Intelligence MEMOS

From: Steve Ambler

To: Bank of Canada Governing Council

Date: May 25, 2022

Re: **Quantitative Easing – Unintended Consequences**

Rising and persistent inflation in Canada has been blamed on massive money printing by the Bank of Canada.

This is far too simplistic.

It is only when the Bank of Canada's purchases of government bonds, which create base money (as explained in detail below), turn into increases in broader forms of money – chequing and savings accounts – that it becomes inflationary. Where the Bank of Canada, and other central banks, erred is in underestimating the importance of this link.

The monetary base or "high-powered money" (consisting of currency in circulation plus deposits of financial institutions who are members of Payments Canada with the Bank of Canada) has seen a huge increase, from approximately $90 billion early in 2020, before the pandemic hit, to a maximum of almost $500 billion last March.

Other measures of the money supply have also increased, if not nearly as rapidly as the monetary base. For example, M1++ (currency in circulation and chequable and non-chequable notice deposits at most financial institutions) increased by a little more than 28 percent over the same period, and M2++ (brings in other relatively liquid assets including Canada Savings Bonds) increased by slightly more than 18 percent.

Since monetary policy works with a lag on inflation, even though the link between the monetary base and broader monetary aggregates has weakened since the beginning of the pandemic, we are still seeing its impact on inflation today.

What caused the increase in broader monetary aggregates after the increase in the monetary base? Why didn't that occur after the 2008-09 financial crisis?

The answer: large federal government deficits even after the economic crisis abated, combined with purchases of newly-issued federal government debt and previously issued debt from non-financial institutions and individuals.

Consider the balance sheet implications of two different types of federal government bond purchases by the Bank of Canada.

(1) The Bank buys a previously issued bond from a financial institution belonging to Payments Canada – e.g. a Big Six. As a result, the assets of the Bank of Canada increase by the value of the bond purchase, and its liabilities increase as the Big Six bank receives an increase in its settlement balances. Unless this results in an increase in loan demand and deposits, say, because of a decrease in the interest rates from the bond purchase (interest rates fall when bond prices go up, which they will with increased demand from the Bank,) the monetary base increases but not the broader measures of the money supply. Little impact on inflation.

(2) The Bank buys newly issued federal government debt. The Bank of Canada's assets increase, and the Government of Canada's deposits with the Bank increase. The Government uses the proceeds to effect a transfer payment to a household or firm, which receives the transfer in the form of a deposit to a bank account. The household or firm either sits on the deposit (witness the high savings rate in 2020 Q2) or spends it, shifting the deposit to another household or firm. When payments clear, the Government of Canada's deposits at the Bank of Canada return to their initial level, and settlement balances go up by the same amount. The consolidated balance sheets of any Big Six bank show settlement balances increase as do deposits. So the monetary base and broader monetary aggregates increase by the same amount.

Direct purchases of existing bonds from non-financial institutions have a similar direct effect on the money supply, since the money received from the Bank for the bonds are deposited with a Big Six bank increasing the size of its balance sheet – settlement balances on the asset side, deposits on the liabilities side.

Without any explicit coordination between the Bank of Canada and the Government of Canada, the second scenario acts exactly like what many economists call a "helicopter drop" of money. This money has fueled demand and helped to pump inflation. The Bank of Canada's financial statements for the end of 2021 show that more than 30 percent of its federal government bond holdings originated from purchases of newly issued debt, enough to explain the rapid expansion of broad money.

The Bank's bond purchases, which have now wound down and been replaced by Quantitative Tightening, had the explicit goal of lowering longer-term interest rates and supporting spending. It had very little effect on the former, but left an overhang of money that has pushed inflation higher and made it much more persistent than they predicted. This was an unexpected consequence of its policy.

The Bank needs to restore the importance of data on broader monetary aggregates as part of its inflation forecasting and monetary policy decisions. The impact of money on inflation is the missing QE link.

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