

Summary of Dr. Richard Braun's presentation

"Monetary Policy in the 21st Century: Challenges and Prescriptions"

(Opinions and observations expressed in the presentation are Dr. Braun's personal views and not those of the Federal Reserve System or any other organisation/institution.)

1. Monetary policy in the 21st century

Dr. Braun kicked off his presentation telling the audience that the 21st Century has marked a turning point for the conduct of monetary policy. It is useful to review some orthodox views from the end of the last century about monetary policy and financial regulation to understand how recent events have influenced our views about the conduct of monetary policy.

Some orthodox views about monetary policy in 1999 were as follows:

- There was a widespread belief that monetary policy is a highly effective tool for macroeconomic stabilization.
- The way to stabilize the macro-economy is to manipulate a narrow short-term overnight interest rate to produce a stable inflation rate of about 2 percent.
- The Great Moderation demonstrates that this policy is so effective that business cycles are largely a relic of the past.
- Inflation risks are asymmetric. The biggest risk facing central bankers is the risk that expectations become unanchored and high inflation results.
- Currency pegs always fail. The Asia crisis could have been avoided if e.g. Thailand had never tried to peg its exchange rate to the U.S. dollar.

Dr. Braun goes on to discuss orthodox views related to the lender of last resort function of central banks in 1999:

- The risk of a financial crisis in the US and UK is very remote.
- Commercial banks are well regulated and deposit insurance means that the risk of a bank run is remote.
- Private markets for the provision of other financial services are highly competitive, so light regulation of investment banks, life insurance companies and other financial entities is appropriate.
 - Private competition encourages innovation and growth.
 - Private arrangements for dealing with failure (changes in management, M&A, bankruptcy) are adequate.

- An emerging concern about the risk of contagion in the shadow-banking sector. Decision of the Federal Reserve Bank of New York (NY Fed) to orchestrate the bailout of LTCM (Long Term Capital Management) in 1998 is based on concerns about contagion. It establishes a precedent that proves to be unsustainable.

We are just 14 years into the 21st Century and already these common views from 1999 have been turned on their head by recent events.

- The Great Moderation has been replaced by a Great Recession and fears of a Great Stagnation.
- The biggest concern of central bankers is to prevent deflation.
- We have seen massive increases in monetary base in many developed countries that have little or no effect on the price level.
- Central bankers are discovering that it is considerably more difficult to stabilize the economy when the policy rate is near zero as compared to when it is positive.
- Exchange rate management is back in fashion as we have seen in Switzerland.
- A very intense concern about fears of runs and contagion in shadow and traditional banks.
- Very intense supervision of banks and shadow banks by central banks and other regulators.

2. Current developments in the US economy

Then, he turns to discuss current developments in US monetary policy and regulation of financial intermediaries. To guide its lift-off decision the Federal Reserve System (Fed) has a dual mandate: promoting employment and stabilizing the price level. There is ample and broad-based evidence of steady improvement in employment conditions in 2014. Conventional measure of unemployment has fallen from 6.7% in December 2013 to 5.8% in November 2014. But there are some reasons for caution. Broader-based U-6 unemployment rate¹ is still high (11.4%). Employment relative to working population is also depressed from 70.6% in October 2006 to 68.8% in October 2014. This gap represents 3.7 million working-aged people.

Concerning inflation, (Figure1: presentation slide page No.9) shows the core personal consumption expenditure inflation rate. Since July 2009 it has been well below the target of 2% set by the Federal Open Market Committee (FOMC). This fact poses a

¹ U-6 unemployment rate counts not only people without work seeking full-time employment but also marginally attached workers (those who have tried to apply for unemployment benefits in the past year) and those working part-time for economic reasons.

conundrum for policy makers. The conundrum is that while developments in the labour market suggest that real economic growth is above a long run trend, prices are not showing any evidence of firming. We would expect developments on the real side of the economy to be putting upward pressure on wages and inflation. But this is not happening. A decision to raise interest rates will require either a coherent narrative for the puzzling data on unemployment and inflation or a resolution of the conundrum as new data arrives.

How is lift-off going to occur? When short-term rates are raised, the Fed will use a new instrument: the interest rate on excess reserve (IOER). Raising the IOER, allows the Fed to tighten monetary policy while keeping the size of its balance sheet high. This is possible, because a higher IOER increases the return from depositing excess reserves at the Fed and this in turn raises the reservation interest rate that a bank requires to lend reserves in the Federal Funds (FF) market. So, a higher IOER will be associated with a higher FF rate.

According to the previous logic, the IOER should provide a floor for the FF rate. However, the current value of the IOER, at 0.25%, exceeds the current value of the FF rate which is about 0.12%. This puzzling result is due to market segmentation. Dr. Braun explains that lenders of funds in the FF market are financial entities that are not allowed to directly make deposits at the Fed and earn the IOER. They are flush with liquidity and are willing to lend funds at a rate that is lower than the IOER.

The NY Fed has also been experimenting with reverse repos since September 2013. The idea is to provide a floor on the (effective) FF rate. Reserve repo operations work as follows. The Fed has a big portfolio of US Treasuries. It sells some of them and promises to repurchase them at a future date (in many cases the next day) at a pre-specified price. By doing so the Fed effectively offers a deposit rate for cash to qualified counterparties. A broad range of counterparties including banks and savings and loan associations, government sponsored enterprises, and money market funds (MMFs) can participate and earn this rate. In principal, demand can be very high and the daily size of reverse repos is currently capped at \$300 billion.

How does this reserve repo operation matter at lift-off? After lift-off the IOER will go up and the FF rate will follow. But the effective FF rate will likely stay below the IOER because of the large level of excess reserves in the banking system. Thus, the IOER will effectively provide a cap on the effective FF rate. In order to better manage the IOER after lift-off, the overnight (ON) reverse repo facility may be used to provide a floor on

the effective FF rate.

The combination of IOER and ON reverse repo operations means that a broad range of banks and other counterparties are earning interest by actually or effectively making deposits at the Fed. As these interest rates are increased, the cost to the Fed of funding these operations will rise. Some researchers, most notably Professor Marvin Goodfriend at Carnegie Mellon University, have argued that if short-term interest rates rise significantly, these costs will be significant and result in a sharp reduction in Federal Reserve remissions to the US Treasury.

3. Recent developments in the US financial regulations

Then, Dr. Braun turns to discuss US financial regulation. US regulators are very focused on runs in among shadow banks. The collapse in Lehman in 2008 is thought to have been triggered by their losing access to the tri party repo market. The failure of Lehman, in turn, resulted in what looked like classic bank runs on MMFs. The ensuing turmoil led to major interventions by the Federal Reserve to prop up the financial system. To prevent a repeat the SEC has decided that prime institutional MMFs shall have floating net asset values and redemption gates from 2016. This means that prime institutional MMFs will no longer guarantee that a \$1 investment has a minimum redemption value of \$1. Instead the net asset value of these funds will fluctuate over time. The redemption gates mean that a liquid short-term deposit may become a fixed-term deposit in a crisis situation.

From January 2015 banks will be required to make provisions ranging from 40 – 100 percent for large deposits that are considered to be “hot” and thus likely to disappear if the bank is stressed. This has led some banks to start charging fees on large deposits made by companies and hedge funds.

Finally, a new focal point of regulatory oversight is large financial institutions. Financial intermediaries that are designated to be “Systemically Important Financial Intermediaries” (SIFI) face special regulatory oversight and are subject to capital surcharges. Peak surcharges in the US can be as high as 4.5 percent for SIFIs that are heavily reliant on short-term wholesale funding. SIFIs must also submit capital plans that project how capital buffers evolve in severe stress scenarios. The CCAR (Comprehensive Capital Analysis and Review) is a time consuming and costly process for SIFIs and approval is not automatic. Some capital plans have already been rejected and the affected SIFIs have not been able to pursue plans to pay dividends and/or

repurchase stocks.

4. Current developments in other countries

Next Dr. Braun discusses economic conditions in other countries. Economic conditions in Japan and Europe are different in the US. Real economic growth is anemic or negative in other countries. Inflation is also well below target. There are three policy responses to this situation: (1) negative policy interest rates; (2) managed exchange rates; and (3) quantitative easing (QE).

Denmark has been experimenting with negative policy interest rates since 2012. In 2014 the European Central Bank (ECB) and the Swiss National Bank followed suit. There are two rationales: (1) to ease monetary policy by bringing deposit rates and other market rates down, and (2) the best way to lower short-term market rates is to allow the policy rate to go negative since it provides a floor on market interest rates.

How negative can interest rates go? Research from the ECB suggests that policy interest rates cannot go much below -25 basis points in the medium term. If deposit rates are too negative it becomes economical for banks to construct facilities to store currency. Professor Kenneth Rogoff of Harvard University has argued that this constraint on negative policy interest rates can be relaxed if larger denomination notes are banned. In fact, this constraint can be removed entirely if currency is replaced e-money payment systems.

Concerning QE, the Bank of Japan (BOJ) purchases not only a large amount of treasuries but also REITs and ETFs. According to the US experience with QE, the surprise effect of the first round of QE was big but the effects of the later rounds of QE were smaller. One alternative is for a central bank to make a pre-announced commitment to keep doubling down on the size of asset purchases every six months. Most economists agree that such a policy will eventually create inflation, but it is not clear when and how quickly the inflation rate will rise. Moreover, this type of open-ended asset purchase program is constrained by the available supply of the asset they are purchasing. Large purchases eventually will reduce liquidity in these asset markets and liquid financial markets are important for a wide range of business activities.

Transmission of QE to the price level is indirect. As can be seen in Figure2 (the presentation slide page No. 21), the FOMC anticipated inflation forecasts suggest that

they were too optimistic about the effects of QE as the actual inflation rates were always below their forecasts. Forecast errors are also erring on the side of optimism for GDP growth. Sweden has had a similar experience. Dr. Braun interprets this to mean that the transmission channel of monetary policy to the price level and real economic activity is much weaker when the policy rate is about zero and QE is relied on to stimulate the economy.

Professor Neil Wallace at Pennsylvania State University provided a theoretical argument in 1981 for why QE may not be effective. Professor Michael Woodford at Columbia University has recently revisited this issue and shown that the Wallace argument is reasonably robust. However, financial frictions mean the Wallace result will not hold exactly. Dr. Braun feels that there are other extenuating factors: neither QE nor negative policy rates can force banks to lend, and new regulatory restrictions on banks have made it more costly for banks to lend.

Dr. Braun continues by discussing current events in Sweden and Norway. In these countries GDP growth rate is well below 3% and CPI is about zero or possibly even negative. At the same time housing prices are growing and people's debt is also growing more rapidly than their disposable income. On the one hand, unsustainable growth in real estate prices is a problem. On the other hand, it is hard to justify raising the policy interest rate when both real economic growth and inflation are so low.

Instead, both countries are now experimenting with macro-prudential tools. Sweden increased the loan to value (LTV) ratio to 85% already in 2010. Sweden has announced an increase in the risk weight floor for big banks on mortgages from 15 to 25% effective in January 2015. Finally, they have also announced that the countercyclical buffer will be set at 1% effective in January 2015. Similar actions are being taken in Norway. These policies are tailored to reduce mortgage lending by forcing banks to provision more when issuing mortgages. The hope is that these macro-prudential tools will reduce growth in real estate prices without harming the broader economy. This is brand new territory. What is clear is that these measures require coordination between the central bank and other government agencies such as FSA and MOF and this reduces the independence of the central bank.