Bridgewater®
Daily Observations
February 12, 2016

(203) 226-3030
Ray Dalio

What Monetary Policy 3 (MP3) Will Look Like

Monetary Policy 1 was via interest rates. Monetary Policy 2 was via quantitative easing. It will be important for policy makers and us as investors to envision what Monetary Policy 3 will look like. That is what we will begin to explore in today's *Observations* and will flesh out soon in a future *Observations*.

Interest Rates (Monetary Policy 1) and QE (Monetary Policy 2) Aren't Totally Dead, But They're Nearly Dead

To be clear, I don't think monetary policy in the U.S./dollar has fully run its course, but I do think that the Fed has much less ability to squeeze much out of them, and I think that the BoJ's and ECB's abilities are even less, so that all the world's major reserve currency central banks are close to running out of power to stimulate—i.e., they are increasingly "pushing on a string." Let's just take a moment to review the mechanics of why.

Why "Pushing on a String?"

The dynamic of lending in order to finance spending requires both investors/savers and borrowers/spenders (who have very different objectives) to each operate in both their own interests and in a symbiotic way. For example, when a debt expansion that finances spending on goods and services takes place, both a) the investors/savers increase their debt holdings because they believe that they are increasing their assets, and b) the borrowers produce those borrowings (that investors/savers call an 'asset') to increase their spending. When both are going on in a big way (i.e., when debts, financial assets, and spending are rising fast) we have a boom. However, because both savers and borrowers often don't do the calculations very well to determine whether the debt created will be used to produce more than enough income to service the debts, we have busts. So, to understand how central banks' monetary policies work, one has to see things through the eyes of both investors/savers and borrowers/spenders.

You know how changing interest rates affects borrowers/spenders activities, so I won't review that. I prefer to look at the process from the investment side, as that's now more important. Interest rates affect all asset prices because all investments are the exchanges of lump sum payments for a stream of future cash flows, and the interest rate (i.e., the discount rate) is the rate that is used to calculate the present value of these cash flows. All else being equal, the more it is pushed down, the more asset prices will be pushed up**. Quantitative easing has its effects by affecting the behavior of investors/savers more than affecting the behavior of borrowers/spenders because it takes place through investors/savers.** When the central bank buys a bond it does so from a saver/investor who takes the cash to make an alternative investment decision. What they invest/save in makes all the difference in the world. When investing/saving in the sort of assets that finance spending, that stimulates the economy. However, when investing in that sort of asset is unattractive, which is when the "risk premiums" are low and/or they are scared, it does not.

There are two things about the value of money/currency that play into the dynamic that are worth keeping in mind. Remember that all debt is a promise to deliver a specific currency, so when the currency gets more or less

valuable, it affects people's behaviors. Now more than ever that is true, because now more than ever those who have money are exposed to alternative currencies to keep their wealth in or to borrow in. So more money than ever will move from one currency to another based on what people are thinking about how the values of currencies will change. Also 1) when interest rates can't be lowered and relative interest rates can't be changed currency movements must be larger, and 2) when both relative interest rates and relative currency movements are locked together (e.g., in European countries and where there are pegged exchange rates), relative economic movements must be larger. Said differently, to avoid economic volatility, currency movements must be larger. That reality creates "currency wars" and pegged exchange rate break-ups and increased currency risk for investors. Because currency movements benefit one country at the expense of another (e.g., they're beggar-thy-neighbor), if the world's largest economies all face the difficulty of pushing on a string, exchange rate shifts won't create a needed global easing. Nobody intends these wars to happen. That's just how the economic machine works.

So, where do things now stand?

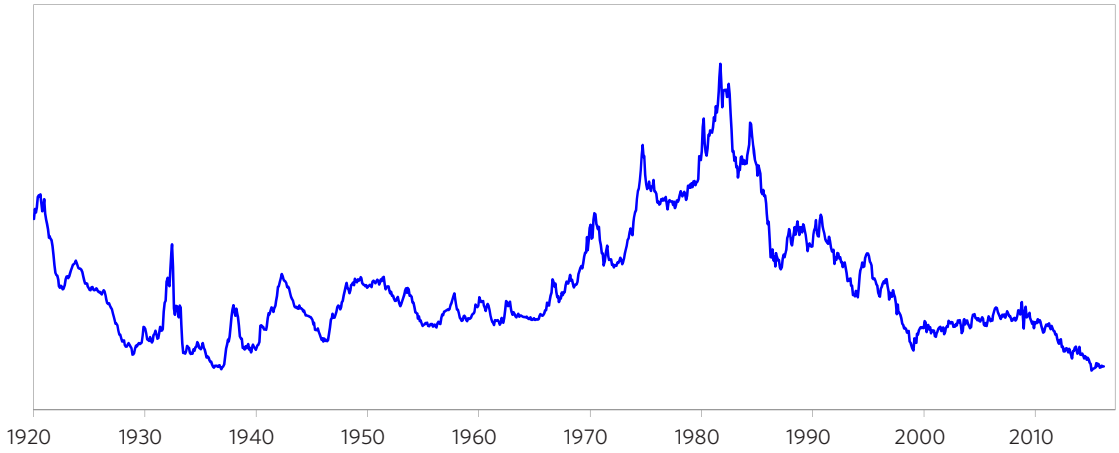
The discount rate is just about as compressed as it can be so the potential present value effect of lowering it is nearly at its end. That's a big thing. In terms of risk premiums of "risky assets," they're not now especially low or high, so there is a bit more to be squeezed out of them, more in the U.S. than elsewhere. Put these two pieces together and it's clear that the future returns of assets will certainly be low, which will be a problem given what the returns need to be to meet our future obligations. Though not pressing, that issue is something that central banks will have to deal with, which helps to inform the picture of what MP3 will probably look like—i.e., they will need more "money printing." From the perspective of an investor, if you look at the level of the returns relative to levels of volatility, the reward:risk could make those who are long a lot of assets view that terrible-returning asset called cash as appealing.

To clarify, if you take less than a 2% bond yield and 0% cash, and you compare that to something like a 4% expected return on equities, the 4% expected annual return pick up of equities over cash, and 2% over bonds, can be lost in a day or two. For example, stocks fell by 5% over the past 10 days. And then there is the feedback loop where a sell-off in the stock market in turn has a negative pass-through effect on the rate of economic activity. All that makes for asymmetric risks on the downside in the US – and the pictures in other countries are even more asymmetrical on the downside as their interest rates are even lower and their risk premiums are nearly gone.

So, how might the current decline in risky assets transpire? To me the question is: to what levels do risky assets need to decline in order to raise risk premiums enough to cause investors who have a long bias (which most all have) to take their cash holdings (or borrow cash) to add to those assets? With the central banks' abilities to be effective in easing to reverse a downturn less than before, the past might not be a good guide. As you know, the thing that I worry about is the nature of that self-reinforcing type of cycle in which falling asset prices have negative economic effects and the limited power of central banks to reverse that with stimulation leaves it in a self-reinforcing spiral. We approach the economy and the markets with that uncertainty.

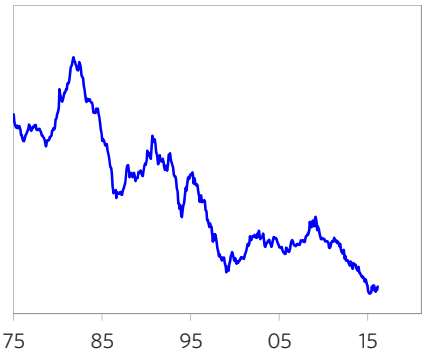
To be clear, my most likely scenario is not that we will have a self-reinforcing downwards spiral, though I recognize it as a possibility. I think that it is more likely that as risk premiums increase and central banks increasingly ease in their ways (mostly via QE), that they will have a beneficial effect. However, I also believe that QE will be less and less effective because there's less "gas in the tank." To convey how much gas they have left in the tank, we created an index based on the previously described drivers. It is shown below for the U.S. since 1920, and for Euroland and Japan since 1975. As shown, for the U.S. it is as low as ever and approximately the same as in 1937. You know our thinking about the 1937-38 analog so I won't belabor the point right here, though I will embellish on it a bit later. In any case, it is why we now need to look beyond QE to imagine what MP3 will look like.

United States "Gas in the Tank"

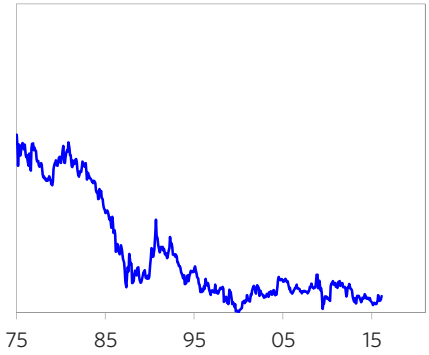


The next two charts show the same measure going back to 1975 in Euroland and Japan.

Euroland "Gas in the Tank"



Japan "Gas in the Tank"



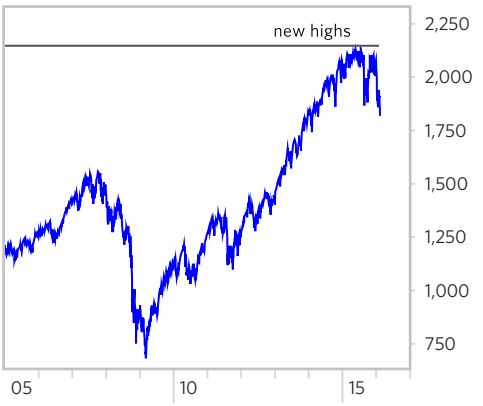
Before giving you the punchline of what I think that MP3 will look like, I'd like to draw your attention to the major reserve currency countries' stock, bond, and currency markets from just before the 2008 financial crisis until now as they help to quickly put some things in perspective for these three reserve currency countries. However, if you want to skip to the punchline, skip this section.

What the Market Action is Conveying

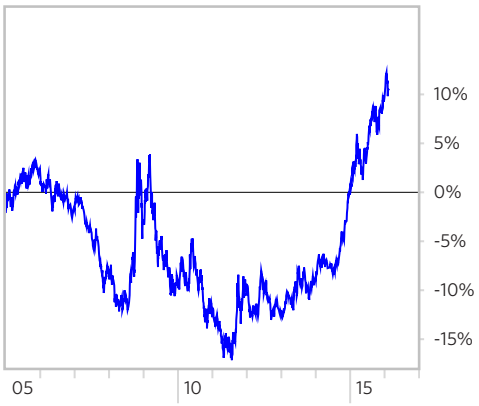
You will note how global weak conditions are increasing the need for stimulation at a time when central banks' ability to use interest rates and QE to stimulate is near all-time lows, creating urgency for policy makers to create the next form of monetary policy. While a lot can be said about these markets and the forces behind them, let's just look at the charts and note the highlights.

In the U.S., stocks (a proxy for the value of American businesses) are about 25% above their 2007 highs when measured in dollars (shown in chart 1) when the dollar also rose a lot (chart 2), so the stock market in global currency terms (i.e., in dollars, euros and yen) has nearly tripled from its lows (chart 3) which is both a) a good sign of both the effectiveness of monetary policy in getting asset prices and the economy turning up and b) a sign that it's a lot more expensive. These stocks are also about 13% below their recent highs in dollar terms and 17% lower in global currency terms (which is significant but not a huge deal). That has happened while U.S. T-bond yields (chart 4) are about 0.3% above their lows (understandable, though low) and trending down (unusual at this stage). The fundamentals behind these charts (which we won't get into) have by and large been pretty good, though not as good as the pricing suggests (because the QE gave assets better behavior than what was justified by just the fundamentals).

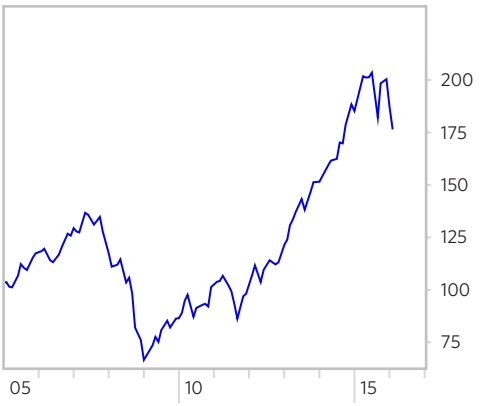
1) USA Equity Prices in Dollars



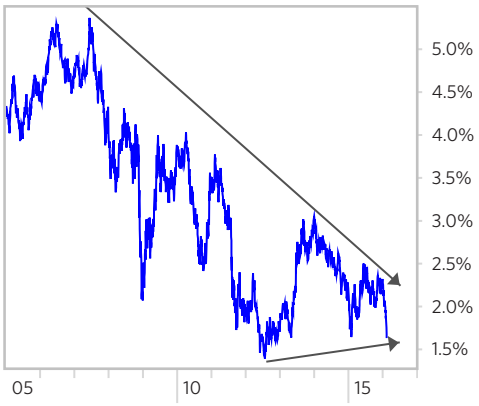
2) USA Real FX vs TWI



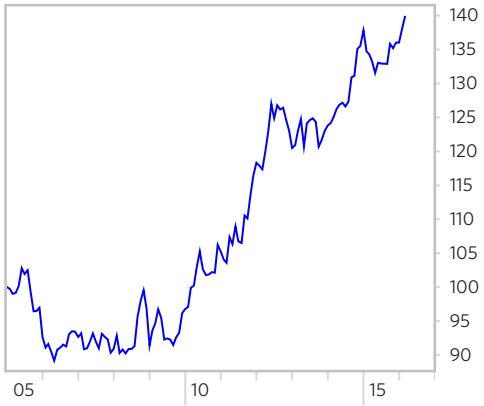
3) USA Equity Prices in Global FX Terms



4) USA 10-Year Bond Yield

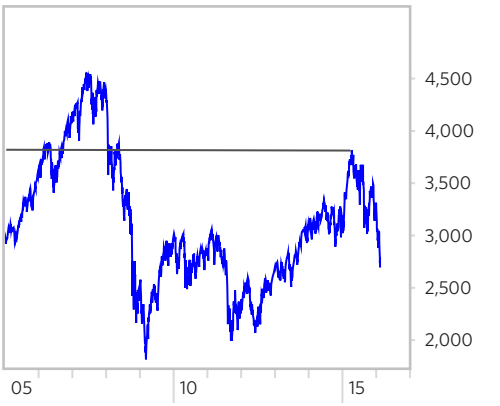


5) USA Relative Equity Prices in Global FX Terms

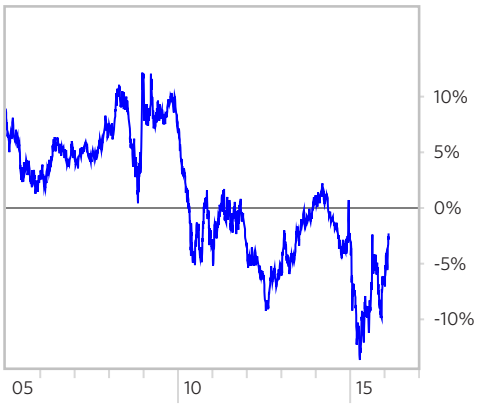


Now look at these charts in Europe. The picture painted by these charts is bleak. As shown, European equities (chart 1) are down 40% below their 2007 highs in euros and down 50% in global currency terms (chart 3) and have recently declined more than 30% in euros (which is a significant negative for growth) and more than 25% in global currency terms because the euro has risen. Note that, compared to other equity markets (chart 5), there has been 6 years of consistent relative underperformance by European equities. This market action has come as both short rates and risk-free 10-year bond yields have basically reached zero (chart 4) meaning there is virtually no more that can be squeezed from further bond purchases. In other words, Monetary Policy 1 and 2 have nearly reached their limits, but the economy clearly needs much more stimulus, which makes coming up with MP3 very pressing. For reasons explained, we think that 2007 (the peak) probably will be for Europe what 1989 was for Japan, for similar reasons.

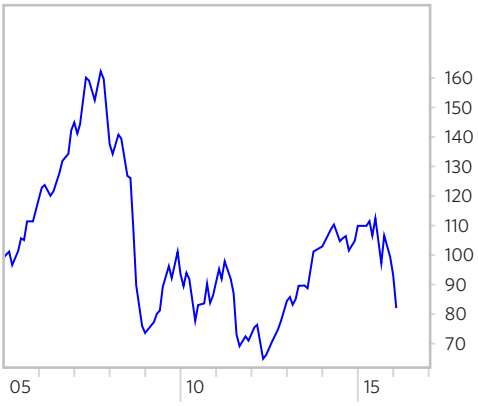
1) EUR Equity Prices in Euros



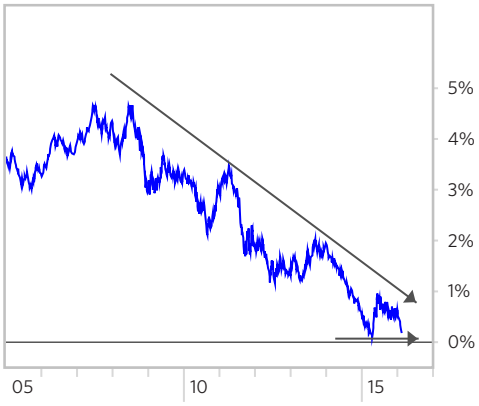
2) EUR Real FX vs TWI



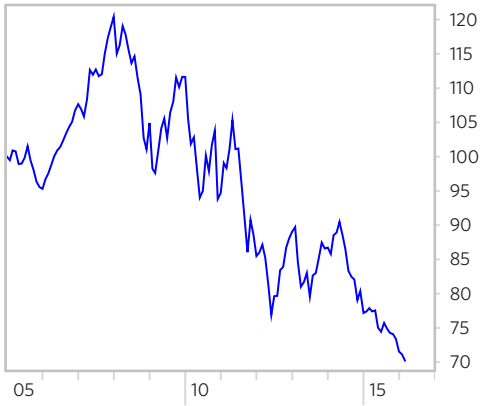
3) EUR Equity Prices in Global FX Terms



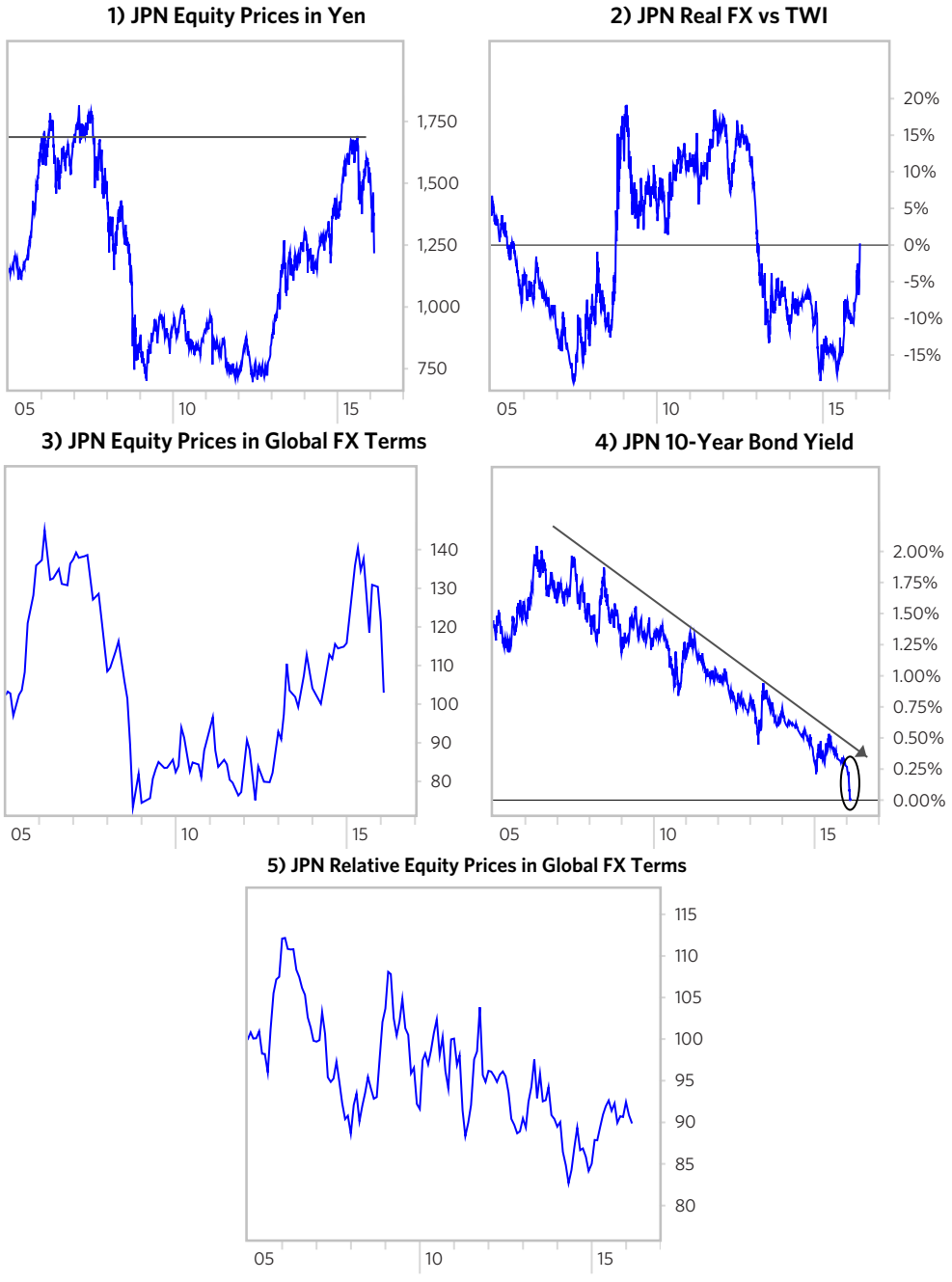
4) EUR 10-Year Bond Yield



5) EUR Relative Equity Prices in Global FX Terms



Now look at the picture in Japan. As shown, Japanese stocks are down 35% from their 2007 highs in yen (chart 1) and down 25% in global currency terms (chart 3). They recently declined more than 25% in yen and 20% in global currency terms (which is a significant negative for growth) because the yen has risen. However, these charts only provide a perspective since 2005; taken back to the 1989 peak, the Japanese market remains down nearly 60% from its peak of 27 years ago. This market action has come as both short rates and risk-free 10-year bond yields have declined steadily and basically reached zero (chart 4)—meaning there is virtually no more that can be squeezed from further bond purchases. In other words, Monetary Policy 1 and 2 have reached their limits. Essentially, they reached their limits many years ago. In fact, what has happened in Japan over the past couple of decades could be a reasonable harbinger of the dynamic that might come in Europe and the U.S. Clearly the economy needs much more stimulus; while more QE would help (mostly through a currency decline), more importantly, it makes coming up with MP3 very pressing.



What Will MP3 Look Like?

Will it be negative interest rates? While we can write a mini-treatise on them (and we will and send it to you), the short answer is no. While negative interest rates will make cash a bit less attractive (but not much), it won't drive investors/savers to buy the sort of assets that will finance spending. Investors/savers will still want to save, lenders will still be cautious, and borrowers who are cautious will still be cautious, so we will still have pushing on a string.

Monetary Policy 3 will have to be directed at spenders more than at investors/savers. In other words, it will provide money to spenders with incentives for them to spend it. How exactly that will work has to be worked out. We will look at the alternatives and the effects they will have on the markets in upcoming *Observations*. However, we can say that the range will extend from classic fiscal/monetary policy coordination in which debt to finance government spending will be monetized to sending people cash directly (i.e., helicopter money), and will likely fall somewhere between these two (i.e., sending people money tied to spending incentives).

To be clear, we are not describing what will happen tomorrow or what we are recommending, and we aren't sure about what will happen over the near term. We are just describing a) how we believe the economic machine works, b) roughly where we believe that leaves us, and c) what these circumstances will probably drive policy makers to do to deal with their circumstances—most importantly that central banks need to put their thinking caps on.

As mentioned, in an upcoming *Observations* we will look into what we think the likely alternatives will be, based on both the cause:effect relationships and what has happened before.