State of & Outlook

US Construction 2021/22
December 2020 Report

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Table of Contents

I. 2020 US Construction Recap

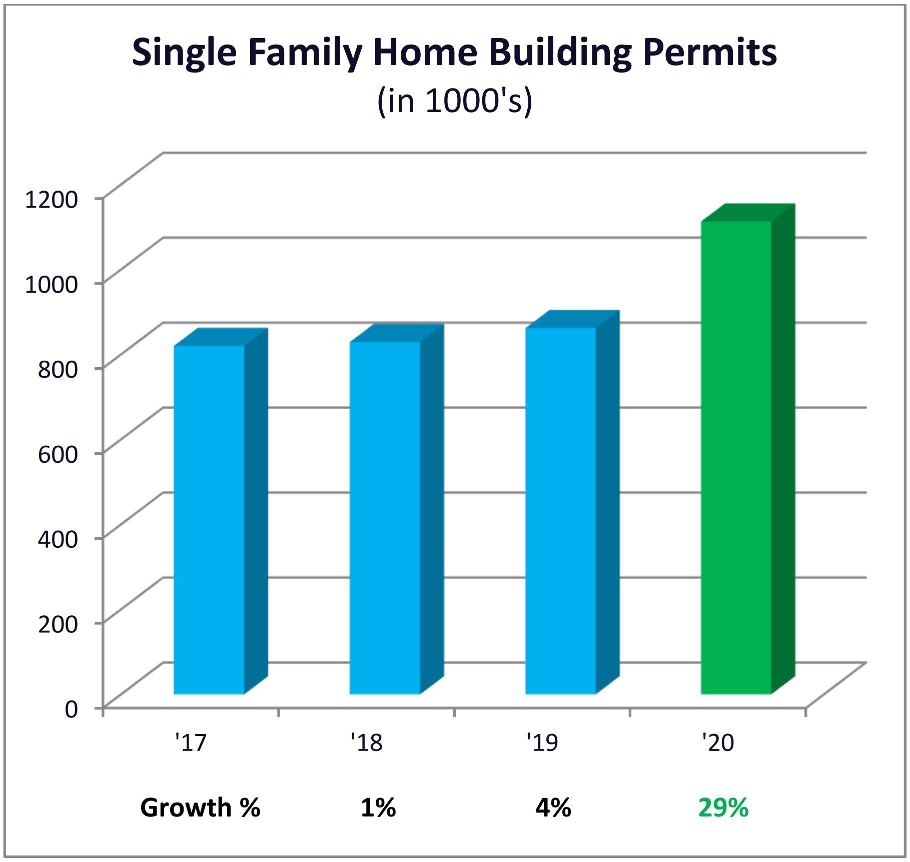
As we are now nine months into the pandemic, it has become clear that despite Operation Warp Speed, which has yielded multiple vaccines in an incredibly short period of time, it will take much longer than at first anticipated for life to return to normal. As the US economy has learned to adapt to the new normal, there are several key developments that we believe will shape the US economy for many years to come that we will discuss in more detail in the paragraphs below. Likewise, we will explain our expectations on inflation, which we discussed in our previous article and which we are seeing in part with the recent devaluation of the US Dollar against the major currencies of the world. Over the last year, the world economy has also experienced significant disruptions in the supply chain, which is affecting domestic manufacturing and imported products and has already had a significant impact on the construction markets with increased cost and completion delays. Despite the challenges, we see fundamental developments that will benefit the housing market in 2021/22. As the US Census Bureau has published revised construction market data through September 2021, we will discuss each market segment accordingly.

a. Residential Housing Construction

We are on track for a 3% increase from 2019 in Single-Family Housing Completions at an annual rate of 883,000 units. Total construction spending in Residential Housing has risen to USD 611 Billion, which represents an increase of 10% that is due in part to the near 6% construction inflation and the additional 4% are to be attributed to demand for larger sqft homes, due to increased demand for home office and home-schooling space. As the media mostly focuses on unemployment numbers, which at the time of writing this article was at 6.7%, representing 10 million jobs still lost since the outbreak of the pandemic, usually underlying positive trends are overlooked. In fact, as 93% of the pre-pandemic US Work Force of 147 Million are still employed, a few interesting trends have emerged driving increased demand in single-family homes. With many people working from home and many of their family members being in online school programs, the need arose for at least one to two additional rooms for most families occupying a single-family residence. The manyfold issues of a contagious virus and the social unrests in many downtown city areas have triggered a substantial exodus for families and elderly to move to suburban markets where social distance and safety are easier to manage. In our June 2019 issue, we talked about the potential risks of social unrests in a next downturn as the wealth gap disparity in the US has grown significantly to trigger such, as elaborated on by some of our more prominent business leaders. As the problems and remedies surrounding social unrest are very complex, it takes several years for them to subside. The pandemic and the unrest have changed where families and elderly feel safe to live, which is a trend that we likewise think is here to stay. As we have talked about generational preferences before, a recent study from CBRE (the largest commercial real estate company in the world) states a change of living preferences amongst Millennials with their young families, as they have started to rotate out of apartment complexes and embrace first home ownership, accelerated by the events of 2020, adding to increased demand in single-family homes.

Employers have quickly learned that many of their employees can be productive working from home, utilizing relatively inexpensive modern technology, compared to the costly infrastructure associated with corporate office space. Even as the world will come gradually back together as the population will get immunized, some of these changes will become more permanent in how employees currently are and will be working for their companies. Business travel will likewise be affected in a similar capacity and residential markets will continue to benefit from these changes.

Residential markets are experiencing a significant shortage of new homes available for sale as these trends are now only 9 months old and it takes builders time to scale up to meet the newfound demand and because of the pandemic all processes and functions of society are moving slower than usual, which adds to the drag getting new inventory ready for sale. The good news is that single-family home building permits are at a 1.113 Million annualized rate, nearing 2006 levels and are up 29% from 2019 which shows that builders are anticipating very strong demand going into 2021/22.



In recent articles we made the point that many of the larger homes of the baby boomer generation would have difficulty to finding buyers as families are smaller today than back then, but at least for the foreseeable future this trend has been reversed with the renovation market booming as many families are seeking larger sqft homes.

As society's need for leisure travel remains and the ongoing safety concerns while travelling has shifted how America and the rest of the developed world is spending vacation time. Brian Chesky, the CEO from Airbnb, in a recent interview made it quite clear that families are still going on vacation, but they choose destinations within driving distance and are renting single family homes rather than staying at hotels and resorts. This new preferred way has driven and will continue to drive building additional single-family homes to satisfy this growing demand in vacation destinations, which is a trend that we think will to some extent remain. The rebound of bookings through Airbnb into the end of the second and third quarter shows how significant this change for vacationing has become.

Due to the current shortage of single-family homes across the country, longer than usual completion times and the significant increase in permits issued reflecting builder sentiment, we expect that residential construction will continue to grow during 2021/22, most likely in the double-digit percentages.

Multi-Family completions have decreased significantly from 2019 by almost 20% to an estimated 300,000 units as the enormous growth of the last 6 years for Multi-Family properties has started to cool off as markets have become oversupplied and the trend to owning a single-family home has intensified. Building permits have equally declined as builders have started to adjust to the new lower demand. We expect the 300,000 units being built per year to continue into 2021/22.

b. Non-Residential (Commercial) Construction

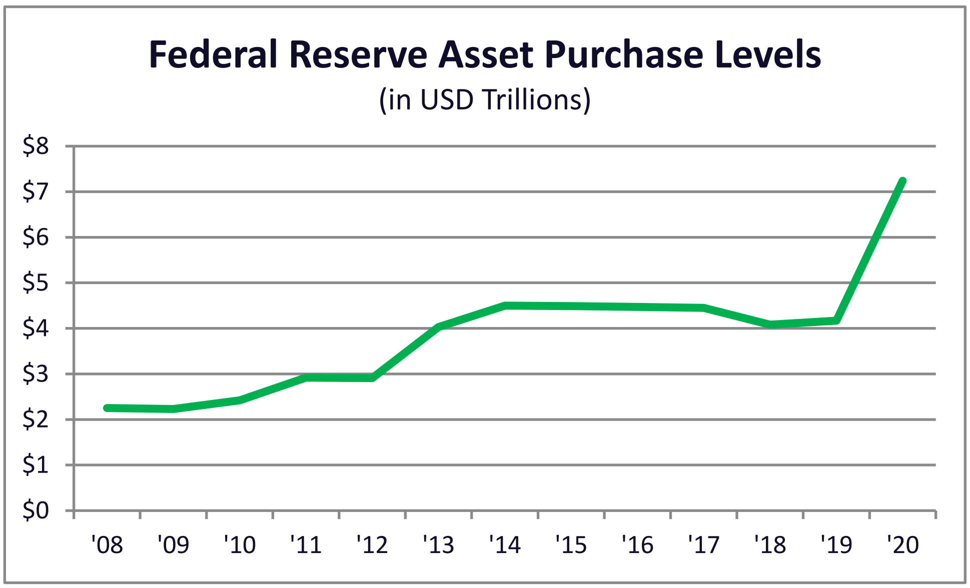
Annualized Commercial Construction is slightly down compared to 2019 at $464 Billion. Factoring in that Commercial Construction Inflation is at near 6%, the commercial sector is trending down at nearly -7%, which is now in its fourth year of contraction in part due to high inflation associated with commercial construction, the decreased demand for office, retail and hospitality space because of the pandemic. Industrial space continues to grow as consumers have flocked to shop online and the logistics needs for online fulfillment companies has increased exponentially. As travel will be impacted for much longer because of the behavioral changes of society and people can meet through digital means, we expect the recovery of the hospitality sector to be long and drawn out and we have our doubts that it will reach pre-pandemic levels for many years to come.

c. Public Construction

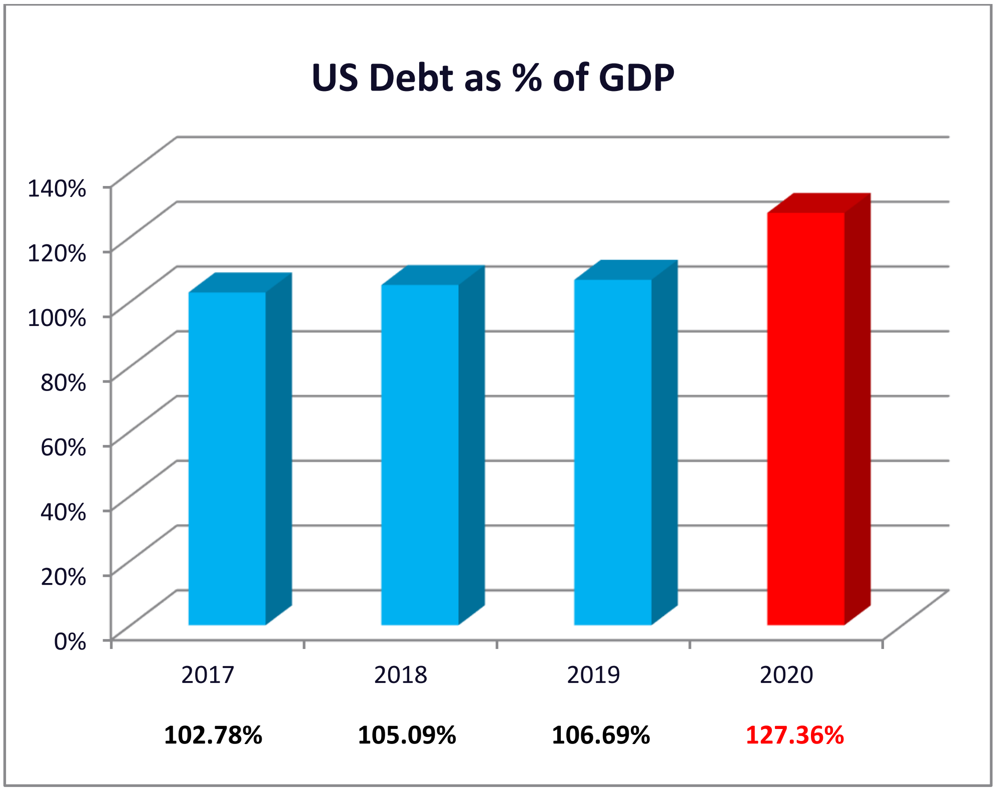
Public Construction is flat over last year at $ 339.1 Billion; after factoring in near 6% construction inflation, the whole sector is down by just as much. As the pandemic starts to subside, we expect public construction to increase again by 4-6% annually, but until then to remain flat.

II. Inflation, Price Increases & Supply Chain Issues

In our last article we offered an opinion about a possible accelerated inflation as US dept has ballooned due to the near USD 3 Trillion in stimulus (plus another USD 1 Trillion in the making) and the Federal Reserve's 3 Trillion Dollar asset purchases this year to prop up the US economy, which is a 75% increase from February when it held assets totaling 4 Trillion Dollars (Total assets held by the Federal Reserve currently stand at 7 Trillion Dollars). Consequently, the enormous debt increase, despite these



measures being needed to cushion the economic blow of the pandemic, it was inevitable that the Dollar would eventually come under pressure. Since June the USD has lost 7% against all major currencies and 12% against its largest economic rival - CNY (Chinese Yuan). The total debt burden now stands at a total of 27.20 Trillion Dollars compared to the 2020 GDP at 22.32 Trillion Dollars which brings the debt to GDP ratio for the first time in American History to 121.8% (right after the WWII it reach slightly over 120%).



Most materials and a large portion of international trade is being transacted in US Dollars. As inflation accelerates, it will cause prices for goods and services to increase proportionally as the effort to make goods and provide services remain the same in terms of real buy-power. Other factors have been weighing on cost of goods going up dramatically in the last 2 years. US trade disputes with many nations and notably China have shifted supply chains into many other countries who do not have the capacity to handle the demand and have created massive backlogs. Many countries do not have the quality control, processes and scalability as the major manufacturing countries do such as the US, China, Europe, Japan, South Korea and Taiwan.

Blanket tariff implementations have increased the cost of many goods, as even with a 25% tariff no better alternatives exist. In favor of the US forestry industry, policies were enacted to penalize countries such as Canada, that drove up prices for lumber to the tune of 100% in part due to the additional tariff but mostly that US forestry production cannot meet the national demand. At an average cost of roughly USD 250,000.00 to build a single-family home, the lumber price increase equates to an addition USD 17,000/home that for lumber alone is a price increase of 7% of the entire cost to build a house and many other materials have seen similar or even higher increases.

The pandemic added its own supply chain slow-downs that drove prices up. In the last 4-5 months steamship lines have artificially inflated prices by taking many vessels out of rotation, which has not only have increased prices for all imported goods but has also slowed down the speed of goods transported, which in turn has quite negatively affected all aspects of manufacturing domestically and abroad. US and Chinese antitrust authorities are looking into the business practices of the major container shipping companies, which will take time and shipping experts across the world estimate that these issues will persist well into 2022. All these issues combined have led and are still leading to end users having to absorb higher prices for just about anything, except for gasoline at the pump, which is 15% less than in 2019 and the low interest environment to service debt.

III. Outlook 2021/22

Based on our data analysis and state of the housing market, we think that we have reached the peak of issues negatively affecting the US economy. As some of these issues are starting to be absorbed and are becoming resolved, including the gradual immunization of the population, 2021/22 have a considerably better outlook compared to what we discussed in relationship to what happened in 2020. We like to look at all major factors contributing to current challenges and discuss them accordingly. The fact that single-family new construction and resale (renovations) have such a strong underlying demand will bode well for companies for 2020/21 with exposure to construction, which most of our readers have.

The decline in commercial construction activity in most US markets have, in our view, reached the lowest point and will start to improve gradually moving forward. It is left to be seen what the government will do with respect to public construction spending, but the base line has continued even in a very difficult year and likewise will improve accordingly over time.

Looking at how the Far-East has started to recover from the pandemic, the issues in Europe that will remain unresolved for several years and the struggles with the pandemic in other parts of the world, we very strongly believe that the US economy will recover (and already has started to) faster than its counterparts as it has during and after past crises. It will prove a lot more resilient than it currently looks. In anticipation of such, capital markets have performed extremely well and are providing a significant cushion for the US economy to recover from the pandemic induced slow down.