



WEEKEND READING

Shedding the light on what's happening - our world - our finances - our times

Sticking with Stocks

BC is on Fire

I visited relatives in Kamloops over the past holiday weekend. Kamloops is at the junction of the Thomson and North Thomson Rivers. They live upslope on the north side of the Thomson River with a spectacular view across the valley. Thunder and lightning storms are common in the area.



Sitting on their back deck we watched the storm with lightning strikes that ignited the Juniper Ridge Fire. 400+ strikes hit as the storm moved along the valley, a few directly upslope behind their house!

We saw the strike starting the Juniper Ridge fire that quickly ballooned into a raging inferno. Fortunately, the winds pushed the fire across slope in a green belt between two large housing developments. The headlights of cars lined up for miles along on the only road out of Juniper Ridge led through that same green belt. The flames were spectacular against the night sky with trees exploding like roman candles as the fire raced. Airborne fire suppression is day-only (VFR). It was a tense night until the heavens opened, dumping torrential rain on the bush helping the Kamloops fire department, save homes at the edge of the blaze. A very close-run thing.

Other areas around Kamloops were hit harder. The bush is full of tinder-dry material ready to burn. Post-fire reviews will correctly point to climate change. Changes in forest management will also likely be to blame. The hollowing out of BC's Forestry Department, curtailment of controlled burning (locals complained of smoke), mono-culture tree planting, lack of attention to Mtn Pine Beetle infestation standing deadwood will be analyzed. BC's entire urban/forest interface needs to be addressed. It would be nice if the world achieves Paris Climate Accord goals, and these risks abate. My belief is we should be prepared for worse.

Hydrogen Update

I continue to believe electrification of the transportation sector could happen. There is no question that electric motors are simpler and more efficient than Victorian age-of-steam era technology internal combustion engines.

As a reminder...gasoline or diesel goes 'boom' in a cylinder (replacing the expansion of steam) driving a piston down the hole. Energy efficiency at this end of the process is at best under 35%. The rest goes out the exhaust pipe. The piston turns a crankshaft. Crankshaft turns a transmission gear box. The transmission output gear turns a drive shaft. Drive shaft connects to a rear end gear cluster (another set of gears). The rear end gear case outputs connect at right angles to axle shafts with wheels bolted on the end. The wheels turn, driving us all down the road. Drivetrain power losses of 15-20% are typical. Hot-Rodders know this.

<https://www.motortrend.com/how-to/ccrp-0311-drivetrain-power-loss/>

Or...just plop an electric motor on the end of each wheel. Simple!

The problem is having electricity available to an inconveniently moving vehicle. Batteries are the current rage. I believe electrifying the transportation sector requires onboard power generation. Remotely generated electrical power (hydro dams, wind turbines, solar cells biomass, etc.) with the associated powerline infrastructure and onboard battery storage is too inefficient and expensive for even developed nations to entertain – the evidence being it hasn't happened yet. Developing countries don't have the money. It's a big ask of a third world rural farmer to forgo their grass-powered donkey available for free by natural breeding, for a non-existent Tesla Power Wall battery hooked up to a yet-to-be-developed battery-powered tractor powered by non-existent solar panels hooked up to a non-existent power grid. Hydrogen fuel cells generating on board power seem to make more sense. For a sense of the technological challenge, 1/3rd of the world's population does not have a smart phone.

<https://www.bankmycell.com/blog/how-many-phones-are-in-the-world>

Cell Phone Usage Worldwide, by Country

Tip: Filter table columns by clicking on the headings

RANK	COUNTRY/MARKET	TOTAL POPULATION	SMARTPHONE USERS	SMARTPHONE PENETRATION
23	Nigeria	201M	30.0M	14.9%
19	Pakistan	205M	32.5M	15.9%
20	Bangladesh	168M	31.0M	18.5%
41	Iraq	39.7M	9.6M	24.2%
2	India	137B	346M	25.3%
37	Ukraine	44.1M	12.6M	28.6%
21	Egypt	101M	30.5M	30.1%
6	Indonesia	270M	83.9M	31.1%
15	Philippines	108M	36.3M	33.6%
33	Algeria	41.7M	15.8M	37.9%
34	Morocco	35.6M	13.9M	39.0%
36	Venezuela	32.3M	12.9M	39.9%
30	Colombia	49.4M	20.3M	41.1%
27	South Africa	55.8M	23.2M	41.6%
35	Peru	32.5M	13.7M	42.2%
43	Kazakhstan	18.2M	7.9M	43.4%
22	Thailand	69.3M	30.2M	43.6%
14	Vietnam	97.4M	43.7M	44.9%
4	Brazil	212M	96.9M	45.6%
9	Mexico	132M	65.6M	49.5%

Significant hurdles remain for production of hydrogen but those appear far less challenging than the infrastructure costs associated with ‘alternative energy’ power delivery systems.

The BC Provincial Govt released a hydrogen strategy Tuesday this week. NBF’s Institutional Energy Desk commented on Wednesday (if you are unable to access the PDF link below and would like an electronic copy, let us know).

BC released a hydrogen strategy. In short: *“The strategy document, made public on Tuesday, outlines a series of short- and long-term policy and procedural goals, including the development of a framework for provincial regulators to work co-operatively with hydrogen industry players. It also includes provisions for reviewing and setting regulations for hydrogen production.” – Globe and Mail*

Full BC Hydrogen document is included here:

https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydrogen_strategy_final.pdf

A nugget on Ballard included below (they are BC based).

In terms of near-term development, our Daily Oil Bulletin article notes that: *“The province is growing the hydrogen economy with programs such as the Zero-Emission Vehicles Act and Low Carbon Fuel Standard (LCFS). With support from LCFS credits having a market value of \$1.7 million, Surrey-based Powertech Labs, a subsidiary of BC Hydro, will construct and operate a light-duty hydrogen-fuelling station that will also produce hydrogen on-site*



through electrolysis. The station will support a BC Hydro hydrogen fuel-cell pilot and will be available for public use.”

But Ballard chief executive officer Randy MacEwen welcomed Tuesday’s announcement. “A comprehensive hydrogen strategy for the province will send a strong signal to investors, boosting economic growth and local jobs while positioning B.C. as a leader in the hydrogen economy,” he said in a statement.

Ballard tested its hydrogen technology in Whistler, B.C., from 2009 to 2014, outfitting 20 buses with its fuel cells in a five-year pilot project. The project ended in 2014, and much-publicized talk of a “hydrogen highway” from B.C. to California never materialized.

Hydrogen had to be trucked in from Quebec to fuel Ballard’s buses, adding to the project’s already-high operating costs and underscoring the lack of infrastructure for hydrogen fuelling in Canada.

A hydrogen fuelling station opened in Vancouver in 2018 and more have gradually begun operating in B.C. since then. By the end of 2021, at least 10 hydrogen stations are expected to be available in B.C. for motorists.

Source: Globe and Mail

We’ve featured **Ballard Power Systems** in previous Readings.

Ballard Power Systems (BLDP-TSX-\$20.91) monthly ranges 1993-2021



Ballard hasn't been easy to own. If you bought Ballard at the \$2.50 IPO in Oct/1993 you're reasonably pleased today. During the Dot.Com bubble you would have seen a \$210.80 high in March/2000 followed by lows of 58 cents in Nov/2012. The monthly moving average didn't break \$2.50 again until July/2014. 21 years is a long time to wait. BLDP's \$CDN stock price is down 61% from the Feb/2021 highs over \$52. Ouch! Anna remembers the news talking about Ballard with great hurrah as a teenager. She's now 40

NBF analyst Rupert Merer covers the stock. His last update was May 4, 2021 with Ballard at \$19.99 \$CDN. He maintained his Outperform rating with a \$27 price target. If you'd like the full report let us know.

DISCLOSURE: I have no position in Ballard Power personally, for family members or for client accounts over which I have trading authority.

Staying with transportation we're following Laser Radar (Lidar) technology in self-driving cars. Barron's featured Israeli based **Innoviz Technology (INVZ-NASDAQ-\$9.67)** over the weekend. The company went public in the US June/2020 at \$10.00.

'Lidar Is the Future of Autonomous Driving. This Company Is Making It Cheaper and Better.'

Story access via subscription.

<https://www.barrons.com/articles/lidar-is-the-future-of-autonomous-driving-this-company-is-making-it-cheaper-and-better-51625405944>

DISCLOSURE: I have no position in Innoviz Technology personally, for family or for client accounts over which I have trading authority.

An important decision for BC's Resource industry came down this week.

'After landmark court victory, Treaty 8 Nations lay out vision for energy development in northeastern B.C.' – July 8, 2021 CBC.

<https://www.cbc.ca/news/canada/british-columbia/treaty-8-blueberry-river-energy-british-columbia-ruling-1.6095081>

'Court rules B.C. violated First Nation's treaty rights in precedent-setting case' CTV Global News with graphic videos

<https://globalnews.ca/news/8011372/bc-first-nation-resource-ruling/>

The full text of BC Supreme Court decision is available here

<https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/1322/index.do>



This decision should be required reading for those pondering the future of developments involving native land treaties in BC and Western Canada. Being a lay-person, I am not able to interpret the findings. I note that this decision pertains to an original dispute laid in Sept 1978, 30 years and 6 months after the original March 1948 Treaty 8 date. The dispute has been proceeding through the courts for 43 years.

I recommend a careful reading of the decision. It pertains to 'mineral rights' obtained by the Crown under the original treaty that resulted in development on Blueberry River Band territory. The decision is that the Blueberry Bands 'Way of Life' were altered by local development over the past 73 years and appears to conclude those changes require compensation. Note the mineral rights in question were sold for money, with title transferred. The claim appears to be it was a 'bad deal', the Crown knew it, was in a position of duty of care and didn't act in the Band's best interest. The band's agreement to what in retrospect was a 'bad deal' appears to be set aside with damages to be awarded.

Here is the conclusion (emphasis mine).

*"I would allow the appeal and set aside the judgments below. **The Bands are entitled to damages against the Crown for breach of fiduciary duty with respect to such mineral rights as were conveyed by agreement for sale or by deed after* August 9, 1949. I would also allow the cross-appeal, for the reasons given above. I would award costs to the appellants on the appeal.** Since the cross-appeal was as to reasons only and did not affect the result, I would make no order of costs on the cross-appeal."*

As the above new articles point out the Blueberry River reserve covers a large swath of the Montney Oil and Gas formation. Most of the development in the area is to extract oil and gas. The Site C Dam is in the same area. The decision is in favor of the Blueberry Band and awards costs to the band (IE

the Crown pays). I don't know what this means to existing or planned projects. Will a private corporation developing existing mineral rights obtained from the Crown suddenly be in a new position, or will the Crown only be responsible implying tax-payers are on the hook not the private corporation? Will future development fall solely under the purview of the Blueberry Band? The

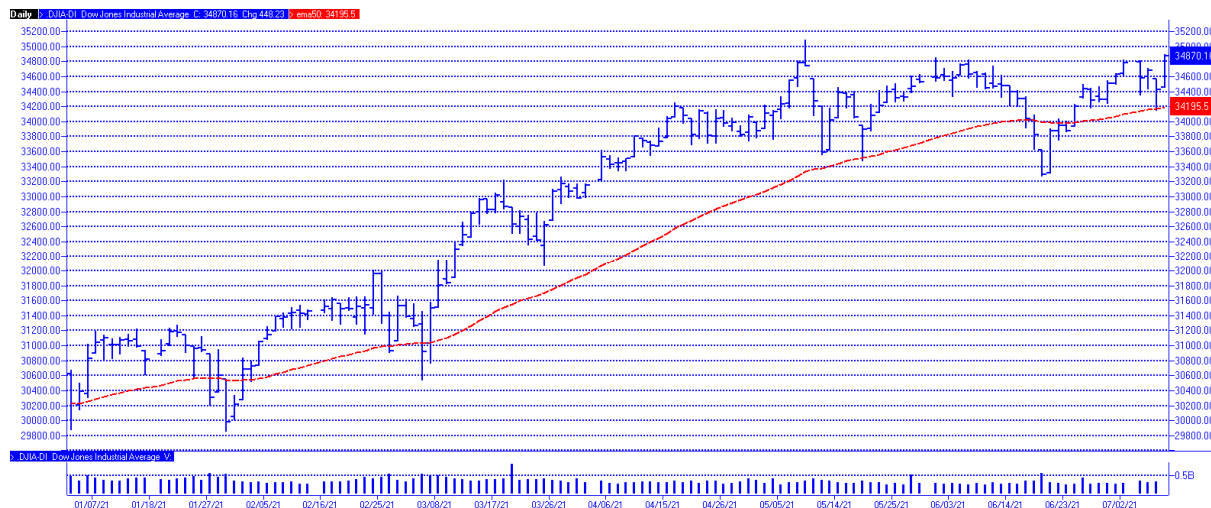
decision appears to have far reaching consequences.

One can reasonably conclude this decision will encourage other claims of similar nature. Any of the share prices of publicly traded, private corporations with oil and gas assets in the Blueberry Band territory all dropped on the news. Oil prices have regained value late in the week. The share prices of the companies involved do not appear to have followed suit. Investors are clearly nervous. We will post more information as it becomes available to us.

Moving on the broad equity markets:

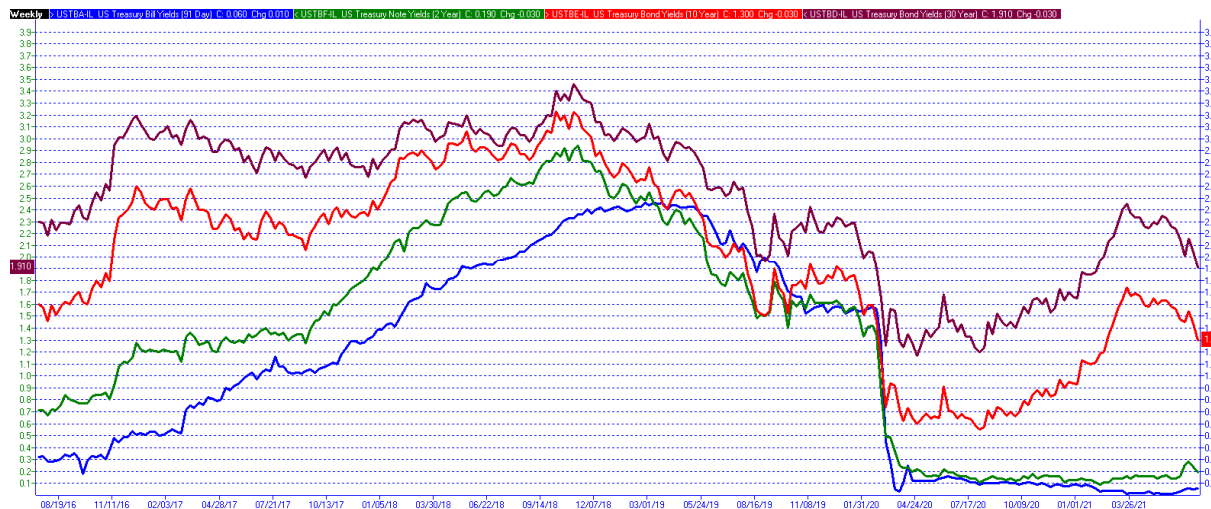
Stock prices have traded sideways since May. After a breathtaking rebound, markets appear to be catching their breath.

Dow Industrials daily ranges, year to date



Despite all the fire and fury from media pundits, stock prices have flat-lined since early May. I view this as a normal ‘correction’. The markets are rebalancing. The stock price action isn’t much of a concern. We are watching bond yields more closely.

The US 30-year (burgundy) and 10 year (red) yields have declined since March/2021.

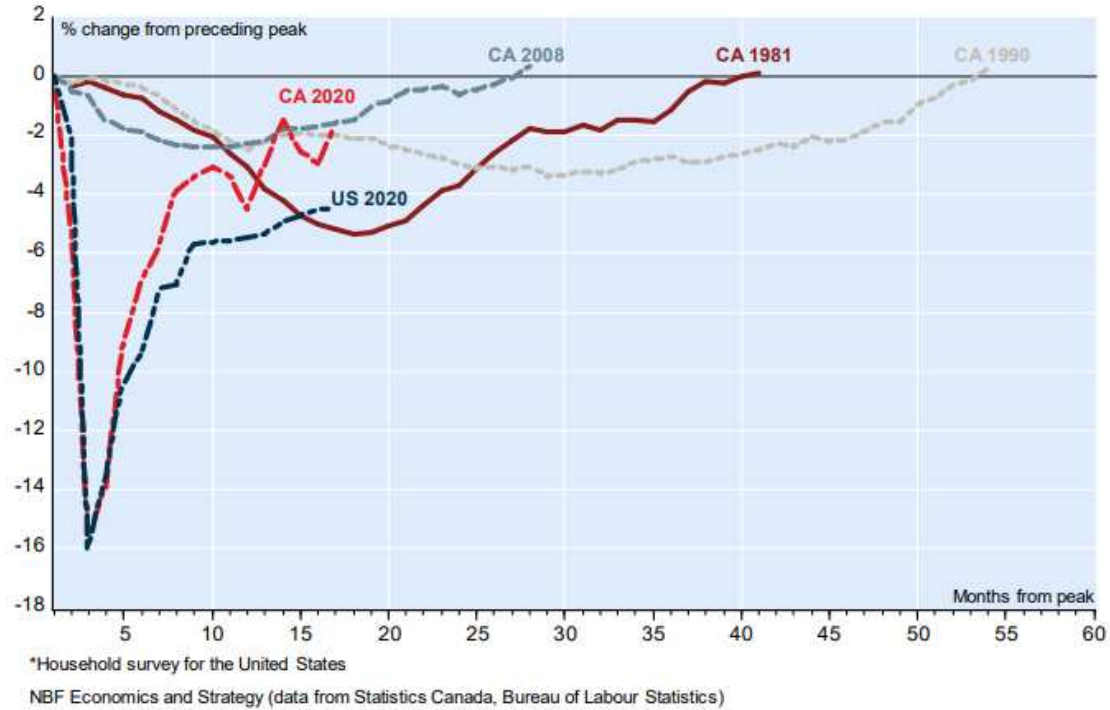


I believe it’s too early to call this an ‘anti-inflation’ trend. My guess is the decline in yields has more to do with relief by US investors that the Democrats under Joe Biden will not get nearly as much as they hoped for both in the form of spending and taxes. Not that what isn’t agreed to isn’t enough! I also believe there was excess enthusiasm over a US rebound. It will happen. Here in Canada the jobs report was encouraging with Canada outpacing US relative job growth.



Canada: Labour market recovery has resumed

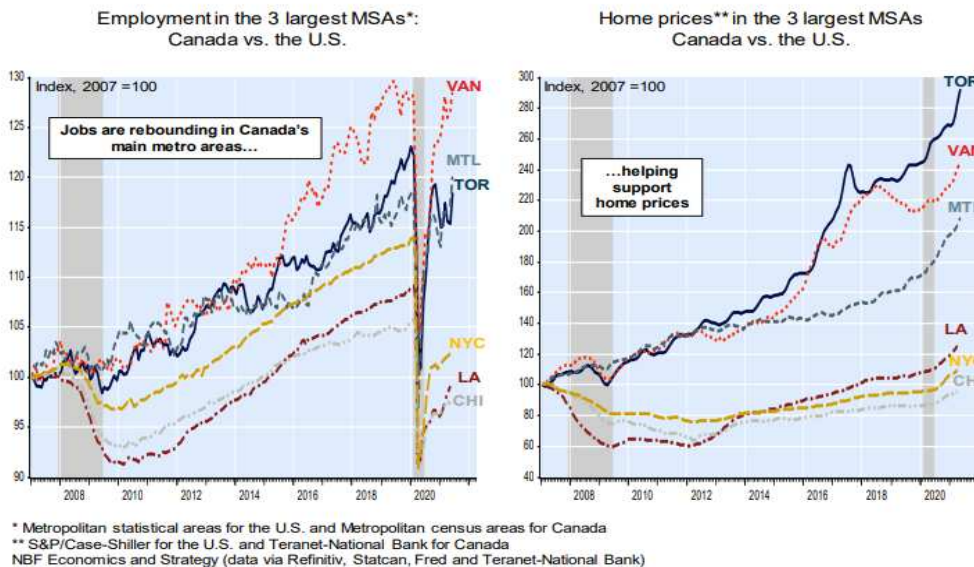
Employment*, % change from preceding peak



See ‘Economic Watch’ in the PDF Links for the full report.

This week the Canadian news media pointed to Canadian house prices being the most expensive in North America. NBF’s Economic Team feels job gains support house prices in our major cities. I’m not so sure. Hope I’m wrong.

Canada: Creating jobs in the right places



See ‘Hot Charts Jobs in the right places’ in the PDF links



Other than rebalancing and some pruning we're not making major asset allocation shifts between cash, bonds and stocks. We're keeping our bonds short in maturity and maintaining our exposure to large cap dividend paying stocks. We went from 35% cash to all-in on stocks in March/2020 and haven't change that overall allocation much. The resulting 38% gain in US holdings and 43% gain on our Canadian portfolios support that stance. What about the 2020 COVID Meltdown? What does our two year performance look like?

July 1, 2019 to July 7, 2021 avg annual returns spanning the COVID-19 collapse in the economy.

Canadian Dividend Growth Avg Time Weighted avg ann. return net: 16.82%

US Dividend Growth \$USD Avg Time-Weighted avg. ann. return net: 17.24%

We'll take a 1/3rd gain over two years any time vs. sub-2% bond yields.

We think there's more to come. We're sticking with stocks.

What Is The Best Investment You Can Make | What If You Aren't Strategic

Many of our clients have Children and Grandchildren whom are thinking about investing in themselves through education or furthering their development with course work. Anna looks at how to ensure the benefits outweigh the costs.



Watch Anna's latest video here

https://www.youtube.com/watch?v=ttPak_NybBI

Have a Great Weekend!



FOR THE RECORD (date)

DOW INDUSTRIALS:	34,870
S&P 500:	4,369
S&P/TSX COMP:	20,257
WTI:	\$74.40
LOONIE IN \$USD:	\$0.8036 \$US

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