For professional investors and advisers only

Schroders TalkingPoint

2014 Crystal Ball

Alan Brown, Senior Adviser

November 2013

Introduction

Here's what I said in our Crystal Ball in December last year:

> …We have a historically extreme valuation differential between equities and government bonds in the developed world in favour of equities. Investors need to consider how best to reflect that in their asset allocation structures."

Alan Brown

Senior Adviser

We argued that we were exposed to a range of possible binary events that we could not predict but that we might have to respond to.

> …. Aside from the US fiscal cliff, there are understandable concerns over economic growth in both the eurozone and China. Any further deterioration in the eurozone could once again raise concerns over the stability of the euro itself. And the Middle East has the potential to provide shocks from either a spreading of the Arab Spring or from conflict in Iraq."

At the time of writing last year, 10 year US Treasury yields were around 1.8%. Yields ground lower to trough at 1.6% in May before rising to their current level of 2.75%. Meanwhile equities continued to provide healthy returns. The S&P500 index rose by 13.4% in 2012 and at the time of writing is up a further 24% in 2013. Relative returns from equities vs. bonds have therefore been excellent. I will return to where we think we stand today in relative valuation terms shortly.

Meanwhile, some of our worst fears in terms of binary events thankfully did not happen. As is so often the case, other concerns have arisen to take their place! Arguably, however, while never wanting to drop one's guard, the world seems a somewhat more stable place as we enter 2014 than it has for several years. Developments in Europe have significantly reduced the likelihood of a near term disorderly collapse of the eurozone. The balance of payments crisis in the peripheral countries has abated. Growth, while still at very modest levels, has picked up. After years of austerity Greece has brought its primary balance (revenues – expenses before debt service costs) back into surplus. Europe has bought itself some time. The question now is how will it use it? Can a proper banking union be formed? Will the eurozone move in the direction of a proper fiscal transfer union with all of the associated implications for sovereignty? As we said last year, Europe remains a multi-year project!

It has been a time for pulling back from the brink, at least for the time being, in many places: Syria, Iran, and the US government shutdown and debt ceiling.

Where then do we stand today?

World economic growth continues to be lacklustre. Five years after the Great Financial Crisis, only two major economies, the US and Germany, have output running above pre-crisis levels. Even then, output is way below trend levels. The balance of growth has however shifted, with developed economies now making the running while many of the major emerging economies, each for their own reasons, have slowed down.

In spite of recent good performance, the intrinsic value of equities still appears reasonable, if no longer extremely cheap. Developed government bonds, in spite of a 1% increase in yields, still appear historically very expensive with real yields barely positive. Not surprisingly therefore, relative valuation arguments still favour equities. It is worth spending a moment thinking about where we stand in the process of normalising interest rates. After all, at the time of writing, tapering of quantitative easing (QE) has yet to start and we are "guided" that short-term interest rates will remain close to zero for some time. In a business as usual world, nominal interest rates might average something close to nominal GDP growth rates, say 4.5% (2% inflation, 2.5% trend growth in the US). With a normal upward sloping yield curve, the 10 year Treasury might yield 5.5%, double today's level. The adjustment process has a long way to go, and even a yield of 5.5% assumes that the inflation genie does not get out of the bottle, a subject we shall develop in a moment. We have had the wind in our back in bond markets for over 30 years. It would be a brave person who believes that can continue for the next five or ten years and that has some fundamental implications for the way in which we should manage fixed income assets.

In a very general sense, the returns we make from an asset class are a function of the environment for that asset class and our approach to it. If the environment changes, it would be unwise in the extreme to expect the same approach to yield the same results. For much of the past 20 years "core plus" style fixed income mandates have dominated, particularly in the institutional market place. Risk is managed relative to the benchmark and deviations are quite tightly controlled. In essence one hopes to capture the benchmark return plus a little. These strategies work very well when you are in an environment of declining yields with the wind in your back. If you think the wind is now no longer in your back and may indeed be swinging round to be in your face, then moving towards a total return type strategy, rather than benchmark relative, makes a great deal of sense.

Emerging equity markets have lagged the US by some 30% year-to-date. 12 months ago the mantra was that, compared to the developed world, emerging markets had better growth, demographics, fiscal and current account balances, debt to GDP, and healthier banking systems. Now concerns have swung to slowing growth and fears of capital flight from emerging markets as a by-product of tapering QE in the US. Since most of the fundamental attributes still remain unequivocally in favour of emerging markets, this is creating a value opportunity as growth expectations get reset to more realistic levels. While it is never possible to time the bottom, and at times it can feel like grabbing at a falling knife, emerging markets may provide some of the best rewards in 2014.

The start of the end of an easy money era?

We can argue about the timing, but few doubt that we are nearing the end of QE, at least in the US if not in Japan, and that very, very gradually the extraordinarily easy monetary policy of the last several years will be withdrawn. This raises some very important questions that will play out over the next few years.

- Will monetary policy be tightened so slowly that the inflation genie will be let out of the bottle; alternatively will it happen too quickly so that the world gets tipped back into the next recession before we have even really recovered from the last one? Is deflation then the greater threat?
- What do we know about how asset prices perform in different inflationary environments? After all many of the assets we own today didn't even exist the last time we experienced high inflation in the 1970s.
- Can we realistically forecast inflation?
- Is it good enough to forecast inflation, or do we need to worry about what type of inflation we may get; endogenous, exogenous, stagflation etc.?
- Finally, can we build cost effective portfolios that will give us a good measure of protection without having to accept an array of other risks?

These are the questions that I want to concentrate on in this year's Crystal Ball. And in doing so, I am reminded of a quotation often attributed to Einstein: "Everything should be made as simple as possible …but not one bit simpler!"

The case for inflation

The case for inflation centres around the extraordinary growth in central bank balance sheets of some $8 trillion dollars in the last five years or so, and a fear that these assets will be monetised as bank lending recovers before central banks can take the stimulus off the table. Indeed, the monetary base in the US and Japan continues to grow. Around a further $2.7 trillion could be added by 2015. The more cynical of us may also believe that the authorities may regard a degree of inflation as being the "least bad option" to reduce the real level of the debt burden on the next generation.

Central banks in inflating their balance sheets have done so by acquiring vast quantities of Treasury and other securities. Quite by design they have been price insensitive buyers. What happens when they stop buying, but Treasury departments keep issuing, will, to say the least, be interesting. Price sensitive buyers, pension and insurance funds, and banks, will presumably have to take up the slack. How rapidly bond yields rise to more "normal" levels, and how that affects equity markets will be key, and is a topic I will return to later.

It is worth noting though that inflated central bank balance sheets will not be monetised until two actors, notable by their recent absence, get back on to the stage, willing borrowers and willing lenders. Even then, central banks have more policy weapons in their locker than perhaps we acknowledge. So, for example, excess reserves at a central bank can, in principle at least, be sterilised over night by simply increasing the reserve requirement. Excess reserves then simply become required reserves.

The case for deflation

Currently G7 inflation is decelerating against a backdrop of spare capacity. All the evidence from Japan suggests that persistent output gaps tend to lead to deflation. Granted that output gaps are hard to estimate and not all the spare capacity will really come back, but it is hard to argue, with growth everywhere well below trend, and in most cases still below pre-crisis levels, that there is not significant surplus capacity. Unemployment levels remain elevated almost everywhere, suggesting that wage inflation should remain low, and commodity price inflation, in the face of low global growth, also remains subdued.

Near term we believe that deflationary forces dominate and inflation risks, absent an unanticipated supply shock, are still some way down the road. Equally though, it would be unwise to discount the inflation arguments further out, even if they are absolutely not a forgone conclusion. We have at least one example of a country getting out of a debt bind without unleashing high inflation. The UK post war had debt/GDP in excess of 200%. This declined to under 50% by the early '70s. A goldilocks scenario of moderate growth, moderate fiscal deficits and moderate inflation, allowed nominal GDP to grow at a fast enough clip to bring debt ratios down. That period was associated with rapid growth in the work force (increasing female participation) and high productivity growth. Who knows whether we get so lucky again, but we could. The work force, for example, could grow through raising the retirement age!

Asset prices and inflation

What then does history tell us about the relationship between asset prices and inflation? First we must acknowledge that we don't have much empirical data to draw on. We only have one recent period of high inflation in the major developed economies in the 1970s, and many of the inflation sensitive assets that we own today were not around at the time.

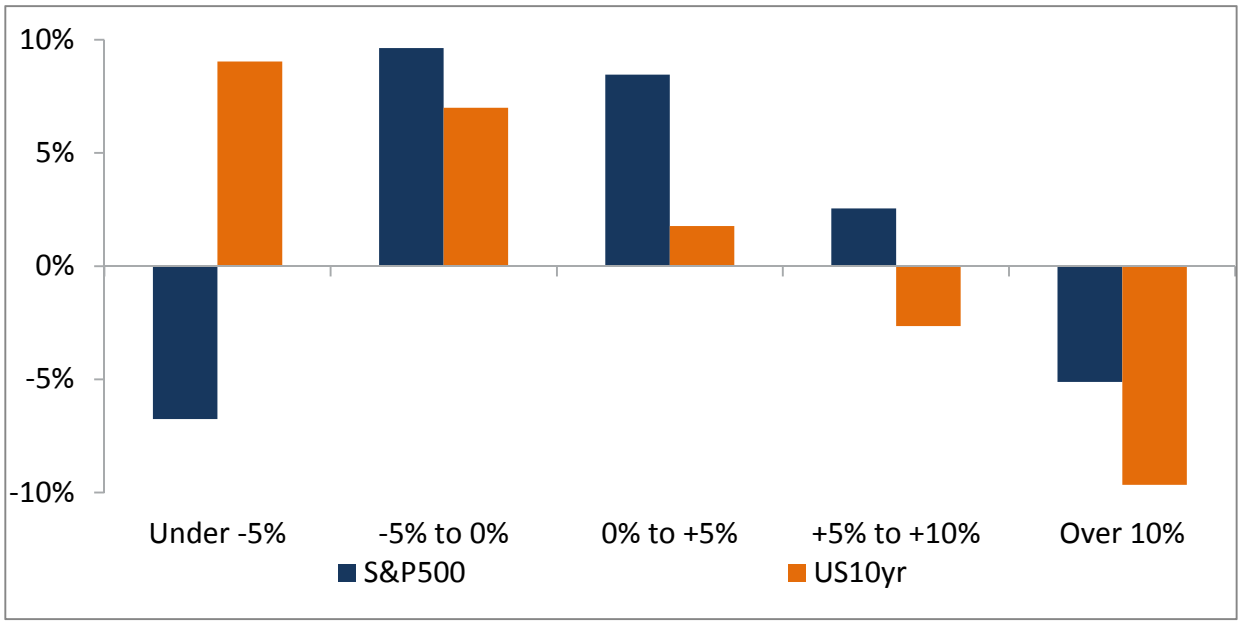
Price History of Assets/Indices	Year
Crude Oil	1861
Corn, Wheat, Copper, Tin	1877
Gold (post Bretton Woods)	1971
REITs	1971
UK Index-Linked Gilts	1981
EMFX	1993
Infrastructure	1995
US TIPS	1997
Leveraged Loans	1997

Sources: Crude Oil: BP, Corn/Wheat: CBOT, Copper/Tin: LME, REITs: FTSE NAREIT, EMFX: JPM ELMI, Infrastructure: Alerian, Leveraged Loans: S&P/LSTA

It is nevertheless interesting to see how asset prices have performed in different inflationary environments.

Equity and bond real returns at different inflation rates, 1900–2011

Median 5-year real return (annualised)



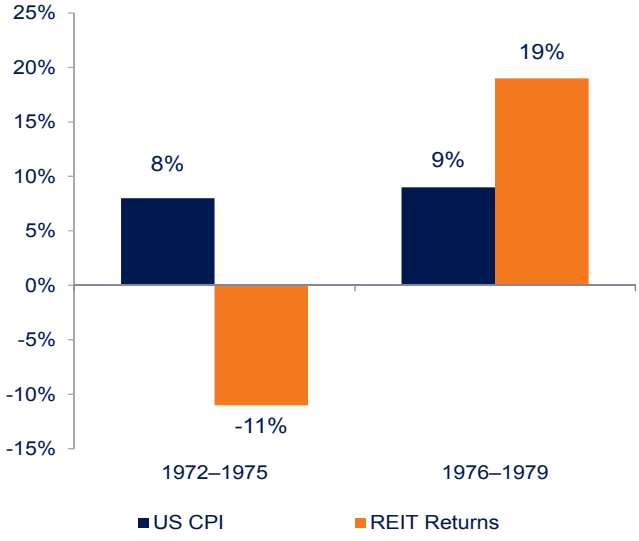
Source: Thomson Datastream, Schroders, 31 December 2011. 5-year rolling periods using monthly data

With such evidence as we have, we see the perhaps unsurprising result that there appears to be a monotonic inverse relationship between bond returns and inflation/deflation: the higher inflation, the lower bond returns are. With equities we see a more complex relationship where extremes of either inflation or deflation produce poor equity returns. Moderate inflation or deflation has been associated with relatively buoyant equity returns. We must caution though that we really only have one observation of deflation (the depression) and one of inflation (the stagflationary '70s).

Looking more closely at the '70s, we can see that inflation is not the only driver of returns. Inflation from 1972 to 1975 (8%) was very similar to inflation from 1976 to 1979 (9%) yet asset returns from both REITs and Copper were very different.

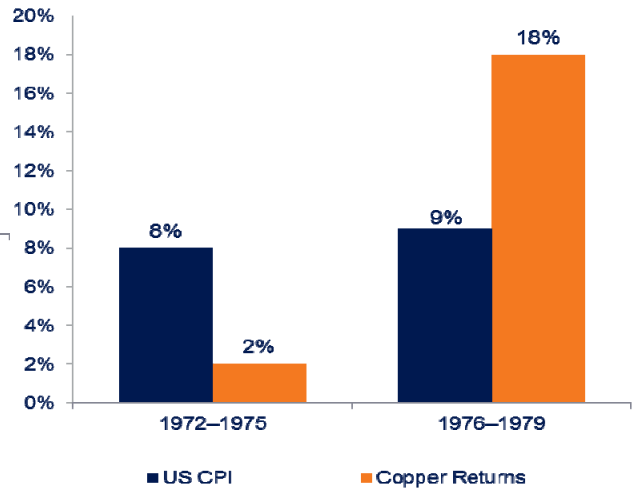
REITs' in the 1970s

Annualised return, %



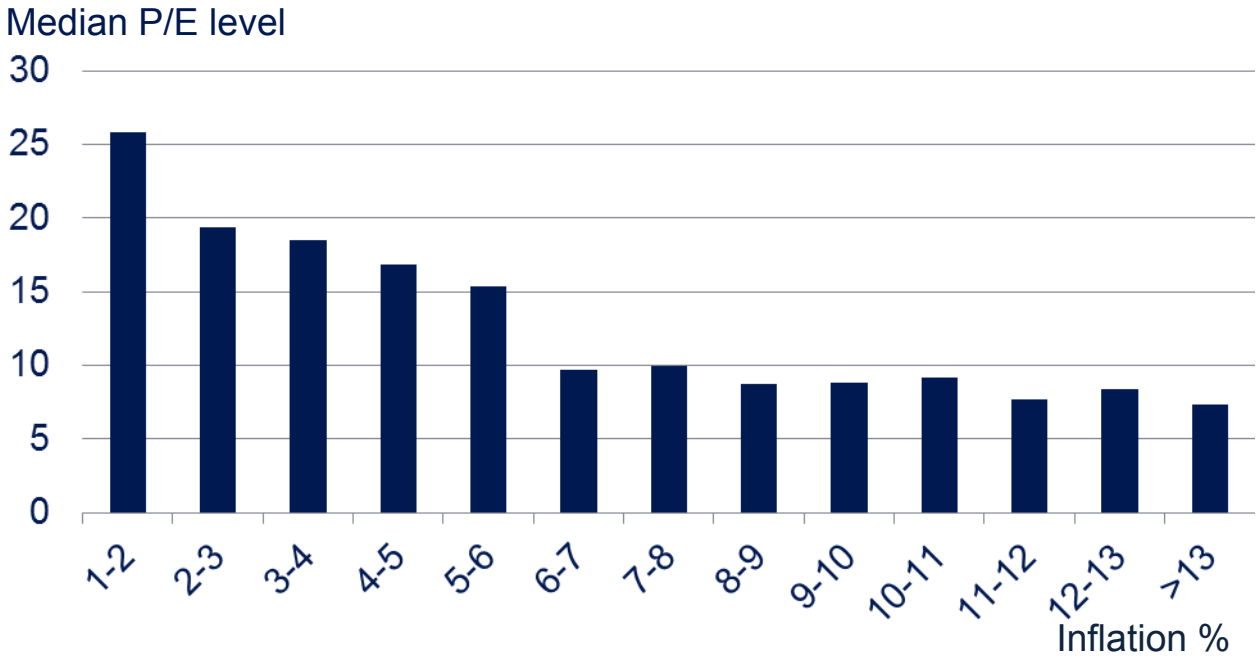
Copper in the 1970s

Annualised return, %



Source: FTSE NAREIT, Federal Reserve Bank of St Louis, LME, Datastream, Schroders, 30 April 2013. Monthly data January 1972 to December 1975 and January 1976 to December 1979

We also have the work of Robert Shiller at Yale who has found an inverse relationship between price earnings ratios and inflation. High inflation, low P/Es and vice versa. And if you express the relationship the other way round, there is a positive correlation between earnings yields and inflation which sounds intuitively reasonable.



Note: Based on trailing price-earnings ratios of the S&P 500. Source: Schroders, Thomson Datastream, 22 March 2012

Shiller's work and the experience of the 1970's suggest that it is the 2nd derivative of prices that matters, not the first. What is important is whether inflation is accelerating or decelerating and not necessarily the absolute level. We may also draw one other conclusion. The bear market of the early 1970s was particularly brutal because we were experiencing stagflation as a result of the tripling in oil prices. Inflation was accelerating, so P/Es were falling at the same time as earnings were declining, the proverbial double whammy! So remembering Einstein's adage, we are not only going to have to think about whether inflation is accelerating or decelerating, but also the type of inflation. Stagflation, for example, is likely to produce a very different outcome to inflation generated by an over-heating economy. Protecting a portfolio from endogenous (internally-generated) inflation may require a very different portfolio structure to one designed to withstand exogenous (externally-generated) inflation.

Forecasting inflation is not easy. If we just look at the record of central banks in the period 2001 – 2013, we see a depressing picture. While the Bank of England is often criticised for its ability to forecast inflation, its record is by no means the worst. If we look at a selection of Central Banks which set targets for inflation, we see the following picture:

Success rate 2001-2013 (percentage of months that inflation was within target range)

Bank of England	**76%**
European Central Bank	**36%**
Bank of Canada	**76%**
Royal Bank of Australia	**54%**
Royal Bank of New Zealand	**61%**

Source: Bloomberg, Schroders, 31 March 2013

So what can we conclude so far?

- Inflation is hard to predict, which means that we may have to "purchase" protection well in advance.
- We have to be concerned about not just the level of inflation, but whether it is accelerating or decelerating, and what type of inflation we are experiencing: Of first order importance, are we experiencing stagflation or demand generated inflation, and then is that inflation exogenous or endogenous. Equities are highly unlikely to provide protection in a stagflationary environment, but may do under demand-driven inflation, provided increases in inflation expectations are not out of line with earnings growth.

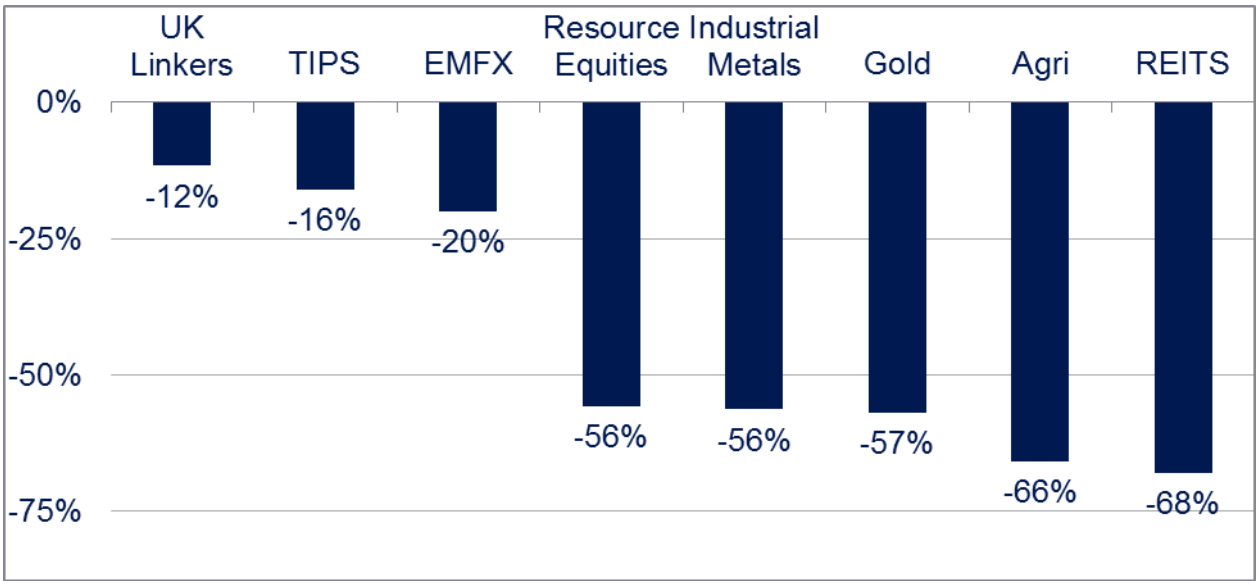
To quote Ben Bernanke from 2002: "One important concern in practice is that calibrating the economic effects of non-standard means of injecting money may be difficult, given our relative lack of experience with such policies". So nobody really knows!

How we respond to inflation threats may also depend on where we are. So, if we just consider endogenous and exogenous inflation and the portfolio structures we might want:

- **UK and many Asian Countries**
  - Endogenous inflation – hold foreign assets un-hedged
  - Exogenous inflation – hold index-linked bonds and commodities
- **US**
  - The one country where endogenous and exogenous inflation may effectively be the same thing!
  - Hold index-linked bonds and commodities
- **Canada**
  - A country which can potentially build in protection against both endogenous and exogenous inflation at the same time
  - Hold non-Canadian assets un-hedged (endogenous)
  - Resource economy (natural protection against exogenous)

There is no such thing as a single inflation protection portfolio. Potentially we may want to consider all sorts of assets which have an apparent link to inflation of one form or another but the trouble is that holding those assets exposes a fund to all sorts of other factor risks.

Max drawdown %



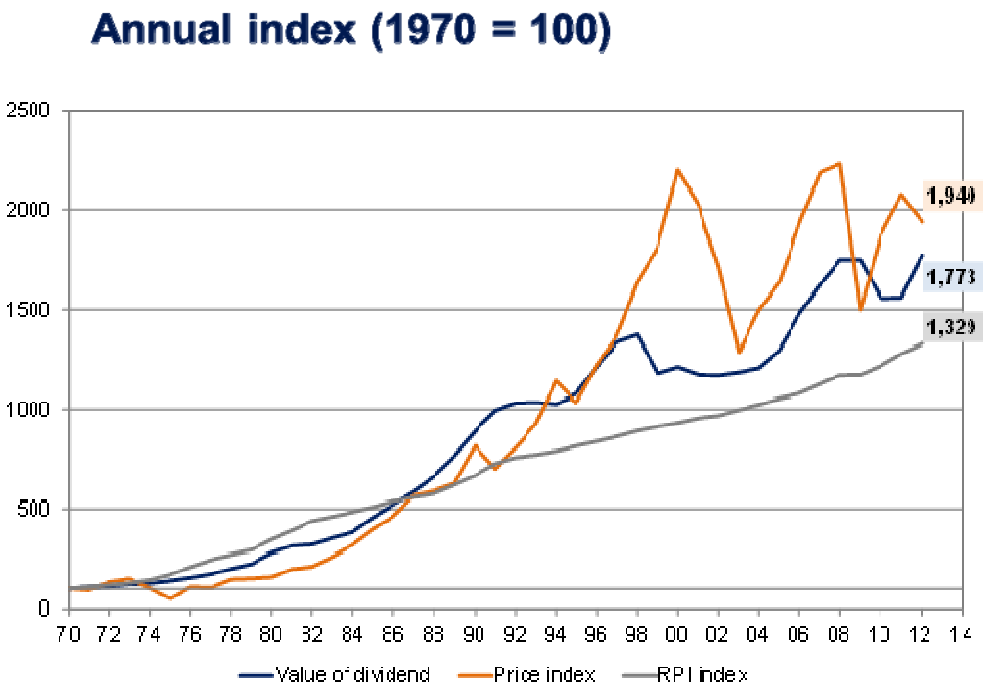
Source: Bloomberg, Thompson Datastream, REIT.com, Heriot-Watt University, Schroders, 30 April 2013
Calendar month total returns. UK Linkers: Heriot-Watt Index, December 1993 to July 1994; EMFX: JPMorgan ELMI+, July 2008 to February 2009; Resource Equities: 50% S&P500 Energy, 50% S&P500 Materials, June 2008 to February 2009; Industrial Metals: GSCI, January 1980 to July 1984; Gold: spot, August 1980 to January 1985; Agriculture: GSCI, November 1974 to August 1977; REITs: FTSE NAREIT, January 2007 to February 2009; Oil: WTI, May 2009 to January 2010. Sectors and securities are mentioned for illustrative purposes only and should not be viewed as a recommendation to buy/sell

While protecting against inflation is certainly not easy, all is not quite lost. The regulatory environment that most pension funds and insurance companies (but not sovereign wealth funds or endowments and foundations) operate in sometimes makes it difficult to act as a long-term investor. Short-term pressure to maintain solvency margins or funding ratios can get in the way. However, there are assets that in the long-term have a good probability of matching or beating inflation, even if in the short-term they provide little or no protection.

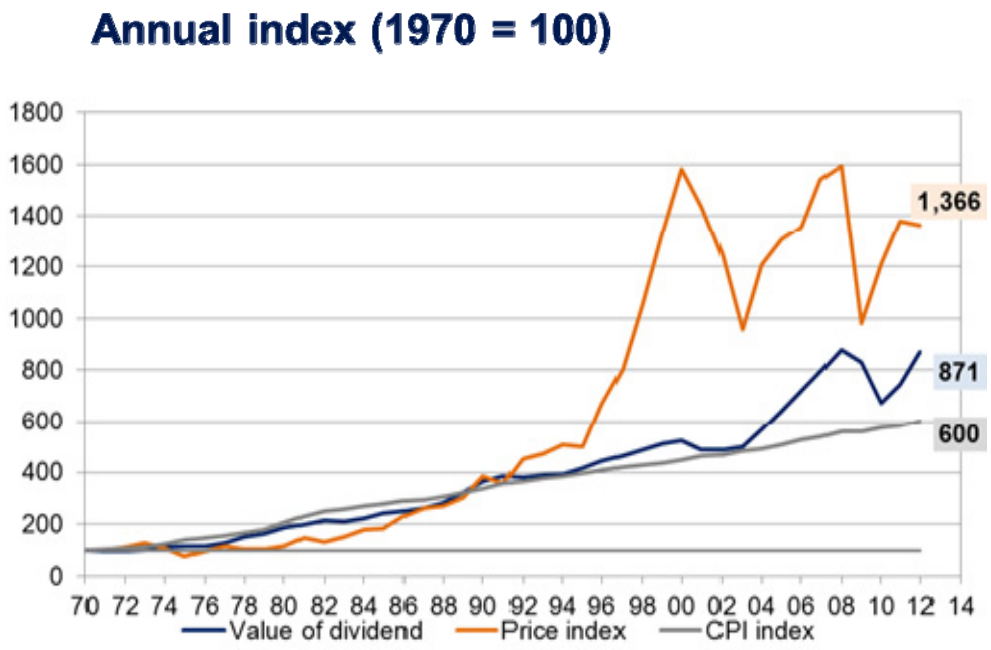
Stock dividends are paid out of nominal earnings and nominal earnings include both inflation and growth. Provided in the long-term we experience growth, nominal earnings should grow faster than inflation. Unless dividend pay-out ratios decline on a secular basis, then dividends also should grow faster than inflation. A similar argument can be made for other income streams such as property rental income.

What then is the record? In the UK, £100 of dividend income in 1970 has grown to be £1,773 as at the end of 2012. Over the same period cumulative inflation grew to £1,329. Dividends out-stripped inflation by 33% and note that we are not including other forms of income distribution such as stock buy backs. It wasn't always rosy. In the inflationary '70s, while dividends grew, they grew more slowly than inflation and didn't catch up until the mid '80s.

In the US the record was even better. $100 of dividend income in 1970 has grown to $871 – a premium of 45% to cumulative inflation which rose to $600.



Source: UK All Share Indes: Thomson Datastream, Schroders



What else can we do?

We can understand our risks better. It is one thing to understand the sensitivity of our liabilities to rising or falling interest rates or inflation, but we also need to understand the asset side of our balance sheet and how that will respond. The correlation of bond and equity (and other risk assets) returns is relatively low in the long-term but that masks the fact that we can experience high positive or negative correlation in the short- to medium-term. We have experienced both in the last five years. We therefore need to understand our sensitivity to changes in correlation. We have to think of our portfolio on a holistic basis, considering assets and liabilities simultaneously.

We need to understand the role of income in managing risk. The more that a fund's cash flow needs can be met from naturally arising income (dividends, coupons and the like) the less risk there is that we will need to sell capital assets in a down market. Being forced to sell in a down market can very quickly have a devastating affect on one's capital stock.

And we need to understand the importance of managing down portfolio volatility as much as we can. There is a very real cost associated with volatility as it compounds the problem of potentially having to sell assets in a falling market.

Conclusion

How then can we best summarise our views today?

- Although equity valuations are clearly not as attractive as they were a year ago, they still represent reasonable intrinsic value and they still look cheap relative to bonds.
- In the medium term we may face significant risks from inflation or deflation. It is impossible to say today with any degree of certainty which is more likely.
- We need to think long and hard about how well our portfolios are structured to withstand changes in inflation. It is a complex problem that we must not make too simple! But it is a problem that we can analyse. We may not be able to protect ourselves in advance. That holy grail is probably unattainable or unaffordable for almost all of us. What we can do is:
    - Measure the sensitivity of our liabilities (net of any hedges) to changes in interest rates and inflation
    - Measure the sensitivity of our assets to changes in correlation
    - Consider the impact of changing the size or make up of our growth assets and how that may change the interaction between our assets and liabilities (volatility)
    - Try to cover as much of our cash flow needs as possible to minimise the need to sell capital stock in a falling market

Meanwhile, when you have done that, very best wishes for the holiday season and here's to a prosperous New Year!

Important Information: