

The First Tee...

Build It and They Will Come...infrastructure building has become a global theme as countries work to exit from the pandemic driven economic slowdown (*Or is it, spend and they will come?!*):

- The U.S. and China are slugging-it-out for leadership in the infrastructure race...with huge spending/debt programs, and accelerated competition for raw materials (China is currently ahead in both cases):
 - President Biden's infrastructure spending proposal equates to about \$280 billion spread evenly over eight years (2.24 trillion)...while China is currently targeting \$556 billion a year in special bonds for infrastructure:
 - China is a developing economy, so investment in infrastructure is typically larger than for developed countries:
 - China is building new infrastructure for the first time (including airports, roads & bridges, water treatment, energy grids, etc)...where-as the U.S. has had these structures in place for generations, many of which have become outdated or decrepit:
 - According to the American Society of Civil Engineers, 43% of U.S. public roads and highways are in poor condition and 42% of the nation's 617k bridges are at least 50 years old, of which 7.5% are classified as structurally deficient (*cross at your own risk!*)
 - The Chinese have used government spending on infrastructure to insulate its economy from economic turmoil:
 - The strategy proved to be effective during the 2008 global crisis and helped to limit the growth decline during the pandemic.
 - China has a fifteen-year plan to bolster its transportation network...with an emphasis on rail and air travel:
 - The plan is to increase the rail network from 91,000 miles to 124,000 miles by 2035 (enough to circle the globe over five times):
 - China has almost 24,000 miles of high-speed rail...utilizing cheap labor, China can build high-speed rail infrastructure at about two-thirds of the costs seen in other countries (according to a World Bank study)...building more with less:
 - The World Bank's report also stated China's high-speed rail lines made enough to cover operating costs and service construction debt.
 - China opened a new \$11 billion international airport in Beijing last year...their transportation infrastructure plan calls for building 162 new civilian airports...the last major airport project in the U.S. was built in Denver 25-years ago.
 - **Infrastructure Wars...the U.S. is entering a competitive period in which economic and technological prowess could have more relevance than military might** (creating greater need to protect against theft of intellectual property)
 - **The Leather Hits the Road...China introduced its so-called Belt and Road initiative in 2013** (a global infrastructure plan):
 - China has constructed or pledged to build \$575 billion in energy plants, railways, roads, ports, and other projects in emerging countries...the spending on the projects is forecast to reach \$1.3 trillion by 2027 (*More than one way to win allies*).
 - **R&D Redux...the U.S. is currently the leader in annual investment for research and development, China is second:**
 - China has announced plans to up its R&D total spend to \$585 billion by 2025...an increase of \$200 billion over last year's R&D spend:
 - Biden's infrastructure plan includes \$180 billion in government funded R&D spending...the most ever apart from defense R&D spending).
 - **Materials Black Hole...China has been on a raw material buying spree this past year** (*copper cannibalism!*):
 - Chinese infrastructure expansion has seen the country account for 50% of the world's metal demand.
 - For the U.S. to accelerate activity in infrastructure, housing, and electric vehicles, it is going to need steel, cement, cobalt, lithium, lumber, and copper...just to name some of the components:
 - It is estimated that if Biden's infrastructure plan is passed, the U.S. will need an additional 6 million tons of steel, 110k tons of copper and 140k tons of aluminum...steel and copper prices have traded at record highs this month:
 - Since March 2020, the price of steel has increased 197%, while the price of copper has risen 124% in value.
 - When the world economy went into the pandemic lockdown over a year ago, causing commodity prices to plunge, China went on a buying spree with the government, manufacturers, and traders loading-up on raw materials:
 - **A Penny Saved, may be melted down...China has been building strategic reserves in copper as part of its plan:**
 - Chinese copper demand has surged the past twenty years, while U.S. demand has fallen (*passing the manufacturing baton*):
 - China imported 6.7 million tons of copper last year...a third more than the previous year and 1.4 million tons more than the record:
 - The year-on-year increase in China's copper purchases is equivalent to the entire annual copper consumption of the U.S.
 - **Back to the Future...China is the world leader in rare earths** (*not the 60's band*), critical for high tech applications:
 - China dominates the processing of raw materials needed to make lithium ion batteries (lithium, cobalt, nickel, and graphite):
 - China mines 23% of the world's battery raw materials, but 80% of the intermediate material processing occurs in China.
- China is postured for a global infrastructure blitz...the U.S. is trying to catch up.

At the turn...

The Back Nine...

Trade Instead of Aid...U.S. farmers are planting record amounts of corn and soybeans:

- The massive price rally in grains has farmers looking to make a profit from just crop revenue alone for the first time in the past four years...reversing impact of depressed markets, slack demand, and weather:
 - Demand for U.S. grain was negatively impacted by the pandemic and the trade war with China:
 - The government provided record amounts of aid to the agriculture sector to offset losses from COVID and sanctions
 - China is back to buying large quantities of U.S. grain exports...especially soybeans to feed their expanding hog herds.
 - Grain prices have followed the surging trend in commodity prices...price increases from the 2020 lows for corn, soybeans, and wheat have broken records, with gains of 91%, 81% and 35% respectively (*corn has turned into yellow gold!*).
 - Grain, all-time high and this year...Corn: \$8.02 (2012) / \$7.32 (5/7); Soybeans: \$17.38 (2012) / \$16.42 (5/12); Wheat: \$11.92 (2008) / \$7.61 (5/7).
- **Fighting Food-Flation**...expanded planting of grain crop should ease higher food price pressures:
 - Farmers are forecast to plant 183 million acres of corn and soybeans this summer (an 8% increase over last year):
 - The corn plant is expected to be about 93 million acres, while soybeans are closing the gap at 90 million acres.
 - Global grocery costs are the highest in over six years...the huge planting should eventually replenish dwindling grain stockpiles and reduce food and feed costs...helping to place a price cap on meat, dairy and eggs (*Food for Less!*)
- **Planting Prohibitions**...despite high grain prices, rising costs are creating challenges for farmers:
 - Land, fuel, and fertilizer costs are surging...adding budget challenges to expanding, planting, growing, and harvesting.

Hit the Road Jack...gasoline demand is expected to spike as summer vacations begin:

- Half of Americans cancelled trips in 2020 due to the pandemic...most are planning to take more vacation this year):
 - On average, Americans are planning to take 13 vacation days this year, up from 8 in 2020 (in Expedia study):
 - An AARP survey shows over half of Baby Boomers plan to take a trip this summer...25% more than traveled last year.
 - Expectations are for summer to see the highest gasoline demand on record, beating the 2019 high:
 - To reach a record gas consumption, drivers will have to purchase an additional 1 million barrels per day, versus the daily amount of gasoline used as of the end of March...in 2019, daily U.S. gasoline consumption averaged 390 million gallons.
 - Gasoline price pressures will shift from supply to demand as the number of driving miles increases:
 - A large portion of late last year's price increase for gasoline was caused by OPEC cutting production and U.S. fracking operating at low levels...the reopening of the economy is pushing demand higher, pulling gas prices up:
 - Last April, the average cost of regular gasoline in the U.S. stood at \$1.74 per gallon, today the average is \$3.04:
 - This is the first-time gasoline has sold over \$3 since 2014...part of the recent price increase was due to the Colonial Pipeline issues.
 - The U.S. remains the world's largest oil consuming country...this could change with the evolution to electric.

19th Hole...

Doing nothing is very hard to do. You never know when you're finished.

Leslie Nielson

Ross Elford, First 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.