



WEEKEND READING

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

Department of Corrections: BC Hydro comment - April 23, 2021

A sharp-eyed client pointed out a significant blunder I made in last week's comments, 2020 increases in Chinese installed power capacity (thanks George!) I pointed out China's renewable and coal fired capacity increases. As all the numbers are so large, in the comment I attempted to put the coal-fired increases into context, using BC Hydro's present, mostly hydro and mostly static, capacity for comparison. I said *"British Columbia has installed electrical capacity of 18.2 Mega-Watts of electrical power. 91% of that is BC Hydro's 15.9 MW, most of it along the Columbia River. There are 1,000 Mega watts in 1 Giga watt. Each 1 Giga watt of additional Chinese coal-fired electrical capacity = 62 BC Hydro's. Replacing the roughly 30 Giga-watts of additional Chinese coal-fired electrical generation in 2020, would require the addition of capacity equal to 1,875 BC Hydro's in one year. Again, I'm not saying we should all try to be cleaner and greener. As there's a lot of political heat on the issue, let's just keep it in perspective."*

My error was literally key punch. Loading the BC Hydro data into my spread sheet I entered 18.2 megawatts when the correct figure is 18,200 megawatts or 18.2 gigawatts. The calculation errors compounded through the rest of the commentary. Very embarrassing.

I must admit confusion with the differences between hourly maximum capacity, average realistic run-rate capacity (how much can be drawn without causing brownouts) and annual capacity total (which has a nice big fat sounding number for politicians to trot out).

According to BC Hydro's website, their annual power generation capacity is 43,000 Gigawatt hours. While a nice big number it doesn't tell us much about hourly draw capacity.

https://www.bchydro.com/energy-in-c/operations/generation/electric_generation.html

According to Wikipedia, BC Hydro's 'nameplate' hour capacity is between 11,000 and 18,000 megawatt hours (matching the 18.2 gigawatt figures in my comments)

"BC Hydro operates 32 hydroelectric facilities and three natural gas-fueled thermal power plants. As of 2014, 95 per cent of the province's electricity was produced by hydroelectric generating stations,

which consist mostly of large hydroelectric dams on the Columbia and Peace rivers.[6] BC Hydro's various facilities generate between 43,000 and 54,000 gigawatt hours of electricity **annually**, depending on prevailing water levels. **BC Hydro's nameplate capacity is about 11,000 megawatts.**"[7] Note **Bold** highlighting is mine

Being cautious on Wikipedia info, I poked around Canada's Fed Govt Natural Resources 'Canada Energy Info' page for confirming stats.

<https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-british-columbia.html>

From Natural Resources Canada website

Electricity

In 2018, B.C. generated 74.2 terawatt hours (TW.h) of electricity (Figure 2), which is approximately 11% of total Canadian generation. B.C. is the 4th largest producer of electricity in Canada and has a **generating capacity of 18,286 megawatts (MW)**. Note **Bold** highlighting is mine

BC Hydro generates most of B.C.'s electricity. Independent power producers operate several smaller hydroelectric plants as well as all the biomass, wind, and solar facilities.

About 91% of electricity in B.C. is produced from hydroelectric sources. **B.C. is home to over 15,955 MW of hydroelectric capacity, most of which is located on the Columbia River in southeastern B.C. and the Peace River in northeastern B.C (Figure 3). Site C, a new 1 100 MW hydroelectric facility, is currently under construction on the Peace River. The project is expected to be completed in 2025.'**

Note **Bold** highlighting is mine

This tells us if/when BC Hydro completes the Site C dam it will add 1.1 gigawatts of capacity. So no, China's coal-fired capacity increase didn't equate to 1,875 BC Hydro's in one year. China's 2020 net increased coal-fired capacity equates to roughly 1.8 (almost 2) BC Hydro's in one year. China's coal-fired increase represents 27 Site C Dams. I believe my point that Canadians pondering our local policy decision impacts on the global climate should have a sense of perspective. Again, this does not mean we shouldn't try to be cleaner and greener. My point is we need to be realistic about the global effect of any decisions, and importantly, sacrifices (IE industries closed, jobs lost, taxes increased) we make.

As a reminder...

We are hosting our Annual Clean Energy Conference on June 1st and 2nd.

There will be pre-recorded panel presentations available on Friday, May 28th and then 1x1's on June 1st and 2nd. Attending companies include: Ballard (BLDP CN), Boralex (BLX CN), Brookfield Renewables (BEP CN), Capital Power (CPX CN), Emera (EMA CN), Fortis (FTS CN), HydroOne (H CN), Innergex (INE CN) and Northland (NPI CN). If there is interest in joining please let us know!



NBF-TMX 7th Annual Canadian Clean Energy Conference – Virtual



Tuesday, June 1 and Wednesday, June 2, 2021



China's Biggest IPO This Year Looks to Be in Renewable Power (1)

- China Three Gorges unit gets approval from regulator
- Funds will be used for offshore wind projects, help liquidity

By Krystal Chia

(Bloomberg) -- China Three Gorges Renewables Group Co. is set for an initial public offering that could be the biggest in the country this year after securing regulatory approval.

The unit of China Three Gorges Corp. plans to sell up to 8.57 billion shares in Shanghai, it said in a prospectus filed to the Shanghai stock exchange, without giving the value of the funds to be raised. The state-owned company has received written approval from China's securities regulator, according to a China Securities and Regulatory Commission statement Friday.

China Three Gorges Renewables announced last year it was seeking to raise 25 billion yuan (\$3.85 billion) in an IPO. The listing could easily be the largest debut in China in 2021 if it starts trading this year, according to data compiled by Bloomberg, topping Tianneng Battery Group Co.'s \$697 million listing in January.

Source Bloomberg/NBF

Staying with coal...

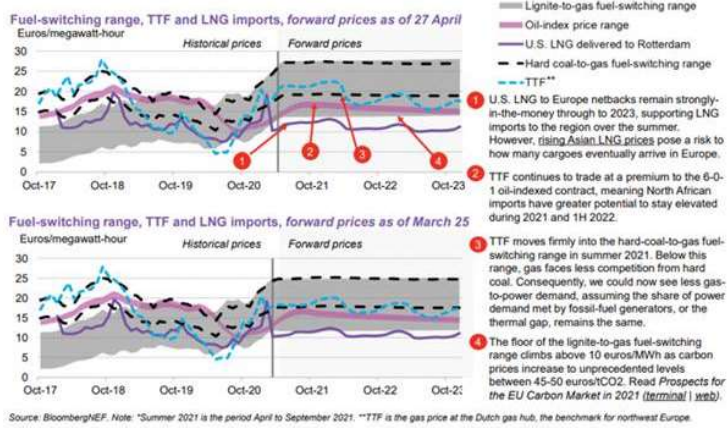
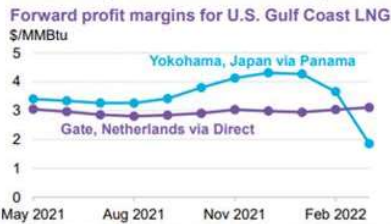
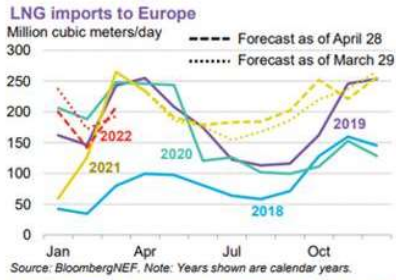
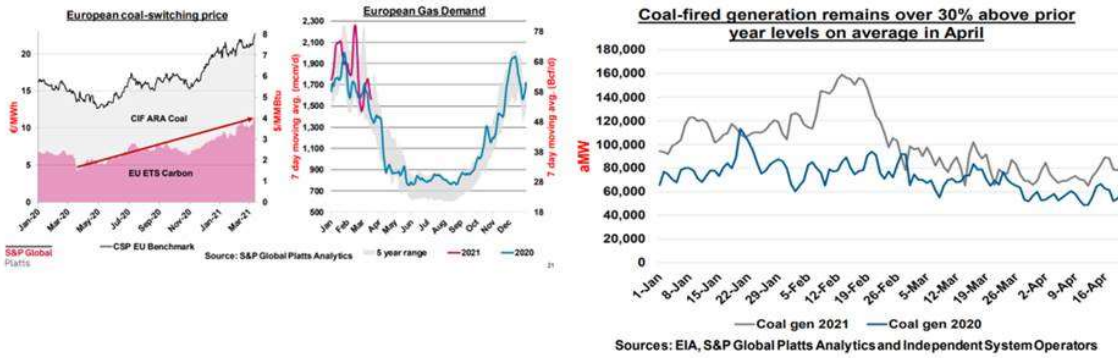
'Biden takes on Dems' 'Mission Impossible': 'Revitalizing coal country' - Politico Apr 18, 2021

<https://www.politico.com/news/2021/04/18/coal-country-revitalization-biden-482659>

Coal has an unexpected relationship with natural gas - From National Bank's daily Energy and FOREX notes Apr 30, 2021

"There were a few interesting takeaways from S&Ps recent coal market update and oddly enough Bloomberg provided a very similar thesis in a report this morning. Basically our main takeaway is that because the coal market is so tight in Europe (and elsewhere), pricing has been strong enough to increase the coal-switching price of gas – so the TTF gas floor has been trending higher. Granted, other more bearish stories are in the background as India's covid situation could pose a risk the power market there (and reduce coal and/or LNG imports), coal production in China is continuing to increase (outpacing coal consumption) and the Biden administration is as anti-coal as anyone. Bloomberg's report added that Japan (so JKM) is also producing more coal, which may lead to fewer LNG imports landing in Japan." Source, NBF Energy Desk





This week, US President Joe Biden made a speech to the US Congress.

<https://www.politico.com/interactives/2021/joe-biden-speech-to-congress-2021-live-analysis-transcript-highlights-4-28-21/>

Big on climate change, infrastructure and taxing ‘the rich’ (IE somebody else) it was unabashedly big Government, big spending and big taxes. The speech was generally well received by the media. CBC loved it. Setting aside tribal politics, it’s about time indeed. About time the leader of the US spoke of inspiration and optimism, a great future and opportunity for all, vs. dog whistling, division and dark threats only to be solved “...unless you vote for me”.

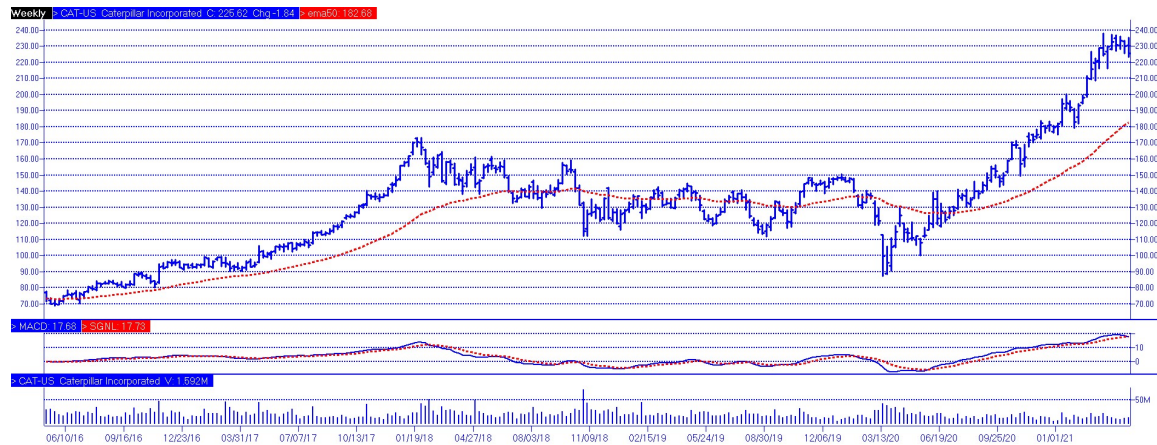
Spending on infrastructure that aids productivity is a good thing. Spending on education, including early childhood, improves the next generation’s chances. Spending on encouraging innovation and new ideas brings new growth. Done right these are truly ‘investments’. Providing the programs put private endeavor up front, it can be a win.

Unfortunately, Big Government tends towards self-propagation and cloning. The reward structure of keeping one’s tidy government salary or getting reelected, pork barrels, etc. is all wrong. Execution of high ideals often doesn’t work out at the local government level. History says that if productivity falls while taxes went up the result will be higher costs, IE inflation. So, we wait and see.



Investors believe one of the likely beneficiaries of US infrastructure spending is Caterpillar Inc.

Caterpillar Inc (CAT-NYSE-\$225.53) weekly 5 years



The left margin begins in 2016, in the middle of the last business cycle. CAT traded around \$70. At this writing the shares are around \$225USD, having tripled. How much of undoubtedly good news is already in the price? History adds that the early summer is a good time to do some trimming. Sell in May. The counter argument is we're in the early stages of this business cycle. History also says, the pandemics, once survived, are followed by very strong expansions. Look up 'The Renaissance' and 'The Roaring Twenty's'. Hitting the SELL button too hard is probably a mistake.

DISCLOSURE: I hold Caterpillar Inc. in my personal accounts, in family accounts and for client accounts over which I have trading authority. We have traded in the security in the last 60 days.

Another less obvious beneficiary of Biden's enthusiasm is the US Energy Sector – yes oil and gas.

US Select Sector SPDR Energy Trust ETF (XLE-\$49.64)



A growing US economy means increased demand for all things. From sometime yet to come *'If you bought it, a truck brought it'* will be true. We should also remember Mr. Biden was #2 IC during the Obama administration's oversight of tremendous expansion in oil development of the US shale industry. They weren't exactly enemies of US oil.

The dip in the middle of the chart is Oct/2020 with prices in the \$28 range. We added XLE to our US portfolios that month. Dividend yield on cost is around 7.4%. Recent highs have been around \$54.00. Price has roughly doubled.

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***'Running of the Bulls'* – Ed Yardeni Apr 25, 2021**

Dr Ed looks at the current environment.

<http://blog.yardeni.com/2021/04/running-of-bulls.html>

***'The Spectrum of Optimism and Pessimism'* – Morgan Housel Collaborative Fund Blog**

Mr. Housel often focuses on investor psychology.

I often remind clients 'I've never met a rich pessimist'. I should alter that slightly to "I've never met a rich pessimist...who earned the money'.

<https://www.collaborativefund.com/blog/the-spectrum-of-optimism-and-pessimism/>

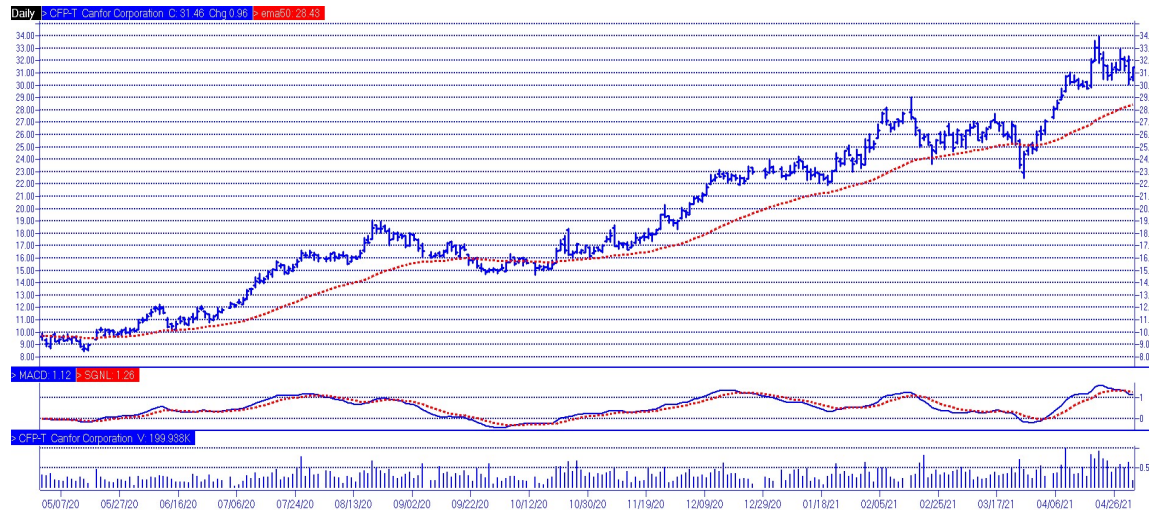
***'Days of Future Past'* – Josh Brown**

<https://thereformedbroker.com/2021/04/29/days-of-future-past/>



The lumber market is on fire.

Canfor (CFP-TSX-\$31.39) daily ranges 12 mos.



‘Why Dead Trees Are ‘the Hottest Commodity on the Planet’ – The Atlantic
Apr 27, 2021

At our place I am the ‘Man with the Tool Belt’. I get to swagger around, looking all official carpentry from time to time. It also means my ever-patient spouse Meryle, puts up with my procrastinating. This week, I FINALLY got around to finishing the trim in her garden shed window.

Half hour into town, down to our local lumber supply store to pick up a single cedar board 1" X 6" 8-foot long (yes, I use an old-school imperial system tape measure). \$10.78 per piece. That seemed like a lot but whaddya’ do? Half-hour back to the house. Do the job. As so often happens, after showing with pride my finished project, Meryle points out *“Steve, there’s no side trim. You only finished the sill”*. Uhhmmm. Back down to the lumberyard to buy ONE more piece.

NOTE TO INVESTORS: A professional shows up with all the right tools, all the right supplies (bought wholesale) and all the right knowledge. The job will be done right...the first time.

At the second trip, the man in the lumberyard had to open a new pallet. One board in hand and back to the front counter. Ring it in. Man pauses. Frowns. *“Uh...sir, that last board came off the old pallet cost you \$10.78. This board came off the new pallet will cost you \$18.90”*. The window trim looks great.

NOTE TO INVESTORS: Inflation has arrived.

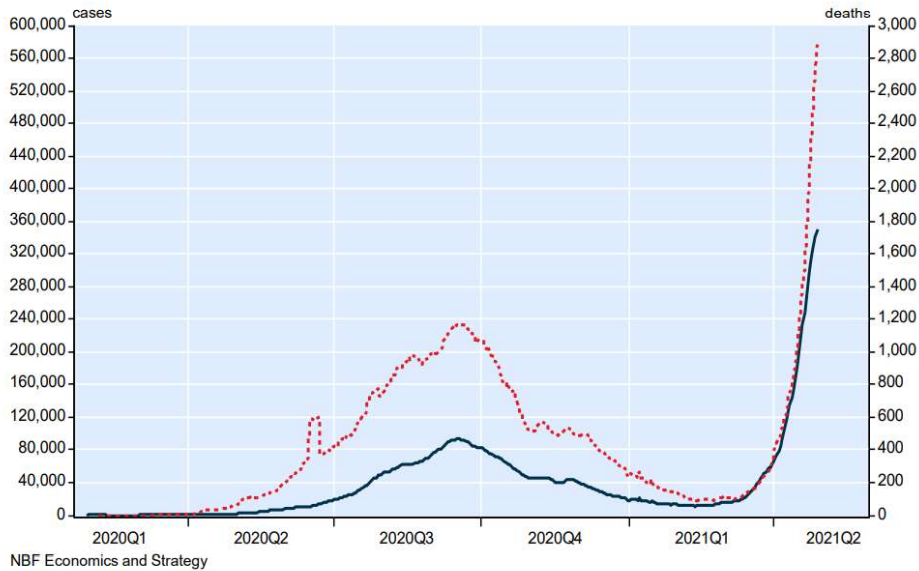
<https://www.theatlantic.com/science/archive/2021/04/climate-origins-massive-lumber-shortage/618727/>



National Bank: COVID-19 Daily Monitor Apr 30, 2021

India's numbers show no sign yet of peaking.

India



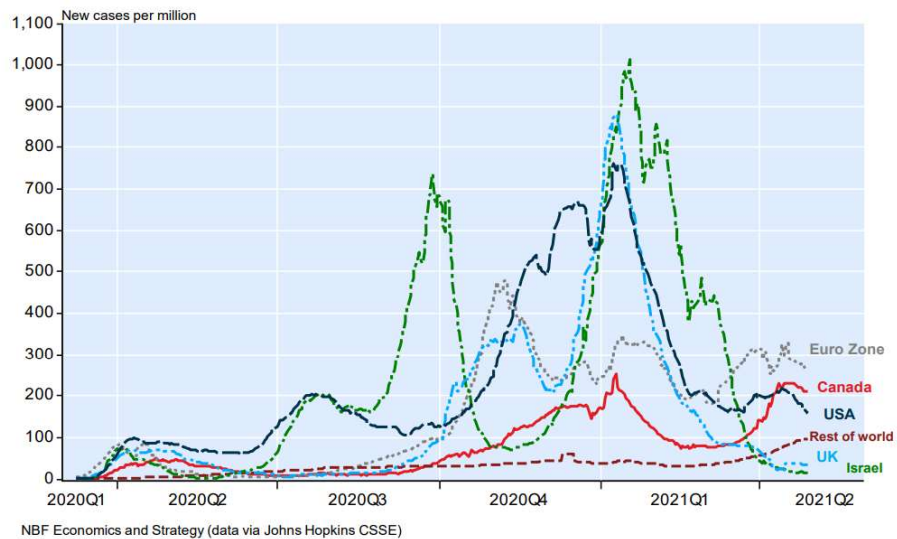
For India's COVID data, go here:

<https://www.worldometers.info/coronavirus/country/india/>

Globally, COVID-19 recorded cases remain below previous peaks. I should caution that data reporting of COVID cases in the developing world is less dependable.

1. World: Evolution of the pandemic

Daily new cases per million population by region, 7-day mov. average

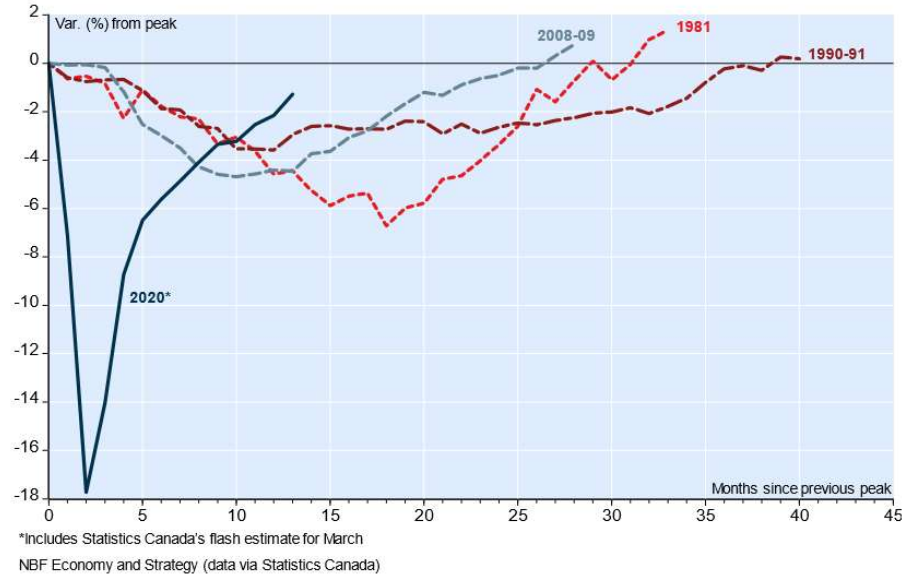


See “NBC COVID-19 Daily Monitor Apr 30, 2021” in the PDF links.

NBF's 'Weekly Economic Watch' tells us Canada is on the mend. While the 2020 decline was MUCH worse than the previous three recessions, the rebound has also been sharper and looks to be continuing back to par in record time.

Canada: Historical perspective on GDP in recessions

GDP during recessions, monthly data



See 'Weekly Economic Watch' for the full report.

This week Anna looks at the very real "Fear of Missing Out" and why it's so dangerous



Dealing With Investment FOMO | How Large is The Risk

Watch Anna's Video here: <https://www.youtube.com/watch?v=VSewekvrkwU>



It's supposed to be beautiful this weekend! On that positive note...

Have a Great Weekend!

Steve & Anna Hilberry



FOR THE RECORD Apr 30, 2021

DOW INDUSTRIALS:	33,910
S&P 500:	4,188
S&P/TSX COMP:	19,158
WTI:	\$63.63
LOONIE IN \$USD:	\$0.8144 \$US

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