



Summary

- Ongoing core CPI strength, a rise in inflation expectations and a strong set of wage numbers in the Q3 ECI data have contributed to a change of thinking at the Fed.
- Growing concern about inflation in the social and political spheres is also likely influencing policy. It is unclear at this stage how the Omicron variant will contribute to this dynamic.
- Core CPI strength broadened in October, while used car prices and rents showed further gains.
- PPI and import prices remain firm, although there are early signs of some moderation in upward pressure. Commodities remain strong but are down from the highs due to the Omicron variant
- Q3 Employment Cost Index was extremely strong, confirming that labour shortages are affecting wages. A rise in labour participation and/or strong productivity growth are required to rescue the 'transitory' inflation story.
- Inflation expectations have entered the public mindset more fully, while market expectations are also at high levels. Credit conditions remain favourable and overall liquidity is in abundance.

About this document

US Inflation Watch presents 18 charts comprising key inflation indicators grouped into five categories including consumer/producer price inflation, commodity prices, wage inflation, inflation expectations and monetary indicators.

Contents

Price Inflation

Consumer Price Inflation.....	2
Producer and Import Price Inflation.....	2-3

Commodity Prices

CRB Index.....	3
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Wage Inflation

Employment Cost Index.....	4
Hourly earnings.....	4

Inflation Expectations

Consumer inflation expectations.....	4
Market inflation expectations.....	4

Monetary Indicators

Money Supply.....	5
Consumer Credit.....	6

Appendix

An explanation of money and the monetary framework.....	7-8
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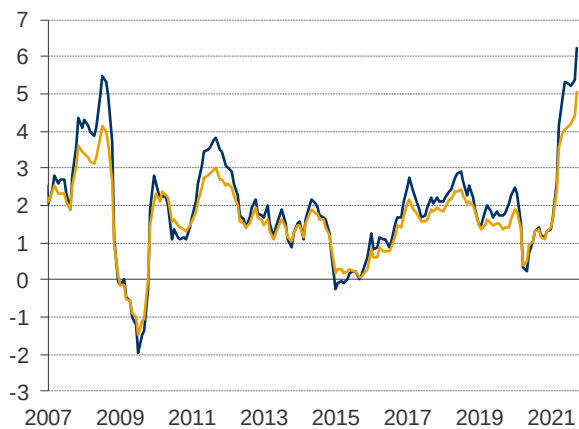
The Importance of Inflation

Inflation is the single most important indicator when measuring real wealth as it determines what wealth can buy i.e. purchasing power. If 'nominal' wealth doubles over 25 years but the level of prices also doubles, there is no net gain in 'real' wealth. It only takes annual inflation of 2.8% to cause a doubling in prices over 25 years.

About Altana Wealth

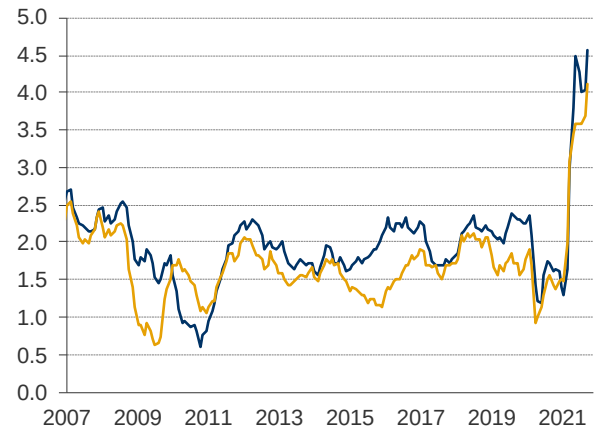
Altana Wealth is a specialist fund manager focused on delivering alpha where we have a competitive edge from niche strategies. As co-investors in all our funds, our interests are aligned with those of our investors. Altana was set-up by Lee Robinson, co-founder of highly successful Trafalgar Asset Managers in 2010. Our funds have won seven performance awards over the past three years.

Total Consumer Prices (% y/y)



— Total CPI
— Total PCE price index

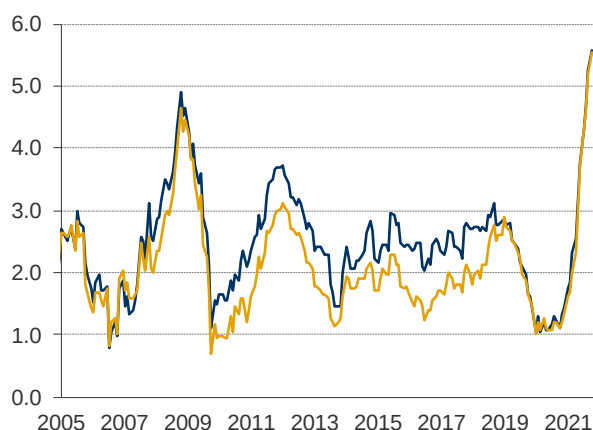
Core Consumer Prices (% y/y)



— Core CPI (ex-food and energy)
— Core PCE price index (ex-food and energy)

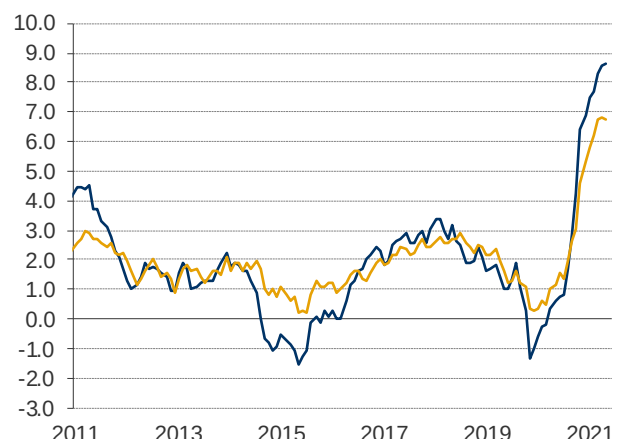
Current status: The softer core CPI readings seen in Jul-Aug proved to be a false dawn. While Covid-sensitive items were softer through those months, some areas have now rebounded, especially in Oct. This was largely centred around autos (new and used) as shortages in parts etc continued to restrict new car supply. In addition, highly-weighted rent and owner equivalent rent categories (40% of core CPI combined) registered moves of +0.43% in each of Sep and Oct – a clear step up from what has gone before. If this pace were to continue it would put a big floor under the core CPI rate. For example, if the pace was to continue over a full year this category alone would be contributing 2.1% to the core CPI y/y rate. Oct CPI also saw price strength broadening to other categories such as medical care, recreation and household furnishings/operations. Further strength looks likely in the short-term if the rents and general broadening trends are sustained, as used car strength in auctions has yet to fully flow through to dealer pricing. The good news is that supply constraints in autos are now easing and output is increasing, so there is a high probability that at some point in 2022 prices will fall sharply, which due to base effects (large m/m rises in 2021) will result in substantial falls in the y/y rate. This could translate into a massive turnaround for the core CPI y/y rate in general – but much would also depend upon what is happening on other aforementioned categories such as rents.

Producer prices (% y/y)



— Core PPI (finished consumer goods)
— Core PPI (all finished goods)

Producer prices (% y/y)



— PPI final demand
— Core PPI final demand (ex-food and energy)

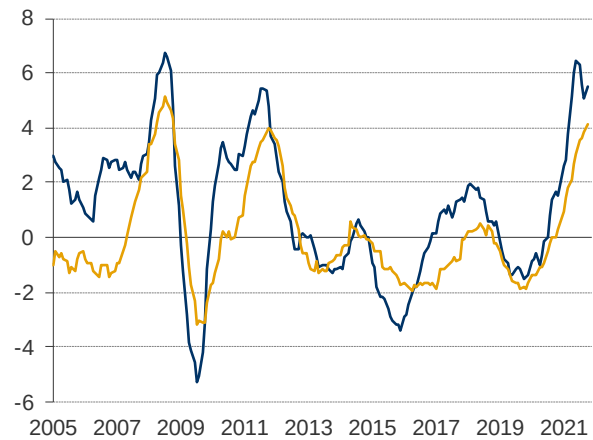
Current status: Core PPI continues to strengthen across goods categories, while services are being pushed up by the 'trade services' component for autos (margins accrued by wholesalers/retailers). However, actual new car and truck prices fell in Oct, so perhaps a first sign that some conditions are stabilising.

Import Prices (% y/y)



— Import prices

Import Prices – core and China (% y/y)



— Core import prices (ex-fuels)

— Import prices of Chinese goods

What is this data? Producer price indices refer to prices set by domestic producers only, so Import Prices are also monitored to gauge price pressures entering the system from abroad. Import price data excludes tariffs.

Current status: Import prices rebounded somewhat in Sep-Oct after the declines seen in Jul-Aug, although much of this strength was in fuels. Core ex-fuel categories were mixed with the core industrial supplies & materials category y/y rate easing to a still strong +20.6% y/y. Within that category, building materials continued to ease (y/y at -4.6% compared to +79% in June). Unfinished metals were also easier - y/y rate at +29.5% but well off the highs seen earlier in the year. Capital goods (+1.8%) were steady, while consumer goods-ex autos (+1.7%) ticked higher slightly. Prices of imported Chinese goods continue to recover. In sum, the current inflationary impulse in the US is still being supported by the external sector but it is subsiding slightly in some areas.

CRB-TR/J Commodity Price Index



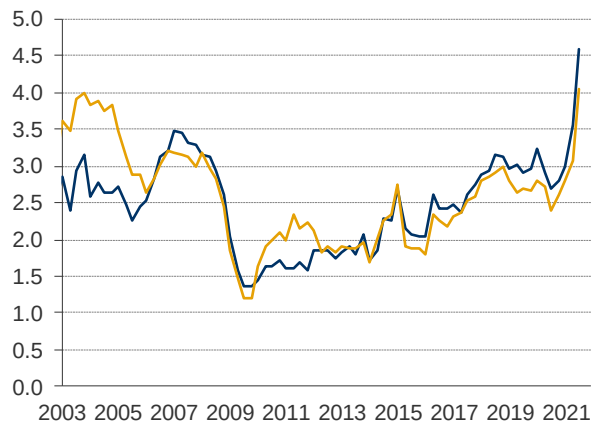
CRB-TR/J Commodity Prices (% y/y)



What is this data? CRB Index is a basket of commodity prices - a timelier indication of Crude PPI.

Current status: Sequential gains had been largely continuing for the most part across a range of commodity prices, with the exception of iron and coal, which have been hit by Chinese intervention and limits on steel output. However, the Omicron discovery hit energy prices and this led to a sharp reversal, although for now it is not clear whether this will be sustained. In the absence of a broader pullback in prices, commodities will remain a supporting factor for import prices and goods PPI, and a key factor for general inflation expectations.

Employment Cost Indices (% y/y)



— **Total Employment Cost** (private sector)
— **Wage & Salaries component** (private sector)

Hourly Earnings (% y/y)



— **Hourly Earnings** (private sector)

What is this data? The Employment Cost Index (ECI) is the total cost of employing workers (wages, salaries, benefits) and is quarterly; 'hourly earnings' is monthly.

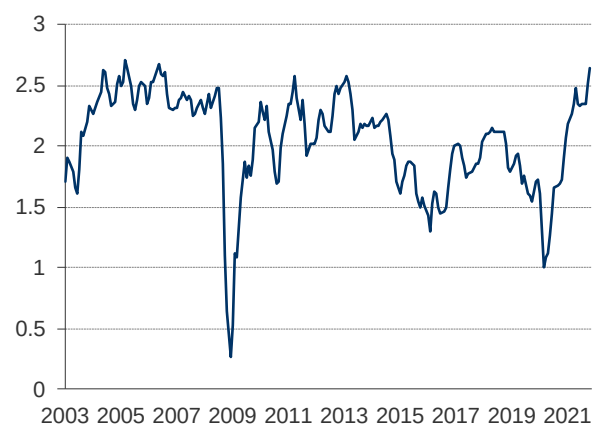
Current status: Average hourly earnings remain volatile given swings in employment & employment mix (if lower paid jobs rise by more, average hourly earnings fall). No adjustments are made for mix effects, although the ECI, which does make such adjustments, was very strong in Q3. The private sector wages and salaries component was +1.6% q/q (strongest since the series began in 2001) and this has clearly gained some sharp attention amongst FOMC members. Whether this is sustained going forward will be influenced by the extent to which labour participation can recover, which would help alleviate labour shortages. In turn, how far it feeds through into all-important unit labour costs will also depend upon productivity growth and related capex. So far, that looks to be developing well, with underlying durable orders data suggesting ongoing strength in business capex.

Consumer Inflation Expectations (% y/y)



— **Univ. of Michigan survey of Consumer expectations for CPI over 1-y**

Market Inflation Expectations (% y/y)

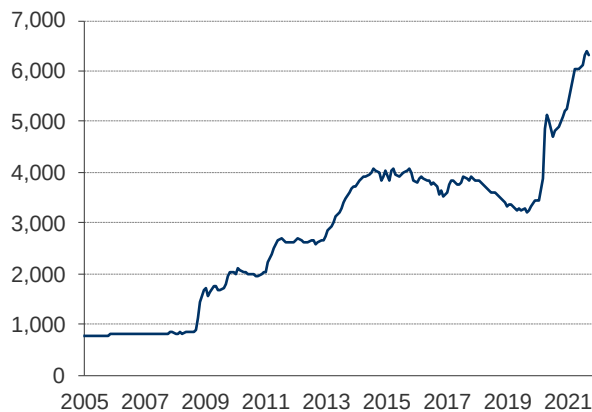


— **US 10yr Breakeven Inflation Rate** (10yr Treasury yield minus 10yr TIPS yield)

What is this data? Inflation expectations held by the public (Michigan survey) & financial market (10y breakeven inflation rate). Inflation expectations are significant e.g. higher consumer expectations of inflation may lead to higher wage demands. If market expectations of inflation are rising/falling, this may require some reaction from policymakers.

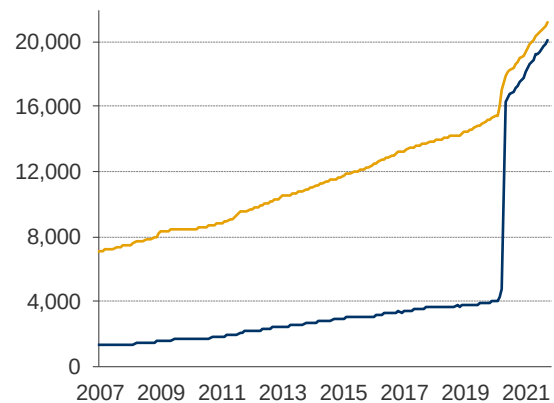
Current status: Consumer and market inflation expectations have extended higher and the Fed has also taken notice of this, with market expectations recently pushing up to the highs of 2003-05. For now this is acceptable, but any further strength may be difficult for the Fed to accept.

Monetary Base



— **Monetary Base** (level outstanding \$bns)

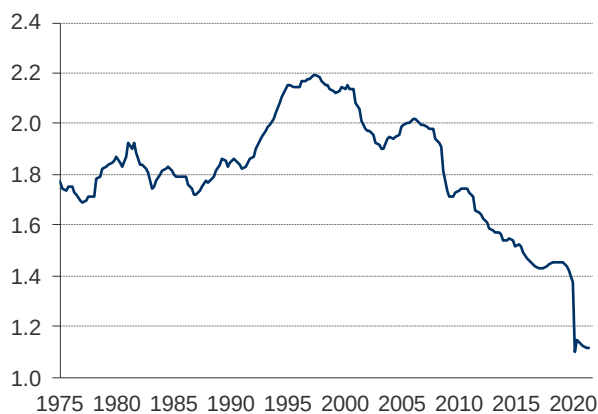
M1 & M2



— **M1** (level outstanding \$bns)

— **M2** (level outstanding \$bns)

M2 Velocity



M2 (% y/y)



About the data

Monetary base = M0 (or notes & coins in circulation) + notes & coins held by banks and the central bank + bank reserves held by the banking system at the central bank. **Note:** the last two items are *not in circulation*

M1 = M0 + demand deposits + other checkable deposits (inc savings deposits previously in M2 – recently revised)

M2 = M1 + time deposits < \$100k + retail money funds.

M2 Velocity = Nominal GDP/M2 shows how often the money stock is used for spending on goods & services and is inversely related to the 'demand for money' i.e. holding that money rather than exchanging it for goods and services.

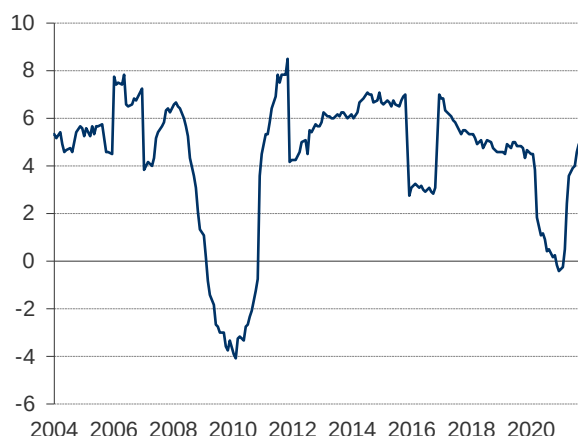
Current status: Bank lending over Sep and Oct was very much a continuation of recent trends. Solid growth in both real estate and consumer lending was offset by weakness in corporates. Consumers are in a relatively healthy position, while many corporates are flush with cash and don't need to borrow from banks. In the monetary data the primary focus remains on the build-up in M2 deposits that could be spent. As we have noted before, much of the surplus M2 cash is probably held amongst higher income groups with low propensity to spend, although at the margin, this should still be a strong supporting factor for the consumer heading through next year. The monetary base remains very high, with liquidity being boosted by ongoing QE and the Treasury having run down its cash balances at the Fed (pushing them into the banking system). However, excess reserves have stopped rising, with the Fed using reverse repos to mop up the rise in excess liquidity (RRs currently total just under \$1.6trln with domestic counterparties). As QE is tapered and the Treasury rebuilds deposits at the Fed once the debt ceiling issue is fully resolved, liquidity will be removed, although it is difficult to envisage any liquidity crisis just yet as this will merely be replaced by lower reverse repo usage.

Consumer Credit



— Consumer Credit (6mth MA of m/m \$bn change)

Consumer Credit (% y/y)



— Consumer Credit

What is this data? Covers most short and intermediate-term credit extended to individuals, excluding loans secured by real estate. Consumer credit growth will directly influence money growth and monetary velocity.

Current status: Consumer credit has continued to recover with both revolving and non-revolving credit advancing further through Aug and Sep. Revolving credit was up \$12.6bn over the two-month period while non-revolving credit was up \$31bn. Some of this strength might be related to the removal of emergency unemployment benefits, meaning that some consumers are turning back to credit. Overall, the data suggests there is little problem with the availability of credit.

Appendix A – Monetary Indicators

The monetary backdrop is somewhat profound in terms of its potential influence on inflation and is the subject of considerable debate. Below is a simple monetary framework that helps to explain the role of Money in the economy and how it can affect inflation.

A Monetary Framework

The amount of money circulating in the economy will have implications for inflation in the medium-long term. This is best expressed via the **Quantity Theory Identity**

$$M.V \equiv P.Y$$

Where M is the amount of money in the economy, V is the velocity of money (how many times the amount of money is used), P is prices and Y is real output (GDP). Together, P.Y is money or nominal GDP.

As a basic identity this is not controversial. If M (\$500) is used 5 times (V) then \$2,500 will have been spent and will be equal to the value (P.Y) of all goods sold in the economy - e.g. 2,500 items of real output (Y) at \$1 each (P) or 1,000 of (Y) at \$2.50 each (P) etc.

Where the identity becomes more interesting is in the assumptions made about its components. Traditional Monetarists contend that V is fairly stable and predictable, and Y is constrained by the capacity of the economy. So, Monetarists argue that if M is rising faster than Y and V is stable, it follows that P will also rise. In other words, money growth creates inflation.

Others contend that V is not stable and that Y can occasionally deviate substantially away from full capacity, so the relationship between M and P is less obvious. For example, since the Global Financial Crisis the Federal Reserve has made great efforts to increase the supply of money (M), but this has not led to proportionate increases in P.Y. This is due to two things. First, a reduction in velocity - any extra money balances are merely accumulating in the system (higher demand for money) rather than being spent and second, a lower money-multiplier. The money-multiplier represents the rate at which central bank created money (the monetary base) generates additional increases in the total money stock, primarily via the lending of commercial banks – more on money creation below.

In sum, this basic Quantity Theory Identity is a useful framework for analysing the potential interaction between the monetary and real sectors of the economy and the data followed in this document will seek to shed light on what is happening to the various components of this identity.

What is Money?

Another issue is how 'money' or M is defined. Definitions of money include M0, MB (the Monetary Base), M1, M2, M3 and MZM (maturity zero money) and the basic difference between them is primarily related to liquidity. The further we move along the spectrum towards M3 the less liquid 'money' becomes. For example, a large time deposit cannot be spent immediately whereas a checking deposit can. Note that M3 and MZM are no longer used in the US by the Fed.

Definitions

M0 = notes and coins *in circulation* with the non-bank public.

Monetary base = M0 + notes and coins held by banks and the central bank + bank reserves held by the banking system at the central bank (bank reserves) **Note:** the last two items are *not in circulation*.

M1 = M0 + demand deposits and other checkable deposits (including savings deposits after Fed methodological revision – they were previously in M2). **Note:** bank reserves are not included in M1 – important when looking at how Fed QE affects M1 and M2 etc.

M2 = M1 + time deposits less than \$100k + retail money funds. **Note:** institutional money market funds are not included in M2.

M3 = M2 + large time deposits + institutional money market funds + short-term repos and other large liquid assets.

MZM (Money Zero Maturity) = M2 + all money market funds less time deposits **Note:** MZM aimed to identify all forms of 'liquid' money and was a hybrid of M2 and M3.

Who creates Money?

A useful way to think about money – again relevant when considering Fed QE – is who creates it? The short answer is that both the central bank and the commercial banking system create money.

The Monetary Base is created and influenced by the Central Bank and is so-called because it is the base from which all other forms of money (non-M0, M1, M2 etc.) are created by the commercial banking system via bank lending.

For example, using QE as an example, the Fed buys T-Bonds from a bank and credits that bank's account at the Fed with the proceeds. These funds are now reserves. At this point, no money has entered circulation, so no other measure of money apart from the Monetary Base has been affected.

As the Monetary Base has increased, commercial banks are more *able* to create other money by issuing new loans and if they were to do this it would lead to a corresponding rise in deposits. Bank lending is the main driver of 'money creation'. This is because a loan, when advanced to the borrower, will be deposited in the borrowers account i.e. an immediate rise in deposits (higher M1). Or, if the 'loan' is via a credit card, the borrowers account will not be affected, but the recipient of the credit card spending will deposit the revenue in their own bank account, so deposits somewhere in the system will have increased because of the 'loan' (higher M1).

In sum, boosting the Monetary Base (via e.g. Fed QE) increases the ability of banks to create other money such as M1. But the rate at which this happens (the money-multiplier) will come down to a commercial judgement by the banks as to whether or not they would like to advance extra loans.

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