

Inflation, uncertainty and portfolio management

Dr Susan Gosling | MLC | 1 January 2014

Robust investment processes recognise that the future is uncertain. We can never be sure what the future will hold. Risk is not an abstract concept. Risk is real things going wrong, such as inflation rising or growth disappointing. Risk is negative returns for investors. Today, we face a complex and difficult investment environment in which the range and extent of the risks we face is greater than normal. One of those risks is higher inflation. An important question today is whether the extraordinary monetary policies of central banks will result in higher inflation.

1. THE CAUSES OF INFLATION

There's a huge literature on the causes of inflation. In short, it is triggered initially by either rising costs of production or demand growing faster than supply:

- Demand factors: income (mainly wages and employment, also interest rates and taxes); sentiment (job security, market volatility); and wealth effects (house prices, interest rates, share prices).
- Supply factors: include changes in the labour force and productivity, plus the influence of global supply factors (globalisation, terms of trade and changes in comparative advantage)
- Expectations: expectations of future inflation play an important role in inflationary processes but are an initial trigger only in rare circumstances.

Macroeconomic policy influences inflation via its effects on supply and demand. Monetary policy affects the inflation rate through the decisions of households and companies to spend versus save. Lower interest rates make it more attractive to borrow and also reduce debt servicing costs which frees up income to spend on other things. Of course the composition of spending matters – if the borrowing is to fund productive investment then eventually supply increases which is disinflationary; whereas higher consumer spending adds to inflationary pressure in the short term. Shifts in supply and demand factors can lead to a relatively benign transitory adjustment in prices; or to a more persistent inflationary process with rising inflation built into expectations. While all price rises eat into the purchasing power of a given sum of money, it is the persistence of inflation that presents serious challenges for maintaining the real purchasing power value of an investor's portfolio.

2. ARE WE FACING AN INFLATIONARY FUTURE?

Today's ultra-low interest rates and quantitative easing are potentially inflationary. Such accommodative policy is intended to offset the deflationary forces of debt deleveraging. The challenge policymakers face is withdrawing the stimulus to avert inflation without choking off the nascent recovery. They are hoping for a middle ground in which the recovery becomes sustainable while inflation expectations remain well anchored which permits real growth to exceed real interest rates. Whether or not this middle ground exists is unknown. If it does not policy choices will hinge on whether the greater evil is inflation or unemployment. Relative to the Eurozone, the US and UK and belatedly Japan's policy setting suggest a bias to greater inflation flexibility.

Some of the arguments for and against an inflationary future (many of which are inter-related) are outlined in the table below. Many common arguments on both sides can be described as partial rather than general equilibrium. This is an important distinction, partial views focus on first round effects (such as the increase in demand from an increase in investment) rather than the full spectrum of impacts (which includes the ultimate increase in capacity or productivity). It is also notable that current market pricing is reflecting a presumption that inflation won't be a problem, which creates a vulnerability in the event that turns out to be incorrect.

One thing is clear. We cannot be sure whether or not today's deflationary forces will transition into inflation. And if they do, both the timing and the extent of such a transition are both uncertain and imply that we should be worrying about inflation today.

Figure 1: Are we facing an inflationary future?

Why inflation won't be a problem	Why it could be a problem
Global deflationary forces are dominant and persistent.	There are strong deflationary forces; but the greater these are the stronger will be the monetary response – making an eventual inflationary breakout more likely because of the difficulty in knowing when to pull back the monetary stimulus while not choking off the recovery.
QE is ineffective and even the US economy is not close to 'normality'	Policymakers want inflation. They know that inflation speeds up and facilitates resolution of the public debt problem. In the past 'money printing' has ultimately led to

<p>High unemployment in the developed world makes it less likely that wages will be a source of inflation. Skills shortages are anyway more likely to generate relative than generalised price shocks (as seen with the recent mining boom).</p>	<p>inflation.</p> <p>Skill shortages can mean that wages rise despite high overall unemployment. This can be a particularly important phenomenon where labour forces are shrinking. This appears to be an emerging issue, it is for example affecting a number of industries including the Japanese construction and US auto (see below for a further discussion).</p>
<p>There is also thought to be ample spare capacity.</p>	<p>The US may now have absorbed much of its spare capacity. Also unused capacity does not last forever, and in any case firms adjust prices before full capacity is reached. It is uncertain how much spare capacity there really is in developed economies.</p>
<p>Globalisation weakens the bargaining power of labour and this holds wages down.</p>	<p>China has been an exporter of disinflation (though this is offset by higher energy and resources prices); but wages have risen significantly and some manufacturing has switched back to the developed world (the US shale gas revolution and issues with outsourcing have also been drivers of this). US wage rates are rising, lifting incomes by around 2% in the most recent data. And there are reports of skills shortages.</p>
<p>Investment remains low (though this is a negative for productivity and capacity and hence inflation in the long term).</p>	<p>Post 2008 investment has been low; this may mean productivity growth potential is low which increases the risk of cost-push inflation. Also, the extent of labour shedding in the US in the great recession likely exacerbates this issue.</p>

Consumer spending is constrained by limited wage growth. Workers have relatively weak bargaining power.	The labour share of income is at unusually low levels; this has happened before but always reverted. While the timing of any reversion is uncertain there are obvious risks here.
Policymakers are aware of the mistakes made in the 70s and won't repeat them.	While today's policymakers remember the lessons of the 1970s, the relationship between unemployment and inflation can shift in a confusing way. This may be a greater risk than currently appreciated.
Inflation expectations remain well anchored	Policymakers are over confident that the lessons of the past have been well learned. They have forgotten how quickly inflation can rise and how difficult it is to reverse expectations of higher inflation.

Source: MLC Investment Management, 1 Jan 2014

3. WHAT CAUSED THE GREAT INFLATION OF THE 1970S?

It is well understood that the 1970s inflation was not just about rising oil prices. Shocks to particular prices – energy, resources in general, and in the US food in particular – added to what had already become an environment of rising inflation. An early 1960s recession transitioned into rising inflation by mid-decade with supply unable to keep up with demand following permanent personal and corporate tax cuts and a rising Vietnam war impost. The 1970s price rises were not concentrated in commodities – the US CPI excluding food and energy grew at 11.3% versus the headline rate of 12.2% in 1974. The primary channels via which specific price shocks were transmitted to the underlying rate was rises in production costs including hikes in wage rates. The result was both generalised inflation and rising unemployment (ie stagflation).

The 70s are remembered most for the dramatic rise in the price of oil as Western control waned with the rising power of the OPEC cartel. While rises in commodity and food prices were important, they don't explain the cause of the persistent inflationary process. The great inflation was in part at least a consequence of erroneous economic beliefs and pursuit of low unemployment by policymakers, and entrenched expectations that inflation would continue (coupled with bargaining power of labour supported by strong trade unions in some sectors).

Both fiscal and monetary policymaker's understanding of the economic framework evolved through the 70s, but reliance on a series of misguided models resulted in repeated policy mistakes and reversals, and consequently, in persistent inflation. Most importantly policymakers relied on the existence of a low 'natural' rate of unemployment that was believed to be consistent with stable inflation – they underestimated the non-accelerating inflation rate of unemployment and hence held interest rates too low. The balance between inflation and unemployment depends on the extent to which higher wages and prices result in higher nominal demand. Three principal factors determine whether one-off price rises mainly change relative prices, or translate into a general rise in prices:

- how stable inflation expectations are;
- The bargaining power of labour; and,
- the most important factor, which both influences the other two and responds to them, the extent to which policy is expansionary or contractionary.

The consequence of policymaker misunderstanding was that policy was expansionary when tightening was required. Inflation was blamed on special supply-side factors, but well before the oil price shocks in 1970 inflation was already rising not only in the US but in all major industrialised economies. The exchange rate regime undoubtedly played a role in this early phase of the great inflation. Under the Bretton Woods system of fixed exchange rates, the US dollar was the anchor with guaranteed convertibility into gold. This meant that the monetary policies of those in the system were linked to the monetary stance of the US.

During the 1960s the system comprised an over-spending core (the US) and a periphery (UK, Europe and Japan) which was committed to export led growth supported by undervalued exchange rates. The result was increasing holdings of US dollars by the periphery with insufficient US gold reserves to provide believable backing. Not surprisingly the system collapsed when inevitably President Nixon cut the link with gold in 1971. By then the commitment of the periphery to fixed exchange rates had already resulted in international transmission of US inflation. Excess US demand spilled over into the periphery and was not offset by their domestic demand management policies. Germany and Japan in particular continued to hang on to undervalued exchange rates even as the system was disintegrating because they were worried about a slowing economy and rising unemployment. The belief in a natural low rate of unemployment (in the early 60s President Kennedy set a 4% unemployment rate as being consistent with full employment) was clearly widespread and it resulted in expansionary policy when a demand contraction was called for.

Eventually policymakers worked it out. Under the new view, which still prevails, output is understood to be limited and inflation is controllable through demand management policies. However, getting policy right still requires understanding the balance of supply and demand – which can be difficult when structural shifts in variables such as productivity and capacity occur.

4. THE RELEVANCE OF THE 70S

While any future inflation scenario will be different to past episodes, it is instructive to look back in particular at the 1970s. Those under 45 won't have experienced an inflation scenario as an adult and will be less aware, for example, how difficult it can be to keep track of inflation while it's rising. Not only do expectations lag reality but the economic data flow may be likely to be less accurate.

The severity of the rise in inflation in the 1970s took just about everyone by surprise, particularly the first episode of double digit inflation when the US rate went from 3.4% in 1972 to 12.2% in the year to November 1974. The UK experience was even more dramatic with annual retail price inflation rising to 27% in August of 1975 (the 90 day bank bill rate at the time was just 10.4%), though it did start with a higher base (the average was 8.2% during 1970–72). The volatility of inflation made it difficult to know what the rate actually was until sometime after it had occurred. A characteristic of the 70s was the frequency and extent of data revisions, though this is likely a general rather than a 70s specific issue. When price rises are high the margin of statistical error and the impact of incomplete information are also higher. This is a characteristic that could recur in any future episode.

Today there are of course differences with the 70s that reduce inflation risk, and others that increase it. Some factors that promoted inflation persistence in the 70s may be less relevant today; and conditions particular to the current environment that were not a feature of the 70s may either raise or reduce inflation propensity. For example, the power of trade unions to extract wage rises is weaker than the 70s, which makes a repeat of a wage–price spiral much less likely. Adding to this globalisation and associated trends in out-sourcing are factors that help explain why labour's share of output is low relative to history in developed countries, notably in the US. Against this, flow on effects from the aggressive labour shedding that took place notably in the US during the great recession may increase inflationary pressure during the recovery. In general firms retain their most productive workers, which means that as they re-hire average productivity per worker declines. Given the extent of labour shedding in the US, productivity growth seems likely to decline as the growth recovery persists unless there are offsetting factors, though this does not necessarily mean that productivity reverts to pre-crisis levels¹. Much of the increase in multi-factor productivity came from labour-saving technology which will not reverse.

For example, the US auto sector production is approaching pre-crisis levels and employment has risen by around 150,000 since the recession, but remains around 100,000 lower than pre-crisis levels. As these figures suggest, productivity in the auto industry is at all-time highs (around 40% higher than in 2000). Investment in operational improvements, including more flexible shift and overtime arrangements, and new technologies has restored US auto industry competitiveness. This sounds disinflationary, except that the industry now relies on more highly skilled workers, who are already in short supply. Manual dexterity is no longer enough, collaborative cross-skilled problem solvers able to take greater responsibility are

required. Manpower Group reports that despite continuing economic uncertainty a “substantial portion of employers in the U.S. and worldwide identify a lack of available skilled talent as a continuing drag on business performance”². Concerns about a ‘skills gap’ is reportedly widespread in the US manufacturing sector, particularly in the skilled trades. This is a constraint that is exacerbated by aging of the workforce which is reportedly particularly acute among the skilled trades³. Japan has the most extreme workforce aging problem, anecdotal reports of skills shortages seem to be increasing. There are also reports of growing shortages of skilled workers in the UK⁴ and even in Europe⁵. This does not augur well for either maintenance of current levels of productivity or for a stable trade-off between unemployment and inflation.

This has parallels with the 70s. In the 70s productivity declined which confused policy makers because it changed the relationship between growth and inflation. This is particularly important at a time of relatively high unemployment because if inflation rises while unemployment is still unacceptably high – even if they are not confused by the shift, policy makers face a dilemma. We should not underestimate the political imperative of reducing unemployment. Policy aimed at reducing demand when unemployment is already high is not for the fainthearted.

5. THE ROLE OF EXPECTATIONS

Changing inflation expectations are necessary for a persistent inflationary process. Putting aside skill shortages, even if it is difficult for employees to achieve wage rises that keep up with inflation, changes in the propensity to spend and a downshift in productivity growth could see a more generalised cost-price uptrend develop. If there is increased variability in the inflation rate, the 70s experience is that this is key in shifting expectations upwards.

Expectations play a key role in supporting a persistent inflation. The effect of rising prices on spending patterns is most readily observed during hyperinflations, there is a scramble to convert cash into goods or assets prices as soon as it is received until ultimately no one is prepared to accept cash. Even expectations of modestly rising inflation engender an understanding of higher prices tomorrow. Other things being equal this tends to increase spending and reduce savings today (this tendency also depends on expectations about future real wages). And central bankers worried about unemployment and overly sanguine about inflation could unwittingly allow this process to persist. Central bankers undoubtedly understand the importance of maintaining their inflation fighting credibility. But there is danger of complacency. Just as before the financial crisis it was commonly but falsely perceived that the developed world was in a new era of moderation and low risk, today there is risk in regarding inflation as yesterday’s problem.

Members of the UK’s Monetary Policy Committee have talked about this risk and have recognised the vulnerability in being too relaxed about a rise in inflation. But recent UK inflation dynamics give pause for thought. While UK inflation has on the latest data just

moved back into the target range, it has been persistently above the 2% target for the past three years and for much of that time over 3% (peaking at 5.2% in 2011) and yet policy has not been tightened. Inflation expectations have risen in response, but the Banks of England's view is that expectations have "shown little sign of becoming permanently de-anchored". If the policy committee waits for evidence that expectations have become de-anchored the inflation genie will already be out of the bottle.

Figure 2: Factors likely to affect inflation

Factor	Factor likely to be a problem in a future inflation scenario?
Lags and errors in data	Yes, when inflation is high and volatile
Wage-price spiral	The bargaining power of labour is considerably reduced versus the 70s. This reduces the risk of a wage price spiral. However demographic trends and skills shortages are counter to this.
Structural shifts in productivity and capacity	Yes, arguably more likely than normal in the post financial crisis world, particularly in the US where labour shedding was a strong feature of the great recession.
Policy maker sensitivity to high unemployment	Yes policymakers are highly sensitive to unemployment, even independent central bankers.
Inflation expectations	Policymakers may be too sanguine about inflation expectations being grounded well enough that they will be immune to modest rises in inflation.

Source: MLC Investment Management

In summary, both history and logic suggest supply shocks generally present the greatest risks to inflation stability – while these are by definition not self-sustaining, if coupled with policy settings that are too easy they can trigger an inflationary process. Supply shocks can occur very inconveniently, but a shock is not necessary to ignite an inflationary process.

Trend changes in production costs or mark-ups are the more likely concern at present. Additionally, inflation could be purely expectations driven if it dawns on consumers that they cannot rely on central banks to protect the real purchasing power of their money, the incentive is to convert cash now into goods and other assets. Given the extent of what is effectively “money printing” this is not a farfetched suggestion. The laws of economics predict that (other things being equal) if you massively increase the supply of something its price falls. When that something is money itself, what you can buy with it falls (ie prices generally rise). Adding to this a combination of demographic and productivity factors could also contribute to higher inflation.

In the current environment policy could fail to contain a severe localised price shocks or more particularly a broader creeping inflation from transitioning into a more generalised inflation because of concerns about the rate of unemployment. While the lesson of the past 20 years is that the credibility of inflation targeting means second round effects of price shocks are limited, that perspective may have created a vulnerability which is greater than is appreciated. Central banks have learnt not to respond to supply-side shocks but let them wash out (as for example with the carbon tax locally).

6. PORTFOLIO MANAGEMENT IN AN UNCERTAIN WORLD

Inflation is something that we need to be concerned about today. This is not because inflation is likely to rise; rather it is that if there is a persistent rise in inflation it will present some significant challenges to the maintenance and ability to grow the real purchasing power of investor’s portfolios. These challenges arise in part because of a presumption factored into market pricing that inflation will remain benign.

Since the GFC, inflation has been very subdued globally, driven primarily by:

- Ample spare capacity; both production and labour.
- Globalisation weakening the bargaining power of labour, and
- Inflation expectations remaining well anchored

Benign inflation has been very fully factored into the market pricing of securities, whether they be equities, bonds or commodities. This presents likely asymmetric risks for asset markets. A continuation of the recent disinflationary trend would, at best, validate current asset pricing. However, a meaningful upward movement in inflation could prompt a fairly rapid and significant repricing of asset prices. Bond yields would be the first to go up, but equities would follow this bearish trend unless real growth provided a strong enough offset.

Robust investment processes need to take into account the things that *could* happen, rather than relying on an ability to predict what *will* happen. The empirical evidence overwhelmingly supports the notion that even basic variables such as economic growth and inflation cannot be reliably forecast. Studies show that forecasters are good at extrapolating an already

existing trend. Consequently ability to predict recessions is virtually unheard of (there are undoubtedly behaviour factors at work – doomsayers are rarely thanked for being right)⁷ For forecasts to be useful they must take into account that something important could change.

This inability to forecast economic variables with reasonable accuracy implies that investing by predicting market outcomes is extremely uncertain. It means that returns are at the whim of market outcomes, rather than within the manager's control. In other words, betting on your expected view of the future gives outcomes that have not been controlled for when you are wrong. And since forecasts very rarely predict recessions, there is an obvious vulnerability in such adverse periods when it is least tolerable⁸.

To avoid disappointment, if the extent of negative returns matter to investors, it is necessary to consider the ways in which they might arise. The only reliable way to do this is to take into account the different futures that could unfold rather than seeking forecast the one future that will occur. Only once in possession detailed information about what could go wrong and what this could mean for markets, is a portfolio manager equipped to ensure that exposure to negative outcomes is controlled. This approach takes into account that there are always risks and that a choice has to be made in positioning a portfolio about the extent to which these risks are controlled for – inevitably risk control reduces return in more positive scenarios.

Inflation plus funds

A new generation of diversified funds, called 'inflation plus' or 'real return' portfolios, is attracting increasing interest. These funds have been unshackled from the constraints that apply to traditional diversified funds. The most important difference lies in the move from relative to total (after inflation) return objectives. While traditional funds can take into account the sources of forward looking risk and, generally the focus is on out-performing a benchmark or achieving a ranking in peer tables; the inflation plus funds focus is on after inflation returns and the reliability of those returns. The differences in objectives result in differences in investment strategy: traditional funds have relatively fixed asset allocations defined around debt-equity mixes; while inflation plus funds have very flexible asset allocations which move dynamically through time as prospective risk and reward fluctuate. In effect, investors in traditional funds have placed a lot of faith in markets rewarding risk; while inflation plus investors are relying to a much greater extent on their investment managers. The increased interest in the inflation plus funds is not simply a fad; it reflects a fundamental change in understanding of market behaviour.

7. BEYOND THE 1970S: THE LEAD-UP TO THE FINANCIAL CRISIS

After the 1970s, there was a two decade period with a rising tide that lifted all boats. The reasons for this lie in what had happened to investor expectations and policy maker behaviour by the early 1980s. Inflation expectations were stubbornly high, interest rates were high to squeeze inflation from the system and return expectations for risk assets such as listed shares were low (ie share prices were very low relative to earnings). However, the anti-inflation stance adopted by US Fed Chairman Paul Volker and other central bankers was successful and this set up a prolonged period of falling inflation and prosperity which lifted both bond and equity markets. There were hiccups along the way but all the investor had to do was wait and risk asset allocations were rewarded with higher returns. There was little that an active asset allocation approach could add in that world. This era persisted for so long that it came to be regarded as normal. The lessons from earlier more difficult times were either forgotten or regarded as irrelevant.

The era ended in the way that the most positive periods tend to do, with a classic asset price bubble centred in this case around technology stocks and the emergence of the internet. The tech bubble and bust foreshadowed more than just another boom-bust event. It marked the end of the era of disinflation and heralded more difficult economic and investment times ahead. In an effort to induce calm in share markets and underpin positive growth central bankers in fact created more instability. The Fed adopted a monetary policy stance which permitted a level of demand which was unsustainable. The tradeoff in this case was not between consumer price inflation and unemployment, but asset price inflation and economic growth (or unemployment). A tacit Bretton Woods look-a-like period emerged with the US as the core again and emerging Asia as the periphery. As in the 60s, the periphery pursued export-led growth via undervalued exchange rates, and the US failed to curb excessive domestic demand which resulted in a rising current account deficit. Growing holdings of US dollars by foreigners searching for a home prompted shrinking risk premiums and excessive risk taking. This ultimately ended with the financial crisis and great recession of 2009.

In response to the great recession policy makers then embarked on an unprecedented level of policy stimulation, the consequences of which are still unfolding. We no longer have the luxury of the disinflationary tailwind of the 80s and 90s, and we know that we face headwinds to economic growth due to a prolonged debt deleveraging cycle. Coupled with this is concern that asset prices that are being driven higher than is ultimately sustainable by the deliberate actions of policy makers.

The usual pattern is that investor's expectations run well ahead of reality, today it is policymakers forcing investors to take risk by making safe assets less safe (in particular, by reducing the cash rate below the expected inflation rate). This makes the current investment environment extremely challenging. It creates unfamiliar risks. Most importantly it means that if unacceptable negative returns are to be avoided, investment strategy needs to take into account the extent and sources of risk and how these are changing through time. It is inadequate to measure risk in a single number such as a standard deviation (or worse, the

so-called 'standard risk measure'). Risk management should be concerned with avoiding significant negative returns. Negative returns arise as a consequence of real economic events and changes in investor's attitude to risk and understanding of what the future might hold. To control for the risk of unacceptable negative returns we need to consider the things that could go wrong well in advance of those events looking likely. In other words the time to worry about what a higher inflation scenario could look like and consider how best to control for inflation risk is now.

ENDNOTES

1. For further information refer to "The Auto Industry: In Search of New Talent amid Changing Skills Requirements" in Area Development on-line (<http://www.areadevelopment.com/automotive/2013-auto-aero-site-guide/auto-sector-skilled-workforce-needs-29292741.shtml>).
- 2 <http://www.manpowergroup.us/campaigns/talent-shortage-2012/>
3. See "Americas Skilled Trades Dilemma: Shortages Loom As Most-In-Demand Group Of Workers Ages" Joshua Wright, Forbes magazine, 3 July 2013. <http://www.forbes.com/sites/emsi/2013/03/07/americas-skilled-trades-dilemma-shortages-loom-as-most-in-demand-group-of-workers-ages/>
4. "Skills shortage leads to pay rises in 'two-speed' jobs market", Roland Gribben, The Telegraph, 8 Oct 2013, <http://www.telegraph.co.uk/finance/jobs/10361720/Skills-shortage-leads-to-pay-rises-in-two-speed-jobs-market.html>
5. "Alarm over skills shortage in Europe" by Richard Milne, Financial Times, 26 May 2013. (<http://www.ft.com/intl/cms/s/0/51dc6cca-c145-11e2-b93b-00144feab7de.html#axzz2pCqXDku3>)
6. Inflation targeting and flexibility', Ian McCafferty, Member of the Monetary Policy Committee, Bank of England, speech 14 June 2013.
7. For a useful summary see "Economists are (still) clueless" by John Maudlin in Thoughts from the Frontline, 15 June 2013.



Dr Susan Gosling is Head of Investments at [MLC](#). She joined MLC's Investment Management Team in October 2002 and holds 24 years of investment management experience. She has been the architect of MLC's market-leading scenarios based approach to asset allocation, which is the foundation for MLC's Strategic Overlay.
