GLEANINGS II - 878 Thursday March 25th, 2021

Allan McDonald - He died in Ogden UT on March 8th at age 83 from complications from a fall - His is a story of unusual professional integrity. For on January 28th 1986 he was the senior onsite representative of contractor Morton Thiokol at NASA's Kennedy Space Centre in Cape Canaveral FL as it was about to launch its 10th Challenger space flight. But that day it was unseasonably cold, -8°C, & Thiokol engineers were worried that one critical rocket component, an O-ring in the fuel system, wouldn't function properly at below +11°C. So he wouldn't sign off on the launch, forcing his supervisor do so under pressure. The rest is history: 72 seconds after lift-off the O-ring failed & Challenger blew up, killing all seven astronauts aboard ¹.

Fagradalsflall - This volcano, 30 kms/19 miles from Iceland's capital Reykjavik was 'silent' for 8 centuries. But on October 20th there was a 5.7 earthquake there, followed over the next few months by 50,000 'aftershocks' & by another 5.7 quake & 400 aftershocks in 7 hours (*i.e. about one per minute*) on February 24th. Then at 2045 hrs on Friday March 19th it blew red hot lava 100 yards into the air that then turned into an "orderly lava stream" from a 500+ yard-long crack in the earth crust that created a 300,000 cubic metre/10.5MM cubic feet 'lava bed'. The site became a visitor destination point despite requiring a several hour hike across rough terrain from the nearest road & the poisonous sulphur dioxide (SO₂) being among the gases produced.

Iceland has 130 volcanoes, about 30 of them rated active/(temporarily?) inactive. The fourth one in a decade to erupt, Fagradalsflall won't affect the outside world as much as did the 2010 eruption of the Eyjafjallajokul volcano 60mi/95km East of it that spewed so much ash into the air as to interfere with air traffic all over Europe (as is happening now in the Caribbean where the La Soufrière volcano on Friday April 9th erupted, for the first time since 42 years, on the 110,000 inhabitant island of St. Vincert, and has spewed an estimated 460MM tonnes of matrial into the atmosphere?). The country is so volcanic since it sits on top of the 'Mid-Atlantic Ridge' between two of the world's major tectonic plates, the North American-, & Eurasian-, ones, that continually slide against each other. But one benefit of this for Iceland has been that its 369,000 people are energy-independent. For 25% of their energy consumption, incl. most of that needed to heat homes & buildings, is thermal power-sourced & virtually all the rest hydropower-, generated. It imports only 3,100 bbld of motor fuel (i.e. < 2 liters per capita per day).

Israeli election - The March 23rd election, the fourth in 2 years, threw up a possibly even worse than usual dog's breakfast result ² & likely will, before long, lead to the fifth election in little more than two years. While, as is the case with Trump, Netanyahu has a core support base (in Likud & the orthodox right wing parties), it has eroded some because of anti-Netanyahu dissension in the Likud ranks. But, while this was thus in many respects a referendum on Netanyahu, the disenchanted couldn't agree on how to express their displeasure. Of the 13 parties in the 120 seat Knesset, only two have double digit seat-, & voter support-, numbers, Netanyahu's right wing Likud with 24.2% voter support & 30 seats, and Yair Lapid's centrist Yesh Atid with 13.9% & 17-, seats (the former down 7-, & the latter up 1-, from a year ago). Two parties lost voter support big time, the Blue & White coalition of former IDF Chief of Staff Benny Gantz to 8 seats from 12 a year ago & the *Arab* Joint List going from 11 to 6 as its supporters stayed home in

¹Incl. 37 year-old Chrysta McAuliffe, a New Hampshire high school teacher who was initiating NASA's "Teacher in Space" program to increase public support for the Space Shuttle program.

In the 73 year history of the State of Israel, no election ever has produced a majority government!

droves & some voted for Likud ³. Four parties held their own, the religious Shas & UTJ parties kept their 9 & 7 seats respectively, and the perennial gadfly Avigdor Lieberman's Russian immigrant-based Yisrael Beitenu party with 7 & the Arab Ra'am Party with 4 (although its voter support count increased slightly). And the other four winners were the 7 seat right wing Yamina Party headed by 49 year-old Naftali Bennet, a software millionaire wit Prime Ministerial ambitions ⁴ and three with 6 seats each, the Religious Zionists (up 4 seats), the ultra-nationalist New Hope Party of Gideon Saar, a Likud alum who failed to dethrone Netanyahu (& whose sole motivation is to finish the job & calls the two state idea "an illusion") & Meretz, a left wing/green group advocating a two state solution.

Some days you just cannot win - Farmer Rob Costigan lives in the Wauchope Valley North of Sydney, Australia. A year ago, a wildfire encircled his home, so after moving his livestock to safety he spent a week without much sleep pumping water from a nearby creek day & night onto its roof & walls to save it. But recently 'once in 50 year rains' caused that same creek to overflow with such force that it lifted his house, & his father-in-law's nearby, off their foundations & wrecked them.

In the past decade Australia has had nine of its warmest 10 years since 2005. A 7-year drought ended in 2019 killed billions of wild animals & domestic livestock, and cut grain production in half. Then the 2019-2020 wildfire season devastated 44,400 square miles of countryside (an area the size of Ohio & twice the Netherlands'). As Sarah Perkins-Kirkpatric, a climate scientist at the University of New South Wales put it, "Extreme weather has always been part of the nation's psyche and these events are expected" but 'climate change has just put them on steroids'.

Suez Canal blocked - At 0740 hrs local time/540GMT on Tuesday March 23rd, the container ship <u>Ever Given</u> was the fifth in line in a convoy only 6 miles into the 190 mile-long Suez Canal from the Red Sea when a wind squall pushed its stern Westward, causing it to change course ⁵ & bury its (bulbous, below the waterline) prow at speed deep into the canal's East bank &, with the current lodging its stern in the West bank, blocked all North-, & South-, bound traffic in the Canal.

It is a three year old, Panama-registered vessel owned by Taiwan-based Evergreen Marine Corporation, the world's sixth-largest container shipping line in the world, & is classified "Suez-Max"/ULCS (Ultra Large Container Ship), the largest Suez Canal class, 1,312 feet/400 meters long & 195 feet/59 meters wide, weighing 220,000 tonnes, with a draft of with 24 meters/80 feet

As of 1916 hrs PDT th March 25th it had blocked the Canal for 60 hours, like a cork in a bottle. So, with an daily average 50 ships passing through the Canal in either direction, by then some 150+ ships ⁷, carrying about 12% of the global freight in transit, were frozen in place in the Canal North & South of the <u>Ever Given</u>, with their number increasing by 2 every hour.

³These 'official' numbers grossly understate reality; for in the election a year ago Blue & White had gone from zero to 33-, & the Joint List from 13 to 15 seats (making it the 3rd largest Knesset party).

⁴A former Netanyahu Chief of Staff and Minister of Education & of Defense (who as draftee in the

IDF served as a company commander in commando units & still is a major in the reserves),

⁵Few people appreciate the size of these ships; thus the side of a fully-loaded container vessel of this size presents the wind with a flat surface to push against of over six acres.

The vertical distance from a ship's waterline and the bottom of its keel.

As of 1256 hrs March 27th their number had nearly doubled.

At 0723 hrs PDT on March 26th one newsbyte reported that the <u>Ever Given</u> had been "partially refloated" & another that normalizing traffic on the Canal might take weeks. The former was quickly proven incorrect for the <u>Ever Given</u> was not stuck on a sandbar from which it might be pulled with enough tug boat power, but its massive bulbous, below the waterline, prow protusion was buried into the Canal's East bank. But "weeks" may be too gloomy a prospect. For the Suez Canal Authority owns nine "suction dredgers" to help maintain the depth of the Canal by sucking muck from the bottom & pumping it on shore or into a barge; if one or more of those could be repositioned quickly, they likely could deal in fairly short order with 20,000 cubic meters/700,000 cubic feet of mud that needs to be removed from around the prow's bubble to free it.

The blockage was solved on Monday March 29th. Although 14 tugboats & two of the Canal Authority's suction dredgers, one of them the world's largest, did yeoman service in helping to free it, most of the credit must go to Mother Nature, for it was an usually high tide that gave the ship's hull the buoyancy needed to free itself & proceed to the Great Bitter Lake, almost 50 miles further North in the Canal where, despite the Authority's announcement the ship had "come out intact and has no problem", it will be anchored off the shipping lane to be checked top to bottom to make sure it is 100% seaworthy.

Meanwhile, it will take days, if not weeks, to get things in the Canal back to 'normal'. For it isn't just a matter of getting all the ships stuck inside the Canal system organized into convoys (they are not allowed to travel through it on their own) & on their way, and to plan for the arrival of the almost 50 other ships known to arrive at its Southern terminus alone in the next 48 hours & the 130 enroute behind them. And right now there are over a 100 Northbound-, & another 100 or so Southbound-, ships in the Canal. And it can only handle one-way traffic. So it normally operates in a sort of yoyo fashion, with some convoys heading North for a period of time only to have the Canal then be closed to North-bound traffic & solely allowing Southbound convoys to travel in it.

This event will have major global implications. For at its narrowest point the Canal is only 300 meters wide & 400 meter-long vessels like the Ever Given already could only enter it with special approval from the Suez Canal Authority that after this likely will be more reluctant to grant to any vessel with a length even close to the width of the Canal, i.e. 300 meters (& then only with more costly restrictions & implications?). And having to go around the Cape will add to the cost, and the time required of any global trade good moved from East to West or vice versa [thereby adding another nail to the coffin of globalization?]. And this would be worsened if the Panama Canal Authority were to use this precedent to also become more sticky about allowing bigger (& more efficient?) vessels in its system; for in the parts in which they move under their own power, the Panama Canal is much narrower than the Suez Canal (and the ship length allowed there is already is quite a bit smaller). And last but not least, this event will-, & will continue to-, affect, the Egyptian government in fiscal terms since the Canal has been a major cash cow for it.

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CONFRONTING THE HAZARDS OF RISING LEVERAGE (IMF, Adolpho Barajas & Fabio Natalucci)

\$ Increasing financial leverage (i.e. more borrowing) can boost economic growth by allowing firms to buy more machinery to increase more capacity and people to buy more homes or get an education. And in bad times it can help governments to stimulate recovery. But the higher the leverage the greater borrowers' vulnerability to economic

- downturns and financial crises have often been preceded by rapid increases in leverage known as "credit booms".
- \$ Thus even before the COVID-19 crisis financial leverage in the non-financial sector. i.e. households & non-financial firms had steadily been increasing globally, from 138% to 152%, and that of firms reached a historic high of 91% of GDP, driven by easy financial conditions in the post-Great Recession era and borrowing has increased even further in the COVID-19 era. And the same was generally true for the government sector. This is causing a dilemma for policy makers: accommodative policies are supportive of growth in the short run but ignite further increases in leverage, & with this comes a heightened risk of a sharp economic downturn seven or eight quarters out.

The magnitude of what is hanging over our heads may be gauged by the fact that a year ago the Government of Canada envisaged that its total expenditures in the year ended March 31st would be \$309BN & the deficit in the \$30+BN range (i.e. < 2% of GDP) while a private sector forecast last November envisaged a deficit \$381BN (20+% of GDP), with the amount of money borrowed, or created out of thin air, to fund its expenditures having grown ten-fold!

BIDEN'S TRUMANESQUE FOREIGN POLICY (WP, George F. Will)

- The recent weekend meeting in Alaska between President Xi's & President Biden's top diplomats was "admirably acrimonious". It was not unlike President Truman's 1945 meeting, 19 days into his Presidency, with Soviet Foreign Minister Molotov when he read him the riot act in "words of one syllable" about Soviet non-compliance with the promises made to FDR during the war And when Molotov complained he had never been spoken to like that by anyone before, Truman told him "Carry out your agreements and you won't be talked to like that".
- Ditto for Reagan; during his first press conference as *President* he told those present that in dealing with the Soviets one had to remember that "they reserve onto themselves the right to commit any crime, to lie and cheat in order to attain their goals". And on June 8th, 1982 in addressing the British House of Commons he referred to the Cold War as a struggle between good & "totalitarian evil" & embellished that further nine months later, on March 8th 1983, in an address to the Joint Houses of Congress when he called the Soviet Union an "evil empire" & "the focus of evil in the modern world".
- \$ Biden & Blinken surely don't expect competition with China will end as decisively, if at all. For China, unlike the Soviet Union, cannot be called, as President Reagan did, an "Upper Volta with rockets", or as then Sen. Patrick Moynihan (D-NY) did in the 1980s when Asian nations although not yet China were flooding the world with microcircuitry when he dismissed the Soviet Union as "peddling fish eggs and furs, the trading goods of a hunter gatherer society." But China is now so woven into the global economy, that it has much to lose from rhetoric depicting it as barbarous & dangerous.
- Blinken (*deliberately?*) used the word "quash" to describe what Beijing is doing (*and on March 30th had continued to do*) in Hongkong, contrary to its treaty obligations. And it was noteworthy that the day before Blinken's Alaska meeting Biden had made 24 Chinese officials, one a CPC Politburo member, subject to US sanctions for their complicity in "turning Hong Kong into Asia's 2021 version of 1939 Czecoslovakia".
- \$ China's prickliness about "US condescension" & its harping on its "Century of Humiliation" (*from the 1839-1842 First Opium War until 1949*) is symptomatic of its growing insecurity. And this might intensify if the Biden regime can develop the "Quad"

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⁸Not surprisingly so since their marching orders had been to come right 'out of the shute' with criticism on the very issues Beijing had warned Washington beforehand to stay away from.

of nations idea (US, India, Japan & Australia ⁹) as a counterweight to China, for collectively they have a 25% greater population & twice China's GDP and may become analogous to the Soviet counter-measures Truman announced 22 months after his testy meeting with Molotov.

The Chinese diplomats involved were 70 year-old Yang Jiechi who attended LSE in the 1970s, & was China's Ambassador in Washington a decade or so ago, and now is a member of the CPC Politburo & President Xi's eminence grise diplomat. He & now Foreign Minister ¹⁰ Wang Yang, had a 'bad cop-good cop' routine, as part of which Yang's opening remarks took 16 minutes, annoying the hell out of the Americans since a two minute limit had been negotiated & agreed on, especially since he used some of those extra minutes to lecture Blinken that "the US doesn't represent international public opinion, and neither does the Western world." - George Will turns 80 on May 4th & is a libertarian conservative. A 1977 Pulitzer Prize winner, the WSJ in 1986 called him 'perhaps the most powerful journalist since Walter Lippmann' (who coined the phrase Cold War). Will went to Oxford on a Fullbright scholarship where he took its PPE program & then got a Ph.D. from Princeton at age 27. For two years in the early 1970s he was a Senate staffer, went on to teach at Michigan State's James Madison College & the University of Toronto and in 1995, & again at 1998, at Harvard. In 2013-2017 he was a contributor to Fox News & last December received the National Society for Newspaper Columists' Ernie Pyle Lifetime Achievement Award ¹¹.

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I THOUGHT I'D SEEN IT ALL STUDYING PLASTICS. THEN MY TEAM FOUND 2,000 PLASTIC BAGS INSIDE A CAMEL (WP, Marcus Erikson)

- \$ Ulrich Wernery of the Dubai-based Central Veterinary Research Laboratory took me & my colleagues to a site in Dubai where inside a dead camel we found a mass of of 2,000+ plastic bags the size of a suitcase. After two decades at sea, having traveled from the Arctic to the Antarctic & publishing research on plastic pollution in the oceans' 'garbage patches', I thought we had seen it all, from plastic microbeads in the Great Lakes, albatrosses full of plastic in the Midway atoll, fish with microplastics in their stomachs & California sea lions with fishing lines wrapped around their necks, but this set a new record!
- While there is a growing focus on plastic pollution in the oceans, researchers have yet to focus on its deadly effect on animals, from reindeer to elephants, on farmland & on our food & water. And a recent report drew attention to the damage a chemical *commonly* found in plastic may do to babies' brains. Plastic has even been found in space. And manufacturers resist all legislative attempts to make them use recycled plastic in making

Note the exclusion of Canada!

¹⁰Who is three years younger, has been the Chinese Ambassador since March 2017, briefly attended Georgetown University, and prior to coming to Washington had been Ambassador to Japan &, before that Director of the Taiwan Affairs Office, and is well down the totem pole below Yang in the CPP pecking order, despite the fact that he is married to Zhou Enlai's daughter.

¹¹You have to be my age to know who Ernie Pyle was, the most prominent American WW II war correspondent in first the European & then the Pacific theatres who was killed on a small island off Okinawa, just before the war there ended.

new single use, "throw-away" plastic goods since 'starting from scratch' is being subsidized by tax payers.

In July 2017 The Atlantic reported that "half of all plastic that ever existed was made in the past 13 years ... production is rapidly accelerating but only 9 percent of it gets recycled." Plastic as we know it is a post WW II invention. I remember when, in 1946, a friend of my then 18 year-old eldest brother told my father, who was a thinking person, that he was going to take chemical engineering in university since plastics were "The Future"; later, after he had left, my father noted, rather pensively, "that boy may be onto something".

Global plastic output has grown since by leaps & bounds from zero in 1945 to 60MM tonnes in 1980 & then over six-fold again in the next forty years to 380MM tonnes. In other words, in the last 40 years plastics' output has grown at a 4.72% CAGR, over 3x as fast as the world's population's 1.44%, and from 14 kg-, to 50 kg-, per capita. And with the world now seemingly approaching a 'choke point' in plastic waste, if not already past that, this will hasten the day that today's thriving online sales business will peak, for the very same reason the internal combustion engine has: it's too bloody environmentally unfriendly! And the online business may be phased out far, far quicker; for it is 'double whammy' environmentally unfriendly; for moving overpackaged items one by one to individual customers, with much of it 'Returned To Sender, it is also a highly inefficient of moving goods to customers And there was controversy recently on the news that anything returned to Amazon is not given a second chance, but goes directly to the dump!

14 FUN FACTS ABOUT CICADAS (Smithsonian Magazine, Alex Fox)

A kind of grass hopper, there are 3,400 different species of cicadasi in the world with multi year life cycles. They are noisy; when males call for mates up to 100+ decibels loud, not unlike a lawn mower or chain saw. The variety that in the US lives East of the Mississippi is red-eyed and this year, when the soil temperature reaches 64F, will emerge from the soil by the hundreds of billions in parts of New England & the Midwest, live noisily for six weeks during which the females lay eggs that fall to the ground and will in 17-, & in a few cases 13-, years produce a new generation of them

I never even knew about their existence, but my curiosity was aroused by the enthusiasm about them of some biologists as I was flipping through TV channels.