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Going Old School: What to Make of Soaring Money Supply Growth

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Investors whose careers were launched in this millennium might never have given a thought to what used to be a standby of economic analysis: the money supply. It's been decades since the Fed's Paul Volker used money growth as the benchmark for policy settings, and nearly as long since the Bank of Canada put much stock in it as a harbinger of inflation.

But forgive us for going "old school", because we're at one of those rare moments where money has a message, if not really the one you might be tempted to take. Money supply growth is soaring off the charts in North America. That doesn't necessarily mean that inflation will become problematic on the high side, as some warn, or that the stock market is being fed a diet of money supply steroids and is preordained for a collapse. But it does tell us about the when and why policy will have to turn to avoid such adverse outcomes, and why that's earlier than the Fed currently believes.

The Mechanics: Here Comes the Helicopter

In both the US and Canada, the broadest measures of money supply growth (M2) have seen a notable surge relative to their past trends (Chart 1). In the US case, data back to the Roosevelt administration – and that's Teddy, not Franklin Delano—shows no equivalent. In Canada, the leap takes us back to a pace not seen since the high-inflation world of the 1970s and 80s.

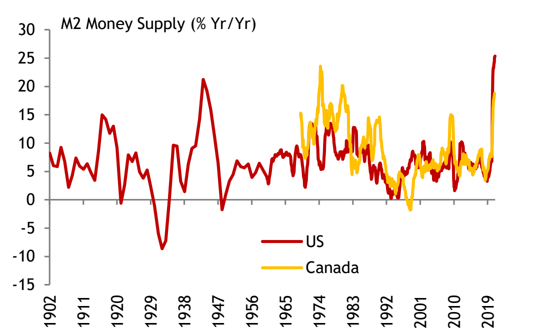
While that of course is a reflection of both central bank's quantitative easing programs, that's not the full story. After all, Ben Bernanke undertook multiple rounds of QE after the 2008 recession, but no equivalent ballooning in M2 is evident in the same chart.

So why this time? The answers lie in the combination of quantitative easing and aggressive fiscal stimulus. We in fact predicted this outcome for Canada when these twin programs were just getting underway, but it's worth going over the mechanics now that it's arrived.

When Bernanke was undertaking QE, there was an initial burst of fiscal stimulus under Obama, but that was allowed to fade out during subsequent QE rounds. So QE was merely an exercise in taking bonds off the market and onto the Fed's balance sheet, in exchange for crediting banks with the equivalent in excess reserves on deposit at the Fed.

Chart 1

Money Supply Growth at Historic Highs



Source: Federal Reserve, Bank of Canada, Haver, CIBC

Those reserves aren't part of the money supply, so that exchange of assets, on its own, doesn't change M2. Reserves are one of the requirements for banks to expand lending, and when a bank makes a loan, it credits the borrower's bank account with the proceeds, and those new bank deposits are then part of the money supply. But in that post-2008 world, banks' needs for Tier 1 capital, as well as their risk tolerance, dictated the pace of lending, rather than the level of reserves. Businesses and households were not eager to borrow after going through a wave of mortgage defaults and weak growth. So money supply remained contained as commercial bank lending was much cooler than prior to 2008 (Chart 2).

What's different these days is that fiscal policy is driving the growth in deposits. While the Fed and the Bank of Canada are creating borrowing room at low rates by absorbing bonds in the secondary market, the US Treasury and the Canadian Government are issuing huge volumes of freshly minted bonds to fund their deficit spending. That spending is going out in cheques sent to the unemployed, or to struggling businesses, who are in turn depositing them in their bank accounts, which are then included in the measure of the money supply.

That's acting just like the "helicopter" drop of money that Bernanke often talked about. The only difference here is that instead of issuing bonds directly to the central bank, the fiscal authority is going to the bond market, and letting the central bank drain that market of bonds to create the room to do so.

Isn't That Inflationary? Not Yet

Milton Friedman famously noted that "inflation is always and everywhere a monetary phenomenon." And this combination of QE and fiscal largesse is indeed aimed at lifting inflation, which given the scale of the Covid-recession, would otherwise have collapsed as the economy fell even deeper, leaving prices retreating in the face of weak demand.

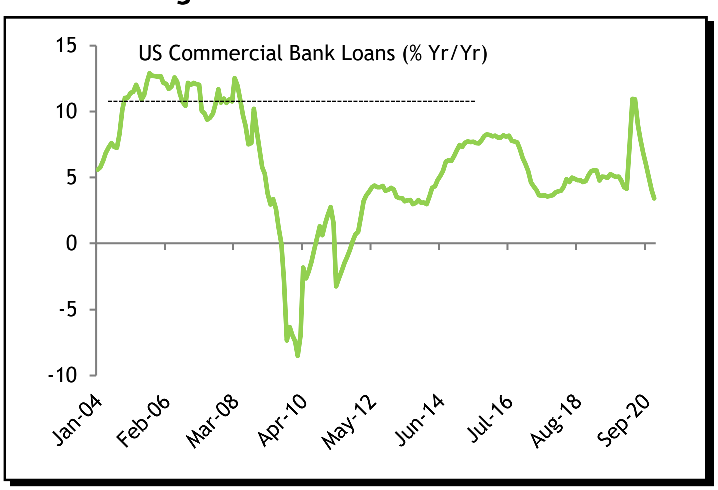
For those who think that we can always ignore the money supply, and that inflation has to be led by wage pressures, we offer the following mental experiment. Suppose the Canadian government decided to give all residents a cheque for $100 million, and financed that by issuing trillions in bonds, with the Bank of Canada in turn buying the same trillions in bonds from the secondary market.

If that didn't somehow generate hyperinflation, it would be a surefire way to instantly make every Canadian ultra-rich. Instead, we intuitively know that when Canadians all rushed to spend their newfound millions the next day, inflation would wipe away their purchasing value.

That mental experiment also explains why inflation hasn't yet taken off. It's when the surge in deposits gets spent that prices come under upward pressure. If the huge jump in money supply is sitting idle, in the form of household savings, it doesn't generate the demand needed to pressure prices higher. The excess in household savings in Canada, relative to the prior trend, has effectively matched the excess growth in money supply, and accounted for a substantial share of it stateside (Chart 3).

Chart 2

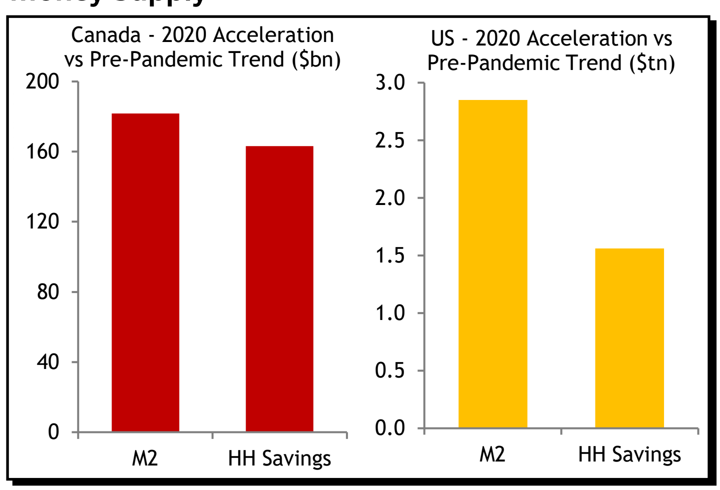
Bank Lending Was Muted Post-Financial Crisis



Source: Federal Reserve, CIBC

Chart 3

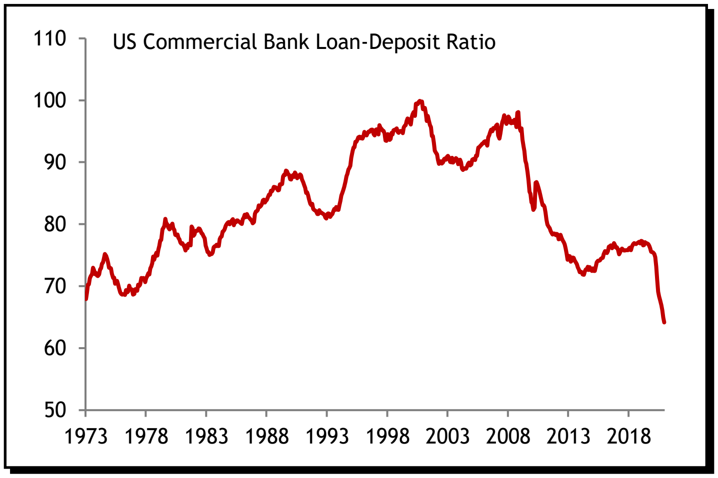
Excess Household Savings Almost = Growth in Money Supply



Source: Fed, BoC, Statistics Canada, BEA, CIBC

Chart 4

Loan-to-Deposit Ratio at Historic Low



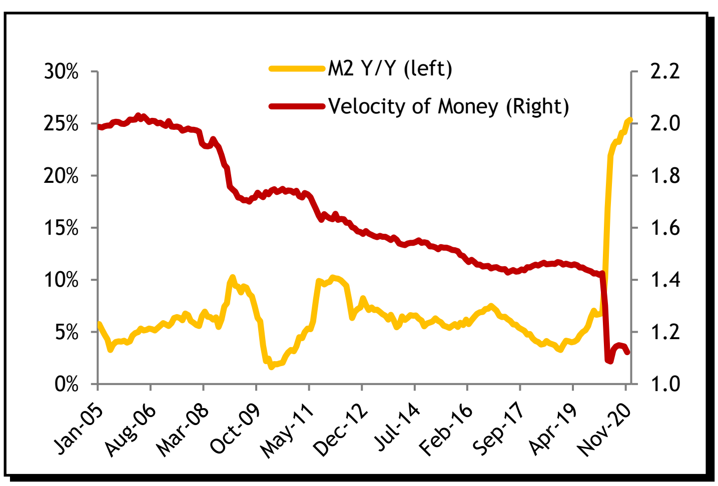
Source: Federal Reserve, CIBC

Moreover, we're not getting the rounds of borrowing, and subsequent spending, that is typically associated with a massive expansion in the monetary base, or these initial deposits. The ratio of loans to deposits has plunged (Chart 4), another sign that the initial tidal wave of helicopter money is creating a much smaller ripple across the financial market at the moment, but could become a bigger wave in the future.

Economists have their own term for this phenomenon: a decline in velocity (Chart 5). We didn't lead with that explanation, because it's a tautology. Velocity is defined as nominal GDP divided by the money supply. So if neither real GDP nor the GDP price index are soaring along with the money supply, by definition that's due to a drop in velocity. But the cause of that drop in "V" is, simply put, the fact that huge business and household deposit balances are, thus far, not all being spent.

Chart 5

Velocity of Money Has Fallen by Definition



Source: Federal Reserve, CIBC

That lack of spending also can be seen from the perspective of the economy's "output gap," the concept most closely tracked by the Bank of Canada in its projections for underlying inflation. A so-called "negative output gap" means that real GDP is still running below the economy's non-inflationary capacity. In layman's terms, restaurant tables aren't full, aircraft are parked on tarmacs with discount tickets on offer, and vacant storefronts and apartments are keeping rents in check.

Just as an aside, its misleading to aver, as we hear in some quarters, that all this extra money is somehow flowing into stocks, and that when money growth dries up, it's inevitably taking the stock market and economy down with it. It's not that simple. The excess money is sitting in deposits, since by definition, equity holdings aren't part of the money supply.

Of course, it's part and parcel of holding down short-term interest rates, and joined by QE, the full yield curve to some extent. Low rates do raise the present value of any asset that pays out a regular return, including stocks. But where equities head in the coming years will depend on both the denominator in that calculation, the discount rate, but also the numerator, the expected path of future cash flows and dividends, which should be climbing as the economy rebounds.

But Would Become an Inflation Threat Unless....

Understanding why outsized inflation hasn't happened yet also provides insights into what would cause it to emerge. Continuing with the twin program of expansionary monetary and fiscal policy well into an expansion would entail an ongoing build up in money supply, at a time when the velocity of that stock of money would accelerate alongside a greater proclivity to spend and an acceleration in lending.

The message for central bankers and fiscal authorities should be clear: monetary policy will have to swing from a facilitator (buying bonds to suppress government interest costs) to a counterweight (ending QE, and hiking rates) to contain the growth in private sector borrowing and spending.

The last cycle in North America, in which inflation generally stayed under wraps, doesn't suggest that we've somehow become immune to inflationary pressures at any level of demand. In Canada's case, closing the output gap left inflation averaging roughly in line with the Bank of Canada's target.

If the Fed erred in the last cycle, and thereby had inflation mostly running a bit under its target, it was because it believed that full employment was reached at an unemployment rate as high as 5-6% (the Non-Accelerating Inflation Rate of Unemployment), when it turned out to be somewhere closer to 4%. It made the mistake of tightening pre-emptively based on its NAIRU estimate (Chart 6), before it saw the whites of inflation's eyes. The Fed won't make that mistake again. But by 2023, the Fed could be hiking with a backdrop of a sub-4% jobless rate, and we expect PCE inflation to be running in the 2½% range for a while before the Fed actually moves (see page 7).

Why North America Isn't Japan, or Europe

In sum, we're postulating that huge money supply growth won't be a near term inflation threat, but would eventually show up in inflation if not for the monetary policy tightening expected in the coming years, including further BoC QE tapering this year, the Fed doing the same no later than early 2022 and both North American central banks raising rates in 2023, rather than a year later as the Fed's "dot plot" projections currently envisage.

Some bond market bulls point to the examples of Japan, and to some extent the Eurozone, as counter stories. But neither case makes a convincing analogy to where the US or Canada find themselves at this point.

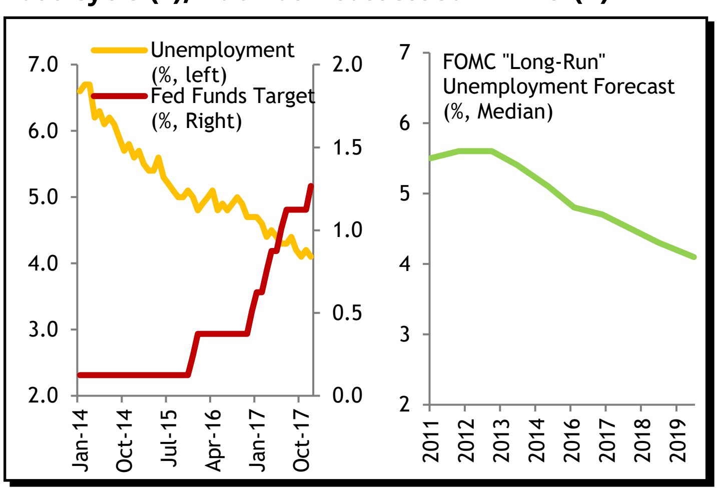
Japan got in a zero-inflation rut because policy makers failed to juice up money growth through the kind of monetary and fiscal one-two punch that we've seen in North America. Its crisis was back in 1990, when a real estate crash opened a huge output gap. But it took years before the BoJ cut rates to below 1%, and even longer before its first QE foray (Chart 7). Moreover, a fragile banking system was kept hanging on by a thread, but undercapitalized, and therefore unable to generate the lending growth needed to propel broad money supply growth.

Europe also never experimented with a combined monetary and fiscal thrust in the aftermath of the Global Financial Crisis, and as such saw money supply growth decelerate from that seen prior and inflation fall even shorter of 2% than it's "close to but below" target (Chart 8). In contrast, even though the stimulus thrown at the past recession was nowhere near that seen in the Covid-19 crisis, the US and Canada were able to return money supply growth and inflation closer to their pre-recession levels in the prior cycle.

Once Japan and Europe were stuck in that rut, inflation expectations were also grounded near zero. Inflation rates tend to be sticky near expected inflation, a factor that helped contain divergences from Canada's 2% target in the past two decades.

Chart 6

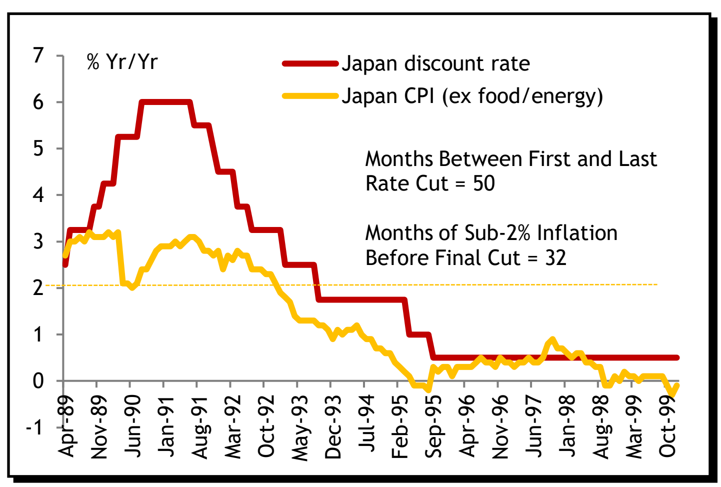
Fed Started Hiking as Unemployment Still Falling Last Cycle (L), But Has Reassessed NAIRU (R)



Source: BLS, Federal Reserve, CIBC

Chart 7

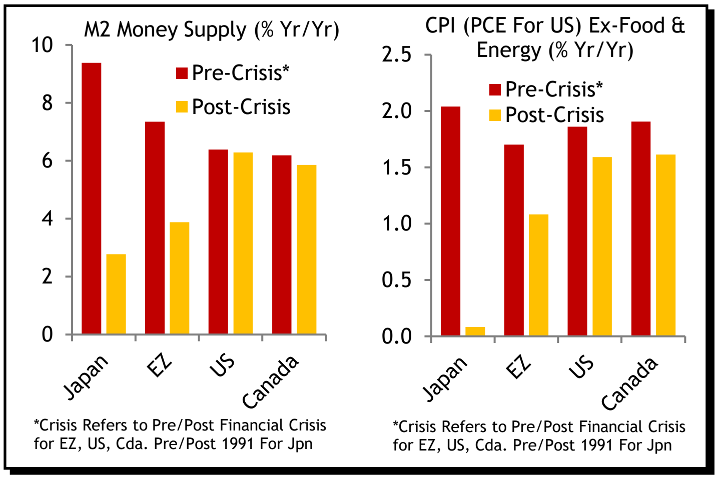
Japan Didn't Act Quickly or Aggressively Enough in the 1990's



Source: Bloomberg, CIBC

Chart 8

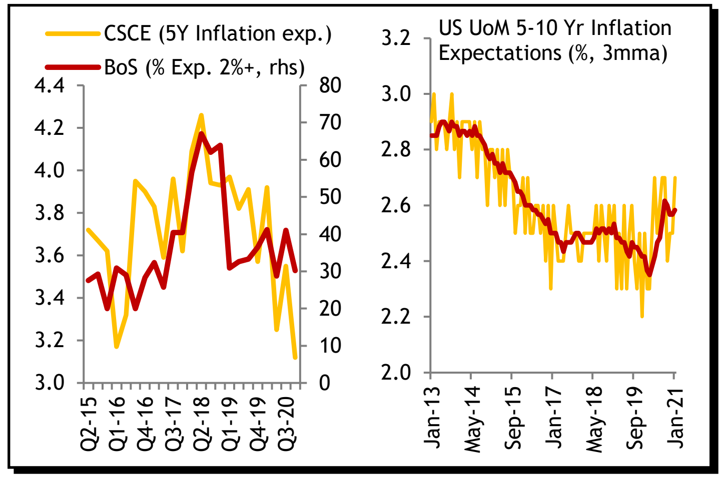
Failure to Spark Money Growth Post-Recessions (L), Tied to Inflation Undershoots in EZ, Japan (R)



Source: Bloomberg, CIBC

Chart 9

Inflation Expectations Dipped Slightly in Canada (L), But Have Actually Risen in the US (R)



Source: Bank of Canada, University of Michigan, CIBC

Both the Bank of Canada and the Fed have acted aggressively enough to shield their economies from the Japanese experience in terms of inflation expectations. Note that despite the huge output gap that opened up during Covid, surveys show Canadian inflation expectations haven't fallen too much while they have actually reversed part of their post-2014 downtrend in the US (Chart 9).

Canada's real return bond market is too thin and technically driven to be a reliable measure of inflation expectations. In the US TIPS market, 10-year breakeven inflation rates had drifted lower ahead of the recession, and plunged in the early days of the pandemic, but now sit a bit above 2%.

The Implications

What does this all add up to for North American investors? First, as we frequently say, the best forecasting model for medium term inflation in Canada or the US is a single equation: Inflation = 2%, where the measure is the CPI in Canada and the PCE price index stateside.

In Canada, 10-year real return bonds are priced with a breakeven inflation rate (i.e. the CPI pace that would give them the same return as nominal bonds) of only 1.5%. While that suggests they are cheap, we caution that the implied inflation rate in these bonds often shows persistent drifts away from where surveys of market participants or forecasters see inflation ahead.

There's still a touch of room in the US to have on-target inflation fully priced in, since 10-year breakevens around 2.1% implies a PCE price index a couple of decimal places below 2%. But most of the selloff in 10-year rates in the next few years (see page 6) will come from higher real yields as the Fed withdraws from QE and hikes the funds rate.

The second finding is that, in the US, that turn in monetary policy will have to come earlier than what the Fed is now signaling or what markets are counting on, to avoid an excessive run-up in inflation ahead. The money supply growth we've seen is unprecedented in normal, moderate inflation times, and isn't consistent with a 2% inflation target given that velocity will pick up alongside private sector spending. That will be even more the case if US fiscal policy maintains a stimulative stance in 2023 due to the launch of major infrastructure projects.

Whatever the course of fiscal policy, there's no reason to doubt the ability of the Fed and the Bank of Canada to do the right thing on inflation when the time comes, even if, in the case of the Fed, that means acting earlier than they now project.

MARKET CALL

- We've made no significant changes to our rate outlook over the past month. A softer tone to Q1 economic reports, reflecting the impacts of Covid-control measures, will stall the next leg towards higher bond yields in the US and Canada. Our forecast assumes some of Biden's stimulus package will garner Congressional support, but a full adoption of a $1.9 tn package risks adding to upward pressure on yields over the forecast horizon.

- As we discuss in this month's feature story, Treasuries are already pricing in a longer term CPI inflation rate of 2% or so. But to keep inflation from a more substantial overheating than its average inflation targeting would allow, the Fed will need to join the Bank of Canada in tapering bond purchases by early 2022 at the latest, with the BoC likely to unveil a reduction in its pace of bond purchases this April as part of its plan to avoid owning too much of the market.

- The US dollar has gained a period of respite from earlier selling pressure, but trade and current account fundamentals, and the absence of the large yield advantage that gave it support pre-pandemic, have us retaining our view that the greenback will return to a weakening trend ahead. That said, the Canadian dollar is also overvalued on trade fundamentals, as the Governor of the Bank of Canada has pointed out. The C$ could take a weaker track if the BoC succeeds in sending a message to markets that it won't run ahead of the Fed in rate hikes down the road if the loonie retains its recent gains.

INTEREST & FOREIGN EXCHANGE RATES

		2021	2021				2022			
END OF PERIOD:		**1-Feb**	**Mar**	**Jun**	**Sep**	**Dec**	**Mar**	**Jun**	**Sep**	**Dec**
CDA	Overnight target rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	98-Day Treasury Bills	0.06	0.10	0.15	0.15	0.20	0.25	0.30	0.30	0.40
	2-Year Gov't Bond	0.15	0.20	0.20	0.25	0.30	0.40	0.45	0.50	0.60
	10-Year Gov't Bond	0.90	0.70	0.85	0.85	1.25	1.25	1.30	1.45	1.60
	30-Year Gov't Bond	1.48	1.30	1.45	1.50	1.80	1.80	1.80	1.90	1.95
U.S.	Federal Funds Rate	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
	91-Day Treasury Bills	0.06	0.10	0.20	0.15	0.25	0.30	0.35	0.40	0.50
	2-Year Gov't Note	0.11	0.15	0.15	0.20	0.30	0.35	0.40	0.55	0.55
	10-Year Gov't Note	1.08	1.00	1.20	1.20	1.45	1.40	1.45	1.50	1.75
	30-Year Gov't Bond	1.85	1.75	1.90	1.90	2.00	2.00	2.20	2.25	2.25
Canada - US T-Bill Spread		0.01	0.00	-0.05	0.00	-0.05	-0.05	-0.05	-0.10	-0.10
Canada - US 10-Year Bond Spread		-0.18	-0.30	-0.35	-0.35	-0.20	-0.15	-0.15	-0.05	-0.15
Canada Yield Curve (10-Year — 2-Year)		0.75	0.50	0.65	0.60	0.95	0.85	0.85	0.95	1.00
US Yield Curve (10-Year — 2-Year)		0.97	0.85	1.05	1.00	1.15	1.05	1.05	0.95	1.20
EXCHANGE RATES	CADUSD	0.78	0.79	0.77	0.75	0.75	0.75	0.74	0.74	0.75
	USDCAD	1.28	1.27	1.30	1.33	1.33	1.34	1.35	1.35	1.34
	USDJPY	105	102	100	100	99	99	99	99	99
	EURUSD	1.21	1.23	1.25	1.26	1.26	1.25	1.25	1.25	1.24
	GBPUSD	1.37	1.35	1.37	1.39	1.40	1.39	1.40	1.40	1.40
	AUDUSD	0.76	0.79	0.80	0.82	0.83	0.84	0.85	0.86	0.87
	USDCNY	6.47	6.40	6.32	6.25	6.15	6.05	5.95	5.85	5.80
	USDBRL	5.47	5.00	4.80	4.80	4.50	5.00	4.80	5.00	4.50
	USDMXN	20.4	19.5	20.0	20.0	19.0	19.5	19.8	20.0	20.5

ECONOMIC UPDATE

CANADA	**20Q2A**	**20Q3F**	**20Q4F**	**21Q1F**	**21Q2F**	**21Q3F**	**21Q4F**	**22Q1F**	**22Q2F**	**2020F**	**2021F**	**2022F**
Real GDP Growth (AR)	-38.1	40.5	7.8	-0.9	2.8	7.6	7.2	5.4	4.1	-5.4	4.3	5.0
Real Final Domestic Demand (AR)	-38.4	50.8	2.1	-2.7	3.0	8.4	7.8	4.9	4.9	-4.6	3.8	5.3
Household Consumption (AR)	-44.3	62.8	2.3	-1.6	2.0	11.6	9.7	5.4	6.0	-6.3	4.7	6.1
All Items CPI Inflation (Y/Y)	0.0	0.3	0.8	1.2	2.3	2.1	2.0	2.0	2.0	0.7	1.9	2.0
Unemployment Rate (%)	13.1	10.1	8.8	9.0	8.4	7.3	6.7	6.4	6.2	9.5	7.9	6.1

U.S.	**20Q2A**	**20Q3A**	**20Q4A**	**21Q1F**	**21Q2F**	**21Q3F**	**21Q4F**	**22Q1F**	**22Q2F**	**2020A**	**2021F**	**2022F**
Real GDP Growth (AR)	-31.4	33.4	4.0	1.9	3.7	6.6	5.2	2.9	2.6	-3.5	4.3	3.6
Real Final Sales (AR)	-28.1	25.9	3.0	2.7	3.3	6.2	5.7	3.0	2.4	-2.9	3.8	3.6
All Items CPI Inflation (Y/Y)	0.4	1.2	1.2	1.9	3.1	2.5	2.7	2.6	2.6	1.2	2.6	2.6
Core CPI Inflation (Y/Y)	1.3	1.7	1.6	1.7	2.7	2.2	2.4	2.4	2.4	1.7	2.2	2.4
Unemployment Rate (%)	13.1	8.8	6.8	6.8	6.2	5.4	4.9	4.5	4.3	8.1	5.8	4.0

CANADA

The Canadian economy performed better-than-anticipated during the final months of 2020. Outside of the sectors most directly affected by the virus, the economy was faring relatively well all things considered. The resilience during the fourth quarter of 2020 means that the new year is beginning on better footing. As a result, we've upgraded our forecast for 2021 GDP and see the economy returning to pre-COVID levels of activity about a month earlier than in our prior set of projections.

UNITED STATES

There looks to be less scope for a pullback in economic activity in the US in early 2021, given the composition of the Q4 GDP report that showed less of a build in inventories than thought. We therefore upgraded our Q1 GDP forecast to 1.9% SAAR. Covid cases continue to trend lower, and re-openings in some larger states could provide a venue for consumer spending to pick up in February and March, helped by fresh fiscal stimulus. Inflationary pressures are poised to heat up as the post-vaccine surge in demand accelerates the recovery, closing the output gap faster than the Fed is currently estimating. Likely minimum wage hikes have also added to our CPI outlook. Inflation should be hot enough to compel Fed rate hikes in early 2023.