

## Regime Change: Inflation

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Dr Robert Gay | Fenwick Advisers | 04 December 2017

With the nomination of Jerome Powell for Chair of the Federal Reserve Board, we hear much speculation about whether a change in Board members will alter the course and conduct of US monetary policy. Strong Chairs, including Paul Volcker and Ms. Yellen, have managed to guide policy in times of dramatic change in the economic landscape. Mr Volcker reshaped America's future by breaking the wage-price nexus of the 1970s. Ms Yellen will be remembered as the architect of extricating the Fed from the extraordinary policies undertaken in the aftermath of the Global Financial Crisis.

Mr. Powell faces a much less tangible challenge that he and the Board are in danger of missing altogether. Namely, the world has changed dramatically over the past three decades, and the analytical tools underpinning monetary policy have not evolved in tandem. Economists often refer to such transformations as regime changes. The challenge will be to develop new tools that fit the new world order. In short, central bankers are flying blind and are in need of upgrading their radar systems. For that matter, so are other policymakers, planners and anyone else who must use projections as a basis for their judgments and decisions.

At the top of the list of the causes of regime change are globalisation and technology, which tend to be catch phrases that subsume many possible causes but nonetheless are overarching phenomenon that have changed the way the world works. Other sea changes – including the saving patterns of aging populations, China's meteoric industrialisation, Asia's savings glut and a widening gulf in wealth inequality – have also contributed to the breakdown of old economic norms.

To be sure, many of these forces are interrelated and mutually reinforcing. What matters to investors are whether these changes are long-lasting and hence might somehow justify current lofty valuations.

Let's focus on three regime changes that in my opinion are critical to addressing prospective risks and returns.

First, the long-standing inverse relationship between inflation and economic slack seems to have weakened dramatically. If so, investors would no longer need to fear that excess demand would cause inflation to rise as much as it did during past cyclical peaks.

Second, the norms for real interest rates have declined and now hover close to zero. Central bank bond purchases surely have contributed to this aberration, but so have changes in

saving behavior and in wealth distribution, neither of which seems likely to change anytime soon.

Third, business investment has been persistently weak despite record profits, a hoard of excess cash in corporate coffers, unprecedented access to cheap financing, and near-record longevity to the current business cycle. New business models do not require as much bricks and mortar as the old industrial expansions and that begs the question of what will sustain full employment once central banks remove their stimulus.

I'll focus on the first of these regime changes in this commentary because price and wage determination underpin the other two conundrums as well.

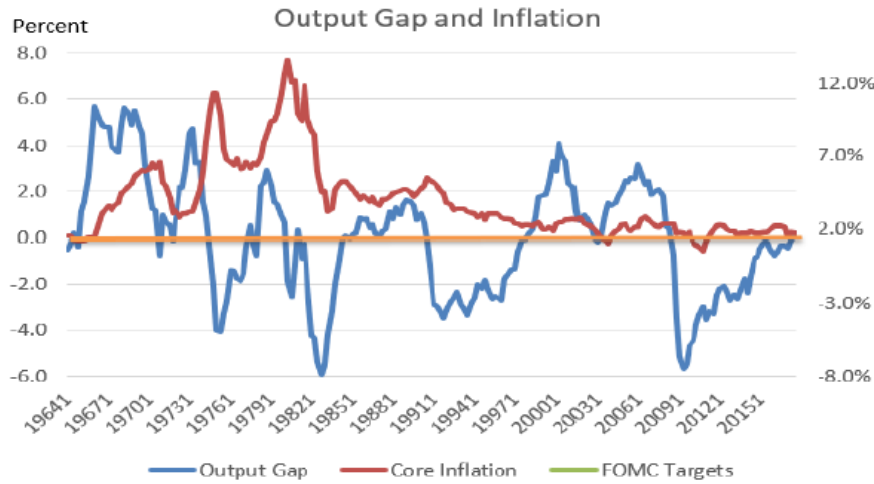
My message is that technology and globalisation have fostered a dramatic rise in returns to scale and thus to monopolistic pricing. In many sectors, prices are set as a markup over unit costs that often decline or are flat as sales increase. That real-world framework runs contrary to the assumptions of competitive capitalism that are deeply embedded in our economic psyches and forecasting models. That ideal world no longer exists, if indeed it ever did.

#### THE DEMISE OF THE PHILLIPS CURVE

Almost 60 years ago, an economist named A.W. Phillips published an empirical study that showed periods of low unemployment were associated with rising inflation. The finding was intuitively plausible and meshed nicely with economists' belief in how competitive markets should work – namely, prices rose when resources including workers were in short supply. By the 1970s, however, that inverse correlation was coming unglued as unemployment ratcheted higher and so did inflation. Economists scrambled to salvage the theory in other forms. Notably, the Fed staff embraced the empirical concept of "potential GDP" that reflected the highest level of GDP consistent with stable prices. Actual output could exceed its potential but only at higher unit costs. The narrow line of causation from tight labor markets to higher wages and prices, as depicted by the Phillips curve, faded from use at the Fed, albeit not from the lexicon of the financial media.

Figure 1 shows my version of the output gap as a percent of GDP (left-hand scale). It has been a reliable depiction of the ebb and flow of core inflation (shown on right scale) for more than 50 years. Whenever real GDP rose above its potential (i.e. above the zero line), inflation rose, whereas negative output gaps led to disinflation.

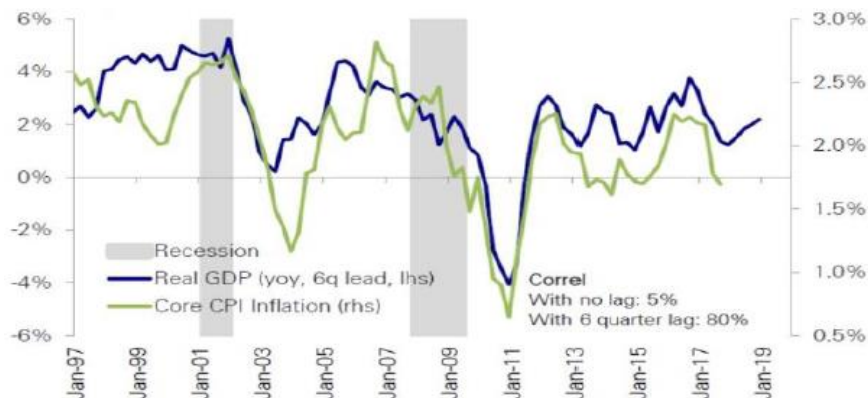
Figure 1: The Federal Reserve's dual targets



Source: US Commerce Dept., BLS and Fenwick Advisers estimates.

As the globalised economy evolved, the parameters of this model morphed as well. For one thing, inflation always lagged "full employment" (defined as a zero output gap) by about one year. Now that lag seems to have lengthened to six quarters (see Figure 2).

Figure 2: When GDP growth is lagged by 6 quarters, the correlation jumps to a strong 80%



Source: BEA, BLS, Haver, Deutsche Bank.

Using that rule of thumb and my estimate of an output gap of zero as of this past (US) summer, we can see why financial markets and most forecasters are so sanguine about inflation in the near term. Of much greater importance, however, structural changes in the world economy have had a much deeper and more long-lasting impact on inflation than merely delaying its response to full employment by a few quarters.

Another challenge with the use of output-gap model is to know where we stand, especially after eight years of expansion. Even a small error in the estimates for potential GDP that underpin the model would result in a large error in estimating the magnitude of the current output gap.

What we know is that potential growth has declined almost in half since 2003 when a break in the trend appears evident. My model uses 1.8% as the long-term growth trend consistent with stable inflation. The Fed staff now uses an estimate of about 2%. The same factors that have stultified potential growth, including demographics, outsourcing, technological obsolescence and drug abuse, also have discouraged labor force participation and hence the measured unemployment rate and the Phillips curve relationship. These structural and socioeconomic factors, rather than market forces such as unfilled job vacancies, explain why measured unemployment has fallen to about 4% without creating much pressure on wages.<sup>1</sup>

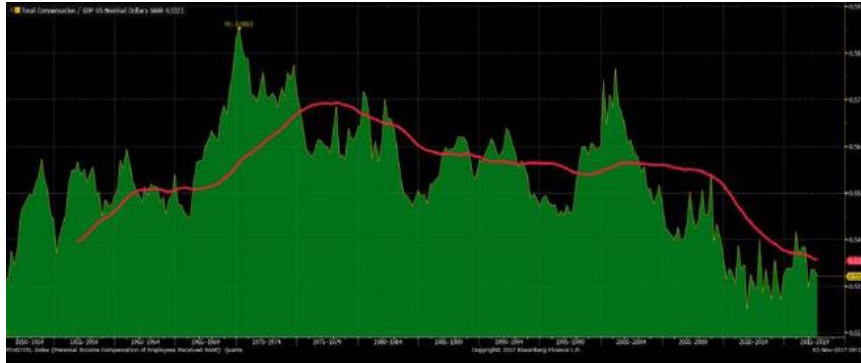
The more serious concern is that inflation is not as sensitive to economic slack as it once was. A careful look at Figure 1 reveals a marked decline in the variance of inflation over the course of business cycles with no diminution in the volatility in output.

One might dismiss this observation as an inherent byproduct of low inflation – wages and prices are sticky when it comes down to cutting them. Incumbent workers in particular are resistant to pay cuts, even in the worst of times. That example speaks to why market-based theories of wage determination are the weakest link in models of inflation and indeed in much of general equilibrium economic theory.

In reality, market forces play a relatively minor role in setting employee compensation. Rather, conditions in the product market including productivity, profitability, bargaining power and customary wage comparisons predominate. That is where to start in rethinking the implications of regime change.

One of the most striking yet unsung byproducts of globalisation and technology has been the rise of monopolistic industries that have shifted bargaining power from workers to employers. Figure 3 shows the share of workers' compensation in national income for the US.

Figure 3: US Labor compensation (% of GDP)



Source: National income accounts, Bloomberg

Since the heyday of union power in the early 1970s, which coincided with the coming of age of the post-war baby boom generation, labor's share has declined from highs around 58% to 53% today.

The erosion in workers' bargaining power has been even more noticeable since the onset of the Great Financial Crisis. Information and communications technology have enabled scale economies that were inconceivable just 25 years ago. Likewise, most of the technology giants are near-monopolies themselves. They all fit Warren Buffett's ideal investment opportunity, namely, companies that have potential to scale up operations without spending a lot of money on plant and equipment that eat into profit margins. Technology coupled with globalised production and supply chains made that business model a reality for a wider range of companies. Near-monopolies now dominate telecom, internet, pharmaceuticals, global finance and a host of other less visible industries, notably in services that have become a growing portion of households' budgets. Until this tide turns, this feature of regime change will limit potential growth and core inflation for years to come.

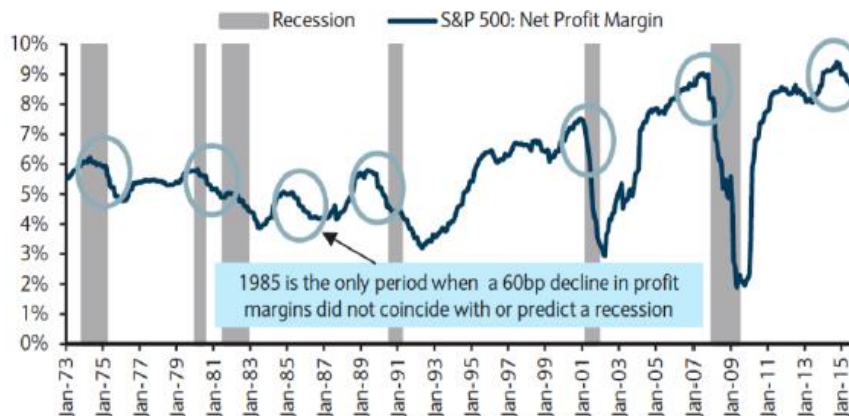
## MARKET CONSEQUENCES OF MONOPOLY

High-cost services have become the new "necessities" for middle income families. Even during hard times, providers of tech services have little incentive to discount prices. Recessions, however, do preclude the introduction of new marvels of technology with yet higher margins. Product cycles slow, and profit margins rather than prices take the hit.

Figure 4 shows estimates by Barclays Research of net profit margin for S&P 500 companies dating back to the 1970s. What is striking about the graph is the increasing volatility of net margins during recessions. Consider, for example, the mild recession of the early 1990s, which was not especially harsh but did leave the US economy muddling along for several years, and net margins fell in half. By contrast, in the sharp and steep recessions of 1974–75 and the early 1980s, millions of US workers lost their jobs and output fell about 5%, yet net

margins fell only about two percentage points over the course of several years.

**Figure 3: S&P 500 Net Profit Margin**  
January 1, 1973 through March 31, 2015



Source: Thomson Reuters, Barclay Research. Note: S&P 500 Index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. Bp = basis point. You cannot invest directly in an index.

During the two recessions of this century, net margins have been volatile in the extreme, both in the barely noticeable recession of the early 2000s when companies were forced to de-lever quickly and in the GFC when both financing and sales were hit hard. This year, net margins have returned to record levels, and have taken market valuations to new records as well. I wonder, however, if financial markets have considered the extreme sensitivity of net margins during recessions that delay the introduction of new high-margin products and may be an unavoidable feature of monopoly-driven regime change. When markets offer ignore or underprice volatility, there are bound to be big surprises.

## ENDNOTES

1. Critics of the concept of a 'natural' unemployment rate have argued that structural factors predominate over market conditions in determining where unemployment will settle, if at all during an expansion. See the [commentary of Nobel laureate Edmund Phelps](#) and his writings. Estimates of the so-called natural rate have ranged from 4% in the 1960s to 6% in the late 1970s and early 1980s and now back to 4%. Central bankers find it difficult to establish a long range monetary strategy when one of their targets moves around so much.



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