

The First Tee...

Cryptonite...inflation, rising interest rates, and coin failures have weakened crypto:

- The digital asset market has contracted in valuation from \$3 trillion in November, to under \$1 trillion:
 - The collapse of stablecoins TerraUSD and Luna, combined with Celsius Network (one of the largest lenders in crypto) pausing withdrawals, swaps, and transfers, has accelerated the downturn in cybercurrency:
 - Crypto had also been marketed as a safe-haven inflation hedge, to-date, that has not been the case:
 - Bitcoin (the world's largest digital token) has lost two-thirds of its value during the past eight months...Bitcoin was touted for its ability to resist devaluation since it has a fixed supply of 21 million units (Bitcoin is currently trading at its lowest level in eighteen months).
 - Many private crypto players are young, new investors and traders...who have never operated in a bear market:
 - Companies who have made crypto part of their corporate strategy have seen their share prices fall sharply (such as MicroStrategy Inc).
- **Looking for a lead coat...the government is attempting to regulate the cryptic cryptocurrency market:**
 - Extensive legislation has been developed covering crypto issues including sanctions, compliance, stablecoin oversight, and energy usage (the result of a government review last year of virtual currencies...called the crypto sprint):
 - The Treasury Department and Federal Reserve want to regulate stablecoin issuers the same way they oversee banks:
 - This oversight would include vigorous capital requirements and constant supervision...besides market stability, there is also the issue of illicit and illegally attained money avoiding regulator' scrutiny through the crypto market as part of money laundering schemes.
 - A bi-partisan bill has been drafted by Senators Cynthia Lummis (Rep) and Kirsten Gillibrand (Dem):
 - Lummis is viewed as an ally to the crypto industry, while Gillibrand's has a background as a securities attorney.
 - Key aspects of the Lummis-Gillibrand bill include the following:
 - **Stablecoins...issuers must maintain 100% reserves and publicly disclose assets backing their tokens.**
 - **U.S. Treasury...tasked with developing guidance for responsibility of stablecoin issuers to comply with sanctions.**
 - **Federal Energy Commission...analyze and report on energy consumption in the digital-asset market (including mining).**
 - **Government Watchdog...appointed to study opportunities and risks of investing retirement saving in digital assets.**
 - **Commodities Futures Trading Commission...given more authority to regulate coins categorized as commodities.**
 - **Advisory Committee...public and private members to aid government in keeping updated on changes in crypto.**
- **Stablecoin, not so stable...collapse of TerraUSD stablecoin has created more urgency for oversight:**
 - The world has gained familiarity with Bitcoin, but what exactly are stablecoins? (Here is a brief tutorial):
 - Stablecoins are digital assets (sometimes called tokens) whose value is designed to be less volatile (mimicking traditional currencies):
 - Price stability in stablecoin is achieved by either collateralization or employing algorithms to manage supply and demand:
 - **Collateralizes stablecoins...peg the coin's value to another asset, such as the U.S. dollar or other crypto assets (such as Bitcoin or Ethereum)...the issuer holds these assets as a means for stability (Tether is the largest collateralized stablecoin in circulation at 69 billion coins).**
 - **Algorithmic stablecoins...are designed to maintain their peg level through a combination of mathematical equations and trading:**
 - Another algorithmic stablecoin is typically used as an arbitrage, as the value of the two coins are maintained by trading between each other as prices change...confidence in the value of the underlying security needs to be maintained to back-stop the arbitrated holding, and visa-versa.
 - TerraUSD's value fell to 45 cents on the dollar, showing the vulnerability of stablecoins (if investors lose faith in one or both sides of the equation)
 - **Becoming untethered...there have been speculation that Tether does not have enough assets to maintain a 1-to-1 exchange rate:**
 - Tether's reserves include billions of dollars of short-term loans to Chinese companies (commercial paper that money market funds avoid)
 - It has also been reported Tether made billions of dollars in loans to other crypto companies, using Bitcoin as collateral.
 - **Politics as usual...the crypto lobby in Washington has quadrupled in size during the past four years:**
 - Lobbyist numbers have increased to 320 working crypto issues...spending \$9 million last year:
 - Traditional financial and business trade associations are heavily involved in the crypto lobby:
 - The U.S. Chamber of Commerce has 32 lobbyists listed for digital assets...National Venture Capital Association has 14.
 - There are also large corporations looking to influence crypto policy...including IBM, Fidelity Investments and Meta Platforms.
 - A fifth of Senator Lummis's campaign contributions in 2021 came from crypto executives and investors:
 - Senator Gillibrand has a fundraiser later this month sponsored by Kristin Smith...Executive Director of Blockchain Assoc.
 - Given the upcoming mid-term elections, it appears unlikely any crypto legislation will pass this year:
 - The crypto bill will have to go through three different Senate committees for review...then several more months before going to full chamber.

At the turn...

The Back Nine...

What's That Smell?...with the spiraling cost of chemical fertilizer, it is the sweet smell of money for ranchers and farmers who have large supplies of animal manure:

- The war in Ukraine has placed pressure on the supply of nitrogen and potash based fertilizers (of which, Russia is a large producer), increasing the price three-fold in recent months:
 - Manure (pig, cattle, horse, chicken, and turkey) is currently about 25% cheaper than synthetic fertilizers:
 - Trade in manure has been a relatively small part of the \$171 billion global fertilizer market:
 - During periods of high energy costs, manures popularity increases (synthetic fertilizers are derived from oil and natural gas)... this circumstance occurred in 2008 and 2012 when the cost of oil increased, but interest in dung declined as soon as the energy prices fell.
 - By 2012, synthetic fertilizers were responsible for between 40% and 60% of global food production.
- **A bunch of crap...**U.S. livestock operations produce a half billion tons of animal waste annually:
 - Chemical fertilizers are more concentrated in nitrogen, potassium, and phosphorous than manure:
 - **Handle with care...**chemical fertilizers also produce less odor, and are easier to handle, transport, spread on fields:
 - Technologies for processing and distributing natural fertilizers are rapidly improving...need for assistance on the local and regional level:
 - The USDA is launching a \$250 million grant program this summer to support natural fertilizer producers.
- **Going green to grow more green...**organic fertilizers are much friendlier to the environment:
 - Natural fertilizers can substantially reduce greenhouse gas emissions and toxic runoff:
 - Manure helps to rebuild the health of soil that has been saturated with chemicals for decades (while improving water quality)
 - Synthetic fertilizers evaporate from fields to form nitrous oxide...a greenhouse gas up to 20 times more potent than CO2:
 - Manure stimulates the microbiology of soil while improving long-term productivity and better capacity for carbon absorption:
 - For every increase in organic material, an acre of soil can capture about ten more tons of carbon.
 - An ecology balancing act...there is a prolific use of synthetic fertilizers, while huge amounts of unused animal waste pile-up.
- **The human side of things...**human waste is also getting more attention as a fertilizer alternative:
 - Treated human waste could be utilized the same as animal, relieving pressure on landfills:
 - A recent study determined that human urine could meet over 13% of the global demand for key ag nutrients:
 - A UN study found humanity produces five-times more wastewater than the total volume of water flowing over Niagara Falls:
 - About 48% of this wastewater remains untreated and is released back into the environment...especially in undeveloped countries
 - Extracting nutrients in human waste will require changes in attitudes and infrastructure:
 - The Department of Energy is studying methods using electrochemical methods to convert wastewater into fertilizer:
 - Municipal waste-water facilities are potential new mines for organic fertilizer production (creating income, while reducing by-product)
 - Milwaukee has been ahead of the curve by converting human waste into fertilizer...since 1926, they have been producing **Milorganite**.

19th Hole...

Never think you've seen the last of anything.

Eudora Welty

Ross Elford, Senior Vice President

Direct: 314.746.3679 | Mobile: 314.223.9739 | Fax: 314.746.8737



commercebank.com

The opinions expressed herein reflect that of the author and are not a complete analysis of every material fact respecting any company, industry, or security. The author's opinions do not necessarily reflect that of Commerce Bank or its affiliates. The information contained herein is based upon sources considered reliable but cannot be guaranteed, and is not intended to be investment advice.

Investments in Securities are NOT FDIC Insured; NOT Bank-Guaranteed and May Lose Value. CDs are direct financial obligations of the issuing financial institution and are not, either directly or indirectly, an obligation of Commerce Bank. The information provided in this e-mail or any attachments is not an official trade confirmation or account statement. Information contained herein is from sources deemed reliable but cannot be guaranteed. Prices and/or yields are subject to change and investments are subject to availability. The Capital Markets Group (CMG) of Commerce Bank is not acting as your 'municipal advisor' within the meaning of Section 15B of the Securities Exchange Act, and does not act in a fiduciary capacity. CMG does not provide tax advice; please refer to your tax professional.