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The Perils of Ultra-Low Rates: The Canada Case

- Ultra-low central bank rates are not without their perils. In making this claim, we refer not to the risk of excessively stimulating the economy (which is another matter, and not one likely to be confronted for some time), but rather to the undesirable complications that arise when central bank rates become quite low.
- In particular, this report takes another look at the Bank of Canada's future path for interest rates, and at the various complications that arise as the overnight rate dips into the strange and exotic world of extremely low interest rates. In a sense, there is a parallel to the shift that took place in the early twentieth century from Newtonian physics to quantum physics, in that the usual assumptions will no longer suffice.

Distinguishing "Will" From "Should"

- To be clear, we continue to stand by our forecast that the Bank of Canada will ease by another 25bp in March. This is not a guaranteed outcome (especially if this report gains any traction), but it strikes us as the odds-on bet. However, this does not mean that we believe such a move to be entirely advisable. Rather, our forecast is motivated purely by the Bank of Canada's signal in its most recent statement.
- Specifically, the Bank of Canada said that "the overnight rate can be expected to remain at this level or lower at least until there are clear signs that excess supply in the economy is being taken up." Clearly, the inclusion of "or lower" is the key tip-off as to the prospect of additional rate cuts. With the exception of its April 2008 statement, a Bank of Canada signal such as this one that further rate cutting is possible has been a sure fire winning bet that additional easing is on its way.
- If the Bank was uncertain about whether it wished to ease further, that entire phrase could have been reworded in a far less specific fashion, along the lines of "the overnight rate can be expected to be at a very low level...". Alternately, it could have said "the overnight rate can be expected to remain quite stimulative ...". The bottom line is that further easing to the overnight rate itself appears probable.
- The reason for our hesitancy to endorse this further easing has nothing at all to do with economic fundamentals. The economic environment in isolation supports the pursuit of an outright negative overnight rate, were that possible.
- Rather, there are several important complications that arise when a central bank rate gets very close to zero, and it is these headaches that we dwell on in determining that further Bank of Canada easing may not be appropriate. At its essence, these headaches may be sufficiently large so as to undermine the pittance of further stimulus the economy would receive by cutting another 25-50 basis points, especially given the reality that the majority of Canadian economic woes are related to the U.S. slowdown and falling commodity prices, neither of which can be healed by domestic monetary policy.

International Precedent

- It is instructive to note that despite a myriad of economic woes, no major central bank has pursued a true 0.00% central bank rate in this cycle. Rather, the Fed has stopped in the range of 0.00-0.25%, with its effective rate tending towards 0.20% on a daily basis. The Bank of Japan has halted at a low of 0.10%. And the Bank of England has recently announced its own halt at 0.50%.
- The implication here is that we are clearly not alone in believing that an ultra-low central bank rate may in some instances do more harm than good. The best

specific stopping-point appears to be subject to some debate among nations, but the basic essence of the argument appears to be sound, and no one wants a truly 0.00% level.

- How did the Fed decide to do one thing, the Bank of Japan another, and the Bank of England something else altogether? Beyond simply observing that these decisions are made by human beings with a range of emotions, biases, and knowledge, there may also be somewhat justifiable differences.
- For instance, the Fed likely felt obliged to cut all the way to 0.00-0.25% because it had lost control of the effective fed funds rate shortly beforehand. The market basically forced the Fed into this extreme action since it was already trading at that level, and the Fed either had the option of continuing to try to steer with a broken rudder, or to simply accept where the currents were taking it. It chose the latter.
- In the Japanese case, the Bank of Japan entered this economic slowdown with a central bank rate of just 0.50%. Thus, if it desired to signal any sympathy whatsoever to the market, it had to ease from this starting point. In turn, the Bank of Japan felt obliged to cut all the way to just 0.10%. Simultaneously, Japanese financial markets may be uniquely capable of handling extremely low central bank rates, as they have already been subjected to the better part of a decade of this.
- The Bank of England could provide the best model for the ideal Bank of Canada action, as the two countries have important parallels – the U.K. has managed to maintain control of its effective central bank rate and also started the cycle with a roughly neutral central bank – in both instances, just like Canada. The Bank of England decision to halt cutting gets at the heart of the issue, as the accompanying Minutes state that “the transmission of any further rate cuts through to activity and inflation was likely to be significantly impaired.” We concur absolutely, and here is why.

Money Market Meddling

- As Canada’s overnight rate approaches zero, this presents a problem for money market mutual funds, which invest in relatively safe and short-term (less than one year) fixed income products. Simply put, it becomes more difficult to offer a positive rate of return (after fees) when short-dated investment products have such low returns of their own. The Bank of England has highlighted this problem, saying that “a sustained period of very low interest rates could impair the functioning of money markets, creating difficulties in the future.”
- At present, Canadian money market funds are earning investors an average of just 0.03% per month after fees, or a measly 0.36% per year once one takes into account an average management expense ratio. This means that if the overnight rate were to fall much further, money market funds would cease to be capable of offering a positive return after fees unless something were to give way. Money market funds that invest solely in government bills would cease to be viable even sooner, while premium funds might last somewhat longer as they have historically charged lower management fees.
- Even the aforementioned rate of return is of questionable sustainability, as money market funds traditionally invest in government bills (3m currently at 0.40%), repos (0.50%), BAs (0.65%), commercial paper (1.05%), and asset-backed commercial paper (1.15%). Based upon U.S. money market composition stats (15% government and agency, 22% repos, 17% bank bills, 46% credit), the sustainable rate of return in Canada is already just 0.79%, which is notably less than the average management expense ratio in the market. Moreover, this very generously

assumes that all money market investments are of a three month nature, whereas most are closer to one month, and with a bias towards shortening up even further given present market uncertainty. The bottom line is that money market funds are already in an unsustainable position. And this would only get worse if the overnight rate were to fall further.

- The problem here is that the sleepy money market is actually a fairly important segment of the market. Over 15% of Canadian mutual fund money is in this category, and the importance has recently swelled given widespread risk aversion. Simultaneously, the market is of even greater importance for the companies and entities issuing the short-term bonds that are bought by money market funds. This has remained a rare liquid space in the market, and so if it were to freeze up, this could be devastating for Canadian corporations.

U.S. Counterpoint

- It is not clear that all of this is an absolute deal breaker – after all, the U.S. money market continues to operate despite a rock-bottom fed funds rate. And it may be the case that investors are so risk averse that they are willing to accept a very low (and possibly negative) rate of return for the perceived safety of a money market fund. Further, an optimist might argue that some of the money market refugees might reallocate themselves to bank deposits, which would be a helpful source of funding to the financial industry. But there are important differences between Canada and the U.S. example. For instance, because credit spreads in the U.S. are significantly wider than in Canada, U.S. money market funds may be remaining viable by investing in U.S. credit products that have a higher absolute yield than the Canadian equivalent, despite a central bank rate that is 25-50 basis points lower. Also, U.S. money market funds enjoy a program that allows them to buy insurance from the government to avoid the consequences of “breaking the buck” – taking a loss – which in some cases would otherwise constitute cause for the immediate liquidation of a money market fund.

Implications

- Any which way, it is unlikely that ultra-low interest rates will end well for Canada’s money market fund industry. The possible scenarios are as follows.
- Fund managers may ratchet up the risk profile of their investments (anecdotally, asset-backed commercial paper has become a popular target once again), though many are understandably petrified of “breaking the buck” and so stick to less risky investments. And it would hardly be a positive development for the industry should it take on additional risk exposure at precisely the time that investors are desirous of safety.
- Alternately, money market mutual funds could be forced to reduce the management fees they charge with the result that they face operating losses. There is already considerable evidence of this happening, since many funds are not allowed to break the buck, and while cutting fees may be sustainable for large and diversified mutual fund companies with an eye to the long-term, it could be devastating for smaller and more concentrated players.
- Another option is that money market funds could elect to close their doors to new investors, and otherwise pursue the contraction of an unprofitable business.
- Or, the breaking point could be that investors simply flee money market funds, which would deal a critical blow to the demand for underlying money market products. In particular, the asset-backed commercial paper market is quite reliant upon money market funds, and this in turn constitutes an important source of

funding for banks. And, as we noted earlier, the money market has taken on an outsized importance as it remains more liquid than the term market and thus a superior source for corporate funding.

Banking Blow

- For the banking sector, there are always pluses and minuses when central banks adjust rates. The yield curve may flatten (compressing margins) or steepen (improving margins). Lower rates stimulate borrowing, but discourage clients from depositing money onto bank balance, creating a possible mismatch. The exact opposite happens with higher rates, though the result remains a mismatch. Because chequing accounts do not generally pay interest, they clearly cannot fall further, and so every central bank rate cut represents a compression of bank profit margins. The list goes on, with numerous pros and cons.
- But the key question here is not how banks are affected when central banks adjust rates. Rather, the question is how does all of this change when the central bank rate gets very close to zero? There are some very important (and detrimental) changes that take place, and this is of particular relevance at present as the global banking sector is a central player in the unfolding crisis. This suggests that central banks likely wish to tread lightly across this terrain.

Prime Rate Borrowing

- Canadian banks have certain deposit products – many commercial deposits, for instance – that pay interest at a negative spread to the prime rate. The problem here is that the overnight rate has already been cut so far that it is no longer possible to continue transferring this reduction in rates through to these sorts of deposit accounts. They are already offering a 0.00% rate, and banks are being forced to absorb additional losses each time the central bank rate goes down further.

Product Differentiation

- Even for deposit products that are not directly tied to the prime rate, there can be limits on how far certain deposit rates can be cut, and this limit is sometimes higher than 0.00%.
- For instance, savings accounts are important to banks because they provide a less liquid (and thus less volatile) source of funding. For investors to be persuaded to hold money in savings accounts instead of chequing accounts, there must obviously be some differentiation in the rates of interest offered. Chequing accounts naturally offer rates of return very close to zero. Savings accounts normally offer rates of return somewhat below the central bank rate, but well above that of chequing accounts. It is not possible to cut the savings rate all the way down to 0.00% – even if the decline in the central bank rate justifies this action – because the wall between the two products would come crashing down. Thus, savings rates cannot fully track the overnight rate downwards.
- Another example is GICs, which cannot offer rates particularly close to zero without losing significant client interest in a product that offers a highly desirable degree of stability to bank balance sheets.

All Together Now

- These product differentiation considerations translate into one of three outcomes. Banks either take losses due to margin compression; or banks are forced to scale back their lending; or lending rates cannot be cut so as to maintain previous margins. None of these are desirable outcomes. Bank viability remains a central issue in the credit crunch, and so another factor weighing upon bank profits is not

attractive. It is also clearly undesirable for banks to scale back on lending at a time when that issue is central to economic recovery. And there is no point whatsoever in cutting the overnight rate if those rate cuts cannot be transmitted through to the large fraction of borrowers reliant on the banking system. We view this final scenario – lending rates that can no longer fall – as the most likely outcome, and it argues very clearly against further rate cutting since such an action would be mostly ineffective.

Incompatibility

- Although the overnight rate naturally attracts the preponderance of market attention, it is not the only interest rate that the Bank of Canada directly controls. Commercial banks can also borrow directly from the central bank on an overnight basis at 25 basis points over the overnight rate, and – crucially – they can lend their excess reserves to the central bank at 25 basis points less than the overnight rate. In normal conditions, these procedures work smoothly.
- But what would happen if the overnight rate fell to 0.25%, such that the rate of interest on excess reserves dropped to 0.00%? And, even more problematically, what would happen if the overnight rate fell to 0.00% and the rate of interest on excess reserves fell to -0.25%?
- Should either of these scenarios happen, there would be the perverse situation that excess reserves could no longer offer any rate of return, and so the inducement for commercial banks to lend their excess reserves to the central bank would disappear. In practice, it is not possible for the banks to withdraw these excess reserves, and so an outright shortfall at the Bank of Canada is unlikely. But it would still be disturbing for all involved to have zero or negative payments on what amounts to excess reserves, especially for a country that has no minimum reserve requirement to begin with.
- It is not clear how the Bank of Canada would respond to this situation. It might simply say “tough nuts” and force excess reserves to receive a negative rate of interest. But there is also the issue of interpretation of the Bank of Canada Act, which seems to suggest that a negative rate of interest may not be possible. If this interpretation is correct, some effort would have to be made to reconcile the Bank of Canada Act versus the rule that excess reserves receive a rate of interest 25 basis points less than the overnight rate.
- None of this involves huge sums of money, and none of this is insurmountable. But it does clearly represent a complication, a headache, and a situation that – all else equal – one would probably prefer not to get into.

Crashing Computers

- This is a fairly minor consideration, and not nearly on par with the other issues raised. But some computer systems involved in financial markets are not designed to accept a zero central bank rate, nor to accommodate the reality of a bid-ask spread that would regularly veer into negative asking yields. In all likelihood this is easily surmounted – the adjustment has occurred in the U.S. and elsewhere – but a hassle it remains.

Bottom Line

- Each of the problems we have presented regarding an ultra-low interest rate environment is surmountable. Computer programming can be updated; borrowing rates can cease to respond to central bank easing so as to allow banks to maintain a viable profit margin; money market funds can survive by cutting their expense

ratios and possibly operate at a loss, or by scaling back in their operations with the result that short-term bond yields could push upwards; and the rules governing the rate at which commercial banks lend their excess reserves to the central bank could be adjusted. All of this is within the realm of the possible, as has been clearly demonstrated by the U.S.

- But is it really worthwhile for a country like Canada to pull out all the stops and to cut a further measly 25-50 basis points on top of the formidable 400 basis points that has already been delivered? Every central bank should think twice about whether squeezing that last ounce of stimulus into the economy makes sense in the broader context. We suspect the macroeconomic benefit of cutting the overnight rate further is overshadowed by the hornet's nest of issues that will be stirred up by doing so. What's more, the problematic implications specific to the banking sector may take on a particular poignancy for a country like Canada that has defined itself throughout this crisis as a nation with a strong and resilient banking sector. The Canadian case is further nuanced by the fact that a great deal of domestic stimulus bleeds across the border in the form of imports from abroad, while Canada's big export and resource sectors are essentially reliant upon the rest of the world to get back on track, and not so much on the adroit actions of domestic central bankers.

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