season and the playoffs were homegrown, like Mookie Betts, Andrew Benintendi, and Jackie Bradley Jr., Xander Bogarts was signed when he was 16 years old and made major contributions to the team's success.

The cost of finding and developing young talent is far less than the cost of trying to acquire that talent once developed. Look at Bryce Harper's USD$330 million contract with the Phillies after spending the first 7 years of his professional career in Washington. In Year 1 of that Washington contract, Harper was paid a total of $3 million and had a tremendous year, earning a spot in the All-Star game and winning NL Rookie of the Year. His 7 years in Washington were very cost-effective for the team and the returns he provided. Once developed, he priced himself out of the Washington budget.

There's also Mannie Machado who in 2012 was paid $112,786 by the Baltimore Orioles. Drafted and developed by Baltimore, Machado provided Baltimore with gaudy numbers and strong defence. For you data geeks, his Wins Above Replacement (WAR) is 5.7. He was a bargain for what he contributed to the team. He just signed a 10-year, USD$300 million contract with the San Diego Padres, priced out of Baltimore's budget.

Finding, drafting and developing your own players allows a team to control costs, keep these players under contract for a (relatively) low cost for an extended period of time, provides some degree of economic stability for the team, and de-risks the overall organization.

And that is one of the things that's missing in the mining industry. There are few large projects in development to replace the copper, gold, copper, nickel, tin, silver, and battery metals that are needed. The majors have failed to invest in their minor league systems, leading them to have to effect risky M&A transactions to replace lost ounces.

This failure to invest in development started in about 2013, after the mining industry blew up following an acquisition spree. You remember Kinross' 2010 free agent acquisition of Red Back Mining to acquire ownership of Tausita Gold Mine in Maruitania? Kinross paid $7.1 billion for an asset that was written down by $3.2 billion in 2013, crushing Kinross' share price with it. There are other examples as well, but this write-down was massive and caught the market's eye. Fear crept into the market and brought an end to M&A activity.

Following the fear came severe cost-cutting. The majors dramatically scaled back in all areas of operations, including not investing in the intermediates and juniors. If the juniors aren't being funded they can't explore (scout), the number of development opportunities shrinks, which reduces the number of opportunities for the intermediates to shepherd good projects along. And that decreases the odds that a major deposit would be found. And that of course means that fewer deposits are making it to the Major Leagues.

The cost of acquiring already-developed properties is extremely expensive. Grabbing proven ounces is what is driving the current $17.8 billion attempted takeover of Newmount Mining by Barrick Gold. It's like the Phillies acquiring Bryce Harper for $330M after he was cheaply developed by Washington.

The Bosox are 6/1 favourites to win the World Series again, due mainly to the core of highly talented home-grown inexpensive players. It would be cheaper for the majors in the mining industry to invest more broadly in the juniors, knowing there will be winners and losers along the way, than to continue relying upon free-agent signings.

Goodbye August, you crappy unhappy month.

Goodbye August, you crappy unhappy month. Nothing good happened in August. Of all my friends and business associates, no one had anything good to say about that stupid month.

Among the people especially mad at August are investors in Canadian cobalt companies. After a strong 2017, the price of shares in those companies plummeted and August brought no relief. Let’s look at a few Canadian names with their 12 month highs and lows.

- First Cobalt Corp.: following its three-way merger with CobaltTech and US Cobalt, FCC’s shares have been hammered from a high of $1.65 down to 26 cents in August, now clawing back to around 45 cents
- Cobalt Power peaked at a high of fifty cents in January/18 but mean vicious August brought it to its low of 4.5 cents
- Cruz Capital cruised all right, all the way down from $0.41 to its August low of eight cents
- Mr. Market clobbered eCobalt Solutions, the company with the North American cobalt property nearest to production, tearing almost 75% from its market value, from $2.10 per share down to its August low of $0.54
- CBLT27, the cobalt streaming / holding company with 85 million shares outstanding, lost $700M of market cap as it fell from $14 to $5.73. More on CBLT27 and a bizarre theft below
- Finally, let’s not forget junior cobalt / gold / copper explorer CBLT Inc., which despite a stronger balance sheet and profitable M&A activity, fell from $0.09 to three cents in August (Market note: I’m an insider at CBLT Inc.)

Stupid month.

But there are reasons other than August for the Canadian cobalt companies getting pounded. Let’s start with the price of cobalt on the London Metal Exchange. Three years ago it languished around $20,000 to $25,000 per tonne. In 2017 it shot up to $94,000 per ton, only to see 2018 bring it back to roughly $60,000 per ton. While that is still a tremendous leap from 3 years ago, it has fallen a third from last year. The cobalt stocks have moved more or less in sync with the commodity price.

It’s not just cobalt that has been pressured in this commodity lull: copper is down, gold is down, zinc is down, silver is down, the list goes on and on. Even darling lithium is having its challenges. The general commodity malaise has leaked capital out of the junior explorers.

Another leak of capital out of the juniors has flowed into Canadian cannabis and cryptocurrency stocks. The risk capital market is only so big, and a diversion of capital into other risk sectors means there is less for the junior explorers, including the cobalt ones. Less capital means less exploration capital, less working capital, and less flow of market funds, all of which add up to lower stock prices.

A problem that is endemic to this cobalt market is a lack of credibility specifically among the junior cobalt explorers. Many of them are new or repurposed companies trying to create an identity and find their way. Some of them deserve your attention, and some certainly do not. There have already been many re-stated or amended press releases that were initially not in compliance with either JORC or NI43-101. Every one of those recalled press releases hurts the credibility of all the cobalt juniors.

Another credibility problem arises from inventive new ways of reporting assay results. “Adjusted EBITDA” is a non-GAAP, non-IFRS phrase that each user defines differently, which means it means whatever the reporting company wants it to mean. It’s usually used by a business that has a strong top-third in its P&L, but is consuming much capital to get there. Many an operating loss has been ‘adjusted’ to a profit by playing with the underlying definitions.

“Cobalt equivalent”, or CoEq, is this market’s equivalent of Adjusted EBITDA. One company reported its cobalt results in “CoEq” by including non-economic trace showings of silver, gold and copper from its assay results. Then the company gave all those trace elements a dollar value, converted it somehow to a cobalt value, and voila! reported the final number as a higher “cobalt equivalent”.

Yet another challenge is that cobalt is a bizarre metal. It’s scattered around the globe in only a few mineable locations. One of those unique geologic settings is in the historic Gowganda / Cobalt silver and cobalt camp in northern Ontario, whose geologic history and mineralization still have not been satisfactorily explained. Until the agents of mineralization are better understood, larger companies see excessive risk and will be reluctant to invest large sums in that part of the world.

The majority of the world’s cobalt comes from the Congo, where the 2016 Presidential Election still has not been held. It’s also the birth place of ebola. The supply chain out of the Congo is always at risk.

Then there are problems unique to each company. First Cobalt, for example, is still suffering from the effects of merging with CobaltTech, whose shareholders have been according to market rumours banging away at the FCC bid. FCC’s success in the field at Iron Creek, Idaho has not translated into market success, as even at these depressed prices those original CobaltTech shareholders are still in the money – hence the bid-banging.

CBLT27 had its own embarrassing company-specific issue this summer. In its quarterly filings, CBLT27 reported that roughly USD$5M of cobalt had been stolen in July from its holdings, held at a third party’s warehouse in Rotterdam. How do you steal 76 metric tonnes of physical cobalt? It boggles the mind. Can you hear the intro from *Mission: Impossible*? The property was insured and so CBLT27 won’t suffer a financial loss apart from any deductible, but it will have an impact on its market perception.

One final reason that may explain why the Canadian cobalt stocks are down is that it is still a new market. It took investors a long time to understand the need for lithium. Lithium 1.0 ran its course, then Lithium 2.0 had its day, and we are in the valley before Lithium 3.0. As investors and more senior companies better understand lithium, so too will they understand the greater need for cobalt. The conventional project generation model should appear in cobalt, providing much needed financing to support many smaller projects in development.

What does all of that mean for investors? Going back to the great Sage of Omaha, be greedy when others are fearful. The cobalt stocks are out of favor but the long term fundamentals are extremely strong. Now is the time to buy the good ones. Do your research and buy at least three to spread your risk. Call the management of each company and actually ask about the assets, that work plan, the mistakes made to date, the plan for success going forward. When it turns, this market will turn hard and fast. Say hello to September.

Tesla is Using Nortel’s Business Plan (that’s not a good thing)

Those who don’t learn from history are doomed to repeat it, so let’s use Nortel’s history to learn why Tesla, Inc. may be about to drive itself into deep trouble.

If you’re reading this, you’ve heard of Tesla. It has been a stock market marvel. The past five years have seen wealth created for long-holding shareholders – 5 years ago, Tesla was trading around USD$45 a share, and today it’s around $297. The chart from Nasdaq shows for the last year Tesla has been the poster child for "choppy", as its stock price has oscillated with amplitude between $390 and $245 per share.

Tesla's PromotionMachine has been sleeping at the factory trying to convince the investing public that revenue and earnings will ultimately catch up with the stock price. Bears and shorts are convinced the last part of that sentence is backwards.

Tesla is at a difficult stage of its existence as it tries to go from start-up to establishment. It needs to show the doubters that it has revenue, that the pre-orders for the Model 3's are not being cancelled and are actually being converted to sales, and that the Holy Grail of positive cash flow is glowing in the road ahead. The latest Q2 was Tesla's most productive in its history.

The problem is, Tesla has had and continues to have horrific issues on the shop floor. Production, while up, remains far behind the original and the revised targets. Panasonic and the Cobalt Cliff have something to do with this, but Tesla has acknowledged the production failures are mainly a function of over-automating the shop floor to a point of unmanageability.

Tesla and its CEO Elon Musk need this year to be an operational success. The company can't run forever on champagne wishes and caviar dreams. It must show Wall Street and the global green investing community that it can dent the Detroit Big Boys, it can take a run at Honda and Toyota, that German engineering is secondary to American gee-whiz know-how.

Litigation lawyers will tell you when the facts are against you, pound the law. When the law is against you, pound the facts. When the facts and the law are against you, pound the table. Tesla looks like it's opting for the table pounding.

The Wall Street Journal reported recently that Tesla, "has asked some suppliers to refund a portion of what the electric-car company has spent previously". WSJ also reported that Tesla confirmed it is seeking price reductions from suppliers for projects, some of which date back to 2016, and some of which haven't been completed.

Did we mention that Tesla is burning through about USD$1,000,000,000 per quarter, with only about $2.7B in the bank ? And don't look at the convertible debt pricing issues lurking over the horizon…

What Tesla needs is a much higher stock price, for the inevitable equity financing and to help with those pesky convertible debt problems.

Bring Nortel back into the picture. Visit the Wikipedia page for Nortel for links to the painful facts below.

Nortel Networks Inc. (then called the Northern Electric and Manufacturing Company Limited) was partially spun out of a predecessor to mighty BCE Inc. in 1895 (yes, 123 years ago), and completely spun out from BCE in the internet madness of the year 2000. It was a huge financial win for BCE. Nortel ultimately made equipment for the heavy-breathing internet industry – switches and multi-protocol optical networks.

Nortel was a strange chimera, a combination R&D – manufacturer – vendor; much like Tesla is today. The hype machine was running well ahead of the financial statements as the company was worth roughly one-third of all companies then listed on the Toronto Stock Exchange.

You remember what happened next, right?

Sufficient cash flow and revenue failed to materialize. Nortel's market cap went from close to $400B to only $5B, and ultimately Nortel filed in court in Canada and the USA for protection from its creditors. Goodbye, over 95,000 jobs worldwide.

The bankruptcy process ended in 2017, by when over $2,000,000,000 had been chewed up in the process, including legal fees.

Prior to bankruptcy, one of Nortel's operational problems was negative cash flow. Despite growing revenue, over the years its cash flow never did catch up to the expected glowing future and the soaring stock price. The car-wreck crash in the stock price, followed by the creditor protection process, were reflections of that failure.

Nortel's management team used every tool at hand to bring new revenue onto the P&L. Some of those tools could not be used today under new accounting standards such as under IFRS 15. Back then, one of the tools available to increase revenue was to vendor finance its own customers.

That vendor financing worked like this. Internet usage was booming, so websites and networks needed better equipment capable of processing the growing loads. Nortel and its advanced optical technology were the solution, but the equipment was very expensive. Not many start-ups had $10M to spend on a network switch, but without all those start-ups buying equipment Nortel couldn't hit its targets which would have lead to a cratering of its stock price.

Nortel's fix was to finance those start-ups and deliver the switches before receiving full payment. In some cases up to

80% of the purchase price was financed, which meant Nortel was using its working capital to sell at a loss to gain future cash and to buttress the current revenue number.

As always, after the boom comes the bust. Internet stocks tanked in 2000, killing many of Nortel’s customers and wiping billions in financing off Nortel’s financial statements. The cash flow that seemed so clear just months before failed to materialize, eventually taking Nortel into the sad tale of creditor protection.

Nortel, like Tesla, artificially distorted its own business model by causing elements in its supply chain to finance its activities. Nortel used its clients, Tesla is using its suppliers.

Tesla declined to provide the markets with a copy of the recent memo but confirmed it is seeking price reductions from certain suppliers for historic projects, some of which date back to 2016, and it is engaged in discussions concerning future pricing based on production ramp-up.

The automotive industry is a highly competitive margin-driven business, and Tesla is looking to save a buck / make a buck anywhere it can, as it should. While it’s true that ongoing discussions with Tier 1, 2 and 3 suppliers are common, asking suppliers for cash back is closed-system cannibalistic behaviour, and reeks of desperation. As Tesla’s cash dwindles and its options slowly disappear, Tesla must fix its manufacturing issues and create real value by executing on its business plan, not by parasitically sucking cash out of the system by draining its suppliers.

Nortel taught the lesson. Will Tesla learn from it or repeat it?

Cannabis Will Not Decriminalize in 2018

Cannabis will not be decriminalized in calendar 2018. No amount of wishing is going to make it happen.

The timing of decrim is extremely important for the impact on valuations, reputations, cash burn, equity raises, staffing decisions, compensation schemes and M&A activity. The longer it takes for decrim to actually take place, the more risk exists for investors, including new risks brought by the pending federal election.

“Decrim” means the first day a retail consumer can walk into a retail store and legally purchase a cannabis product. That means none of the following qualify as decrim:

- when the Senate sends Bill C-45 (the *Cannabis Act*) back to the House of Commons for Third Reading (expected to be on or about June 7/18)
- when the Liberal-majority House of Commons gives Bil C-45 that Third Reading and quickly sends it back to the Senate for its own Third Reading;
- when Royal Asset is given by the Governor-General to Bill C-45; or
- if Canada deals with the international treaties it signed policing the sale of narcotics, which by definition includes cannabis.

Those events will take time to play out, but are mere milestones on the path to decrim. There are other major impediments that will push the first retail date into 2019, and possibly into 2020.

On that list of impediments is that Parliament must deal with Bill C-46 (the *Drugged Driving Act).* Our prior analysis of that problem is here. That problem alone pushed back the effective date of decrim to at least December of 2018.

Law enforcement agencies across Canada are calling for further delays in decrim so they can obtain the necessary equipment and training to deal with drivers impaired by cannabis. It's not as simple as dealing with a driver impaired by alcohol. Habitual users or persons who've inhaled second-hand smoke can have THC in their systems for weeks, and there is as yet no science or consensus behind how much THC is too much for a driver.

If there are no reliable roadside devices that don't report false negatives or positives, then the *Drugged Driving Act* if passed risks being found unconstitutional as constituting an unreasonable search under the *Charter of Rights and Freedoms*. It is vital that Parliament get this right to avoid having the law struck down.

This isn't new news. Back in 2017, the Canadian Press reported on this issue and said, "Canada's police services say there is zero chance they will be ready to enforce new laws for legalized pot by [summer, 2018]."

The situation hasn't gotten better. As the National Post reported two weeks ago, "…officials with the justice and public safety departments say it's still unknown when roadside screening devices to test for drug impairment will be approved for use."

The *Post* article reports on other infrastructure delays related to roadside testing and police training. Police forces must wait for the Attorney General to sign an order before they can order roadside testing units, assuming any exist which are reliable. For the Attorney General to sign that order, Bills C-45 and 46 must be passed by the House and the

Senate, and then a 30-day public consultation period must run. Public Safety then would require time to prepare training and certification for officers on approved devices, and then those officers must be trained.

None of that can start until Bill C-45 and its associated regulations are brought into legal status. Those two processes cannot run in parallel.

Another major delay involves Canada's First Nations. Section 35(1) of Canada's *Constitution Act, 1982* states, "The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed." That has been interpreted by the courts to impose an obligation on the Crown to meaningfully consult with First Nations when such aboriginal and treaty rights could be impacted by legislation.

On May 1 of this year, the Senate Committee on Aboriginal Peoples recommended in writing the Liberals delay legalizing cannabis for up to a year to address the legislation's potential for harmful effects in Indigenous communities. The committee said in its report on Bill C-45 that the government did not adequately consult with First Nations, Inuit and Métis communities before pushing ahead with its plan to legalize the drug. If the Liberals don't heed the Senate's report, this failure to consult could ultimately render the *Cannabis Act* invalid as a constitutional breach.

Imagine Bay Street's reaction if that were to happen. Billions of dollars of shareholder value would be erased seconds after the court decision were rendered.

Odds are that won't happen, but the Crown's obligation to consult with First Nations on decrim will bring a delay.

Then comes The Big Risk. The next federal election in Canada is set for October, 2019. Parliament will be dissolved sometime during the summer of 2019 to allow for the election campaign. If decriminalization is delayed a year, as requested by law enforcement and recommended by the Senate Committee, Bill C-45 and Bill C-46 may not make it into law before Parliament is dissolved. They would then die on the House floor.

Then there would be a delay for the election itself, and then there would be a further delay as the new government takes power, and then further delays as new legislation and regulations would have to be written. Then there would be the same delays as laid out above related to First Nations and general public consultation. That would push the effective date of decriminalization to at least the summer of 2020.

Those delays bring the risk the federal Conservatives would win the 2019 election. That party has a much stronger anti-cannabis stance than does the Liberal Party. If Trudeau Mania 3.0 doesn’t play out and the Liberals don’t win a majority, expect the next version of decriminalization to be more severe, creating a smaller recreational market. That would negatively impact the cannabis companies.

Counter-balancing that federal election grief is provincial election hope in Ontario, Canada’s most populous province. Roughly 36% of Canadians live there. Under the current provincial plan, assuming decrim happens, the current ruling party advocates for a single-source model, where the only source for recreational cannabis would be from government-operated stores. Basic supply chain issues would limit the size of the market, and therefore negatively impact valuations of the cannabis producers. But there is a provincial election underway, and it doesn’t look good for the incumbent. The provincial Conservatives, currently polling in first place, have said they would implement a hybrid distribution model with both government and private stores. This would have the effect of eliminating some supply chain bottlenecks and increasing revenue for the cannabis companies.

Decrim will happen. When is an open question. Make your own decision and vote with your investment dollars.

Apathy Let Cambridge Analytica Abuse 50 million Facebook Accounts

It was revealed last week that Cambridge Analytica abused personal information from 50 million Facebook accounts in early 2014 to build a system to profile individual American voters for the 2016 presidential election. The goal was to then target the users with personalised political advertisements attacking Hilary Clinton and loving The Donald. It's still not clear whether this was illegal or merely repugnant.

Most people are focussing on the fact that Cambridge Analytica was headed at the time by Steve Bannon, which provides yet another malodorous link to Trump. Facebook's share price is down about 12% but so far there has been no accountability apart from the inevitable class action litigation lawyers circling. What matters the most here is that we are becoming de-sensitized to data breaches like this.

$300M of Etherium permanently lost. Hey, it's just crypto and it wasn't mine, so who cares?

Do you know anyone who lost sleep over 143 million Americans and 100,000 Canadians that were exposed by Equifax's massive data breach.

Every Yahoo account was compromised in 2013, which Yahoo did not figure out until 2017. That was 3 billion accounts. You likely had one of those accounts. Did you complain about it?

Citibank failed to protect the personal data (including birthdates and Social Security numbers) of approximately 146,000 customers who filed for bankruptcy between 2007 and 2011. That's adding insult to injury.

40 million Target customers were exposed in 2013. The remedial cost to Target, not including the class action litigation, was roughly $252M. Did you join the class to get your rightful piece of the settlement?

$81 million stolen from the Bank of Bangladesh by compromising the Swift system in 2016. This was the second time Swift was used as a medium of theft. But hey, that could never happen over here in the civilized world, right?

Look at the lists here and here and here for some of the largest data breaches of all time. How many of these do you remember, or care about?

Even worse, according to the Online Trust Alliance in its terrifying *Cybersecurity and Breach Trends Report* from January of this year, is that 93% of these breaches were self-inflicted and easily preventable. Apathy is our real enemy.

And next up are the assaults from Artificial Intelligence.

AI spans a broad area. A Nest WiFi-enabled thermostat can self-regulate if it feels the sun directly on it rather than air in the home environment – is that 'intelligent' or just good programming? Cruise control on your car? A video game that gets harder the further you go and that learns your favourite moves? Neural networks? Deep learning? The hated robo-advisor? Predictive weather analysis? Smart tokens in the ICO universe?

AI is just a software operating in a hardware environment, but somehow it has gained noble status. Perhaps it’s the use of the word “intelligence” that lulls us into thinking that the software is actually alive.

It’s not. It’s just software, a compendium of zeros and ones that open and close circuits inside chips. Software is vulnerable to coding errors, intentional or negligent. It’s vulnerable to breakdowns in its hardware. And it’s entirely vulnerable to malicious third parties for cryptojacking.

Our courts and insurers will have to address who becomes liable when those things go wrong. The worse situation is where software causes death, like earlier this week when a self-driving car killed a woman in Tempe, Arizona. Elaine Herzberg was walking her bicycle when she was hit by a vehicle in autonomous mode going 40 km/h. It doesn’t take a crystal ball to see Mr. Herzberg is the first of many such deaths.

Who will carry the financial burden of the error when smart tokens co-ordinate a contract for one billion rolls of toilet paper when the intention was for 100 rolls of paper towel? Is this contract law or negligence? Can you contract out of liability? Medical diagnostic software misses an obvious cause resulting in patient death? Who pays the repair bills when Skynet finally goes live and the Terminator kicks in your door?

Vernor Vinge’s 1993 short paper *The Coming Tehnological Singularity* is a marvel of literature that manages to inspire and terrify at the same time. Should something we created actually develop its own intelligence, the pace at which technology would from that point develop would be inconceivable to humans. The human era would be over.

Back to the breaches, both malicious and self-inflicted. Incompetence and thievery have been with humanity for recorded history. The first trojan horse was the serpent surreptitiously attacking the Old Testament God by way of his human creations and an apple. Sadly, we do need various levels of government to help us defend ourselves. This will require some levels of regulation, even if unwanted.

The CryptoCrowd may not like it, but regulation is needed and it’s coming. At least there seems to be some regulatory recognition that data is a different world requiring a different set of regulatory parameters. See for example the British Columbia Securities Commission’s 2018 outreach efforts seeking innovation while maintaining confidence in the capital markets.

This apathy is a strange mindset, especially since the business world otherwise takes confidentiality seriously. We sign confidentiality agreements and NDA’s. We expect our employees to leave our IP at the office. Securities laws exist to prevent insider trading and to protect the dignity of the market. Larger boards have committees specializing in privacy and data protection. There are few things more valuable to any company than the integrity of its data.

So we should be outraged by these ongoing assaults on us, our data and our companies. We should be in the streets, with torches and pitchforks, demanding that heads roll and attackers be found. Instead, we shrug and say “What can we do? I’m just one helpless person. The government will protect us.” That only goes so far.

We have to use what the government gives us. CASL (Canada’s AntiSpam Legislation) is a horribly mis-named piece of legislation that has teeth. It codifies an individual’s right to control the inbox. It isn’t about spam, it’s about your digital liberty.

The GDPR is the European Union’s approach, and it’s a good one. A prior article explaining GDPR is here. Recent recommendations from House of Commons Standing Committee on Access to Information, Privacy and Ethics indicate that Canada will adopt an approach similar to GDPR to give you the tools to protect yourself. So use them.

Ultimately, it’s up to you. Be vigilant. Protect your local network. Follow good protocols. Don’t be sloppy. And be angry over every breach. Demand accountability. Next time it could be you.

Cobalt Supply Chain Massively Disrupted by Glencore and China

China-based GEM is reported to have signed an agreement with Glencore PLC for 52,000 tonnes of cobalt hydroxide. This has massive real-world implications for the availability of cobalt and for pricing.

According to Bloomberg (the terminal, not the mayor), “GEM Co., Ltd. collects and recycles cobalt and nickel scraps into ultra-fine cobalt and nickel powder and other products.” Revenue for 2016 was 7.7 billion CNY (USD$1.2B). Market cap is roughly 28B Yuan or USD$4.4B. Glencore is a huge commodity trader, ranking 10th on the list of the largest companies in the world for 2015, and in 2016 ranked 16th in global revenue.

Initial reports were that Gem had agreed to buy 52,000 tonnes of cobalt from Glencore per year for 3 years, but other reports later gave it as 52,000 tonnes over three years. There is still a lack of clarity on this point. If it’s the former, that’s half of the world’s cobalt supply being consumed by one consumer – that’s highly unlikely given the dynamics of the cobalt market. But even 52,000 tonnes over three years sucks about one-third of the world's supply of cobalt out of the market, an amount that can't help but drive up the price.

Global consumption of cobalt is roughly 100,000 tonnes per year. (Glencore is forecasting a production increase, from which the supply is expected to come.) That's very small. Contrast that with copper production which was about 19.4 million tonnes in 2016 . Such a small market is very vulnerable to supply shocks, and this mass consumption of cobalt is a supply shock.

As with almost anything involving China, there are puzzles wrapped inside conundrums buried inside unreliable data. But this we do know. The world needs cobalt for the high-tech magic that is the cathode in a lithium-ion battery. If it's rapid charge / discharge, that battery has cobalt in it. That includes cell phones, rechargeable smart devices, laptops, toothbrushes, power tools, Bluetooth headphones and, most pointedly, electric vehicles. Hello, Tesla.

This agreement is another example of China looking far ahead – here, it's the pollution issues being solved by mandating electric vehicles. Cobalt is needed for the batteries in those vehicles. That cobalt going over the Big Red Wall through Gem will be consumed in China, and the rest of the world will have to fend for itself.

We've recently seen news that end user manufacturers like Apple, Tesla, Volkswagen and Samsung have been looking to secure long-term supplies of cobalt. You snooze, you lose. Gem pulled the trigger on a strategically critical purchase for a strategically critical metal. Panasonic and LG are back to playing catch-up. And since Panasonic supplies Tesla, expect continued production woes from that marketing machine.

The Congo hasn't helped this market tightness. Remember that the 2016 presidential elections are scheduled to be held sometime this year. Making things worse is the new tax and royalty regime introduced last week, creating a disincentive to produce the element falling as #27 on the periodic table.

Expect the multiyear bull market in cobalt to continue. Expect to see similar but smaller announcements from other multinationals. Expect the interest in northern Ontario (a geologically bizarre region shockingly rich in cobalt) to continue.

Decriminalization of Cannabis Delayed Yet Again – Who’s to Blame?

There’s another delay in cannabis legalization. This time, it was because of the Liberals’ failure to manage the Senate.

One of the Liberals’ key campaign promises in 2015 was the decriminalization of cannabis. Off that promise, billions in stock market value has been created. A failure to deliver on that promise will wipe billions off. If decrim has not taken effect by the next federal election in 2019, expect this to be a painful campaign issue. The other parties know this.

In February, the government finally admitted it would miss its own July target date (See Smoked!) with a new soft target date of sometime in autumn. The precise date is still unclear. The Senate is partially responsible for that.

The Senate is the Upper House in the Canadian Parliament. Each Senator is appointed by the Governor General, on the advice of the Prime Minister. In theory without loyalty to any party and appointed to serve until 75 years of age, a Senator is supposed to bring sober second thought to legislation proposed by the ruling party of the day. Think of a Senator as your smart grandmother who has been there, done that, and is ready to tell you.

It doesn't always work that way. Senators have long memories and most of them have a history in politics, whether on the front lines or behind the scenes. "Independent" is a fiction when you're still bearing a grudge against another political group from when you were appointed by your own party 20 years ago. Payback's a bitch.

Last week the Senate, dominated by members who historically were part of the right wing parties in Canada, got a chance to stick it to the Liberals.

Here's the background. Decriminalizing cannabis is governed by Bill C-45. That bill is winding its way through the system. At the same time, Parliament is considering Bill C-46, which creates new impaired driving charges related to cannabis. You can't have one without the other. Law enforcement needs Bill C-46 to pass. The Liberals have pushed Bill C-46 as hard as they can – the Senate is creating a roadblock.

The Senate, as part of its function to review proposed legislation, has held hearings and heard from roughly 40 persons related to C-46. What it has not done is begun its painstaking line-by-line analysis of C-46 and how it meshes with other existing legislation. It won't do that until at least May AFTER it finishes with C-45. Even at breakneck speed, C-46 will not go back to the House of Commons for 3rd Reading until June at the earliest.

The next part of the math is the new impaired driving regime as proposed will stagger into law over a six month period to allow for law enforcement to catch up. June (at the earliest) plus six months is December, 2018 (at the earliest).

December, 2018 is the earliest you will see cannabis decriminalized in Canada. If the more conservative members of the Senate really want to see the Liberals squirm, they will try to use Parliamentary procedures to delay decrim until Parliament is prorogued for the next election. C-45 and C-46 would then die.

Map this out if you're a conservative Senator with party loyalties. You get to be seen as doing your job re-considering two major pieces of legislation, you get paid until you're 75 no matter what, you can't get fired, and you get to stick it to the hated Liberals. Do you think any of them will do that? Right.

What should the Liberals have done? Most of governing, true politics, happens behind the scenes. The Liberals failed to execute on true politics. If you want a give on something, you need to give on something. How do we know they failed? The Senate isn't sticking to the Liberals' script. The current state of affairs tells us they failed.

Decrim will happen, whether in this parliamentary term or next (assuming Canada can withdraw from the international treaties that govern cannabis). It should happen. Most Canadians either want it to happen or don't care. I fall into the "Don't Care" camp. But I care about the precise date for decrim because it affects market valuation. It affects cash flow. It affects human resources decisions. It affects investment banking decisions. Some of the licenced producers will not be able to survive into 2020 following the federal election if decrim does not happen as the Liberals promised it would. And imagine the limitations that would be on decrim if the Liberals were defeated in 2019 and the Conservatives were back in power.

As we've said before, this is a trader's market, not an investor's market. We're on the record as having only two longterm picks to thrive in the inevitable carnage: Canopy Growth Corporation (WEED:T) and Aurora Cannabis Inc (ACB:T). Aphria Inc. (APH:T) is a distant third. Everyone else is a different flavour of fourth.

Smoked! Govt Finally Admits No Marijuana Legalization by July

The cannabis market continues to be a trader’s market. It’s not for investors. The difference is the inexplicable random gyrations in the trading of the public marijuana companies’ shares. Up three dollars, down two, up four, down two, then sideways… that’s the average weekly chart in the cannabis space.

It’s a strange market. Good news can send share prices down. News that should crater the stock instead pushes it up. It brings back memories of the internet boom in the late 1990‘s.

Canopy Growth Corporation (TSX: WEED) is the largest cannabis company in Canada. Its current market cap is $5.5Billion, with close to 200,000,000 shares outstanding. Its year high was $44 a share, but those same shares can be bought today for around $28. That’s a $14 per share difference, and that share price difference represents about $2.8Billion in market cap difference. But the company is substantially the same – that $2.8B market cap delta was not driven by a fundamental change in anything except investor sentiment. Value created and destroyed by mere perception, not facts. And that, is a trader’s market.

If further proof is needed, look at Aurora Cannabis Inc. (TSX: ACB | OTCQX: ACBFF). It's one of our long-term favourites to survive the inevitable carnage in this sector. Its low over the past 12 months was $1.90. One hundred and ninety pennies. Today, it's trading about $11, after stretching to hit a high of $15.20. With 470M shares out, the market perceives Aurora having created about $4.7B of value over the past 12 months. Not even Aladdin with his magic lamp could do that.

The main reason for the irrational exuberance (thank you Alan Greenspan) is the federal government's campaign promise to decriminalize cannabis. Investors know the medical market is limited in size, and the real $$$ will be in the recreational space, if it ever happens. Almost everyone takes it for granted that decrim will happen, on schedule, on July 1, 2018, despite the well-known fact a politician on a campaign trail makes more empty promises than does Harold Hill.

Also take into account the potential size of the market. Don't trust the numbers from people in the market who have a clear vested interest in a huge number. Instead, look to independent data sources, such as the survey of 1,500 Canadians conducted by Abacus Data on behalf of *Maclean's* as part of The Canada Project. It found that 84 per cent of respondents over 18 *never* smoke marijuana, and of the 16 per cent that do, daily users amount to only 5 per cent, and 3 per cent say they use a few times a week.

5 per cent of 32 million Canadians is 1.6M daily users. That sounds like a lot, but consider there are 89 licenced producers with many more applications in the pipeline. That's not a lot of users to spread around, and it gets worse when you consider that taxation and price controls have not yet been finalized. For many of the LP's, the only end game will be consolidation or bankruptcy.

Public consultation by the feds only closed three weeks ago on January 20, 2018. The infrastructure issues are so deep, so broad, so regulated by at least three other levels of government, that there is no way decrim can be implemented on the Liberals' schedule.

We've been warning about this since the Liberals started promising in 2014. This will be the fourth year that we've warned investors not to trust the government. Every time we've pointed this out, traders have objected: "The Liberals promised it and the govt needs the tax revenue. *Of course* cannabis will be decriminalized."

The Senate has already indicated it will not simply accept the Liberals' legislation, and there are still the persistent barriers created by international treaties like the Single Convention that need to be overcome. Even if those huge challenges are overcome, the implementation of the legislation requires a previously unheard-of level of co-operation at the municipal level, across Canada, across ten provinces and three territories.

But the federal government just told the market, NO. The first paragraph from an article in last week's Globe and Mail summarizes the facts: "Canadians will have to wait until late in the summer before they will be able to legally consume cannabis under a new timeline laid out by the federal government – even if the Senate votes in favour of the legislation by May or June."

In a slippery bit of news that fell sideways into the media, Health Minister Ginette Petitpas Taylor told certain members of the Senate that the feds will wait 8 to 12 weeks after the legislation is passed (if it ever is passed) before actually decriminalizing cannabis, to give provinces and municipalities the time to create an implementation structure. If the legislation is passed for July 1/18, that means the earliest you can buy weed legally would be for your Thanksgiving party. This dovetails with our warnings that the government's timeline was impossible (see for example our detailed article from Sept/17).

That interim period is important. It matters because it negatively impacts cash flow. It negatively impacts balance sheets. It impacts business plans and human resources decisions. And those impacts will play out in the market. The market is always wrong in the short term and right in the long term.

If you're looking for comfort, the Liberals are not the place to look for it. How about this recent blumphus from Public Safety Minister Ralph Goodale: "Our goal is this summer in an orderly fashion with all the pieces sequenced in the right order so that they are effective." What does that even mean?

So what to do. One, be realistic. Recognize the reality of the real timetable for decrim. You will not be able to legally buy marijuana outside of the medical market on July 2, 2018. Second, avoid business plans whose survival depends on decrim happening at all. Third, avoid business plans whose survival depends on decrim happening in 2018. Fourth, be a nimble trader, not an investor. Wait to be an investor after the cannabis market has its inevitable severe correction.

Or, you can believe the government's election promise.

GDPR – Big Data and The Right to be Forgotten

The Internet of Things enables Big Data to suck at our daily lives. Every day brings another story of another data breach, of a hack, a personal information gone missing, of ransomware, of negligent data handling. Countering that, the evolution of blockchain and the anonymity of cryptocurrencies show that the populace does not want to be tracked and does want to keep personal data safe.

Whether it’s securities commissions overseeing the issuance and trading of crypto coins, or Canada’s Anti-Spam Legislation (CASL) governing electronic communications, governments have many tools in the toolbox to regulate data. The European Union is taking a different approach and swinging a much bigger hammer.

The European Union is using GDPR to push back at Big Data’s constant assault on individual privacy rights. General Data Protection Regulation (GDPR) imposes a positive duty on businesses to protect the personal data of EU citizens for transactions that occur within EU member states and it limits the exportation of personal data outside the EU. It affects any business doing business anywhere in the EU, regardless of where the business is located globally, with one standard of compliance enforceable across the EU. The rules are pro-consumer with astonishingly high penalties for non-compliance.

GDPR was passed by the European Parliament in April, 2016, after four years of drafting, consultation and research. Enforcement kicks off on May 25 of this year. GDPR’s homepage is here. If your company has any shareholders in the EU, you must learn about GDPR.

Here’s a very high level overview. A business is allowed to collect the absolute minimum amount of data to carry out its business purpose, and it must be accountable to the individuals for the storage and use of that data. GDPR’s definition of what constitutes personal identification information is extremely broad – companies must provide the same levels of protection for simple things like an individual’s IP address or cookies as for more personal items like name, address and biometrics.

GDPR also requires a business to designate a Data Protection Officer (DPO) to oversee data security strategy and GDPR compliance. Among other duties, that DPO must self-report to regulators and individuals affected by a breach within 72 hours of a such breach being detected.

The DPO is also ultimately responsible for enforcing the following rights for every individual:

- The right to be informed
- The right of access
- The right of rectification
- The right to erasure
- The right to restrict processing
- The right to data portability
- The right to object
- Rights related to automated decision making and profiling

Of these, I find the Right to Erasure to be the most fascinating. If you were so inclined, you could force every company that has ever dealt with you in the EU to delete all of your personal information from their records, completely, irretrievably, permanently. You have the Right to Be Forgotten. You can erase your digital footprints. This puts the power back in the hands of the consumer, not Big Data.

There is a cost to getting into compliance with GDPR. PwC's "GDPR Preparedness Pulse Survey" released in January, 2017 found that while 24% of US multinational respondents planned to spend under $1 million for GDPR preparations, 68% said they would invest between $1 million and $10 million. Another 9% expected to spend over $10 million to address GDPR.

But, there is an even larger cost to non-compliance, with penalties of up to €20 million or 4 per cent of global annual revenue, whichever is higher, for non-compliance. Management consulting firm Oliver Wyman predicts that the EU could collect as much as €5 billion in fines and penalties in the first year from FTSE100 issuers alone. (Until Brexit is formalized, all British companies are subject to GDPR.)

Large multinationals can eat the cost of terrifyingly high compliance, but most businesses lack the resources, motivation or knowledge to get into GDPR compliance. The best advice I can give is for you to find a third-party service provider who has a tech toolbox that provides that compliance. The outsourcing of key technology functions is common place; the more businesses that outsource GDPR compliance, the more it fits within the definition of 'reasonable' and provides a due diligence defence.

(Thanks to Neil Beaton of CAPS Group for his thoughts on the technical challenges of GDPR compliance, and thanks to Derek Lackey for his excellent presentation. You can contact Neil at nbeaton@otcgc.com, and Derek at dlackey@newportthomson.com. Any errors or mis-statements are mine.)