Wharton Commodities & Climate Conference Panel Summary

Panelists:

Erik Gilje, Wharton School

Jeremy Siegel, Wharton School

John Jovanovic (Wharton Alum, MBA class of 2013) Investment Director, Mercuria Energy Trading S.A.

Casey Dwyer (Wharton Alum, MBA class of 2017, MA Lauder Institute class of 2017) Portfolio Manager, Andurand Capital Management LLP

The panel started with Jeremy Siegel's discussion of inflation. The M1 money supply jumped by 40% in March of 2020 as a result of the government stimulus compared to less than 20% in the entire year that followed the collapse of Lehman Brothers in 2008. The M2 increased by about the unprecedented 15.5% in the same time period, and since then the growth is at 12% per year. To compare, in the inflationary period of 1970-1986, when the U.S. experienced double-digit inflation, it was growing at 9.6% per year, which was followed by over 30 years of moderate inflation and the M2 growth of 5.3% per year. In fact, in the last year the M2 money supply grew more than at any point in U.S. history. At the same time, we know that inflation usually lags the increase in money supply by about 12-24 months. Therefore, Prof. Siegel is expecting that as the economy opens up thanks to the vaccines, it will experience one of the biggest booms in history alongside large inflation. Specifically, he predicts that in 2-3 months inflation will start to speed up, and the cumulative inflation will reach about 20% in the next 3-4 years, which translates to 4-5% a year and is way beyond the Fed target. Prof. Siegel also notes the difference between the current Covid crisis and the financial crisis of 2008 when high inflation was also expected as a result of Fed's QE policy and yet it never happened. The difference, however, is that QE funds went to banks' excess reserves which were zero prior to the crisis. So, they did not go to the money supply unlike the Fed's current stimuli that are going to individuals' bank accounts thus increasing the money supply.

Next, the discussion turned to EU carbon credits, whose price jumped from \in 15 a year ago to the all-time-high of \in 47 (it is \in 53 as of June 14). One carbon credit allows a firm to emit one ton of carbon, and the supply of these credits if fixed by the EU government (cap and trade). Thus, its price is formed by the fixed supply together with the actual demand for carbon. Casey Dwyer argued that excess savings that were created by Covid government stimuli lead

to excess energy consumption thus increasing the price of carbon by increasing its demand. At the same time, new harsh government regulations diminish the carbon supply which also results in the price of credits going up.

The panel next moved to John Jovanovic discussing the fossil fuels market, which changed dramatically in the past 5 years. It was only December of 2015 when the 40-year-long ban on exporting the U.S. crude oil was lifted which led to arbitrage between WTI and Brent. Also, coal became less desirable to trade in and deal with as natural gas became more competitive and as banks changed their behavior paying more attention to climate change. The geopolitical situation made its contribution with the instability of the OPEC+ and Shia-Sunni tensions in the Middle East, so that coming into the year 2020, most investors were bearish on crude oil as they were questioning its demand robustness. Thus, as the demand for crude plummeted when the Covid crisis started, investors faced a very different world from what they were expecting, and the questions shifted to the what the effects of the government stimuli will be. To be sure, investors understand that in the long-run the economy is moving towards carbon neutrality, but there is uncertainty as to how we will get there. On the one hand, some commodity traders argue that there will be a considerable market need to facilitate trading and financing of hydrocarbons even though their growth and usage are diminishing. They also acknowledge the need to account for carbon offsets and taxes. On the other hand, there is a view that commodity trading should be completely rebuilt, it has to make a switch to support the new markets that would help with the transition to net-zero economy. John also believes that carbon credits are largely underowned and probably undervalued, and carbon as an asset class will play a big role in this transition period. So, investors are grappling with how to help countries achieve energy sustainability while addressing socio-economic needs, be it highincome or low- and middle-income countries.

Nonetheless, as Casey Dwyer pointed out, capital markets remain open to upstream oil and gas in the U.S. as they still offer attractive returns, and in that sense divestment from carbon-intensive firms will probably not have an impact on their production. At the same time, investors, by decisions on capital allocations, have significantly lowered the cost of producing energy from renewable sources in recent years. They do so because they value the additional ESG benefits coming from such investments. More and more investors seem to be determined to facilitate the transition to carbon-free economy and invest in greener alternatives even at the expense of current profitability. Also, John Jovanovic added that there seems to be willingness across the board and increasingly in the U.S. to start to quantify the price of carbon.