



Image credit: Teahub.io

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NCM Macro

"2022 - The Year of the Water Tiger"

The Chinese New Year begins on February 1. It is the Year of the Tiger, following 2021's Year of the Ox. Specifically, it will be the Year of the Water Tiger. Therefore, in addition to be associated with a high degree of active energy and independence (the tiger), the Chinese will associate 2022 with more emotion (water).

The last Water Tiger year, 1962, included events such as the Cuban Missile Crisis, Marilyn Monroe's premature departure, the first James Bond film (Dr. No) and the 1962 World's Fair in Seattle Washington.

As we look forward to 2022, we hope to emerge from a 2-year malaise of revolving crises including the COVID-19 pandemic, political polarization, and an American economy that is figuring out how to get back to normal; indeed, an American economy that is figuring out what normal is. We will explore these questions in this presentation and conclude that the path will be increasingly to some sort of *normalization* even if that normal may be somewhat different than pre-pandemic society.

Image credit: Teahub.io

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THE ECONOMIC FORECAST IS DIFFICULT FOR AN AMATEUR TO GET RIGHT...BUT THE PROFESSIONALS ARE REASONABLY CONFIDENT THAT THE MARKETS WILL GO EITHER UP OR DOWN IN THE LONG OR SHORT TERM

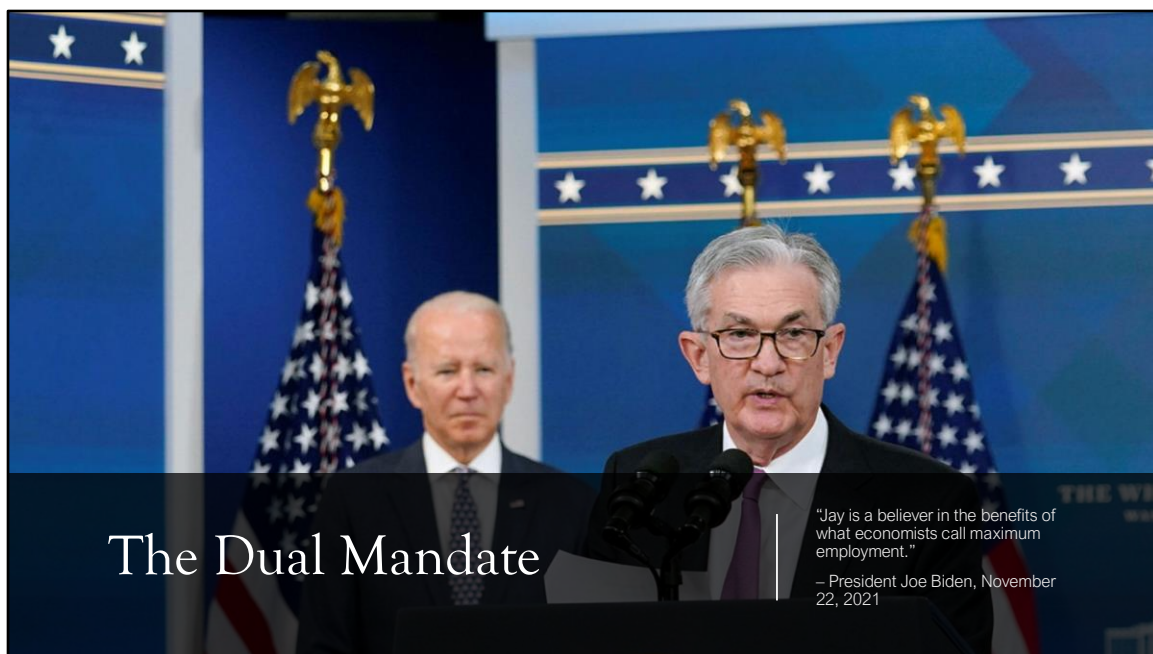
NCM Macro

Our outlook is broken down into four distinct sections. In the first, we look at the hot button economic issues of inflation and employment, provide our assessment of what rising inflation means, and look toward some normalization in the back half of 2022, albeit at higher levels than we've seen over the past decade.

The second section focuses on fixed investment and the propensity for individuals and businesses alike to earn and spend money on durable goods that stimulate the economy both at the point of purchase and also down the line. For example, when homes are purchased, furniture is also needed, electricity is needed and so on. When a business invests in machinery, there is a positive economic impact immediately and the business can produce a superior product more quickly, thus providing residual economic benefits down the road. This contrasts with spending on non-durable goods or services which take place once and don't necessarily imply residual economic growth.

The third section looks at how the impacts of inflation, employment, economic growth, and investment mesh together and produce earnings for companies. This all leads to what we can expect from Markets, which we explore in the fourth section of the presentation.

Image: Cortell, http://www.cortell.co.za/driver-based-planning-financial-teams/q116_02/



The Dual Mandate

"Jay is a believer in the benefits of what economists call maximum employment."

– President Joe Biden, November 22, 2021

In 1913, the Federal Reserve was created, signed into law by President Woodrow Wilson. The Act created twelve regional Federal Reserve Banks responsible for managing money supply, providing loans and oversight to banks, and serving as the lender of last resort. Over time, this mandate evolved and the Federal Reserve was asked to promote the goals of “maximum employment, stable prices, and moderate long-term interest rates.” Because interest rates are a lever seen as determining employment and inflation, the mandate morphed into a “dual mandate” of “maximum employment and stable prices.”

The Federal Reserve (Fed) determined that 2% inflation was desirable and was the best metric for “stable prices.” Notably, central banks in other countries have had mandates of 1%. For example, Japan’s central bank historically had a 1% inflation target but moved this number up to 2% in 2013. The European Central Bank has a price stability mandate of “below, but close to, 2%”. In 2020, the Fed changed its definition from something close to the ECB’s description to “inflation that averages 2 percent over time.” In other words, the Fed will allow inflation to run above 2% in order to compensate for periods where inflation ran below 2% - a catch-up provision of sorts.

In 2021, the Federal Reserve Chairman Jerome Powell was under significant pressure. He called the accelerating inflation “transitory”. His Federal Reserve had predicted in December 2020 that unemployment rate would finish 2021 at 5.0% and that Core Inflation would run at 1.8% for the year as a whole. They were wrong; unemployment finished the year at 3.9% (better than expected) and Core Inflation is now expected to come in at 3.3% (almost double the Fed’s expectation). For an entity full of PhD economists, it did little to gain the public’s trust. By the end of the year, Powell conceded that “after Labor Day...it started to become clear that this [supply side issue] was both larger in its effect on inflation and more persistent.” Rumors of Powell’s replacement began to circulate in the media but President

Biden ultimately made the call to keep Powell on for a second term.

Indeed, while it can be confusing and frustrating that these economists can get their forecasts so wrong so often, they must be commended for their adaptability and, in that regard, Powell deserves some credit.

Themes



INFLATION



EMPLOYMENT



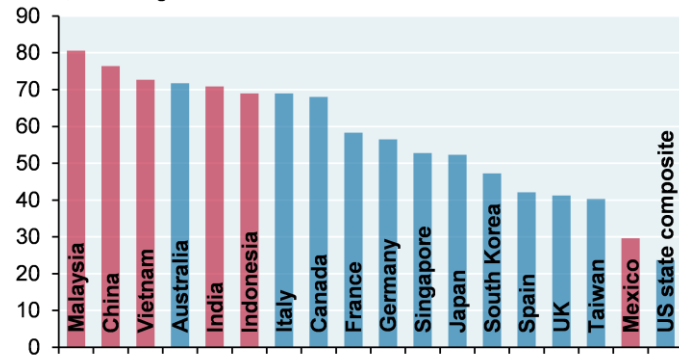
THE FED

We will begin with an overview of the inflation situation.

Degree of
Lockdown
Elevated in
September

Oxford lockdown stringency index

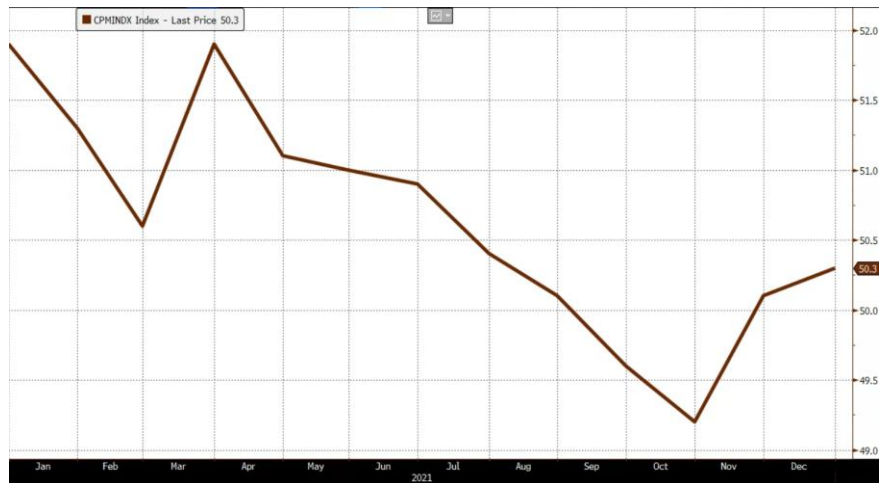
Index, 100 = highest level of lockdown



Source: University of Oxford, JPMAM. September 26, 2021.

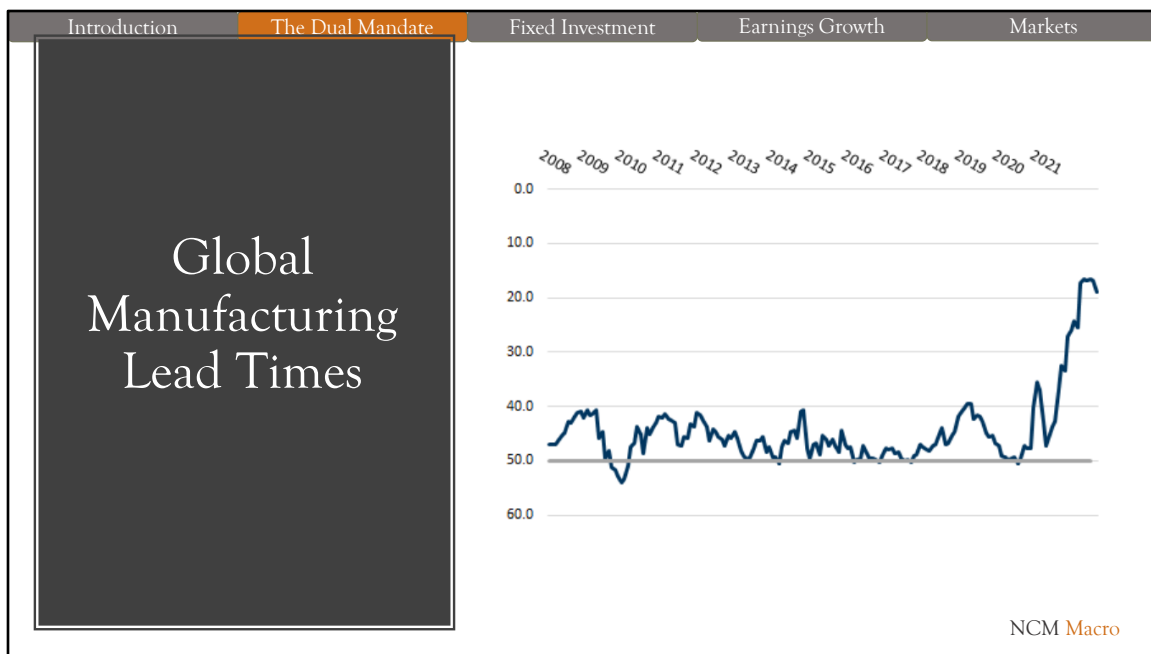
This slide is a flashback to our Q3 Macro Presentation when we noted the degree of lockdowns in Asia and the implied impact on supply chain issues. Although these impacts were not discussed much in the media, it was clear to us that they had a real impact on businesses and movement of supply from Asia.

China Manufacturing PMI



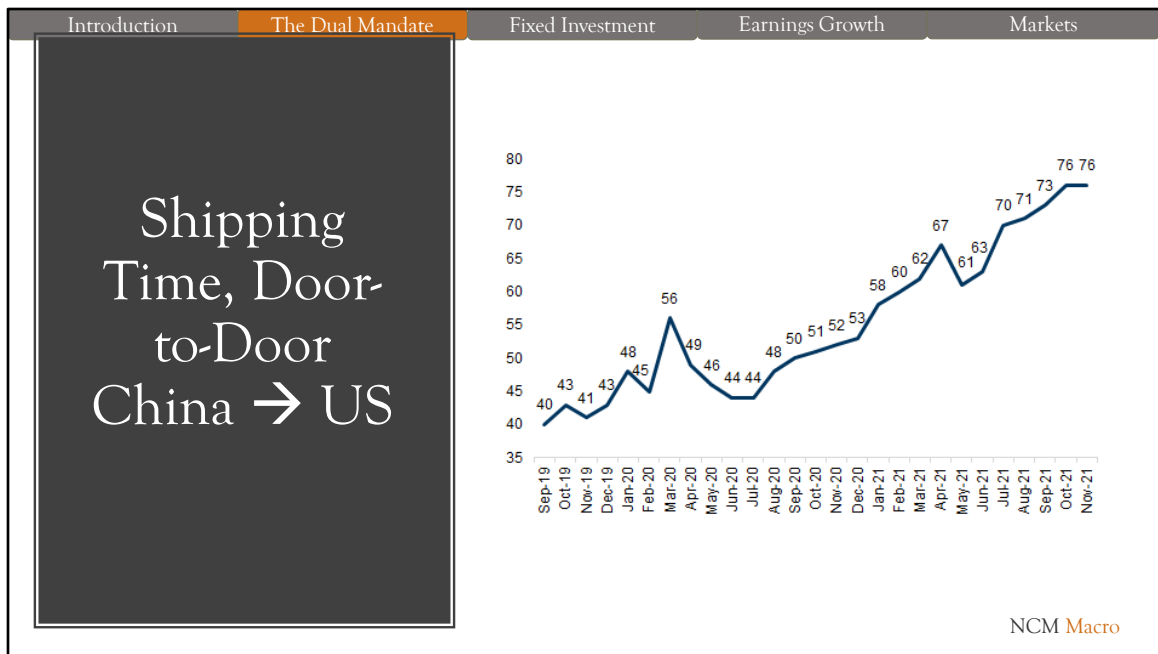
NCM Macro

China's manufacturing economy dipped into recessionary territory in September and October as the country responded to COVID breakouts. However, as those constraints eased in November and December, the economy began to recover and now enters 2022 in healthier, though still uncertain, territory.



As Asian economies have reopened, manufacturing lead times have begun to stabilize (at historically high levels). There remains much work to be done but the thesis that these Asian lockdowns in Q3 held the supply chain back appears to be holding true.

Source: Manufacturing Suppliers' Delivery Times (50 and below = increasing delivery times) - IHS Markit, Goldman Sachs



Similarly, shipping times have stabilized somewhat.

Source: Freightos, Goldman Sachs

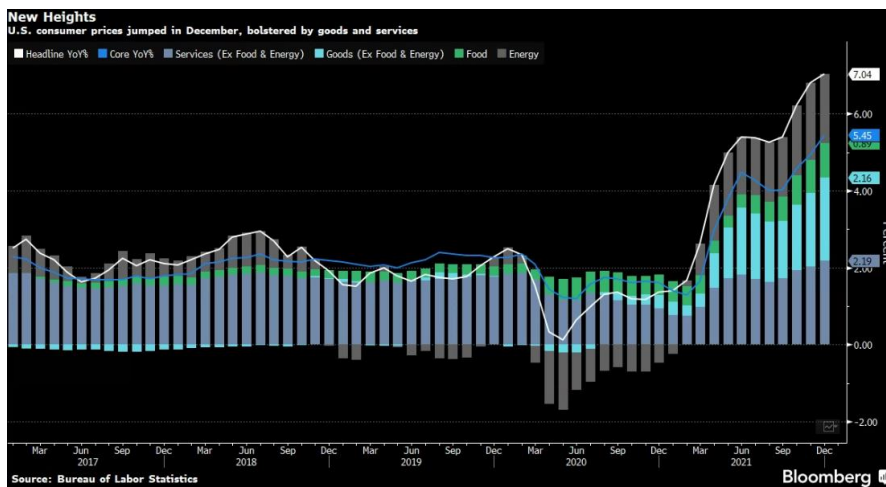
NFIB Survey – Inventory Satisfaction



NCM Macro

Although small businesses, as measured by the monthly NFIB survey, still see inventory as low, we have begun to see some stabilization in recent months. If the recent trends continue, inventory could begin to reach more normal levels in the back half of 2022.

Consumer Inflation driven by Goods (vs. Services)



NCM Macro

One question that we often ask ourselves is: “Just how pervasive is the inflation we are seeing? Is it *really* all supply-chain driven or is it more pernicious than that?”

This chart shows that Services inflation is rising but is broadly in line with pre-pandemic levels. Indeed, goods inflation often is a *drag* on the top-line inflation print. Today, it *adds* another two percentage points. As supply chains normalize, we should begin to see some normalization of Goods inflation, but this will take time.

The fact that Services inflation remains relatively stable is a good sign to us because it suggests we are not entering an inflationary period akin to the 1970s and 1980s. However, we remain intently focused on this number and look for it to remain contained.

Inflation Components

	Seasonally adjusted changes from preceding month							Un-adjusted 12-mos. ended Dec. 2021
	Jun. 2021	Jul. 2021	Aug. 2021	Sep. 2021	Oct. 2021	Nov. 2021	Dec. 2021	
All items.....	0.9	0.5	0.3	0.4	0.9	0.8	0.5	7.0
Food.....	0.8	0.7	0.4	0.9	0.9	0.7	0.5	6.3
Food at home.....	0.8	0.7	0.4	1.2	1.0	0.8	0.4	6.5
Food away from home ¹	0.7	0.8	0.4	0.5	0.8	0.6	0.6	6.0
Energy.....	1.5	1.6	2.0	1.3	4.8	3.5	-0.4	29.3
Energy commodities.....	2.6	2.3	2.7	1.3	6.2	5.9	-0.6	48.9
Gasoline (all types).....	2.5	2.4	2.8	1.2	6.1	6.1	-0.5	49.6
Fuel oil ¹	2.9	0.6	-2.1	3.9	12.3	3.5	-2.4	41.0
Energy services.....	0.2	0.8	1.1	1.2	3.0	0.3	-0.1	10.4
Electricity.....	-0.3	0.4	1.0	0.8	1.8	0.3	0.3	6.3
Utility (piped) gas service.....	1.7	2.2	1.6	2.7	6.6	0.6	-1.2	24.1
All items less food and energy.....	0.9	0.3	0.1	0.2	0.6	0.5	0.6	5.5
Commodities less food and energy commodities.....	2.2	0.5	0.3	0.2	1.0	0.9	1.2	20.7
New vehicles.....	2.0	1.7	1.2	1.3	1.4	1.1	1.0	11.6
Used cars and trucks.....	10.5	0.2	-1.5	-0.7	2.5	2.5	3.5	37.3
Apparel.....	0.7	0.0	0.4	-1.1	0.0	1.3	1.7	5.8
Medical care commodities ¹	-0.4	0.2	-0.2	0.3	0.6	0.1	0.0	0.4
Services less energy services.....	0.4	0.3	0.0	0.2	0.4	0.4	0.3	3.7
Shelter.....	0.5	0.4	0.2	0.4	0.5	0.5	0.4	4.1
Transportation services.....	1.5	-1.1	-2.3	-0.5	0.4	0.7	-0.3	4.2
Medical care services.....	0.0	0.3	0.3	-0.1	0.5	0.3	0.3	2.5

NCM Macro

Early in the year, higher prices on new and used vehicles were driving factors in the higher inflation prints. As can be seen on this chart, inflation today is more pervasive than just those factor. Nevertheless, they still explain a significant amount of the inflation we are seeing in the economy. Our analysis can be summarized as follows:

New Vehicles comprise 3.9% of the CPI and 5.0% of the CPI ex-food/energy.

Used Vehicles comprise 3.4% of the CPI and 4.4% of the CPI ex-food/energy.

Thus, the vehicle bottleneck alone contributes 2.2% of the 5.5% headline number.

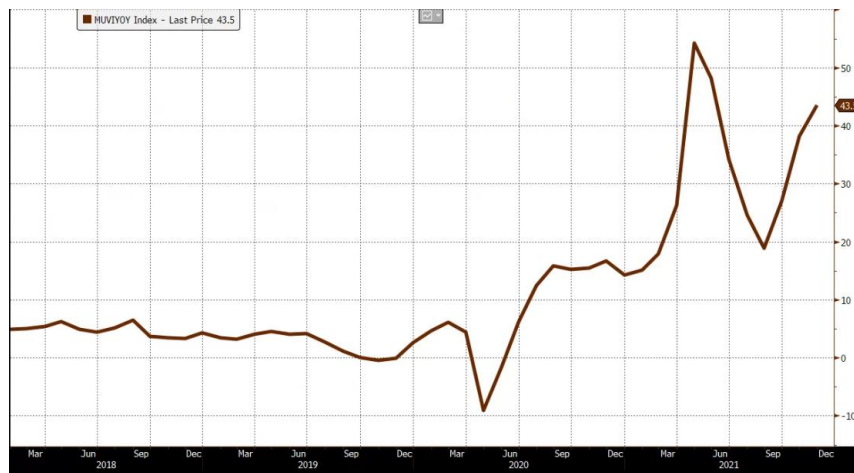
Shelter comprises 32.4% of the CPI and 41.3% of the CPI ex-food/energy.

Thus, the shelter bottleneck/migration/etc alone contributes 1.7% of the 5.5% headline number (it normally runs about 1.3%).

The bottom line is that we are running inflation at hot levels. We need to get through the used vehicle bottleneck; if we can, the contribution to inflation should fall to 0.5% or so over the balance of the year. Shelter may remain elevated.

As a side note, our local Atlanta Metropolitan Area has the highest inflation of any urban area in the country (+9.8%), followed by Phoenix (+9.7%) and St Louis (+8.3%). New York City inflation is just +4.4%.

Used Vehicle Prices Could Normalize Quickly

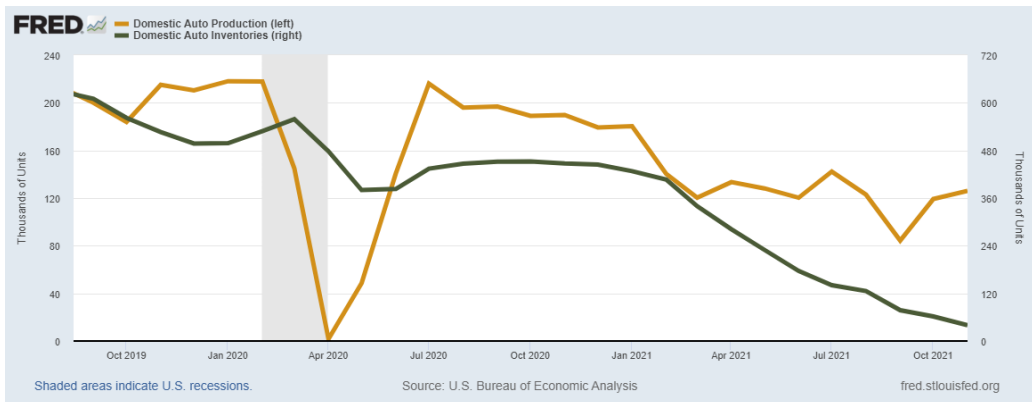


NCM Macro

As demonstrated in the summer when supply chains began to briefly normalize (before the second wave of Delta-variant lockdowns in the fall), used vehicle prices showed downward mobility. In Q4, as supply chain issues pinched once again, used vehicle prices rose. Nevertheless, this chart demonstrates that gravity exists and used car prices are likely to fall as production of new vehicles rise.

Source: Manheim Used Vehicle Value Index

Auto Production Showing Signs of Life; Further to Go

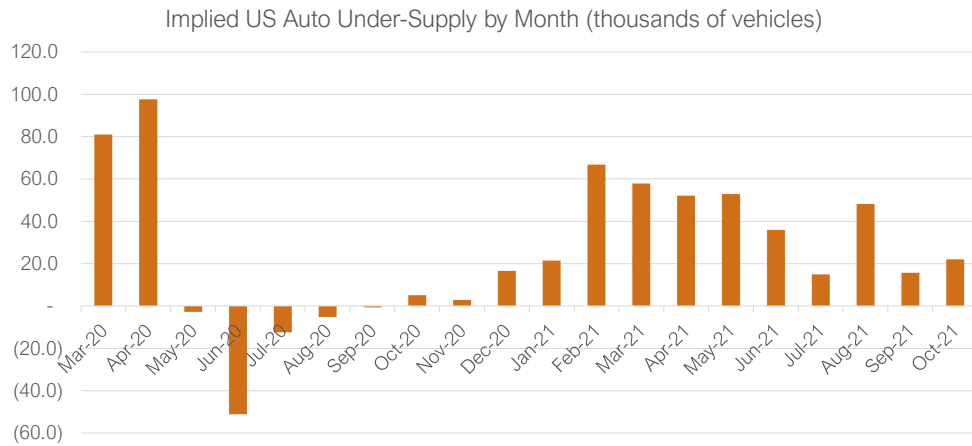


NCM Macro

On the production front, after shutdowns in the late summer, supply has begun to increase. It hasn't been enough to offset robust demand but it could get there in 2022.

This is a positive endorsement of potential 2022 economic growth because of the impact auto production and sales have on the economy. Not only will Detroit need to produce more vehicles in order to keep up with demand and stave off drawdowns, but inventory will need to be replenished, if only moderately, to effectively prevent stock-outs and missed sales.

Auto Production Must Rise 20k/mo. to Maintain Inventory



NCM Macro

In fact, US auto production will need to increase ~ 15% simply in order to meet demand.

Auto Inventory Recovering

- The key constraint for sales continues to be reduced inventory levels as a result of the semiconductor shortage. Those **inventory levels are beginning to recover** against a backdrop of strong fundamental demand conditions, with ample job openings, high household savings and low interest rates.” – Elaine Buckberg, GM
- “The **first half of 2022 at least will remain highly volatile** and challenging owing to persistent supply bottlenecks for semiconductors. However, the company expects to be able to stabilize production as the year goes on and lower its high backlog of orders as quickly as possible.” – Volkswagen
- “We’ve **hit the bottom** of our trough in terms of inventory levels, we hope things improve. You never know what’s gonna come out of left field.” – Randy Parker, Hyundai
- 2021 Light US Vehicle Sales: 15m
- 2022 Light US Vehicle Sales Estimates: 16m

NCM Macro

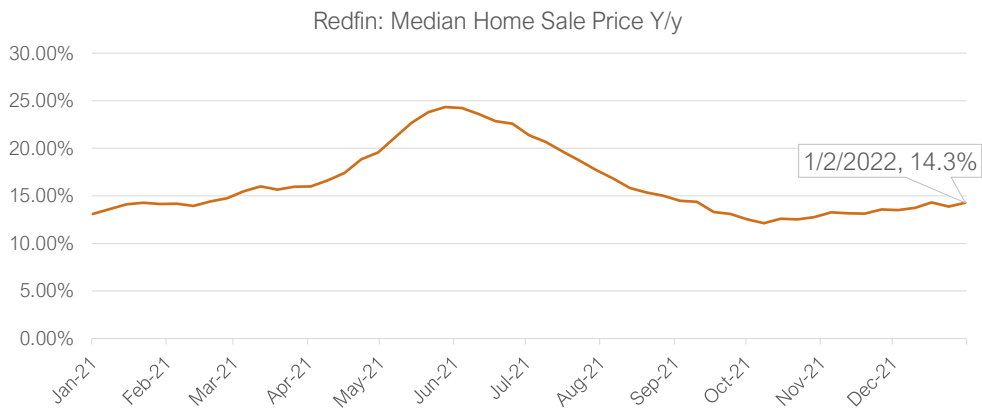
Shown here are GM’s forecasts for US Vehicle sales. The 16m number may be conservative and may be a supply-constrained number; sales in an unconstrained environment could be higher.

Source: GM Press Release, January 4, 2022

Source: Volkswagen Press Release, January 12, 2022

Source: Bloomberg Autos reportr Gabrielle Coppola in conversation with Hyundai’s head of US Sales, Randy Parker

Home Prices Could Keep Inflation Stubbornly High



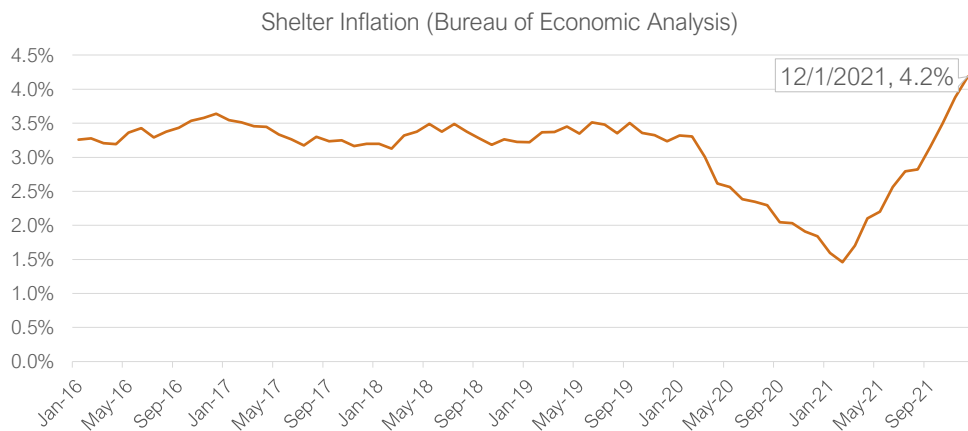
NCM Macro

Like the auto industry, housing is suffering from a supply/demand imbalance. However, the balance may take longer to correct. On the demand side, demographic trends (millennial and Generation Z household formation) have been accelerated by migration and wealth effects of the COVID-19 pandemic. On the supply side, funding for new home construction over the past decade has been notoriously tight as investors and builders didn't want to live through another 2008 scenario.

Fitch – the ratings agency – expects 5-7% home price appreciation in 2022. That could be low. KB Home expects growth in average selling prices in the low-to-mid teens. As we will show later, apartment companies are already seeing rent increases in the mid-teens to mid-20s.

As a result, we aren't banking on a rapid normalization in home price inflation.

CPI Shelter Prices Lagging Real-world Inflation



NCM Macro

On top of that, even while Fitch and others expect home price appreciation of at least 5% in 2022, the current level of Shelter inflation – as reported in the official inflation report – is just 4.2%. This is heavily impacted by “Owner’s-equivalent rent” (OER). OER is a survey metric where homeowners – who aren’t currently renting their homes – are asked to report what they think they could charge in rent if they *were* to rent out their homes. It is a lagging indicator and one that doesn’t fully capture the change in shelter prices. As a result, the upward trend in shelter prices may continue for some time, acting to keep the overall reported rate of inflation elevated.

KB Home: Housing Accelerating

Key Quotes

- “Recent increases in loan limits, both conventional and FHA should help with mortgage financing.”
- “We’ve analyzed our backlog, and **if rates went up 1%, it’s not a real impact**. And that’s if everything stayed the same and rates went up a point, think of the profile I shared with you. Here we are predominantly a first-time builder and our **buyers putting down on average \$67,000 in down payment**. They have all the flexibility in the world to navigate a little bit higher interest rate and they all want a house. And at the same time you go to the resale side, there is **no inventory**.”
- “Market conditions remain very healthy as favorable **demographics**, low mortgage **interest rates** and an extremely **limited supply of homes**, particularly for first time buyers continue to drive demand.”

2022 Set to Accelerate

- ✓ Price Growth:
+9% → +15% (+/-)
- ✓ Gross Margin:
24.4% → 25.8% (+/-)
- ✓ Backlog:
\$2.96b → \$4.95b
- ✓ Return on Equity:
19.9% → 26%+

NCM Macro

Data shown here has been sourced from the KB Home earnings report and conference call on January 13, 2022.

Price inflation: Based on prices going from \$423k to \$480k-\$490k, per guidance.

Margin: Based on homebuilding gross margin rising from 24.4% to a range of 25.4%-26.2%.

Return on Equity per guidance. For context, the return on equity was 12.2% in 2019 and 11.8% in 2020.

Watch Those Oreo Prices

- Mondelez: “We had recently announced a **6% to 7% price list increase** in the U.S., which will take effect in 2022 January...we plan to increase the prices more than we've done at least in the time that I'm here and probably for quite a while as a company. But what is good is that the elasticity levels are below historic levels and almost nothing to speak of.”
- NexPoint Residential: “With net migration continue into our core Sunbelt markets, and continued shortage of high-quality affordable housing, NXRT continues enjoyed enormous pricing power, **new lease rates increasing 23.8%** for the quarter and **renewal rates increasing 10.5%** for the quarter across the portfolio.”
- Vulcan Materials: “I would be surprised if next year's price increases are not **at least 5%.**”

NCM Macro

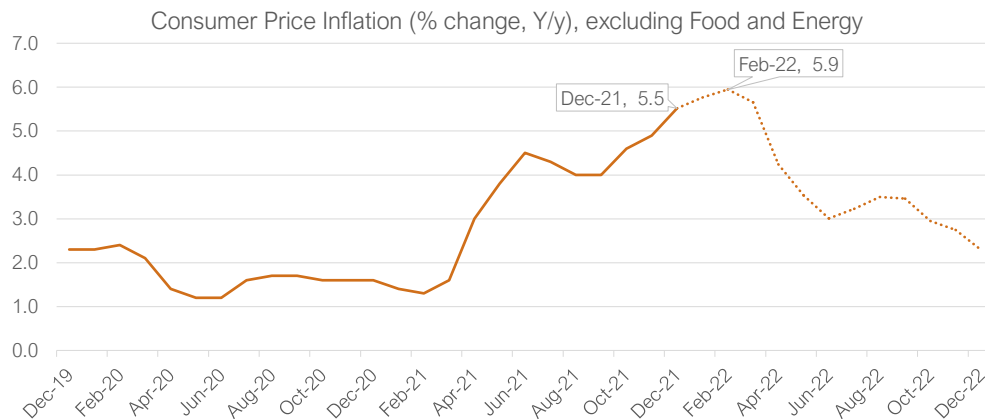
Mondelez is one of the largest snack makers in the world – they make Oreos, for example. NexPoint Residential is a large apartment REIT located in Sunbelt markets. Vulcan produces and sells aggregates, asphalt, and concrete for construction. For context, Vulcan’s price increases mark an acceleration from the low-3% range in 3Q21.

Mondelez Earnings Call – November 2, 2021

NexPoint Earnings Call – November 2, 2021

Vulcan Materials Earnings Call – November 4, 2021

CPI (ex-food/energy) Set to Peak in the Spring



NCM Macro

The data shown here is a projection of reported inflation made using the following assumptions:

- ❖ Used autos decelerating on a 2-year stack from 22.9% to 15.0% (closes the year -3.7%, in line with Manheim's -3% prediction);
- ❖ New autos decelerating from 6.8% to 6.5% (slower to normalize due to low levels of inventory and newer, higher-priced vehicle styles);
- ❖ Other products constant at 1.5% as supply debottlenecking is offset by prescribed price increases (recall, goods prices are often zero or even slightly deflationary);
- ❖ Shelter accelerating from 2.9% to 4.5% (the 2021 exit rate was 4.2%);
- ❖ Other Services constant at 2.2% as market normalization is offset by higher wage pressure at the low end as well as drug/hospital price increases.

Source: <https://publish.manheim.com/content/dam/consulting/ManCons-qtrly-call-202201.pdf>

Themes



INFLATION



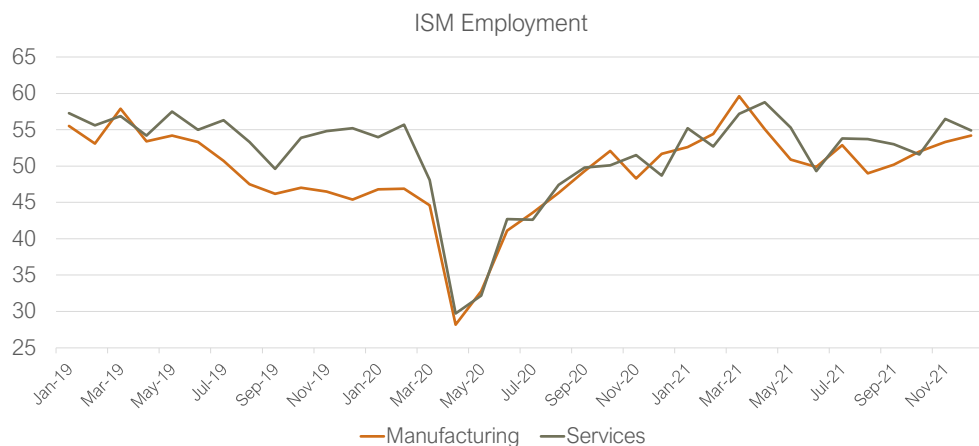
EMPLOYMENT



THE FED

We continue with an overview of the employment situation.

ISM Survey: Employment

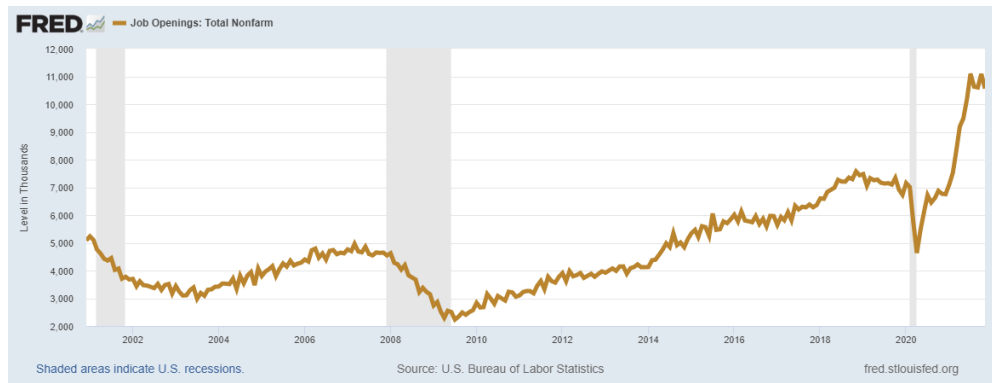


NCM Macro

Given seasonal adjustments in some of the national numbers, it can be easier to see trends in the ISM Survey data.

The Institute for Supply Management conducts a survey of manufacturing and services businesses each month to see how business is going and to get a sense of what is driving decision making. During the summer, both types of businesses were negatively impacted by a tight labor market and concerns about the Delta variant. However, in recent months, the indicators have begun to move higher, suggesting an improving jobs market, notwithstanding negative Omicron impacts on the Services side in December.

Job Openings Historically High, but Not Rising



NCM Macro

Job openings are stable at very high levels. This suggests that businesses continue to want to hire people and jobs are plentiful. It also suggests that there is a shortage of qualified and willing labor.

The high level of job openings could be temporal or structural. Elevated job openings could persist if people simply do not need the money (e.g. large number of new retirees); elevated job openings could decline if people begin to exhaust savings or employers begin to settle for less qualified workers, choose to significantly raise wages, or simply withdraw job postings because they have become accustomed to doing more with less (i.e. increased technology/productivity).

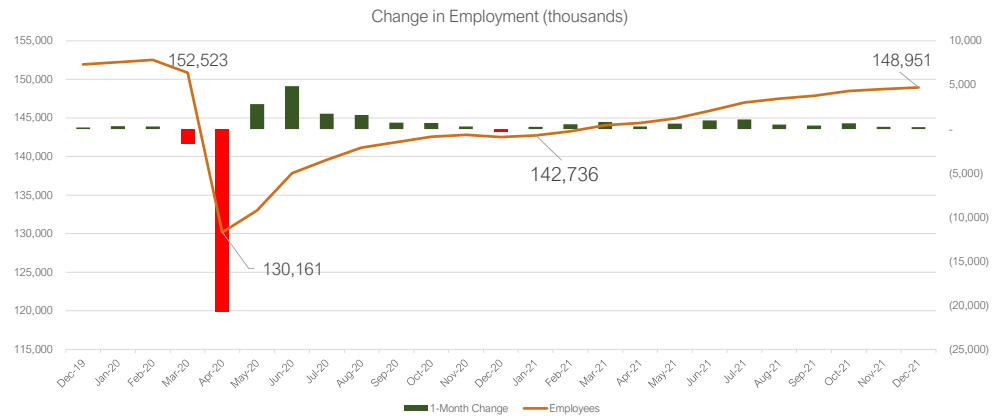
Job opening rates are especially high in Health Care, as shown below.

Job Opening rates by industry (November):

- ❖ Overall – 6.6% (up from 4.5% last year)
- ❖ Information – 5.5% (up from 3.6% last year)
- ❖ Retail – 6.3% (up from 4.5% last year)
- ❖ Health Care – 8.2% (up from 5.8% last year)
- ❖ Arts, entertainment, and recreation – 7.2% (up from 5.7% last year)
- ❖ Accommodation and food services – 8.9% (up from 6.0% last year)

Source: <https://www.bls.gov/news.release/pdf/jolts.pdf>

The US Has Recovered 84% of Lost Jobs



NCM Macro

Despite concern about people leaving the work force, the number of people employed in the US is now less than 4 million off the all-time-high set in February 2020. This is substantial progress; in April 2020 we were down more than 22 million jobs.

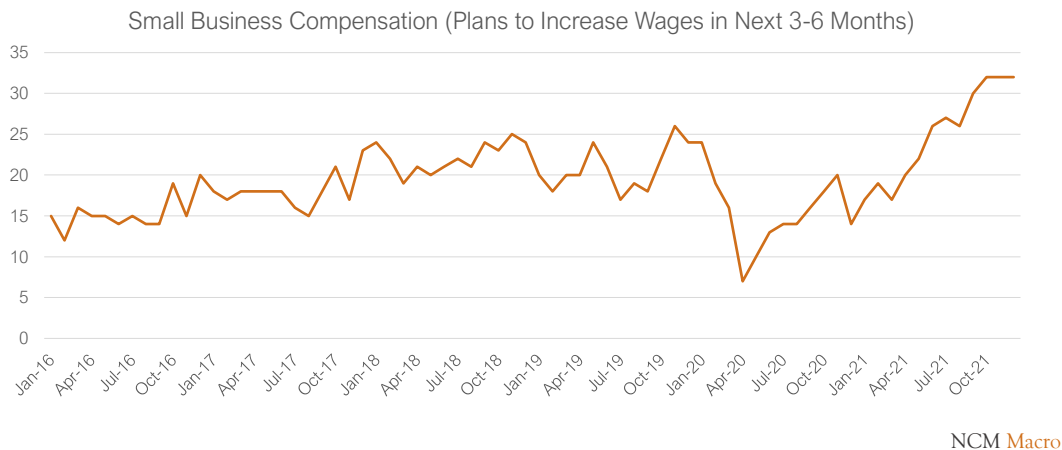
Employment Growth Set to Continue



Employers appear to continue to want to hire new workers. According to the NFIB, small businesses are intent on hiring. The data shown here takes the percentage of businesses who plan to hire, subtracts the percentage of businesses who don't plan to hire, and shows the difference. In laymen's terms, this means roughly 65% of small businesses in the US plan to hire people in the next 3-6 months.

Source: NFIB Survey, December 2021

Wage Increases Are Coming



Perhaps more notable than the sheer number of workers is what these workers are getting paid and where those wages are going. While small businesses continue to want to hire, the level of hiring intention is lower than its high from the summer. In contrast, the level of compensation increases continue to accelerate. This suggests that while the appetite to hire has cooled modestly (still strong, though), the appetite for wage increases has picked up.

Source: NFIB Survey, December 2021

Recent Wage Growth Concentrated on Lower-Income

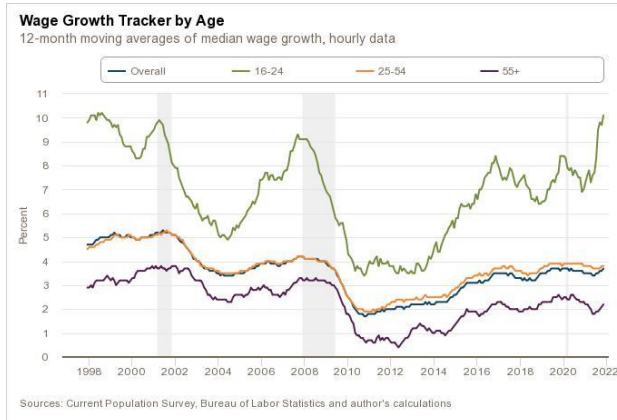


NCM Macro

In the pandemic-recovery era, wage increases have been most pronounced among lower-income groups. Wages in the highest-income groups have risen, but at a slower rate than in the past. These trends could change and we will be watching incoming data closely.

Source: FRB Atlanta Wage Growth Tracker

Recent Wage Growth Concentrated on Younger Workers

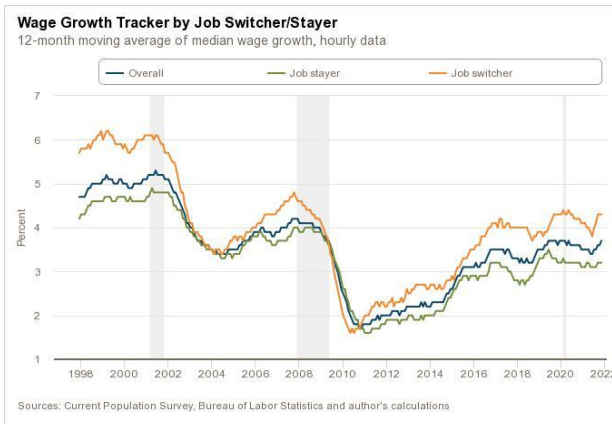


NCM Macro

Unsurprisingly, wage increases have been most pronounced for younger workers. This may be driven by minimum wage increases imposed at the corporate level by several large organizations (e.g. Amazon, Walmart).

Source: FRB Atlanta Wage Growth Tracker

Higher Wages for Job Switchers Could Lead Broader Increases



NCM Macro

Interestingly, wage increases are more prominent for job switchers than job stayers. This is a symptom of a stronger economy because, in order to attract new workers, employers need to give them pay raises. Although one might expect that wage increases for job switchers could push up inflation for job stayers, the historical data aren't conclusive.

Source: FRB Atlanta Wage Growth Tracker

Themes



INFLATION



EMPLOYMENT

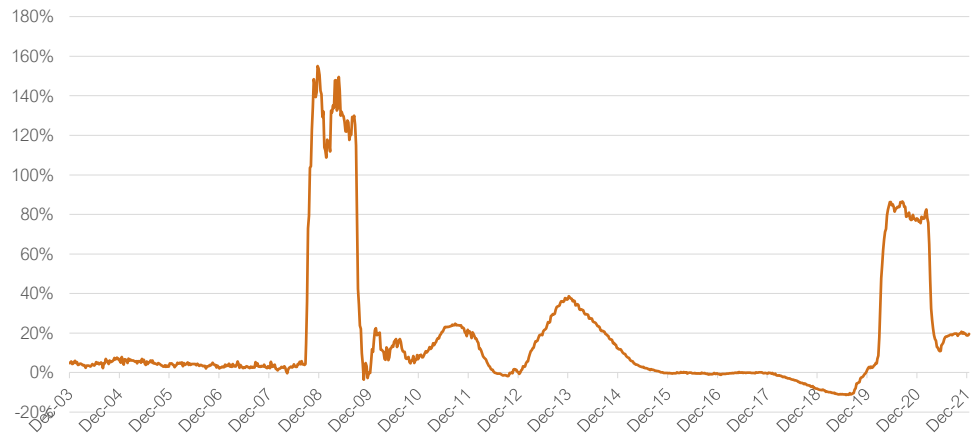


THE FED

NCM Macro

We conclude this section with an evaluation of the Fed's decision-making process in light of the inflation and employment data.

Federal Reserve Balance Sheet, Total Assets (Y/y)



NCM Macro

Shown here is the percentage change in balance sheet size at the Federal Reserve. Notably, with the taper program currently enacted and the prospect for balance sheet runoff in the back half of 2022 (per Federal Reserve discussion), this chart is likely to turn downward and may even go negative by the end of 2022.

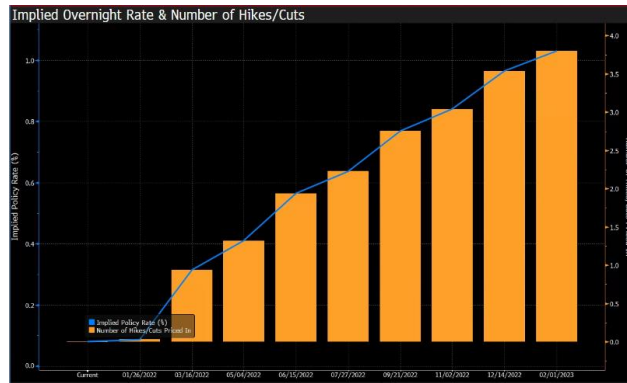
Implied Fed Rate Hikes in 2022: ~ 3.5

Jamie Dimon, the CEO of JPMorgan Chase, expects more:

“And so my view is a pretty good chance, that'd be more than four. Okay. It could be six to seven. I mean, I grew up in a world where you know Paul Volcker just raised straight 200 basis points on a Saturday night.”

JPM Conference Call

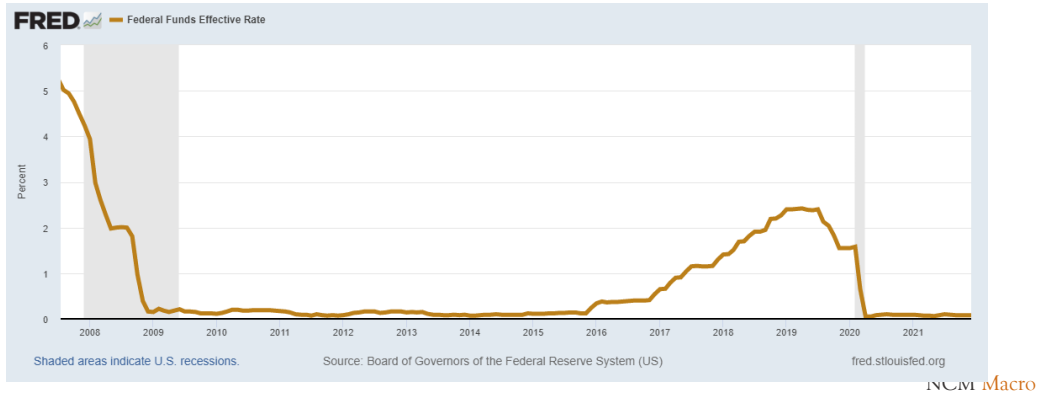
January 14, 2022



NCM Macro

Jamie Dimon, the CEO of JPMorgan Chase, said on his January 14 conference call that there could be 6 or 7 interest rate hikes in 2022. He said that although the economy is quite strong, it could be undone by inflation. Dimon harkened back to the 1980s with an out-of-consensus view that the Fed could become extremely aggressive in hiking interest rates. Although this has some shock and awe value, it is unlikely. In context, he was making the point not only that inflation is elevated, but also that the economy is strong enough that it could withstand even 6-7 hikes and still be in good shape.

Monetary Tightening Coming Much Faster This Time



In the years following the global financial crisis (GFC), interest rates remained essentially zero for a number of years. Lift-off is expected to be much quicker this time around. In fact, by the end of 2022 – less than 2 years following the end of the 2020 recession – consensus expectations call for a Federal Funds rate of $\sim 1.00\%$. By contrast, such a milestone took 8 years following the GFC.

House View

- Employment is not the issue
- Inflation is the focus
- The Fed is only likely to act with greater urgency if inflation accelerates
- If inflation begins to gradually return to more normal levels in the second half, we may see the Fed slow its pace of rate increases
- The economy should be able to withstand these rate increases



NCM Macro

Conclusions

Fixed Investment

Earnings Growth

Markets

Inflation slowing mid-year as supply chains normalize

Some prices (e.g. housing) may remain stubbornly high and even go higher

Employment likely to increase moderately

Wages may take priority over head count

3-4 interest rate hikes

NCM Macro



Investment

“We’ve had some one-off events that have caused us inventory challenges. We think it would be highly beneficial to have some redundancy in the system.”

-Bill Newlands, Constellation Brands
CEO, January 6, 2022



This section covers Investment in 2022 and the propensity of businesses and individuals to invest in factories, machines, and homes.

Fixed Investment

Earnings Growth


Markets



Themes

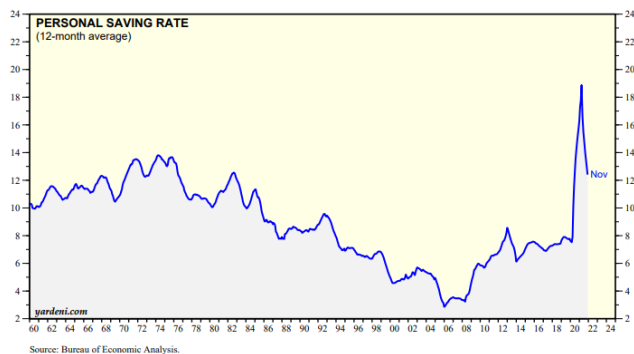
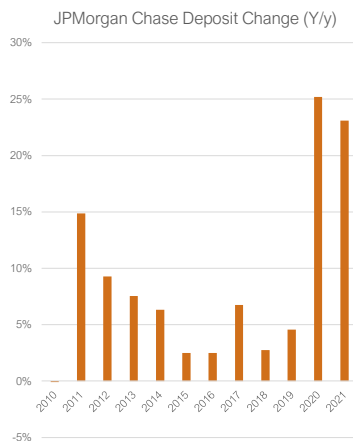
 Migration

 Housing

 Investment

NCM Macro

Consumer Credit Remains Strong

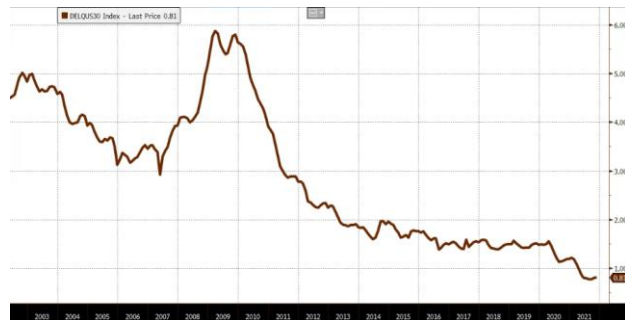


NCM Macro

When thinking about investment, it is worth also considering the *ability* to invest. The ability to invest depends on the availability of capital. There is no better source of capital than a cash balance. And, indeed, the American consumer is “cashed up”. Deposits rose another 23% at JPMorgan Chase in 2021 following a 25% increase in 2020. The personal savings rate remains elevated and, although it is normalizing, the consumer *continues* to save more than normal and this is on top of the excess savings already in the bank account.

Source: <https://www.yardeni.com/pub/personalsave.pdf>

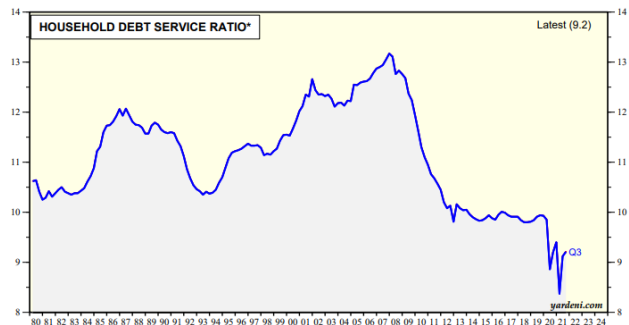
Credit Card Delinquencies at All-time Lows



NCM Macro

Credit card delinquencies continue to be low. For context, in the years preceding the COVID pandemic, JPMorgan was looking to *increase* its credit card delinquency rate because the low rates implied that the firm was leaving money on the table. Essentially, it meant that the banks were not lending money to people who – while riskier – still increased the return profile for the bank.

The Consumer is Not Overextended

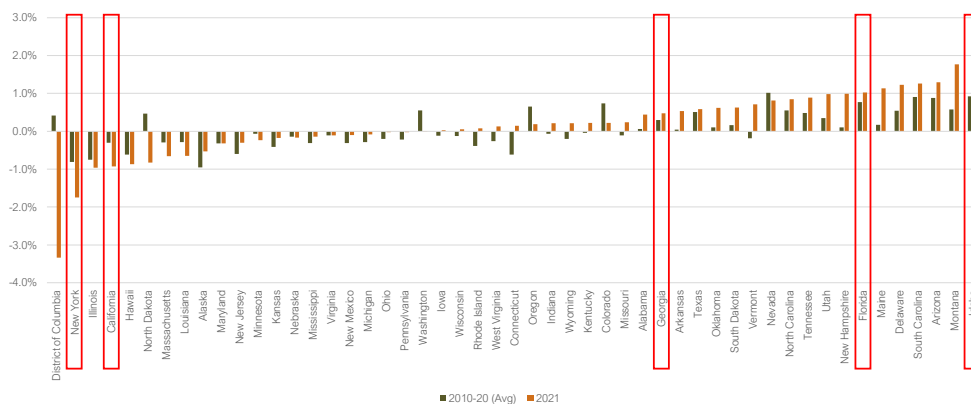


* Ratio of debt service payments to disposable personal income.
Source: Federal Reserve Board.

NCM Macro

Finally, the consumer is not overextended with interest expense at an effective all-time low as a proportion of income. The consumer can afford both higher interest rates and higher levels of debt (not that they need to take out debt right now because they already have a healthy amount in savings).

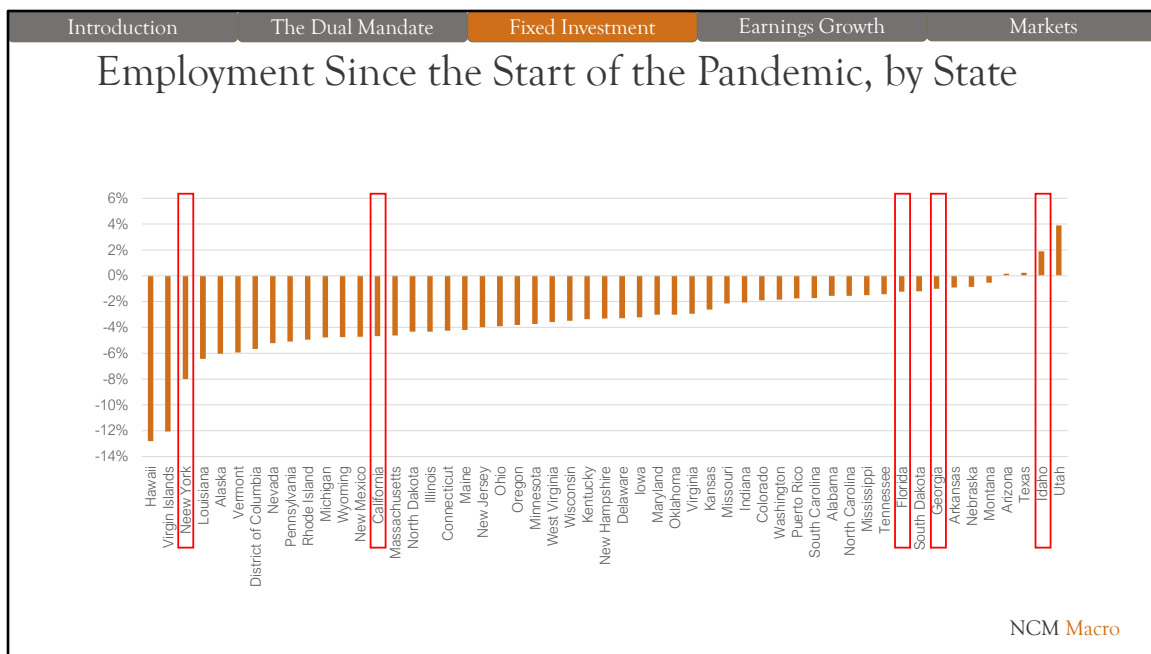
Domestic Net Migration Trends Accelerate



NCM Macro

As widely publicized, states like Idaho and Florida saw significant net immigration in 2021 while New York and California saw significant net emigration. It is worth noting that these trends simply mark an acceleration from trends that had persisted for the previous decade. New York, for example, had averaged 0.8% net outflows over the prior 10 years while Idaho had averaged 0.9% net inflows.

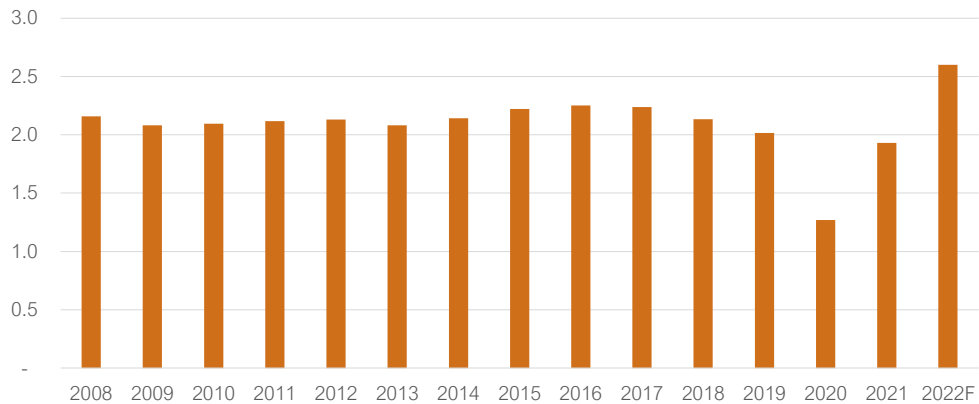
Source: https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html#par_textimage



Similarly, since the start of the pandemic, Idaho and Utah led the country in job growth. Only those two states, together with Arizona and Texas, have recovered all the jobs lost during the COVID pandemic. Other states are in much worse shape. Highlighted here are California and New York, but Hawaii has also seen tremendous net job loss over the past two years.

Source: BLS

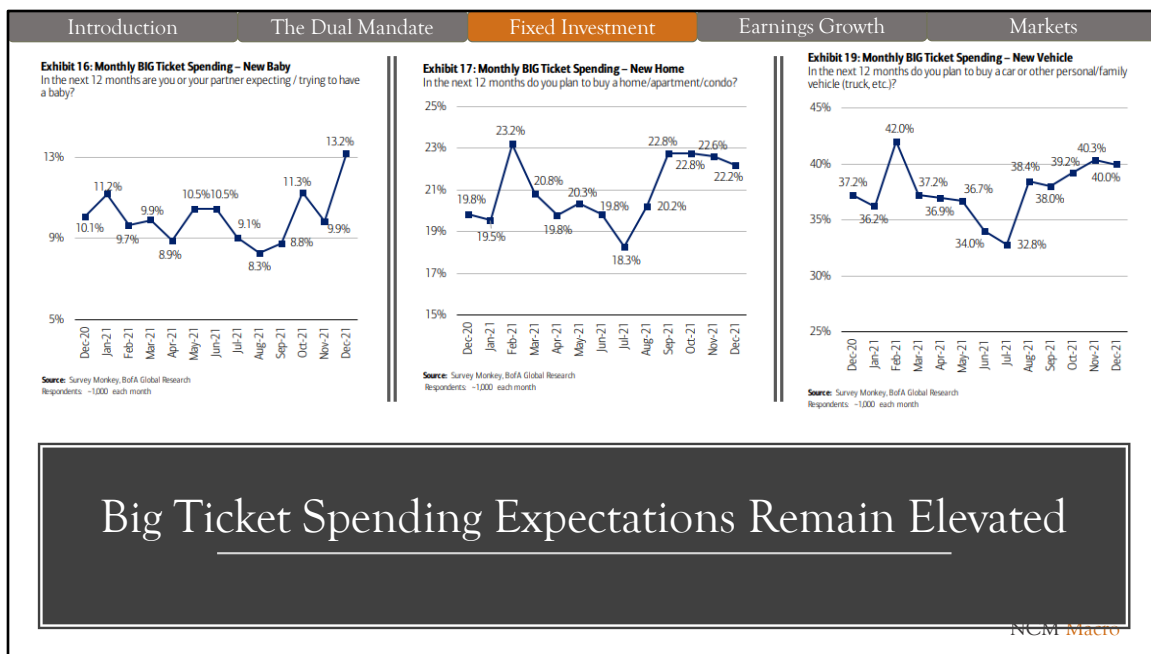
Household Formation: US Weddings (millions)



NCM Macro

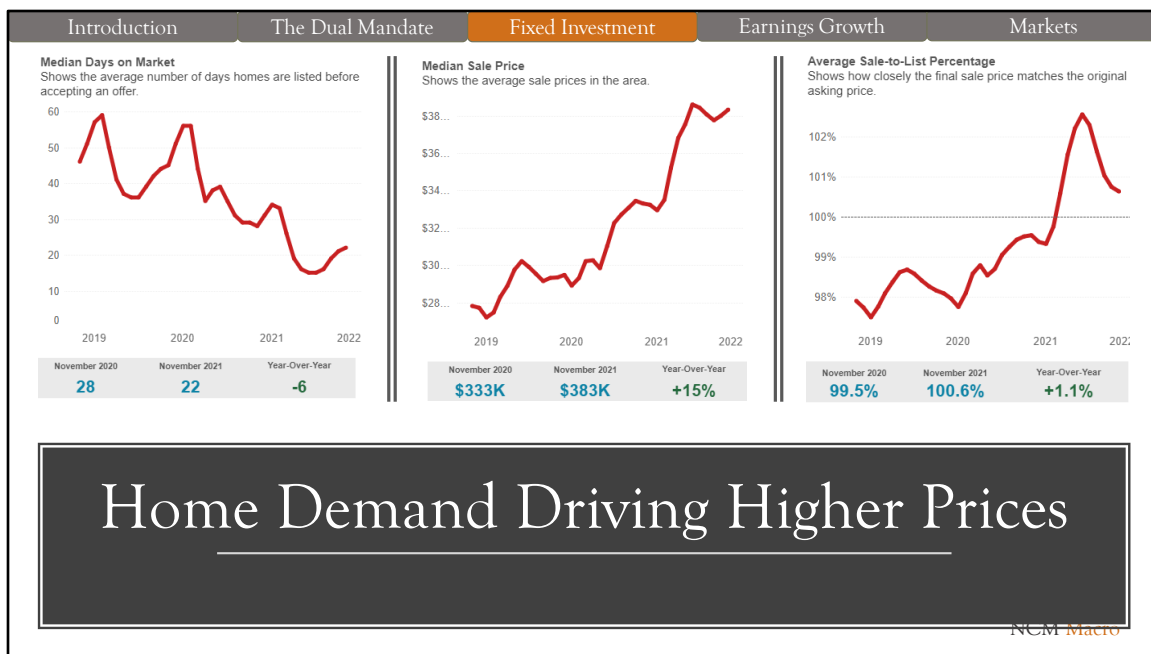
In keeping with the societal patterns, weddings are slated to accelerate in 2022, in part due to pushouts during the pandemic years. However, there is also an interesting fit here with the ages of Millennials and the natural evolution of that demographic.

Source: TheKnot



Not surprisingly, perhaps as a function of household formation, higher income, and higher savings, big ticket spending is elevated. On a year-over-year basis, the expectation that households will have a baby has risen from 10.1% to 13.2%. The expectation for a home purchase has risen from 19.8% to 22.2%. And the expectation of a new vehicle purchase has risen from 37.2% to 40.0%. In other words, based on this data alone, big ticket purchases (i.e. fixed investment) should be expected to accelerate from their growth levels in 2021.

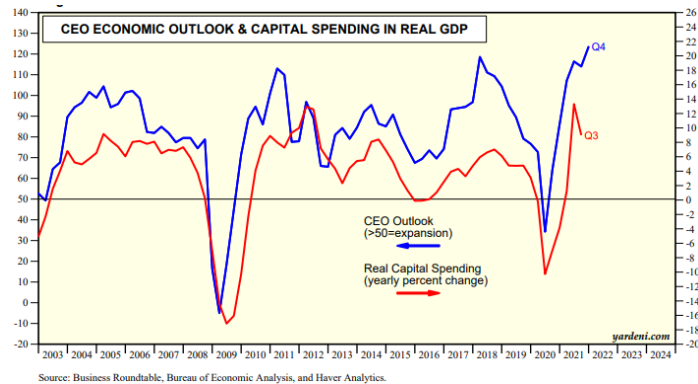
Source: Bank of America December Consumer Spending Survey



As demonstrated earlier, home demand continues to be elevated. Together with a shortage of home supply, prices are up and houses are moving quickly. The average house sold above list price for the majority of 2021.

Source: Redfin

CEO Confidence Leads Capital Spending



NCM Macro

On the business side, fixed investment expectations are expected to accelerate. Although there was a small dip in Q3, elevated levels of CEO confidence provide support for the idea that capital spending will accelerate in 2022. Moreover, comments out of a host of disparate companies from beer production to semiconductors to auto production all support this trend.

Source: <https://www.yardeni.com/pub/capspendind.pdf>

Capital Spending, Business Roundtable (next 6 months)

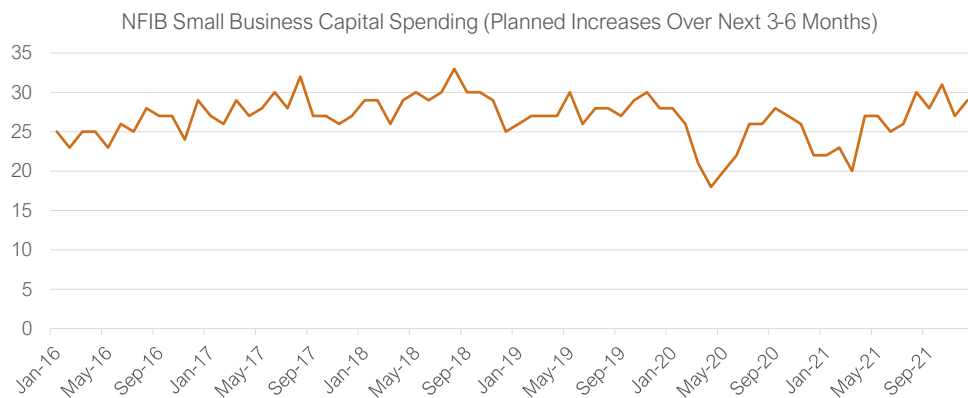
Capital Expenditures



NCM Macro

Supply chains held back actual capital spending in Q4. However, the CEO Capital Spending expectation for the next 6 months rose to new highs.

Capital Spending Expectations at Small Businesses



NCM Macro

Small businesses are less bullish on the outlook for new spending but the figures are still at elevated levels. The lower degree of relative optimism perhaps reflects the inability to source needed materials or equipment due to supply chain concerns.



Capacity Expansion to Drive Growth

NCM Macro

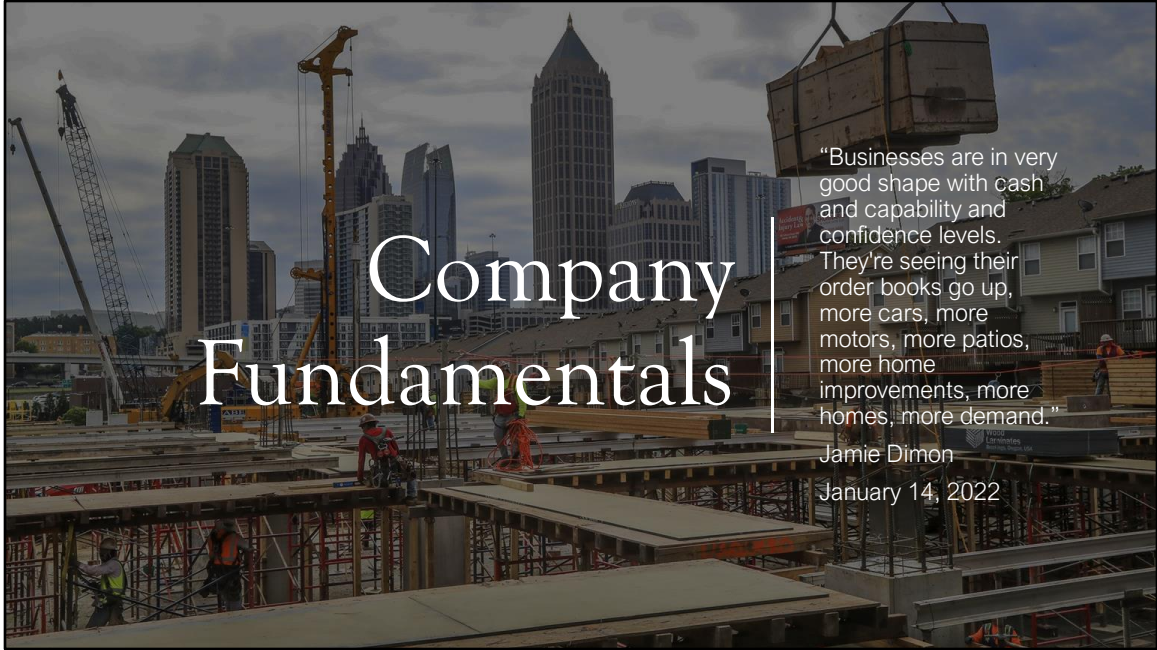
Taiwan Semiconductor – the largest semiconductor foundry in the world – plans to increase its capital budget from \$30b to \$40b-\$44b in 2022. Notably, they expect to offset the higher depreciation expense with higher prices and growth.

Constellation Brands plans to increase its spending from \$700m-\$900m/yr to \$1.2b-\$1.3b/yr. Notably this elevated level of capital spending is the new normal, with it expected to take place all the way through FY26 (ending in February 2026)

Per its investor day in October, General Motors plans to spend \$9b-\$10b per year on capital investments for next-generation factories and electric vehicle production. This marks a significant step-up from the \$7b-\$8b it spent annually in the years between the GFC and the COVID pandemic.

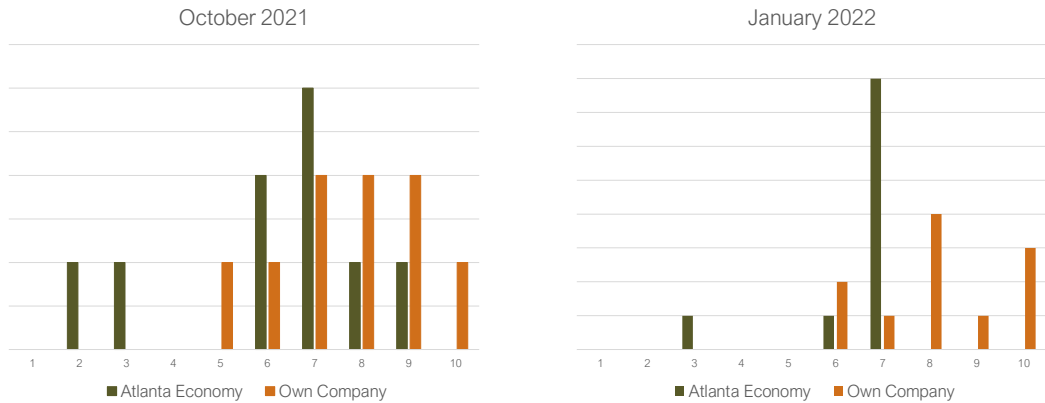
Intel plans \$25b-\$28b in capital spending in 2022 with “potential for further growth in subsequent years.” This compares to \$16b in 2019 and \$10b-\$11b annually between 2010 and 2017.

These are just a few examples of the investments we’ve seen, which could drive economic growth and productivity for the next 5-10 years.



This section of the presentation will explore how the economy translates to the fundamentals of individual businesses.

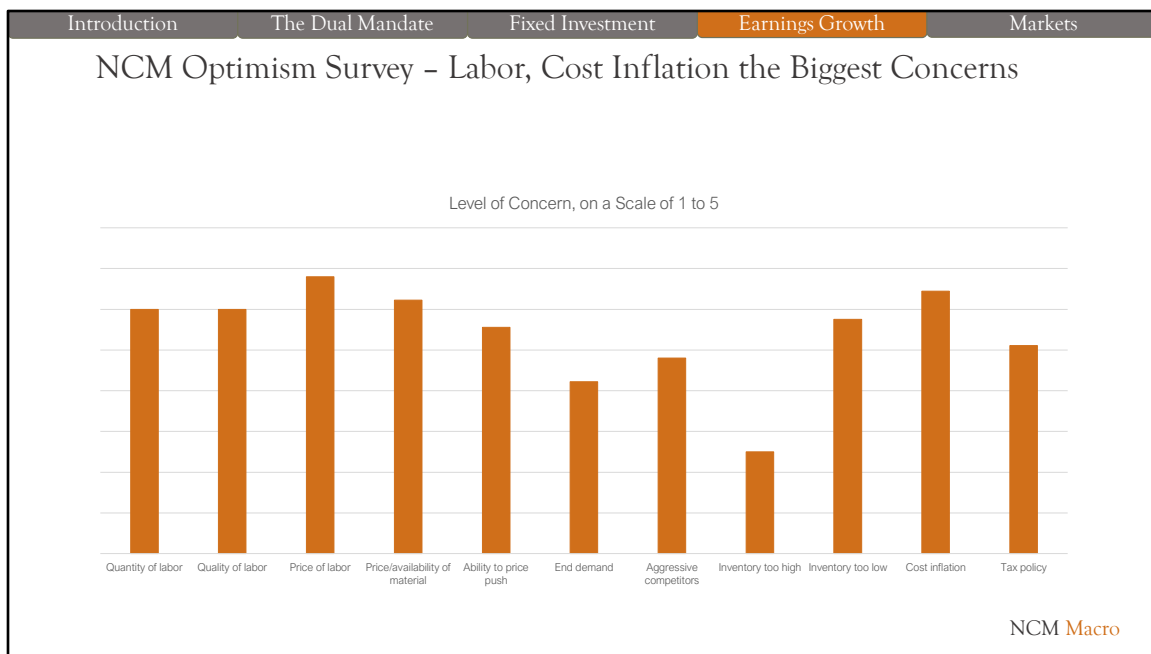
NCM Optimism Survey – Rising Confidence



NCM Macro

Comment from one of our respondents:

“Southeastern economy rating would be higher if we were finished with COVID and supply chain interruptions.” – Bulk Materials



Comments from respondents:

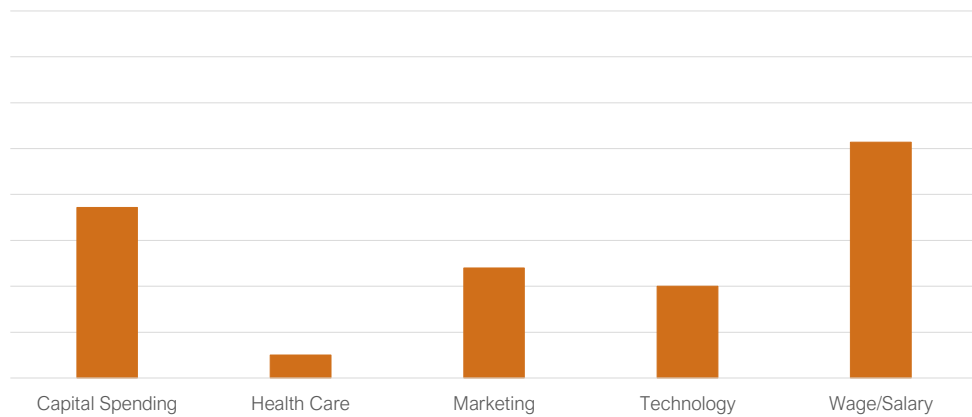
“Having to keep inventory high due to supply chain issues.” – Auto Services

“Still struggling to fill open positions [so what’s the point in hiring].” – Bulk Materials

“Infrastructure bill will pay nice dividends for the company starting in 2023-28.” – Bulk Materials

“We are seeing a lot of projects but many of these will not start until early to mid 2023.” – Construction

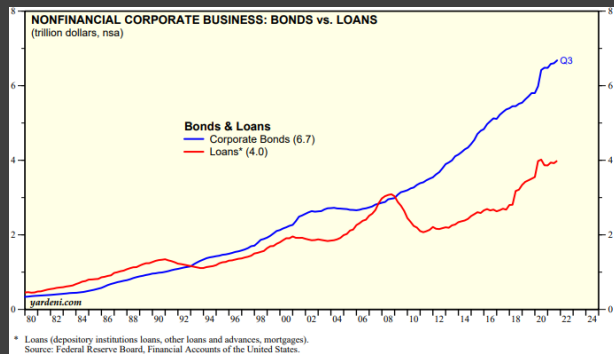
NCM Optimism Survey – Biggest Cost Increase



NCM Macro

Our survey uncovered what the NFIB survey did earlier in the presentation; namely, that a hefty dose of cost increases will be focused on wages and salaries. One respondent (manufacturing) did note that his business is seeing significant demand from healthcare and data centers; he expects his technology spending to rise by the largest amount he's seen "in years."

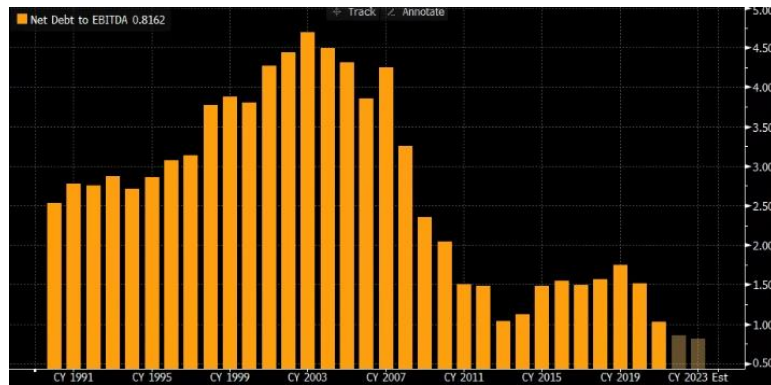
But...Record
High Debt
Levels!



You will often see charts like this paraded about by bearish investors. It is important to get the context of a chart like this before drawing a conclusion. There are two things to remember: 1) the economy grows over time so one would expect debt levels to rise along with it; 2) as companies grow earnings, their abilities to service the debt improve.

<https://www.yardeni.com/pub/fofnfdebt.pdf>

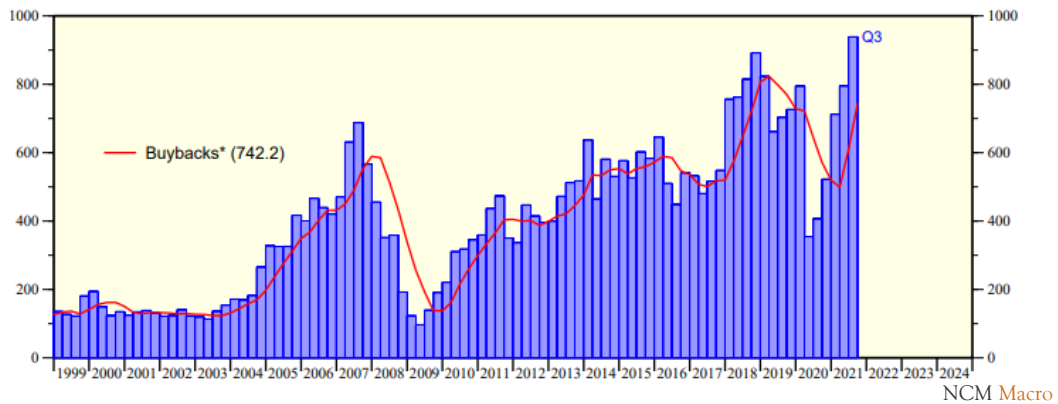
Relative to Earnings, Debt is Quite Low (S&P 500)



NCM Macro

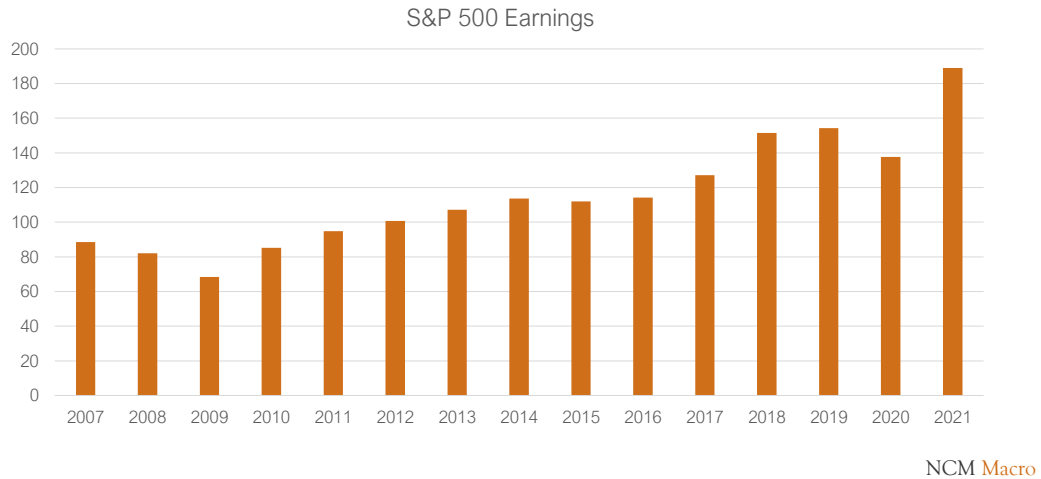
In reality, debt as a ratio of earnings is at very low levels historically.

Companies Aggressively Buying Back Stock



Companies are using their advantaged capital positions to aggressively repurchase shares. By buying back stock, companies can reduce the number of shares outstanding and increase – mathematically – the earnings per share.

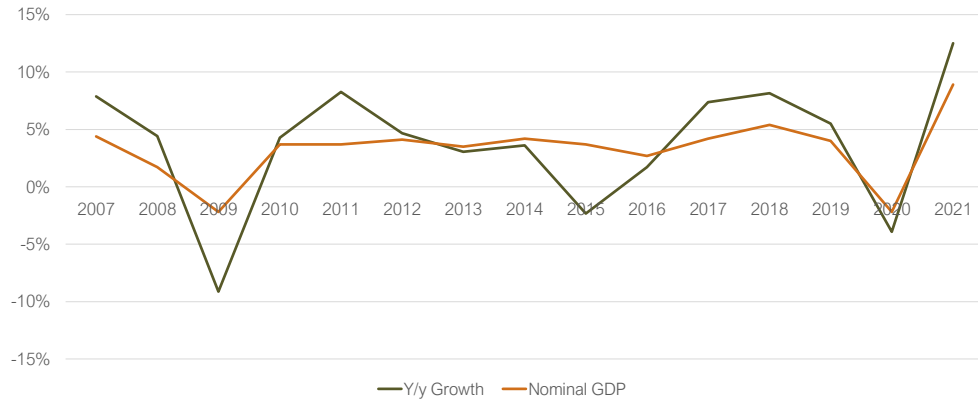
S&P 500 Earnings +37% in 2021



In fact, S&P 500 earnings are expected to be up 37% in 2021. Some may quibble that this is because 2020 earnings were very depressed, which is a fair point. Even so, earnings are slated to be up 22% over 2019 levels.

Source: <https://www.yardeni.com/pub/buybackdiv.pdf>

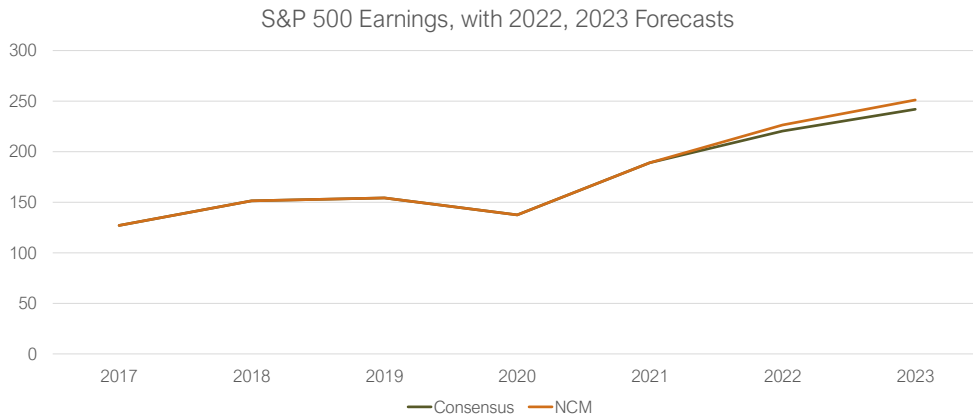
Correlation Between S&P 500 Revenue & GDP: 0.83



NCM Macro

We have observed a tight correlation between nominal GDP and revenue in the S&P 500 over the past 15 years.

S&P 500 Earnings Consensus Projections



NCM Macro

If one were to extrapolate economist consensus GDP on top of our earnings model, we would arrive at the following above-consensus conclusions for the next two years:

Consensus (2022, 2023):

- Real GDP: +3.9%, +2.5%
- Inflation: +3.3%, +2.3%
- S&P 500 Revenue: +8.9%, +5.6% (1,627.55, 1,718.67)
- S&P500 Earnings:: +16.5%, +9.9% (220.24, 242.08)

Modeled Estimates (2022, 2023):

- Real GDP: +3.9%, +2.5%
- Inflation: +3.9%, +2.3%
- S&P 500 Revenue: +10.5%, +6.5% (1,674.24, 1,783.66)
- S&P500 Earnings:: +19.9%, +9.9% (226.56, 251.23)

Pricing should offset costs in front half of the year. As supply chain bottlenecks and costs ease in the back half (less air freight, more ocean freight etc) there could be upside potential. In addition, comps in the back half of the year should ease and share buybacks should boost earnings per share.



Markets

"My biggest concern is the politics, the debt, the valuations, the fact that no one is working, the money printing, COVID. Other than that, I feel great!"

-Anonymous Client, January 2022



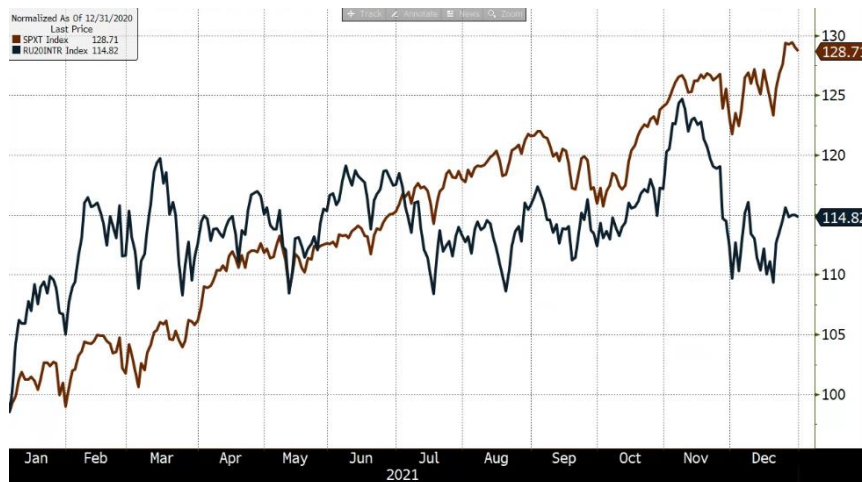
Equity markets were strong in 2021. Interestingly, the S&P 500 (brown line) significantly outperformed the other indices. The S&P 500 is a diversified basket of 500 of the largest companies in the United States.

The Dow Jones Industrial Average (blue line), which has higher weightings in Industrials and Financials, performed well in the first half of the year but faded in the second half of the year as these companies dealt with the impact of supply chain disruptions.

The NASDAQ (green line) struggled in the first half of the year as interest rates rose and some of the high-flying tech stocks fell dramatically. Although they staged a rally in the back half of the year, it was too little too late and some of the software companies that are overrepresented in the NASDAQ still underperformed for the year.

The big takeaway here is that in 2021 it paid to be diversified in the largest companies in the US.

Large Companies Outperform as Inflation Bites



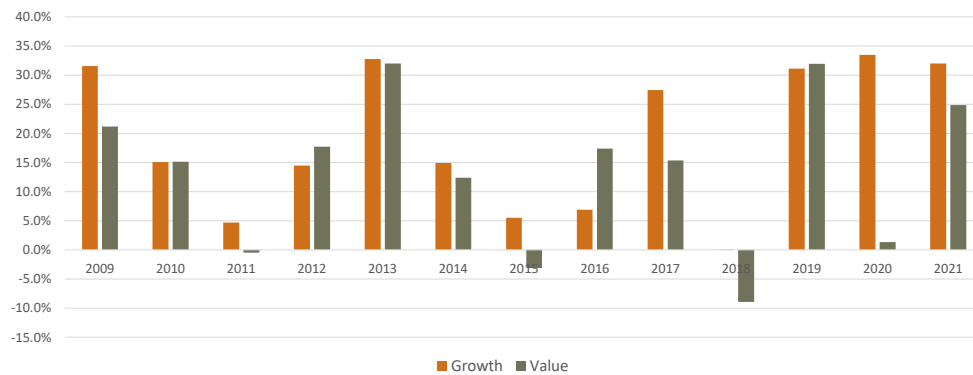
NCM Macro

Large companies, as represented by the S&P 500 (brown line), outperformed small companies (represented by the Russell 2000 index, blue). Large companies tend to have more control over their supply chains. They also benefited from stock buybacks in the last few months of the year.

Notably, small caps were roughly flat from February. This could suggest that there is pent-up potential in these companies if supply chains normalize.

Stock Markets: S&P 500 +28.68%

Growth Continues to Outperform: S&P Growth +32.0%, S&P Value +24.9%



NCM Macro

Growth companies continued to outperform value despite a slow start in 2021.

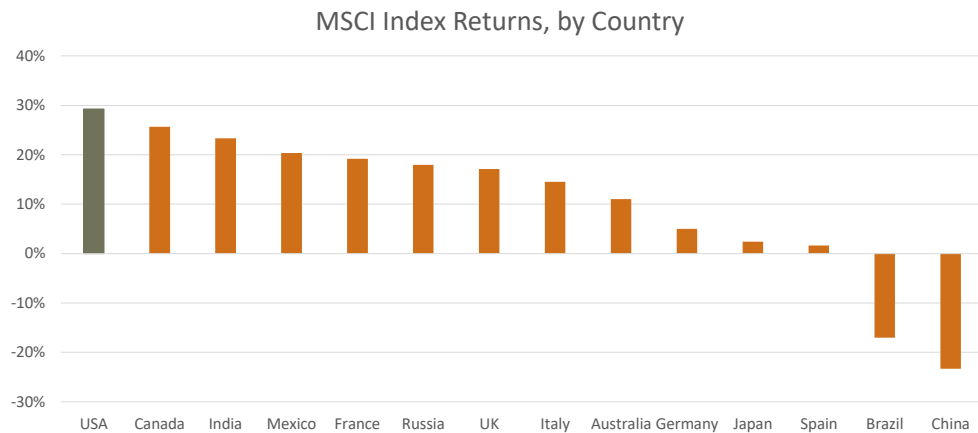
Annualized Rate of Return:

- Growth: 18.6%
- Value: 12.9%
- SPX: 16.0%

Cumulative Rate of Return:

- Growth: 818.9%
- Value: 382.4%
- SPX: 586.5%

US Markets Dramatically Outperform



NCM Macro

As the United States led much of the developed world in COVID-related stimulus, monetary policy, vaccines and reopening, the markets responded in kind. China was negatively impacted by significant regulation in the back half of the year as well as the country's zero-COVID policies.

Yet, Sentiment Remains Remarkably Soft

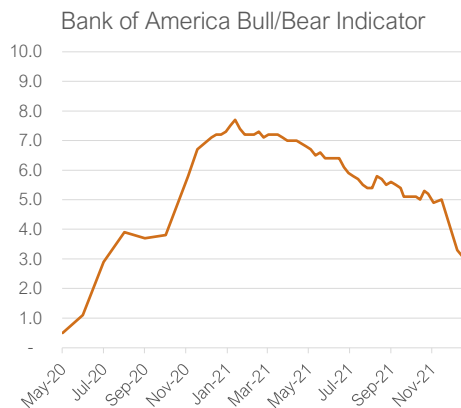


Table 6: BofA B&B Indicator

BofA Bull & Bear current component readings

Components	Percentile	Sentiment
HF positioning	35%	Neutral
Credit mkt. technicals	47%	Neutral
Equity market breadth	20%	Neutral
Equity flows	60%	Bullish
Bond flows	22%	Neutral
LO positioning	37%	Neutral

Source: BofA Global Investment Strategy, Bloomberg, EPFR Global, Lipper FMI, Global FMS, CFTC, MSCI

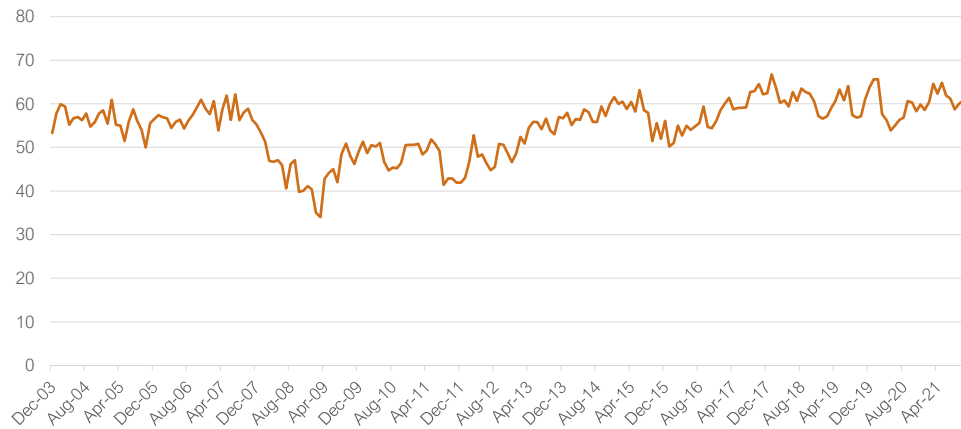
BofA GLOBAL RESEARCH

NCM Macro

Despite positive fundamentals and equity returns, market sentiment among professional investors faded throughout the year, with a significant decline in December.

BofA Global Research: The Flow Show “Get Shorty”. January 13 2022.

U of Michigan Sentiment: Stock Market in 1 Year



NCM Macro

The University of Michigan conducts a monthly survey of consumers. Among the questions asked is one on the stock market: “Will the stock market be higher or lower in one year?” The chart here shows the monthly readings of this question. At the end of 2021, this figure was 62.6%, roughly in line with historical averages for normal times.

Retail investors are bullish, but no more so than normal. Together, these sentiment indicators demonstrate that sentiment is not overly stretched historically.



Healthy Backdrop for the US Stock Market

- Moderate to weak sentiment
- Favorable fundamental dynamics
- Full valuation, but not extreme
- International markets depressed
 - Especially true in Asia, which should have easy comps in 2H22

Fixed Income Markets: A Tough Year

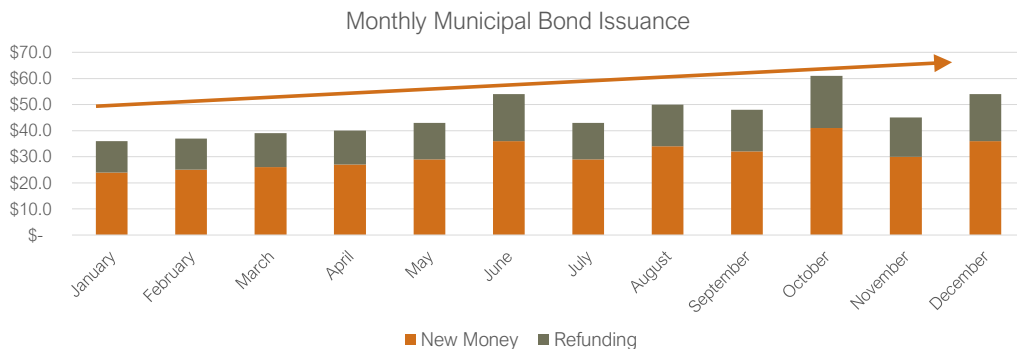
- Municipal Bond Index: +1.52%
- Aggregate Bond Index: -(1.54%)
- 10-year Interest Rate: 0.91% → 1.51%
- 2s-10s Flatteners: 0.79% → 0.77%
- 10-year AAA Muni Spread: 0.75% → 0.70%
- Junk Bond Credit Spread: 3.27% → 2.70%

NCM Macro

As interest rates rose throughout the year, bond returns were difficult to come by. The broadest measure of bond returns – the Barclays Bloomberg Aggregate Bond Index – fell 1.54% for the year as the rate on the 10-year US government bond rose from 0.91% to 1.51%.

Notably, junk bond credit spreads tightened significantly. This suggests that credit quality is improving and the stage could be set up for a number of credit upgrades in 2022. As a result, credit analysis could be a significant source of improved returns in the fixed income market in 2022.

Fixed Income Markets – Municipals (More issuance coming in 2H22)



NCM Macro

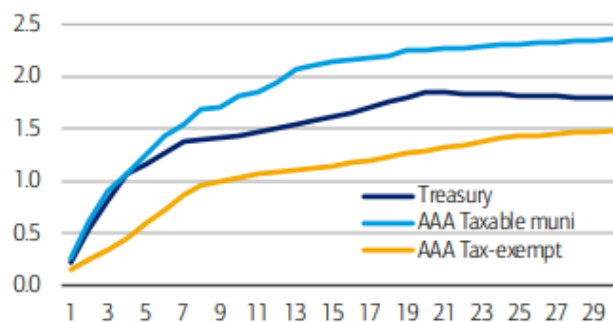
Municipal bond issuance is expected to increase through the back half of 2022. Higher supply should be good for investors looking for tax-advantaged money. However, it could result in weaker municipal bond market returns as well.

Source: BofA Global Research

Taxable Munis Represent More Value Longer-Term

Exhibit 8: Treasury, taxable and tax-exempt muni curves (%)

Taxable muni curve is the steepest



Source: Refinitiv; Bloomberg. Data as of 30 November 2021.

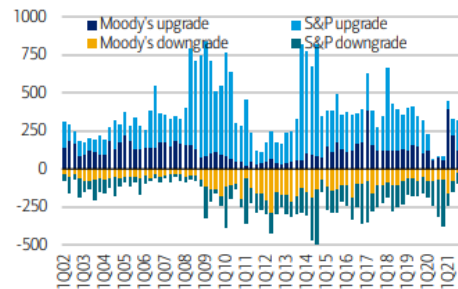
NCM Macro

There isn't great value in longer-duration fixed income instruments, especially in light of the prospect for higher interest rates. However, if one wants to move further out in duration, taxable municipal bonds have the best value.

In 2022, taxable muni issuance is expected to be dwarfed once again by tax-exempt issuance. This should support taxable municipal bond returns.

Exhibit 42: Moody's and S&P's quarterly upgrades and downgrades

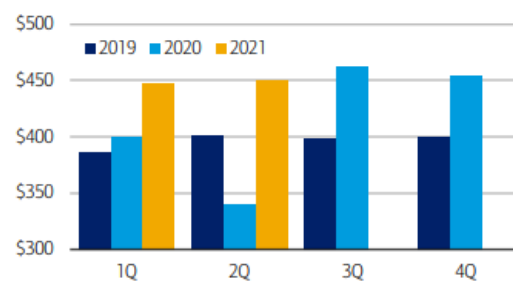
Since 1Q21, activity has skewed heavily to the positive



Source: Moody's Investors Service; S&P Global Ratings

Exhibit 20: State and local tax revenue, by quarter (\$bn)

In 1H21, the \$898bn total was up 21% year-over-year



Source: US Census Bureau

Municipal Credit Quality Strong

NCM Macro

Like corporate credit, municipal credit is strong. State and local tax revenue has increased significantly from both 2019 and 2020 levels ("Exhibit 20"). Although we have already seen some upgrades ("Exhibit 42"), as long as tax revenue remains as strong as it's been, we would expect to see more upgrades in 2022.

The bottom line here is that, like corporates, credit analysis could be a driver of differentiated returns in 2022.

Opportunities in Fixed Income

➤ Municipal Bonds

- ❖ Targeting taxables (scarcity value)
- ❖ Targeting rising stars
- ❖ Targeting states with favorable migration trends

➤ Corporate

- ❖ Targeting rising stars with short duration
- ❖ Increased opportunities with embedded option value

➤ Other

- ❖ Mortgages are not attractive (extension risk)
- ❖ Certain asset-backed securities are attractive due to improved credit quality (asset price inflation)

China Vows Proactive Moves to Stabilize Economy in 2022

- 'Stability' is the most important word for economy next year
- PBOC, finance and commerce ministries all comment on policy

Bloomberg News

December 27, 2021, 9:31 PM EST *Updated on December 28, 2021, 3:47*

AM EST

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Opportunities: Keeping an eye on China

- Easy comps especially in the second half of the year
- Move by China to be more proactive
- Weaker sentiment

One area Narwhal is watching intently is China. Sentiment is soft, market regulation is high and big-name investors like Doubleline's Jeffrey Gundlach have called China "uninvestible". We certainly can see the underlying drivers of Mr. Gundlach's view. However, we also understand that there can be opportunity when others declare something "uninvestible". We will watch this space closely and provide updates throughout the year.

Conclusions

*"Went the distance, now I'm back on my feet; just a man and his will to survive."
Survivor, "Eye of the Tiger"*

Image credit: Teahub.io

NCM: The House View – Economy

- 1) Inflation: Peaking in the Spring as auto supply chains recover, but will take some time to normalize as shelter inflation continues
- 2) Employment: Continue to rise at a moderate rate; expense coming in the form of higher wages vs higher headcount
- 3) Housing: Continues to remain tight despite rising production in the back half of the year
- 4) Rate Hikes: 3.5 is consensus



NCM Macro

NCM: The House View – Markets

- 1) Earnings: In 1H22, strong companies who are willing and able to pass through cost increases likely to be most successful; easy comps in 2H22
- 2) Equities: Favorable fundamental backdrop with relatively soft sentiment
- 3) Fixed Income: Lower levels of supply in pockets can create opportunity but broad indices may be hurt by rate/spread normalization



NCM Macro

What Happened at Narwhal This Year

- John and Emma Grayson were married
- Luke and Veronica Burton were married
- Tom and Maeve Russell welcomed their first child
- Ben Nye received his MBA from Emory University
- Natalie Rogers and Don Skola joined Narwhal Capital
- Jason Seeb promoted to Investment Analyst
- CMC Materials agreed to be purchased by Entegris at a 30% premium



Image: Andrew Hall and Ben Nye rang the closing bell with CMC Materials in June 2019.



Image credit: Teahub.io

Disclosure

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