

Dollars and Sense: The Central Bank View of Inflation

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Highlights

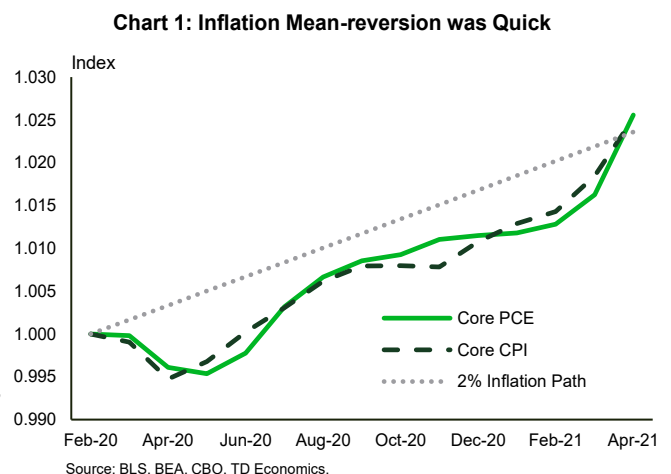
- With inflation running hot, the debate over its persistence rages on.
- We expect an easing in the supply-chain issues later this year, but stepping in will be a cyclical demand-side push next year that will keep inflation above 2% and solidify the Federal Reserve's comfort on meeting their inflation mandate.
- As this unfolds, we anticipate the Federal Reserve will shift towards tighter monetary policy, with an adjustment to Quantitative Easing being its first priority by the end of this year.

Investors are jittery over hot inflation metrics, as supply chain dislocations and the sudden snap-back in consumer demand blur the line between permanent and transitory price pressures. And who can blame them? In a business cycle like no other, prices are escalating from commodities to cars to food to a broad range of consumer services where price-inertia would typically rule the day. Central bankers are starting to feel the heat with investors questioning whether emergency levels of monetary policy remain appropriate alongside the extraordinary levels of fiscal policy supports.

Feelin' Hot, Hot, Hot

Although inflation has been a talking point for several months, a 0.9% month-to-month jump in core CPI got everyone's attention. This was the highest monthly increase in 40 years, compelling Fed Vice Chair, Richard Clarida, to note that this "was well above what I and outside forecasters expected." It wasn't just the monthly advance in prices that was surprising. On a level basis, both core CPI and the Fed's preferred inflation measure (core PCE) have already returned to where they would have been if inflation had grown uninterrupted at the Fed's 2% target throughout the pandemic (Chart 1). Simply put, mean-reversion was quick.

Though the advance in inflation has been very strong, it's too early to sound the alarm bell. We don't think the central bank has fallen behind the inflation curve on monetary policy. Patience will be required, as it could take the remainder of this year (at least) to iron out the supply-side pressures. Turning the "economy back on" by removing self-imposed restrictions is like opening the starting gate of a penned in racehorse.

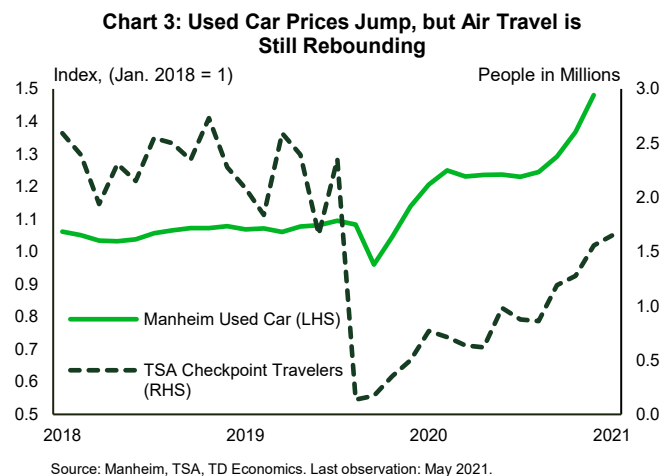


As next year unfolds, those 3-to-4 percent handles on the inflation metrics should give way to 2-percent handles. But that doesn't mean the central bank is in the clear. The winds will be shifting from price pressures driven by transitory supply-demand mismatches to traditional demand-push forces from an economy closing in on full employment. This is what will keep inflation from not repeating the post-Global Financial Crisis (GFC) experience where it serially undershot the Fed's target. The speed of this economic recovery is like no other, and the Federal Reserve will have to be careful not to lean too heavily on the GFC historical context. We're in the camp that by the end of next year, a necessary first step will take place in the rate hike cycle.

The 2021 Transition in Prices

Understanding the future path of inflation will require gut-checks on whether the run-up in prices carry transitory markings. For instance, inflation has caught up to trend, but GDP has yet to do so, and the unemployment rate is even further behind from that marker (Chart 2). When a gap exists, inflation would have difficulty permanently staying above 2% because it has insufficient sustainable demand- and wage-push dynamics.

However, the weight of the pandemic on the economy is sending cross-signals in how it is manifesting in unusual price patterns with little historical context. The auto sector is the poster child of this. Prices for used vehicles skyrocketed under a chain reaction of events (Chart 3). First, people's transportation preferences shifted to vehicles and away from air travel and public transit. This transitory influence is already starting to normalize. Simultaneously, a



global shortage in semiconductors limited the ability of auto manufacturers to respond with new car production. This too occurred under surging pandemic demand for electronics and other items that competed for semiconductors, while several idiosyncratic factors also hit supply production, such as a fire in a large production site in Japan. This supply-side pressure will resolve, but manufacturers vary on their predictions of the adjustments occurring sometime between the third quarter of this year and mid-2022. Lastly, as new car supply tightened, unlikely buyers started to compete within the retail market. Rental agencies normally add supply to the used car market as they replace aging and depreciating stock. In a twist, they not only held on to their existing fleets, but also became buyers of used vehicles in order to circumvent shortages in the new car market.

The auto sector is a stark example of how the pandemic disrupted supply chains. The issue is that this is also occurring across a broad spectrum of goods and services. Researchers at the San Francisco Fed separated the components of core PCE inflation into COVID-19 sensitive and insensitive groupings (Chart 4). The "sensitive group" is clearly driving inflation higher and accounts for a little more than half the recent rise in core PCE inflation. The researchers also provide a detailed breakdown of pandemic sensitive inflation into supply and demand factors. The data reveal that demand factors (from lost income) were a major drag on inflation for most of the last 16 months, whereas supply factors were lifting inflation. With the demand-side trends now reversing, it is compounding the supply factors that are forcing inflation higher. Since the supply-side will take time to resolve under differing lags and lingering effects by product, this year will capture a sizeable shift in inflationary pressures that some might find unnerving.

Chart 2: The Economy Has More Room to Grow

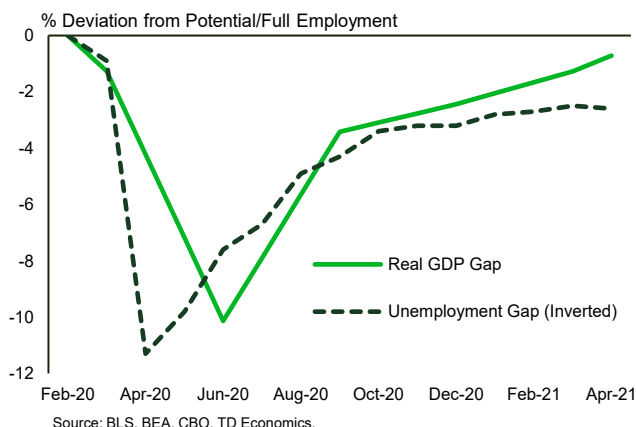
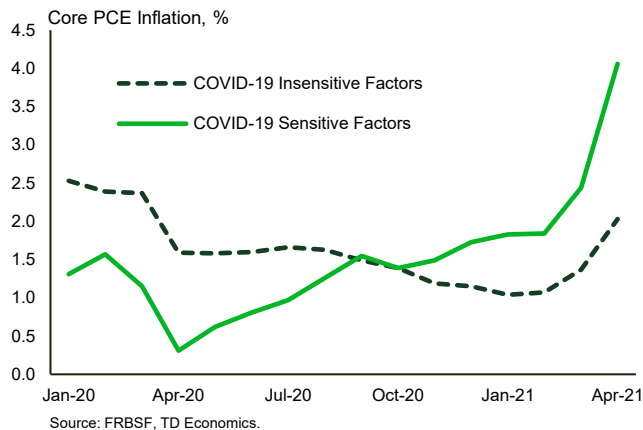


Chart 4: Inflation Driven by COVID-19 Sensitive Factors

What Goes Around Comes Around

So far, the Federal Reserve is exhibiting nerves of steel in its reluctance to pull the interest rate trigger, in part because they don't want a repeat experience of the post-GFC business cycle where inflation serially underperformed expectations.

We caution on becoming too wedded to the experiences of the past because none exhibited the speed of this recovery. Following the GFC, it took 10 years for GDP to return to potential and for the unemployment rate to return to "full employment". In contrast, this cycle is moving at the fastest clip on both fronts in 75 years. The unemployment rate is estimated to be at full employment by the end of next year. Having a policy rate still sitting at zero at that time now becomes a lopsided risk of exaggerating forces to the upside on inflation, as the economy presses deeper into excess demand territory. And, should this occur, those pandemic-related transitory supply-side factors could then persist longer.

That's the Sound of the Tune Changing

Over the last year, the Fed has been steadfast on its messaging. It has communicated that it will provide emergency levels of monetary policy support and is not ready to even think about adjusting the course. But the April minutes to the Fed meeting revealed a subtle and important shift in tone. Right at the end of the document, there was a little nugget that stated, "a number of participants suggested that if the economy continued to make rapid progress toward the Committee's goals, it might be appropriate at

some point in upcoming meetings to begin discussing a plan for adjusting the pace of asset purchases." We went from the Fed not willing to even debate a change in policy, to some members of the Fed believing a change to Quantitative Easing (QE) will be warranted soon. Right after the release of the minutes, St. Louis Fed President James Bullard commented on the QE policy, stating that "we're not quite there yet, I think we will get there in the months ahead." Dallas Fed President Robert Kaplan agreed stating, "maybe taking the foot gently off the accelerator would be the wise thing to do." The openness to changing policy has arrived. Even though this is coming from a small chorus of the Fed, we think the rhetoric will continue.

We believe the Fed will be in a position to adjust the QE policy stance before this year is out. Just like in 2013, this change may raise market expectations for future rate hikes and the overall yield curve with it. While rate hikes have started to be priced by markets, there is still more to come. Even though some Fed members are starting to lean into the idea of the rate hike cycle starting in 2022 or 2023, the unified messaging of the Fed hasn't yet signaled this intention. We will be closely listening to remarks by Fed Chair Powell and Vice Chair Clarida, who have been calling for more evidence that the economic recovery is well underway. Though we'd agree that all the evidence isn't in yet, the swiftness of this economic cycle is likely to soon prove unambiguous. By this time next year, we think the U.S. economy will have GDP rising above its potential, the unemployment rate will be back below 4%, and core inflation will be running around 2.5%. Keeping rates at the floor will seem out of place under that economic backdrop.

Interest Rates & Foreign Exchange Rates														
Interest & Exchange Rates		Spot Rate	2020				2021				2022			
		Jun-08	Q1	Q2	Q3	Q4	Q1	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Interest Rates														
Fed Funds Target Rate		0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.50
3-mth T-Bill Rate		0.02	0.11	0.16	0.10	0.09	0.03	0.05	0.10	0.10	0.10	0.10	0.25	0.50
2-yr Govt. Bond Yield		0.15	0.23	0.16	0.13	0.13	0.16	0.18	0.40	0.60	0.80	1.00	1.20	1.40
5-yr Govt. Bond Yield		0.77	0.37	0.29	0.28	0.36	0.92	0.90	1.15	1.40	1.60	1.75	1.85	2.00
10-yr Govt. Bond Yield		1.53	0.70	0.66	0.69	0.93	1.74	1.70	1.90	2.00	2.10	2.20	2.30	2.40
30-yr Govt. Bond Yield		2.21	1.35	1.41	1.46	1.65	2.41	2.35	2.45	2.55	2.60	2.65	2.70	2.75
10-yr-2-yr Govt Spread		1.38	0.47	0.50	0.56	0.80	1.58	1.52	1.50	1.40	1.30	1.20	1.10	1.00
Exchange rate to U.S. dollar														
Chinese Yuan	CNY per USD	6.40	7.08	7.07	6.79	6.53	6.55	6.40	6.45	6.50	6.55	6.60	6.65	6.70
Japanese yen	JPY per USD	109	108	108	106	103	111	109	106	104	102	102	101	101
Euro	USD per EUR	1.22	1.10	1.12	1.17	1.22	1.17	1.21	1.22	1.23	1.24	1.25	1.26	1.26
U.K. pound	USD per GBP	1.42	1.25	1.24	1.29	1.37	1.38	1.41	1.41	1.40	1.40	1.40	1.40	1.40
Swiss franc	CHF per USD	0.90	0.96	0.95	0.92	0.88	0.94	0.93	0.94	0.95	0.96	0.97	0.98	0.99
Canadian dollar	CAD per USD	1.21	1.41	1.36	1.33	1.28	1.26	1.20	1.20	1.21	1.22	1.23	1.24	1.25
Australian dollar	USD per AUD	0.77	0.61	0.69	0.72	0.77	0.76	0.77	0.76	0.75	0.74	0.73	0.73	0.73
NZ dollar	USD per NZD	0.72	0.60	0.65	0.66	0.72	0.70	0.72	0.71	0.69	0.68	0.67	0.67	0.67
Exchange rate to Euro														
U.S. dollar	USD per EUR	1.22	1.10	1.12	1.17	1.22	1.17	1.21	1.22	1.23	1.24	1.25	1.26	1.26
Japanese yen	JPY per EUR	133	118	121	124	126	130	132	129	128	127	127	128	127
U.K. pound	GBP per EUR	0.86	0.89	0.91	0.91	0.90	0.85	0.86	0.87	0.88	0.89	0.89	0.90	0.90
Swiss franc	CHF per EUR	1.09	1.06	1.06	1.08	1.08	1.11	1.13	1.15	1.17	1.19	1.21	1.23	1.25
Canadian dollar	CAD per EUR	1.47	1.56	1.53	1.56	1.56	1.48	1.45	1.46	1.49	1.51	1.54	1.56	1.58
Australian dollar	AUD per EUR	1.57	1.79	1.63	1.64	1.59	1.54	1.57	1.61	1.64	1.68	1.71	1.72	1.73
NZ dollar	NZD per EUR	1.69	1.85	1.74	1.77	1.70	1.68	1.68	1.72	1.78	1.82	1.87	1.88	1.88
Exchange rate to Japanese yen														
U.S. dollar	JPY per USD	109	108	108	106	103	111	109	106	104	102	102	101	101
Euro	JPY per EUR	133	118	121	124	126	130	132	129	128	127	127	128	127
U.K. pound	JPY per GBP	155	134	133	136	141	153	154	149	146	143	143	142	141
Swiss franc	JPY per CHF	122.1	111.7	113.8	114.9	116.7	117.4	117.2	112.8	109.5	106.8	105.2	103.7	102.1
Canadian dollar	JPY per CAD	90.4	76.1	79.2	79.2	80.9	88.0	90.8	88.3	86.0	83.9	82.8	81.8	80.7
Australian dollar	JPY per AUD	84.7	66.0	74.3	75.6	79.5	84.2	83.9	80.6	78.0	75.8	74.4	74.0	73.6
NZ dollar	JPY per NZD	78.8	64.1	69.5	69.8	74.2	77.3	78.5	75.3	71.8	69.6	68.3	67.9	67.6

F: Forecast by TD Economics, June 2021; Forecasts are end-of-period.
Source: Federal Reserve, Bloomberg.

Commodity Price Outlook															
Commodity	Price Jun-08	52-Week High	52-Week Low	2020				2021				2022			
				Q1	Q2	Q3	Q4	Q1	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Crude Oil (WTI, \$US/bbl)	70	70	36	46	28	41	42	58	65	72	65	64	64	63	63
Natural Gas (\$US/MMBtu)	2.99	15.83	1.35	1.91	1.71	1.99	2.53	3.56	2.85	2.80	3.00	3.10	2.90	2.80	3.15
Gold (\$US/troy oz.)	1893	2064	1684	1582	1708	1909	1874	1795	1830	1750	1700	1675	1650	1625	1600
Silver (US\$/troy oz.)	27.63	29.13	17.38	16.90	16.38	24.34	24.45	26.25	26.90	26.25	26.00	25.50	25.00	24.50	24.00
Copper (cents/lb)	448	474	257	255	243	296	326	386	438	408	388	373	352	356	356
Nickel (US\$/lb)	8.12	8.94	5.64	5.76	5.53	6.45	7.24	7.97	7.82	7.60	7.37	7.26	7.37	7.14	7.03
Aluminum (Cents/lb)	110	115	71	77	68	77	87	95	107	98	90	85	81	82	84
Wheat (\$US/bu)	9.10	9.38	5.75	6.60	6.46	6.36	6.84	7.41	8.50	8.30	8.00	7.75	7.75	7.68	7.60

F: Forecast by TD Economics, June 2021; Forecast are period averages; E: Estimate.
Source: Bloomberg, USDA (Haver).

International Interest Rates Outlook													
Interest Rates	Spot Rate Jun-08	2020				2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Germany													
ECB Deposit Rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
3-mth T-Bill Rate	-0.64	-0.71	-0.56	-0.62	-0.77	-0.66	-0.65	-0.60	-0.60	-0.60	-0.60	-0.60	-0.60
2-yr Govt. Bond Yield	-0.67	-0.70	-0.70	-0.70	-0.72	-0.69	-0.66	-0.60	-0.54	-0.46	-0.42	-0.36	-0.28
5-yr Govt. Bond Yield	-0.60	-0.66	-0.70	-0.71	-0.74	-0.63	-0.61	-0.55	-0.49	-0.41	-0.37	-0.31	-0.23
10-yr Govt. Bond Yield	-0.22	-0.47	-0.46	-0.52	-0.58	-0.29	-0.20	-0.15	-0.09	0.06	0.21	0.37	0.52
30-yr Govt. Bond Yield	0.33	0.02	0.00	-0.10	-0.16	0.26	0.31	0.36	0.51	0.66	0.82	0.97	1.12
10-yr-2-yr Govt Spread	0.45	0.23	0.24	0.18	0.14	0.40	0.46	0.46	0.45	0.52	0.63	0.72	0.80
United Kingdom													
Bank Rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
3-mth T-Bill Rate	0.07	0.18	0.01	0.00	-0.06	0.01	0.05	0.05	0.05	0.05	0.05	0.05	0.05
2-yr Govt. Bond Yield	0.07	0.12	-0.08	-0.03	-0.06	0.10	0.10	0.15	0.15	0.20	0.25	0.35	0.50
5-yr Govt. Bond Yield	0.33	0.21	-0.05	-0.06	-0.09	0.28	0.41	0.60	0.78	0.96	1.14	1.28	1.36
10-yr Govt. Bond Yield	0.77	0.35	0.17	0.23	0.20	0.84	0.85	0.98	1.12	1.25	1.33	1.42	1.51
30-yr Govt. Bond Yield	1.31	0.82	0.64	0.78	0.75	1.39	1.40	1.53	1.67	1.80	1.88	1.97	2.06
10-yr-2-yr Govt Spread	0.70	0.23	0.25	0.26	0.26	0.75	0.75	0.83	0.97	1.05	1.08	1.07	1.01

F: Forecast by TD Economics, June 2021; Forecasts are end-of-period.
Source: Bloomberg.

Global Stock Markets					
Major Market Indexes	Price Jun-08	30-Day % Chg.	YTD % Chg.	52-Week High	52-Week Low
S&P 500	4,227	-0.1	12.5	4,233	3,002
DAX	15,641	1.6	14.0	15,693	11,556
FTSE 100	7,095	-0.5	9.8	7,130	5,577
Nikkei	28,964	-1.3	5.5	30,468	21,531
MSCI AC World Index*	717	0.9	10.9	717	515

*Weighted equity index including both developing and emerging markets.
Source: Bloomberg, TD Economics.

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