Mitchell's Musings 3-18-13: Time is Money

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Everyone likes to complain about the switch to Daylight Savings Time in the spring and the reversion to Standard Time in the fall. There are debates about the merits of the switch and histories of why the practice developed. But even if you don't think there is a good reason to switch, the chances are that you changed your clocks to Daylight Time on March 10. Why? Because you knew everyone else would. You have to do what everyone else does if you are to coordinate with them for appointments, phone calls, or social engagements.

Indeed, just about everything that has to do with time involves a coordination element. It is arbitrary that the world standard time, Greenwich Mean Time or Universal Standard Time, is based in London – an artifact of the British colonial era. It is arbitrary that the International Dateline is where it is. The positioning of time zones is arbitrary. The same basic calendar is used around the world by countries that otherwise don't get along with one another - even if they use different calendars for religious or other purposes. And the reason is always the same; everyone else does it. So you have to do it.

We divide the day into A.M. and P.M, Ante Meridiem and Post Meridiem, where Meridiem means midday or noon. When I have asked students to tell me what is "noon," I typically get blank stares or answers such as 12 o'clock. But that is a symptom of how time is nowadays a matter of convention and coordination. Once upon a time, the answer would have been that noon is when the Sun is highest in the sky. Folks would figure out what time it was by using a sundial which was positioned so that it would point to12 o'clock at observed noon. We have forgotten even the basic fact that it is the position of the Sun that is the traditional key time indicator – or at least that it was.

The story of how the U.S. got its time zones is pretty well known. Once there were long-distance railroads that went east-west, maintaining train schedules was difficult if every town along the way kept time by the observed position of the Sun and when someone thought it was noon. You don't have to go very far east or west to find notable differences in observed noon.

My local newspaper, the *Los Angeles Times*, reports daily on sunrises and sunsets by county in its marketing area. Ventura County is both north and west of Los Angeles County. Because it is west, the Sun there rises and sets four minutes after it does in Los Angeles County, according to the *Times*. But both counties are in the same Pacific time zone and therefore both agree that on March 10, the day we converted to Daylight Time, sunrise was at 7:10 AM in Los Angeles County and 7:14 AM in Ventura County. Similarly, both counties would agree when noon on the clock was - even though it actually (by solar time) comes four minutes later in Ventura than in Los Angeles.

The classic film *High Noon* had a plot that depended on everyone in the town agreeing that railroad time, not solar time, was the standard. In the film, the bad guy is coming to kill the sheriff and will be arriving on the noon (railroad time) train. All of the clocks in the town agree that railroad time is the standard or a central element in the movie's plot wouldn't have worked. In the film, the sheriff goes from location to location – always with a clock shown in the background – trying unsuccessfully to round up a posse to confront the bad guy. We know what time it is and how much time the sheriff has left because clocks in the town are all synchronized to railroad time: https://www.youtube.com/watch?v=b6ne4uRTo-E. Everyone in town knows when noon officially is and therefore when the train will arrive.

The switch to and from Daylight Time and the fact that everyone goes along with it is – as prior musings have noted – a great teaching moment about money as a standard. Similarly, the fact that everyone within a time zone agrees on what time it is – and has forgotten that "real" time is solar time which differs from place to place – is a lesson about money that is always available. Only a month ago in a musing, I wrote about the old idea that money is only "real" when it is "backed" by gold.[1] So you can regard this musing as a timely (pun intended!) continuation of that musing.

Money is always of interest and monetary policy is particularly relevant when the Federal Reserve is actively trying to steer the economy. At present, the Fed has been holding interest rates down to stimulate the economy, reduce unemployment, and support a rather sluggish recovery from the Great Recession. As part of its policy since the Great Recession developed, the Fed has been creating money and buying assets in very large volume and value. That action seems to be very bothersome to some people. How can money just be created? If it can just be created, maybe it isn't "real." But in fact money is as real a human creation as are Standard Time and Daylight Time.

Now there are certain standards that are arguably objective and don't involve coordination. If you think it is too hot or too cold today, it doesn't matter whether I tell you the temperature in centigrade or Fahrenheit. It will still be too hot or too cold. The distance between New York and Chicago is the same whether I use miles or kilometers to describe it. The only coordination

[1] http://www.employmentpolicy.org/sites/www.employmentpolicy.org/files/field-content-file/pdf/Daniel%20J.B.%20Mitchell/MitchellMusings%202-18-13.pdf

element is that if we are in the U.S., I am more likely to describe temperature as Fahrenheit and distance as miles because you are more likely to be familiar with those measurements.

But you really can't say the same thing about money. Ultimately, values – unlike temperatures or distances - are subjective. Even gold – whose value fluctuates from day to day, not just in dollars but in terms of what it will buy of other commodities – has a subjective value.

On March 10, when we switched to Daylight Time, we did so because Congress said we should and because we all assumed that everyone else would go along with the standard. We did not do it because the Sun suddenly changed its position in the sky and shifted "true" noon. That is, there is an official authority in charge of time standards and the time system works because we believe it. It is also Congress that determines that our national currency is the "dollar." It is Congress that established the Federal Reserve and authorized it to be a central bank and have the power of money creation.

Now I know there will be some who will find this exposition very upsetting. In one camp are those who believe that the Fed's monetary creation in response to the Great Recession and the sluggish recovery will inevitably lead to a Great Inflation. I can't tell you for sure it couldn't happen. But I can tell you that financial markets aren't predicting a Great Inflation. If a Great Inflation were predicted by the markets, long-term bonds would be at a Great Discount compared to their current pricing. A 30-year conventional Treasury bond at present will give you a yield of around 3%/annum. The market would not price those bonds consistent with that low yield if the consensus was that a hyperinflation was coming that would substantially erode the bond's maturity value. But if you think you know better, by all means find some clever financial strategy to short those bonds.

A second camp is less concerned with inflation and more concerned with the gut feeling that it just isn't right that money should be based on something as intangible as I have been describing. For those folks, all I can say is that I wish I could help you feel better. And I sincerely hope you can get over it. But if not, by all means put all your assets into gold. Or maybe that should be zinc? Or crude oil? Or pencils? Come to think of it, if it is really a gut feeling that drives you, maybe you should put your assets into pork bellies. Anyway, good luck, whatever you do.