Inflation Series Part 2: A structural-cyclical framework to assess inflation

Introduction

In Part 1 of our series on inflation, we emphasised that inflation is the result of an imbalance in demand over supply, that is, demand intentions that exceed the economy's capacity to supply them. We demonstrated this with a popular measure of net demand; the output gap. In this second instalment we take our discussion a step further by introducing a framework to apply these concepts on a practical basis.

An alternative way of approaching the assessment of inflation

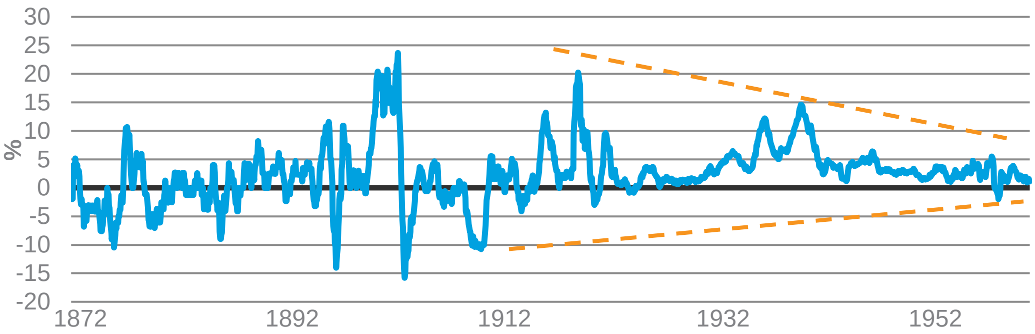
Most conventional analysis tends to generate a list of demand and supply side indicators, which eventually is reduced to a smaller set that performs 'best' after testing their efficacy in signalling inflation. In addition, they tend to be gross measures rather than net measures i.e. indicators of demand alone or supply alone. While gross measures of demand and supply can be reliably used, their application should always be in reference to what the impact is on net demand - if a factor causes inflation to rise, it is because it has disrupted the balance between demand and supply.

Now if the intention is to pick the best indicators that correlate with inflation, a simple and cost effective way could reasonably be to just persist with indicators such as the output gap shown in Part 1. We agree that this can be a fairly sound strategy, and certainly very much a mainstream practice. However we believe stronger guidance is possible with an adjustment to this approach.

Inflation trends can change over time

The motivation for this comes from the fact that inflation over the years can change considerably. Therefore a one-size-fits-all tool pack that fails to account for this may not be adequate. A visual illustration will show what we mean.

Chart 2a. Inflation trends in the last 150 years



Source: Thomson Reuters, Federal Reserve, June 2017

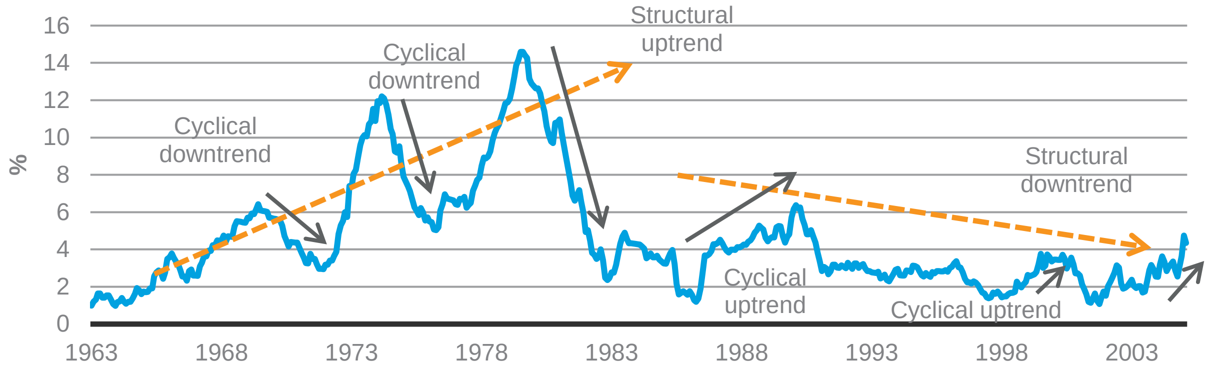
Looking at US inflation over nearly 150 years, one can easily see that inflation was not always consistently present; in fact deflation happened fairly regularly until the mid-20th Century (see Chart 2a above). Prior to 1950, inflation-deflation cycles regularly occurred, with large peaks and troughs. General price volatility gradually declined after the mid-1950s.

While one could argue that pre-war trends might no longer be relevant, inflation trends and patterns still occur in more recent years, and hence do matter for investors. So the need to assess inflation appropriately remains an important exercise. We will show this in more detail below.

The importance of viewing inflation trends as structural or cyclical

Chart 2b shows inflation over the last 50 years or so. Inflation can be seen trending up from about the mid-1960s, with the increase becoming more intense after about 1966, before peaking around 1980. The trend then reversed, strongly at first, then more gradually from the early 1990s. However notice that during the entire period, including when inflation was trending up, there were also sporadic bouts of disinflation (falling inflation). For example, during the structural uptrend from the mid 1960's to the mid 1970's, inflation decreased for more than a year around 1971, but soon resumed rising to hit a new high in 1974. Similarly, the structural downtrend of inflation after the mid-1980s also had intervening times of significant rising inflation.

Chart 2b. Structural and cyclical inflation in recent history



Source: Thomson Reuters, Federal Reserve, June 2017

An investor in 1971 could easily believe that the rising inflation trend from the mid-to-late 1960s was over because inflation was falling at the time, and therefore, devise a long term strategy expecting things to return to the old, lower 'normal' inflation,. However, by the end of 1972, that strategy would be proven wrong. This emphasises the importance to investors of distinguishing longer term trends from shorter term moves.

This also shows that even when the fundamental long term behaviour of inflation moves in a given direction, shorter term cyclical patterns can occur at the same time. And it is not always clear just by looking at the existing inflation number alone whether a structural change is underway or whether the observed inflation changes simply reflect the current business cycle. It is this challenge that leads us to suggest the demarcation of inflation into structural and cyclical components to enable more effective decision-making processes.

Note that this is different to dividing inflation into demand pull inflation and cost push inflation, which are just broad descriptions of the sources of inflation: demand driven and supply driven. Furthermore demand-pull and cost-push inflation can be (but need not be) both structural and cyclical at the same time. In our suggested classification, rather than focusing on whether inflation is supply or demand driven, we focus on whether it will be persistent or not, and the intensity of the forces impacting it.

Using our approach, if inflation rises because it is driven by forces that usually change only gradually, and whose effects tend to persist, we would say that inflation is rising structurally or that inflation is structural in nature. On the other hand if inflation is due to forces whose effects are more short-lived, where the influencing factors are elements that move with the business cycle, we would say that inflation is changing cyclically.

Final thoughts and conclusion

As we saw earlier in Charts 2a-2b, if investors are able to ascertain if observed inflation trends are structural or cyclical then we believe a more appropriate response can be devised. For example, if an investor can identify that inflation is rising cyclically but not structurally, they could retain an appropriate long term strategy but use available cyclical indicators for tactical investment decisions.

Naturally, it's important to know what we believe the 'best practice' structural and cyclical indicators of inflation are. This will be explored and discussed in the next two instalments of our inflation series. As an aside, note that structural and cyclical indicators need not be mutually exclusive in their impact – some indicators can have both effects. For example, income trends can have a structural effect on inflation while short term income movements might be better cyclical indicators. This will be discussed more fully in forthcoming segments of our inflation series. Part 3 will focus on structural inflation while cyclical inflation will be covered in Part 4.

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