



Summary

- September inflation readings were less favourable but remain constructive for the Federal Reserve. The disinflationary trend is still in tact
- Energy prices surged in September, while gold suffered due to significant moves in the 10-year US Treasury yield
- September saw upward pressure on producer prices due to higher energy costs. While the energy component may not sustain, it's important to watch given the tensions in the Middle East
- One-year and five-year inflation outlooks declined, reassuring Fed officials. However, there's
 upside risk here amid conflict in the Middle East and its impact on oil prices
- Delinquency rates increased in Q3 across most loan types, particularly in credit card debt. We should expect delinquency rates to worsen in the coming quarters
- M1 and M2 growth continued their downward trends. We are watching for a change in trend in
 M1 growth as a sign that the US consumer is about to come under pressure

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.

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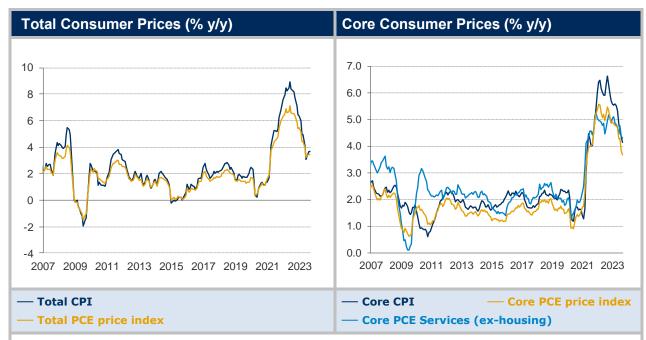
The Importance of Inflation

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

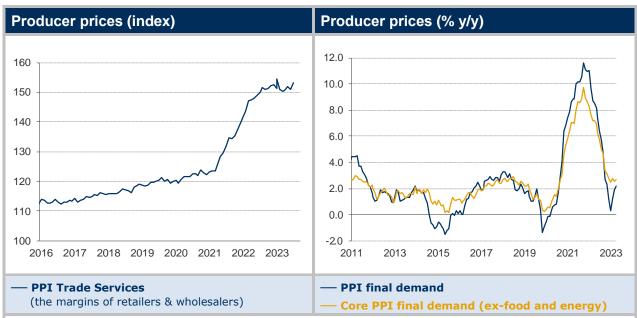
Altana Wealth is a specialist fund manager focused on delivering alpha where we have a competitive edge from niche strategies. As co-investors in all our funds, our interests are aligned with those of our investors. Altana was set-up by Lee Robinson, co-founder of highly successful Trafalgar Asset Managers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





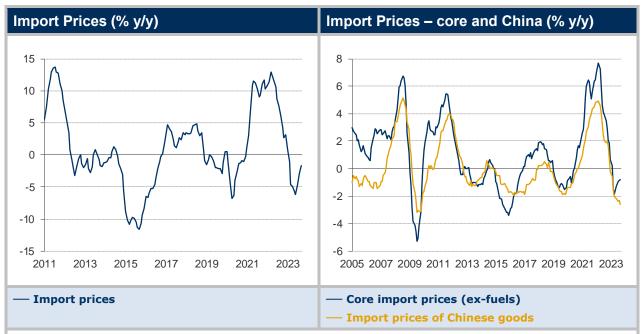
Current status: The inflation readings for September were slightly less favourable than what we've seen over the last few months, but the trend lower remains constructive for the Federal Reserve. The 6-month annualized rate of core CPI fell to 3.6% from 3.7%, but the 3-month annualized rate rose to 3.1% from 2.4%. Although the 3-month rate is more volatile, this was a slight concern. Importantly, the 6-month core rate edging lower maintains the trend in easing price pressures. Core goods inflation continued to ease, but the challenge remains within core services, which rose 0.6% in September, compared to 0.4% in August. The primary driver of this increase was rent inflation, with the rent of shelter component increasing 0.6%, the largest m/m increase since February. The boost from housing comes as a surprise, given that market rents on new leases have been declining for several months, according to industry data. Rent inflation is proving more sticky than many had anticipated, but the gradual slowdown we've seen for most of this year is likely to continue into year-end, helping bring down core services inflation. If we exclude the lagging shelter component from core CPI, the annual core rate stands at just 2%, down from February 2022's peak of 7.6%. Despite core inflation readings coming in slightly hotter in September due to the surprise rebound in shelter, the disinflationary trend remains on the right path.





Current status: It was another month where producer prices experienced upward pressure, with higher energy prices taking their toll. Headline PPI rose 0.5% m/m in September, above the 0.3% estimate. Energy prices increased 3.3% in September, moderating slightly from the large but unsurprising 10.4% spike in August. While it's unlikely that the rise in the energy component will be sustained, it will be worth monitoring given upside risks to energy prices associated with tensions in the Middle East. Core PPI for final demand of personal consumption, which measures prices received by consumer-related companies, rose by 2.7%. This exceeded the 2.3% estimate, and notably, tends to lead both core CPI and core PCE. Going forward, this represents a slight worry. Recent producer price data have not been favourable, but it's important to note that core PPI has experienced significant disinflation this year, with the pace of slowdown expected to have plateaued at some point. Nevertheless, with core PPI at 3.4%, above the pre-COVID average of 2%, it's evident that more work is needed to relieve producer price pressures.

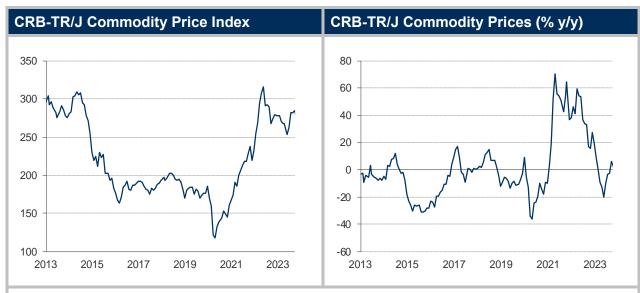




What is this data? Producer price indices refer to prices set by domestic producers only, so Import Prices are also monitored to gauge price pressures entering the system from abroad. Import price data excludes tariffs.

Current status: Headline import prices rose again in September due to the effect of higher oil prices, but the increase came in much lower than expectations. The downside miss was largely driven by continued progress of disinflation in the goods sector. On a 3-month and 6-month annualized basis, import prices excluding petroleum declined 1.6% and 2.1% respectively. Outside of fuel, the picture remains encouraging. It's likely this trend persists, as the unwinding of rising oil prices, combined with weakening goods demand and continued strength of the dollar, exert further downward pressure on non-fuel import prices.

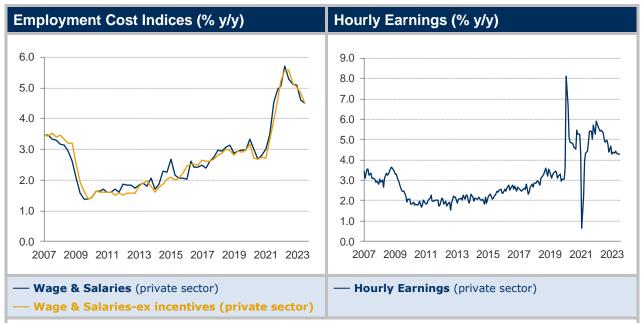




What is this data? CRB Index is a basket of commodity prices - a timelier indication of Crude PPI.

Current status: Energy prices surged in September as oil prices made new highs for the year. Gold on the other hand experienced a significant decline, closing the month down 4.7%. Gold held up well despite rising yields over the summer, but was not immune to the significant bear steepening we saw towards the end of September. 10-year US Treasury yields rose by over 40bps in September, a notable rate of increase. As for copper, prices were rangebound throughout September. Better economic data in China, combined with stimulus measures aimed at boosting the housing market, helped support copper. However, strong services sector data out of the US continued to fuel the 'higher for longer' theme, leading to further appreciation in the US dollar, which acted as a headwind to prices. Still, copper continues to hold its ground as a global recession still does not appear imminent.





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

Current status: Wage growth slowed further in September, with the annual growth rate in average hourly earnings falling to the lowest level since June 2021. Although the current growth rate is above the 3.5% level consistent with meeting the Fed's 2% inflation target, they will be pleased with the recent progress in hourly earnings and other wage growth measures. Further slowing in average hourly earnings and a slowing trend in growth for non-supervisory roles make a continued decline in forthcoming ECI releases more likely. This is because average hourly earnings have proven to be a reliable leading indicator for the ECI since the pandemic. As a result, the weakness observed in September will likely exert additional downward pressure for the upcoming ECI releases. We will get more colour on this when the ECI gets released at the end of October. The risk of wage growth remaining sticky persists, as indicated by the increasing influence of workers' unions. This, coupled with the services sector's resilience in the economy, could require further weakness in the labour market to get wage growth down below pre-COVID levels.

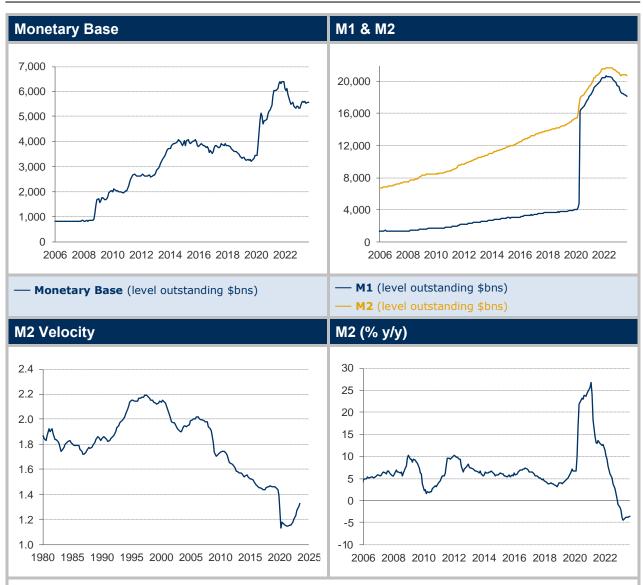




What is this data? Inflation expectations held by the public (Michigan survey) & financial market (10y breakeven inflation rate). Inflation expectations are significant e.g. higher consumer expectations of inflation may lead to higher wage demands. If market expectations of inflation are rising/falling,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

Current status: Inflation expectations for September were softer. Despite the rise in oil prices, gasoline prices fell, reflecting a softer demand backdrop in the US. Consumers' one-year ahead inflation outlook declined to 3.2% from 3.5%, whereas the longer-term five-year outlook fell to 2.8%, marking the lowest reading since July 2021. This is reassuring and will comfort Fed officials by showing that the recent period of elevated inflation hasn't led to a sustained increase in consumer inflation expectations. This also adds confidence that upward wage growth pressures are likely to remain muted. There is upside risk to October's inflation expectations due to tensions in the Middle East and its potential impact on oil prices. It's also worth noting that both short-term and long-term expectations readings, although more closely in line with long-term averages, remain above pre-pandemic levels.





About the data

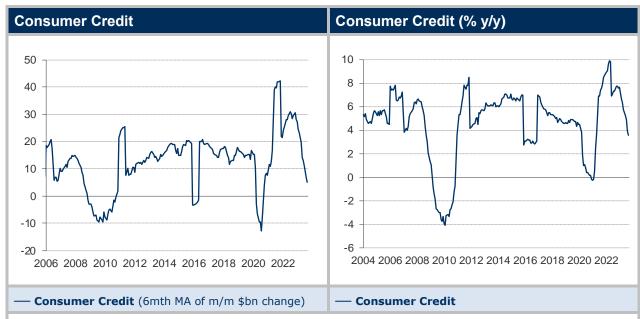
Monetary base = M0 (or notes & coins in circulation) + notes & coins held by banks and the central bank + bank reserves held by the banking system at the central bank. **Note:** the last two items are *not in circulation*

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: M2 growth declined once again in September, confirming that the positive prints we saw over the summer were indeed a fluke. With 10-year US Treasury yields reaching 4.7% in September, borrowing rates would have increased further, constraining bank lending even more. Therefore, we should anticipate the trend of M2 weakness to persist into October and November. The pace of decline in M1 growth matched the decline in August, as consumers continued to deplete their excess savings held in bank deposits to fund their spending. It's worth watching for a turning point in M1 growth, in a sign that consumers may have exhausted the excess savings built up since the pandemic. This could serve as a potential catalyst for a slowdown in overall consumption and the broader US economy.





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: Total consumer credit rose \$9.1 billion in September, bringing the annual rate of consumer credit growth to 2.2%. Non-revolving credit, such as auto and student loans, rebounded to 1.9% following a 9.8% drop the previous month. Economists attributed the decline in this category to the White House's plan to forgive student loans not affected by the Supreme Court's ruling. Meanwhile, revolving credit, such as credit cards, slowed to a 2.9% increase after a 13.7% gain in the prior month. This should not come as a surprise given the substantial increase in long-term borrowing rates in September. Money is getting more expensive, and as a result, we should expect consumers to be more reluctant to use credit cards. As for delinquency rates, the recent New York Fed survey revealed that aggregate delinquency rates increased in Q3 across most debt types. Credit card debt delinquency rates were up to 5.8%, compared to 3.7% in the same period last year. However, credit card balances experienced a significant increase in Q3, reflecting the strong consumer spending levels reported in the most recent GDP report. In the case of auto loans, delinquency rates increased to 2.5% from 2.0% in Q3 2022. It should be no surprise to see delinquency rates rising across most loan types, and we should expect this to worsen over the coming quarters.



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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