**Thomson-Reuters Global Gold Forum: August 5, 2013**

09:07:11
I'm joined in the Forum now by Campbell Harvey, professor of finance at Duke University's Fuqua School of Business. Professor Harvey (no relation, by the way) has kindly agreed to talk us through his recent research on the relationship between gold and inflation. Professor, welcome.

09:08:05
**Campbell Harvey (Duke University) - Thomson Reuters** Great to be invited to the Forum.

09:08:23
**Jan Harvey** In your recent paper, 'The Golden Dilemma', you note that "in 'normal' times, gold does not seem to be a good hedge of realized or unexpected short-run inflation... (and) the long-run may be longer than an investor's investment time horizon or life span". Can you briefly tell us why you hold that view?

09:09:19
**Campbell Harvey (Duke University) - Thomson Reuters** Sure. People just assume that gold is a good inflation hedge. It is folk lore. In our paper, we empirically measure the ability of gold to hedge "unexpected inflation" (over the short-term), and gold is an unreliable hedge. While it has "average" ability, this ability is driven by a single year, 1980. Over the very long term, gold appears to move with inflation. We have an example that goes back 2,000 years. However, given that gold is so volatile relative to inflation (even with 20 year horizons gold is 4x more volatile than inflation), it is unreliable. Our earlier 2006 paper showed that you were much better off with a diversified portfolio of commodities for inflation protect.

09:10:03
**Jan Harvey** What's your view of inflation over the next decade, and what (if any) inferences can you draw from that about the direction of gold prices?

09:11:27
**Campbell Harvey (Duke University) - Thomson Reuters** Fed balance sheet is at the levels that were experienced at the end of the Great Depression and WWII. It doesn't feel to me like the Great Depression today. The question is whether the Fed can "take back" fast enough. As the economy recovers, the multiplier will increase. We know that employment always lags and I think there will be enormous pressure not to take back quickly. All of this spells inflation. I don't believe there is a chance of hyperinflation. However, it is conceivable that we could experience mid-single digits.

09:12:53
**Jan Harvey** Do you think that'll have much influence, in particular, on gold (which I guess may be influenced as much by expectations of inflation as inflation itself)?

09:17:13
**Campbell Harvey (Duke University) - Thomson Reuters** Gold is highly volatile and an unreliable inflation

hedge. Yes, gold might be impacted by expectations over the longer term. Over the shorter term, there are many other influences which, again, render it unreliable if you are interested in hedging inflatoin.

09:17:28
**Jan Harvey** Why do you think the view of gold as a good hedge against inflation has gained so much capital?

09:18:48
**Campbell Harvey (Duke University) - Thomson Reuters** As I said, it is folk lore. I do think that the long historical evidence has helped build this lore. In the time of Nebuchadnessar of Babylon, a loaf of bread cost the gold equivalent of $3.50 today. That's what I pay for a loaf of bread at my local bakery. The problem is that my investment horizon is not 2500 years. This examples and others are found in my paper, The Golden Dilemma, <a href=" http://ssrn.com/abstract=2078535">Download The Golden Dilemma here</a>

09:19:16
**Jan Harvey** Thanks! If you see the inflation argument in favour of holding gold as invalid, what do you see as the main influences on price?

09:20:09
**Campbell Harvey (Duke University) - Thomson Reuters** The same people that were locking in a -1% real return for 10 years when they were buying inflation linked bonds are the people that were buying gold all the way up to $1,900. I think gold moving so high was a result of the fear trade. Now that things look a little more normal, it is more difficult to make the case. Gold has retreated to $1,300+.

09:22:17
**Jan Harvey** What do you see as fair value for gold currently, and in which direction do you expect them to move in the next five years?

09:23:13
**Campbell Harvey (Duke University) - Thomson Reuters** Our research shows that a "fair" price based on inflation is $800. We look at the real price of gold (nominal price divided by inflation index). This ratio is very much like a PE. When PEs are high, you do not want to buy. When PEs are low, there is a potential buying opportunity. Even though the price of gold has dropped by 33% from peak, the real price of gold is still very high to its average historical level. That's where we get the $800 from.

09:25:42
**Jan Harvey** Great, thanks Cam. A couple of questions from the floor. First off, do you think there's a better measures of inflation than CPI?

09:28:14
a better MEASURE, rather!

09:28:22

**Campbell Harvey (Duke University) - Thomson Reuters** This is a question we get a lot. There are a number of people that think that the government reporting of inflation is incorrect. In our research, we considered alternative measures of inflation and it really doesn't make much difference to our conclusions. Anyways, it is really hard to believe that inflation has been running at 8-10% per year. I think the current methods are closer to reality. Anyways, it is hard to believe that the bond market could be so far off.

09:31:08

**Jan Harvey** Which alternative measures did you consider?

09:33:40

**Campbell Harvey (Duke University) - Thomson Reuters** We looked at Shadow Government Statistics which uses the same method of calculation as in 1990. We also considered different deflators. Again, the message is very similar. The "real" price of gold is high compared to history.

09:35:05

**Jan Harvey** Great. Another question from the floor: when considering gold's role as an inflation hedge (or otherwise), the figure used is almost always U.S. inflation. Is it possible for something to be an inflation hedge in several currencies at once?

09:37:18

**Campbell Harvey (Duke University) - Thomson Reuters** Great question. I have another paper http://ssrn.com/abstract=2148691 called "An Impressionistic View of the 'Real' Price of Gold Around the World". It looks at the real price of gold in 23 different countries, i.e. the local currency price of gold divided by the local inflation index. The paper is called "impressionistic" because is is mainly graphical. The same story emerges. This has nothing to do with U.S. inflation. The real price of gold is high -- no matter what country you are looking at.

09:37:52

**Jan Harvey** And a last one: how have your ideas been received by the market so far? Do you think investment professionals are open to the idea of gold not being an inflation hedge?

09:41:53

**Campbell Harvey (Duke University) - Thomson Reuters** When we first released our paper in June of 2012, it was greeted with scorn by many. Given the gold price has headed downwards since we released our research, many are reassessing their earlier critiques. Our paper is the first paper to test the idea that gold is an inflation hedge. Even the most recent episode is a good example. If anything, inflation expectations have increased over the past year (you can see this many ways). During this time the price of gold has fallen -- exactly the opposite of what you would want as a hedge. Yes, I think investment professional (after being hammered with a 1/3 loss on their gold holdings) are reassessing -- they are learning the hard way.

09:43:23
**Jan Harvey** Many thanks, Professor Harvey. Glad you could join us.

09:44:34
**Campbell Harvey (Duke University) - Thomson Reuters** You are welcome, Jan.