

Charts and Markets.com

Timely technical analysis
Insightful market commentary

BOB HOYE

DECEMBER 21, 2018

Climate Research: Do It Yourself

A widely read financial advisory, the *Bank Credit Analyst*, would often summarize their position through an interview with “Mister X”. It seems that Mr. X also has some curiosity about climate. He got in touch with us, and Mister X had some questions that encompassed physics as well as the financial and political markets. The interview follows:

Mister X: You’re suggesting that people can do their own independent research on climate change. But the “Science is settled”.

Bob: The last time authoritarian governments made a similar statement was in the early 1600s when the Vatican insisted that the Solar System revolved around the Earth. In real science nothing is ever settled because scientific advances have been founded upon skepticism. Every step is questioned.

X: They charged Galileo with heresy?

B: Regrettably, to the Church’s eternal embarrassment.

X: OK, you’ve followed the subject since university days, what is climate change?

B: It is a subject within geophysics, which in turn is a subset of physics. The most mathematically disciplined field of research there is.

X: Hah – no, I mean the climate change that is going to “Fry the Earth” when it is not flooding coastal low-lands or threatening rural areas with wildfires.

B: Yeah, I know what you mean. “Climate Warming” or “Climate Change” are threats that can only be remedied by massive increases of taxes and regulations. Tell me about it. The bigger the threat, the bigger the tax grab.

X: You are too cynical.

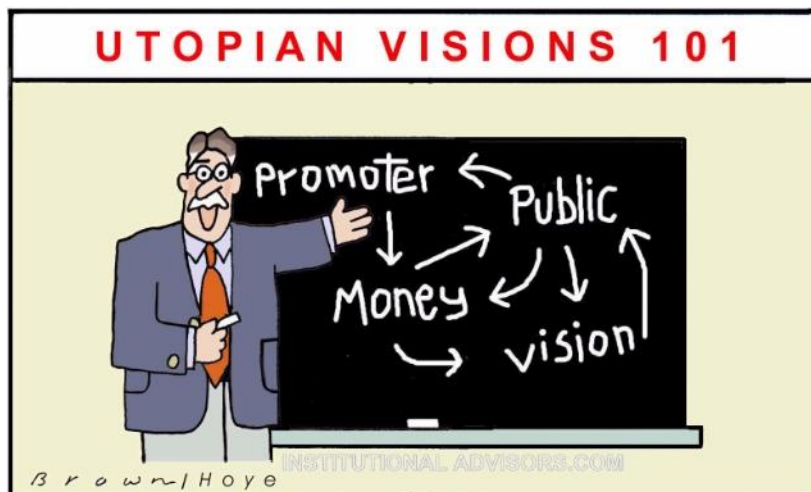
B: No, it is essentially a political movement that originally may have been genuinely concerned, similar to “Millerism” that in the 1840s really believed that the world would end in conflagration. But lately and through the United Nations its leaders want to change

free economies into controlled economies. Of course, as with Communism, always for the good of the citizen. Control freaks at work.

X: Yes, I've read about those ambitions.

B: Let's get real. You will recall the definition of a promotion from the old and speculative Vancouver Stock Exchange?

X: Of course.



*"In the beginning, the promoter has the vision
and the public has the money.
At the end, the promoter has the money
and the public has the vision."*

B: For sure, and there is a lot of "vision" out there these days, but the belief has been slipping. In many polls of, say, ten concerns, global warming will be at the bottom.

X: Didn't the writer, Mencken, in the 1920s have a description of it?

B: He had a good line about governments inventing "hobgoblins" of worries so that governments could lead the public to safety. It really is all about money and control. In the early 1800s, the great intellectual Johann Goethe dryly quipped:

"Most men only care for science so far as they can get a living by it, and that they worship even error when it affords them a subsistence."

X: Yes, but that was a long time ago. What about today? Isn't the world at a tipping point that unless we seriously reduce carbon emission temps will soar?

B: They are all hung up in "cause and effect" issues. Socialists in the 1990s noticed that temps had been rising since the 1850s. Then jumped to cause and effect in declaring that the Industrial Revolution, which they hate, has "caused" global warming. And the link was increasing emissions of CO2 into the atmosphere. Of course, this is the old confusion

about correlation and causation. Roosters causing the sun to rise is the oldest one. But the current one about carbon dioxide “causing” heating has a lot of persuasion. And, Mister X: No one has yet provided formal proof of this. And the ever-growing record of the history of the Earth’s temperature as well as that of atmospheric concentrations of CO₂, shows that a turn to warming precedes the rise in atmospheric CO₂.

X: Are you serious? There is no formal link from actual climate change to carbon dioxide?

B: They have been going on about climate “tipping-points” for 30 years.

X: Crying wolf?

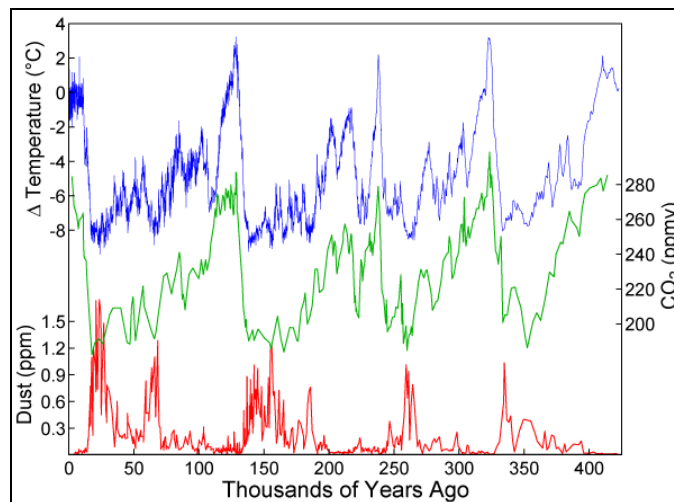
B: It’s been warming since the late 1600s, and this is where we can invite people to look at the actual record.

X: In what way?

B: To see for themselves. The Vostok ice-core in Antarctica, which is widely circulated, shows both temps and CO₂ over the last 400,000 years. There some very big swings in both as ice ages came and were interrupted by interglacials. The promoters boast that this proves that CO₂ “causes” the change. But if you look at the chart closer it is easy to see that the temperature changes some 600 to 800 years before carbon dioxide does. So there is no actual proof of the link and there is no actual empirical evidence of the link. The opposite is suggested. Changes in temp cause changes in CO₂.

X: Oops!

Vostok Temperature and CO₂ History



- What forced the transition from ice ages to interglacials and back?
- No SUVs of oil production through 97 % of the chart.

- Note the dust with each of the interglacials. Ten thousand years ago, the Mother of all dustbowls laid down the soils of the Great Plains.

B: When I completed my degree in 1962, lectures in geophysics reviewed ice ages. One theory had that for all that ice to build on the continental land mass required a lot of snow. Currents would keep the Arctic Ocean open providing the moisture needed to build an ice sheet some two miles thick. Lots of snow deposited at the north end, then the ice flowed south to Chicago where it melted.

The other theory, by Milankovitch in the 1920s proposed that ice ages were periodic and driven by regular changes in the solar system. There were times when the Earth received more energy from the sun and there were times when it received less. For an ice age all that was needed was not huge amounts of precipitation, but that each winter's deposition was not lost during the melt season.

In the early 1960s, there was not enough evidence to support either theory. Then in the late 1960s, the data began to build. That would be from satellites as well as core-drilling of ice sheets, lake bottoms and even ancient coral reefs.

X: And the evidence confirms Milankovitch.

B: Now, there is another thing people can do on their own. Concerned about coral reefs dying because of rising ocean levels or warming sea temperatures? Just look up corals. They have been around for hundreds of millions of years, surviving many ice ages and interglacials when the whole world's temperature changed. Just in the last 12,000 years the sea level has increased by some 300 feet. And the temp has increased by some 10 * C. Corals have learned to live with change.

Concerned about polar bears? Read about them. Their scientific name is "Ursus maritimus", which means sea bear. Having been around for some 400,000 years they have "weathered" a number of interglacials. They evolved from ordinary bears to thrive in the Arctic. Ordinary bears "bulk up" in their feeding season and hibernate during the winter. Makes sense, as do the polar bears who "bulk up" on seals in the spring. Enough to make it through the hard times season. If polar bears have thrived through ice ages and interglacials for so long, they must have something right.

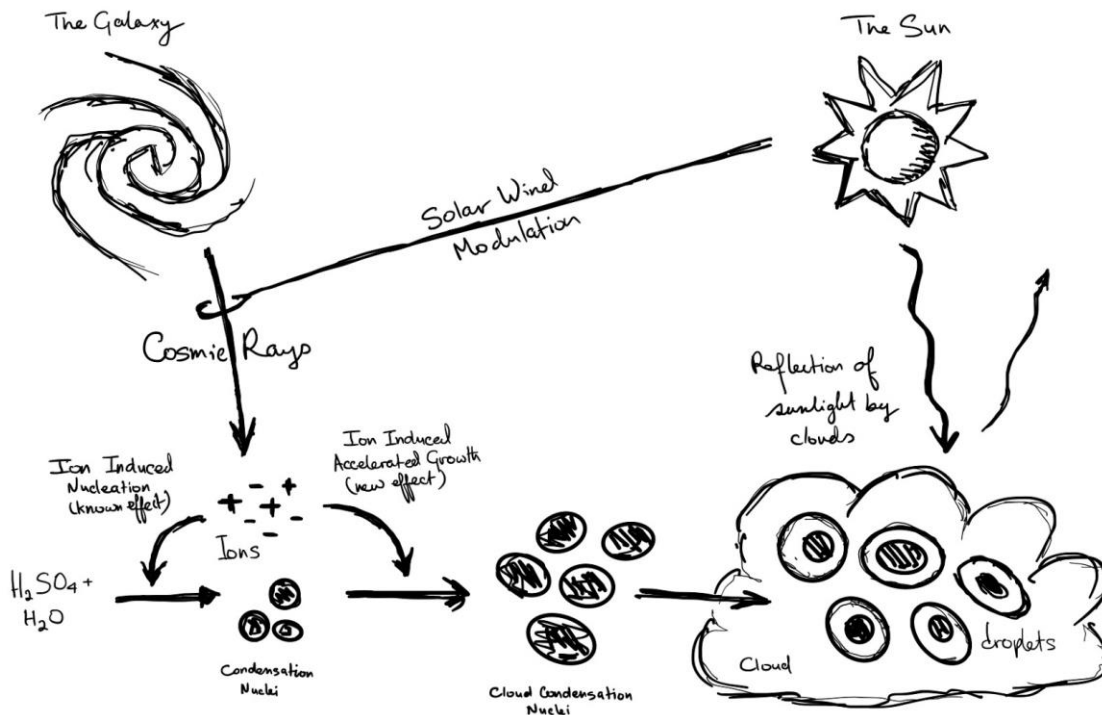
X: The Arctic bears learned to survive, well, in the Arctic. Isn't that called evolution?

B: Anyone can enjoy being independent. In the last decade there has been a remarkable jump in the formal understanding of actual climate change. Cooling has been associated with declining solar activity and warming with increasing activity. But the variation in the output of the sun has been modest, not enough to explain the size of changes in temperature.

About a decade ago, Svensmark and his team started making advances on the theory that diminished solar activity, as in no sun spots, reduced the Earth's magnetic field which allowed more cosmic rays through. This in turn prompted the formation of more cloud cover, meaning cooling and more precipitation. Initially, governments were opposed to using a huge accelerator to confirm the theory in the lab. He prevailed and the theory

works in the lab and in the real world. On the latter, astrophysicist, Nir Shaviv, did some work on the very long-term cycles, as well as on how the cosmic rays condense clouds from the humidity that is in the air.

The Link from Cosmic Rays to Climate Change



Source: Nir Shaviv, December 2017.

Shaviv made an interesting confession in 2007, which was:

“A few years ago if you would ask me I would tell you it’s CO₂. Why? Because just like everyone else in the public I listened to what the media had to say.”

X: Shaviv goes along with the CO₂ story, then changes his mind, based upon evidence?

B: That’s his story and his work has been worthwhile. In 2014 he was awarded the Einstein Fellowship at the Institute for Advanced Study at Princeton.

B: Even the most devout of global warmers would have to be impressed.

X: What more can one do by way of reviewing it yourself?

B: Read up about the Medieval Warm Period that ended in the early 1300s. A fascinating era which was warmer than recent for longer. And with expanding harvests, the population grew, as did prosperity. Enough such that magnificent cathedrals could be built in Europe and in England.

X: What happened to the Medieval Warm Period?

B: They “disappeared” it.

X: That’s what Russian Communists did to dissidents!

B: With much smaller population and no cars the AGW theory could not explain that warming period and the laws of physics are the same over all of time. So, the notorious Michael Mann “disappeared” it, with his Hockey Stick graph. Whereby temperatures were flat and low for a thousand years and beginning in 1850, suddenly shot up. A deliberate fraud that was debunked by two Canadians, McKittrick and McIntyre. It is said than any numbers put into the “model” would come up with a hockey stick.

X: Even something like baseball scores?

B: Sadly, but IPCC promoted the fraud to get the hysteria going. But IPCC no longer uses it.

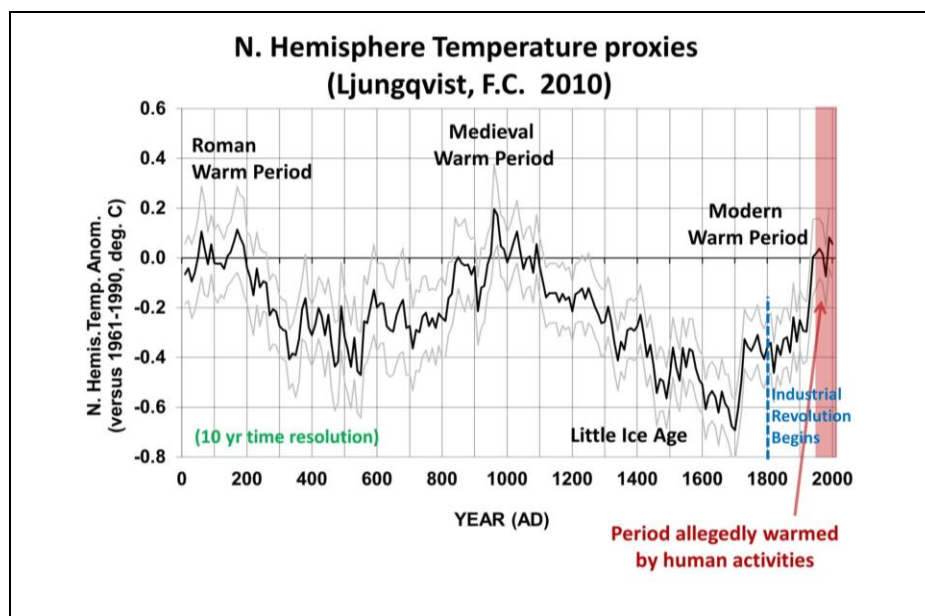
X: Did they “disappear” anything else?

B: An unusually cold period appropriately called the Little Ice Age. The coldest part was in the 1680s when the ice was so thick at London Bridge that merchants set up “Frost Fairs”. Coaches with teams of horses were driven onto the ice. The London diarist, Evelyn, complained that the inkwell in his study was frozen solid.

X: Intergovernmental Panel on Climate Change. Who’s in it?

B: 195 countries. Some with guns in their hands including Iran and Syria. Others have begging bowls such as Haiti and Zimbabwe. Some have both guns and begging bowls such as Cuba and North Korea. All IPCC reports must be written to obtain final approval from too many kleptocracies.

2000 Years of Perspective



X: I guess that with that huge fraud being exposed, the agencies that keep track of the climate have been reporting correctly.

B: Not anymore! Their bold forecasts of soaring temperatures have been way too high. So, rather than revise their theories and their models to fit reality, they have deliberately lowered temperatures of some 20 years ago. The following link shows that it is being done now.

X: As we speak! How are they doing it?

B: They have been using weather stations next to asphalt parking lots or air conditioning outlets that make it hotter. The urban heating effect, which is equivalent to holding a match under a thermometer.

B: The more fake the theories, the more the numbers need altering.

X: And they assumed they could get away with it. Why?

B: As in any century, grant seekers will do anything for money. On the other side of this, governments will pay any amount for the theory that transfers power and taxes into their greedy hands. There is the medieval quip by a wandering entertainer: ***“His bread I eat his song I sing.”***

X: Another “something for nothing theory”, but I like your idea of people doing their own investigation.

B: Some would find it fascinating and one item is the formula for the conversion of carbon dioxide into food.

X: We are getting close to noon, tell me about it.

B: Let’s do a word equation:

Carbon Dioxide + Water Plus Sunshine so that Photosynthesis can work =
Glucose + Oxygen + Water

X: Without the glucose and oxygen, there would be no life as we know it on Earth.

B: Yup, but much of today’s life would begin to fail at below 140 ppm. Our crop plants began to evolve when atmospheric CO2 was at 5,000 ppm. For those who like the smell of the ocean, it is due to dimethyl sulfide a gas consequent to photosynthesis, algae and microbes near the surface.

X: And, essentially the equation says that the more the CO2 the better for life it is? Those little critters at the ocean surface are “eating” carbon dioxide?

B: More CO2 and sunshine in on side of the equation equals more glucose and oxygen out on the other side. The side we are really interested in.

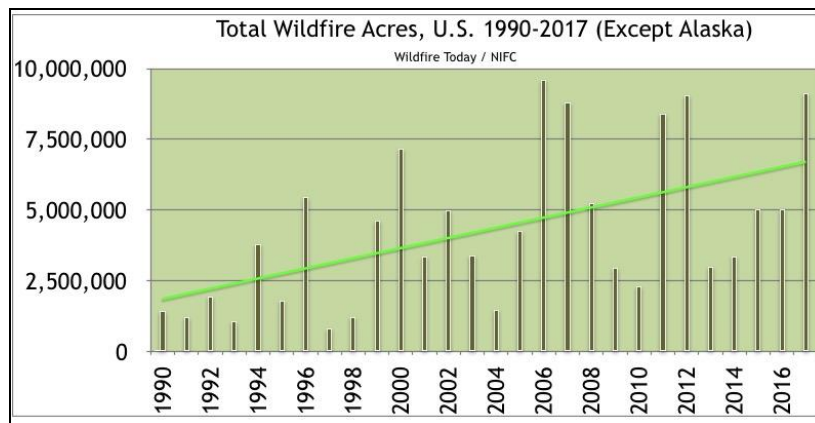
X: More CO2 equals more trees. What about the wildfires?

B: Hot summers and wildfires go together.

X: Last summer was hellish.

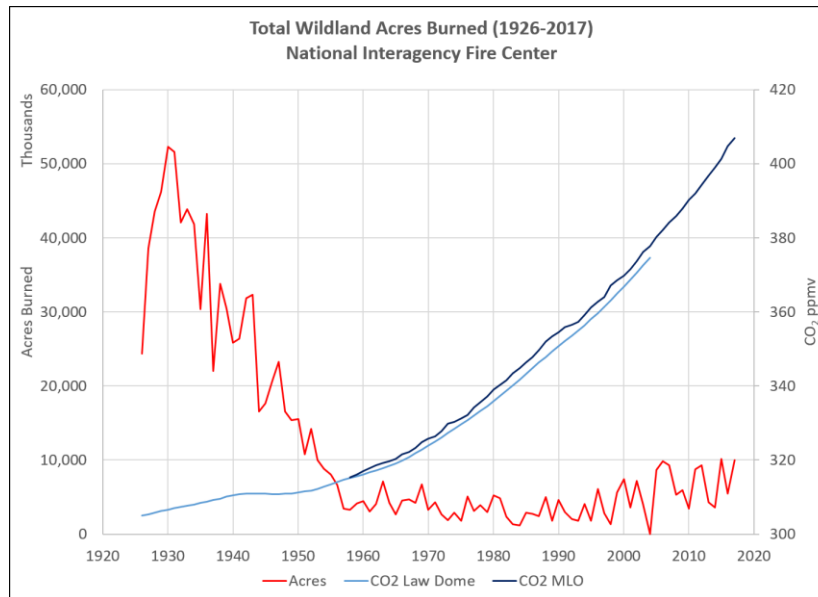
B: Bad, yes but only at some 20 percent of the acreage burned in the really hot 1930s. Here are a couple of charts.

“Close to breaking a record.”



If you keep your data base short enough it will fit your theory.

Wildfires and CO2



X: How did they get it so wrong, carbon dioxide is not only supposed to cause warming, but is toxic as well?

B: That's not all that they've got wrong. The greatest die-offs for all life-forms have occurred with declines in temperature that is the characteristic of ice ages. Big sea-going canoes have been the feature of West Coast Native life from thousands of years ago. But not always. The 35-foot long canoes are built from huge red cedar trees. With the last ice age, such trees moved south to California and with the interglacial they moved back to British Columbia, about 6,000 years ago.

X: Climate cooling is bad and climate warming is good.

B: The Neanderthals had been around for more than 300,000 years. But the last ice age and one huge volcanic eruption got them.

X: And people can look this up on their own?

B: That's the theme, independent research. If an Einstein-Award winning physicist accepted CO2 warming because the media said so and then seriously looked into it and changed his mind, anyone can do it.

X: What about the story about 97% of scientists state that climate change is real?

B: That one has been thoroughly debunked. One could quip that 97 percent of climate warmers are grant-seekers.

X: I remember a line by a journalist in the 1920s about ***"It is difficult to get a man to understand something, when his salary depends upon his not understanding it."***

B: That says it well.

X: What should we be doing?

B: The next step is to seriously consider how the warming priesthood is going make the temperature of the nearest planet "perfect". Through taxes and regulation. It is worth adding that the IPCC was formed to study one thing, and one thing only. Man's influence on the climate through a trace gas called carbon dioxide. Another step is to grasp that that big ball of fire in the sky really runs things. Its output varies, and more importantly, so does the energy received at the Earth. One variable is the distance from the sun, another is the angle the Earth leans to or away from the sun. Antarctica leans away and it has been covered with ice for some 12 million years.

Another item has been cloud cover, which varies with solar activity. This is indirect, as solar activity increases, the magnetic field increases which screens out cosmic rays from outer space. More sunshine means more warming and nicely explains all of the hot spells. Then going the other way, diminishing solar activity forces more clouds, more cooling and more precipitation.

X: So, cooling and warming are natural events that have prevailed for billions of years before modern industrial society.

B: Yup, and just as naturally authoritarians will use any old theory to impose control. In 1970, during the “Climate Cooling” scare Dr. Arnold Reitze, a law Prof, wrote that **“We will be forced to sacrifice democracy.”** His concern was that industrial society was emitting huge amounts of particles into the atmosphere which would reflect **“energy radiated from the sun”** back into space.

Christiana Figueres, an anthropologist who at the UN in 2017 stated that to save everyone it was needed to **“Intentionally transform the [existing] economic development model”**. Full-on authoritarian planning, of course, to end “Global Warming”.

X: I’m just a country boy, but when you mentioned government trying to make things perfect, I get concerned.

B: Indeed, Communists were determined to create the “Perfect Man”, resulting in the “Perfect” democracy.

X: And despite Communists murdering a 100 million people the theory did not achieve democracy, it destroyed it.

B: That was international socialists at work. In the 1930s, national socialists were out to have the “Perfect” race and land-space.

X: When it comes to government “Perfect” is dangerous.

B: There are other examples when government intrusion became destructive.

X: What happened?

B: They pushed their power and privilege too far. As difficult as they have been, excessive ambition has set up magic moments in political history when the public gets a break.

X: We all need one!

B: Away back in Ancient Egypt the climate cooled and there was a series of poor harvests. As usual, the governing classes continued living well, but the people suffered. A popular uprising overthrew greedy government. Ordinary folk forced the priests and their pharaohs out of power. They were called dynastic changes and there were many.

The most recent successful popular uprising was in 1989 when ordinary folk took down the Berlin Wall and Communism.

X: No mean feat. Many have had enough of in-your-face and in-your-wallet government and a popular uprising is underway.

B: The promises made by intrusive and extravagant government are eventually seen to be false and expensive. And the inequality between the “haves” in government and the average taxpayer prompts the uprising. Exciting isn’t it?

X: Yes it is, what do we watch for next?

B: “They” have set up a banking system that favours financial speculation and the big players always get bailed out. At the taxpayers’ expense. Until recently, this has been the biggest promotion in history. One could call it the “Perfect” promotion, but the one on climate is even greater. There is another saying from the old Vancouver Stock Exchange and that is so long as the stock is going up enthusiasts will believe even the most preposterous story. Then, the stock breaks and the most ardent of convictions vanish – in an instant.

X: Financial markets have been whacked recently, what about the global warming promotion?

B: Although very short term, the charts on snow and ice cover seem to be suggesting a turn to cooler summers in the Northern Hemisphere. Expanding cover is not so much based upon the amount of winter snowfall, but upon how much is lost each melt season. Or as showing now – gained on each melt season. On top of this measure, is that declining solar activity represents longer-term cooling forces. This is now “built in”, so to speak. Warm spells have been provided by the El Ninos of 1998 and 2016, which are weather events. However, the satellite measure of temp is gradually returning to a flat-lying trend that is out to some 20 years.

The great thing about it is that anyone can step outside of the intense promotion, become independent and follow the action through unaltered data.

The public will soon discover that two of the greatest promotions in history are not working. The step to widespread realization of fraud will be exciting.

X: When was the last really big experiment in authoritarian government?

B: That horror show prevailed into the early 1600s. Ambitious and murderous bureaucracy had corrupted the Church. The response has been called the Protestant Reformation, which should be called a Great Reformation. Every authoritarian agency was examined and moderated. Reform is best reviewed in England’s experience where a growing middle class was creating prosperity through innovation and trade. Eventually it was independent enough to get around the state’s attempted monopoly on the media.

After a long economic business expansion, there was a severe contraction. Facing unemployment and hardship, the government imposed a “make work” scheme. This was to replicate the cloth-finishing facilities that already existed in the Holland, the commercial center of the world. Veteran London merchants condemned such duplication as “Tyrannical Duncery”.

X: I think there is some of that going around these days.

B: You'd better believe it! Authoritarians have had their way in imposing "renewable" energy sources such as solar cells and wind turbines. The problem is that these are intermittent sources of electrical power and require standby backup with coal or natural gas-fired electrical plants.

X: That seems like doubling of capacity for each unit of "renewable" power.

B: Clearly, another outbreak of "Tyrannical Duncery".

X: Pass the ice, I need a drink.

