TD Bank Financial Group

Special Report

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TD Economics
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U.S. CONSUMER PRICES TO DANCE AWFULLY CLOSE TO DEFLATION DANGER ZONE

HIGHLIGHTS

- **Core CPI inflation has been consistently drifting downward since late last year. It is expected to fall below the 1% mark in the coming months, which may reignite fears of deflation.**
- **The high degree of economic slack and falling unit labor costs present downside risk to prices...**
- **...but a major contributor to the recent disinflationary environment has been the downward movement in owner's equivalent rent. Ongoing stabilization in the housing market should make this a transitory story.**
- **Further limiting deflation risks are well anchored inflation expectations and a continued improvement in credit conditions.**
- **All told, as the economic recovery gains steam, core inflation is likely to begin trending up again to 1.5% by the end of 2011.**

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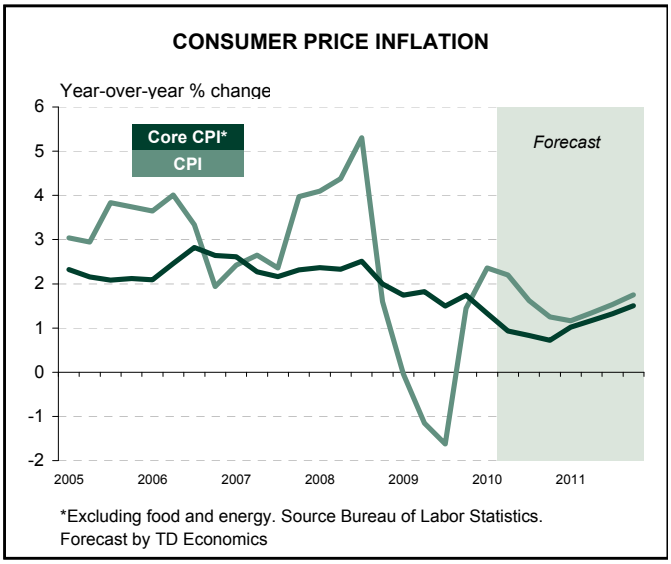
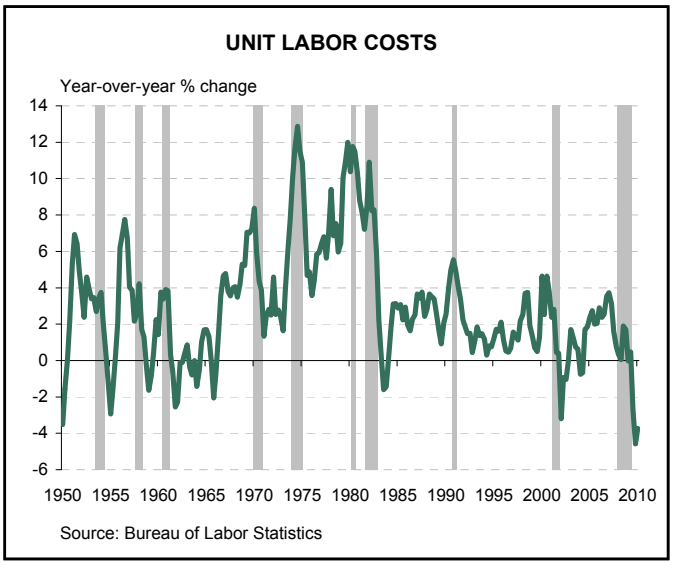
A year ago, we wrote a report that talked about the importance of guarding against deflation through extraordinary monetary policy stimulus. The Federal Reserve pulled out all the stops with a zero range-bound Fed funds rate coupled with large injections of funds into the banking system (i.e. quantitative and credit easing). In spite of these efforts, the well-watched barometer of inflation, known as the core consumer price index (CPI), is still set to break below 1 per cent in June (and possibly earlier) and hold below that level through the remainder of this year. With the risk that inflation will teeter perilously close to the zero mark, it raises the question: has the Fed been successful in guarding against deflation, or has it merely forestalled the inevitable? The data lead us to believe that any dip into deflationary territory will be temporary and the Fed will ultimately be successful in staving off deflation. With the housing market stablizing and job growth improving, we believe inflation will move back up, reaching 1.5% by the end of 2011.

To better understand the risk of deflation, we need to analyze a number of moving parts. The first is to assess a key downside risk to the inflation outlook – the massive amount of slack currently at large in the economy. The second step is to identify what has been influencing the latest down-leg in core CPI and whether the downward pressure will persist (and for how long). The final steps are to identify the behavior of inflation expectations, and whether the low cost of credit has been sufficient to grease the wheels of the economy by unlocking credit demand and supply.



Bridging the gap

The inverse relationship between inflation and the unemployment rate is known as the Phillip's curve and is one of the most well known concepts in macroeconomics. Rising unemployment corresponds with rising economic slack and declining pressures on inflation. After the publication of the Phillip's curve in 1958, economic forecasting relied almost solely on this historic relationship to predict future trends in inflation. Unfortunately, the unthinkable happened in the late 1970s when stagflation took hold – high unemployment coupled with high inflation – and economists came to better appreciate that the Phillip's curve relationship can change over time. Forecasts of inflation that depended simply on the historical unemployment



rate proved to be very poor predictors of the future path of inflation.

Despite its limitations, the relationship between the level of unemployment and the rate of price growth continues to have relevance. A takeoff on the Phillip's curve concept is the idea that there is an underlying structural level of unemployment at which there is neither upward nor downward pressure on inflation. We will refer to this as the 'natural' rate of unemployment. In other words, it is not the direct relationship between the actual unemployment rate and inflation that is important, but rather how much of a gap has formed between the actual unemployment rate and estimates of the natural unemployment rate. As the actual unemployment rate falls below the natural level, there is upward pressure on inflation. When the unemployment rates rises above the natural level, inflation tends to fall.

Unfortunately, this natural rate is unobservable and measuring it precisely is no easy task. Moreover, in periods of signficant structural economic adjustment (like we are currently enduring), the labor market is less efficient at matching job-seekers with employers, implying a higher natural rate of unemployment. Currently, there are a number of reasons to believe that the U.S. is at one of those tipping points, resulting in a higher natural unemployment rate than has been estimated in the past:

1) Skills atrophy over time and there is currently greater difficulty in matching employees with employers – as indicated by the record duration of unemployment, which reached 21.6 weeks in April.

2) Lower labor mobility. A 30% decline in home prices has pushed nearly a quarter of mortgage holders into negative equity positions, making them less able to relocate for job opportunities because they cannot easily sell their properties.

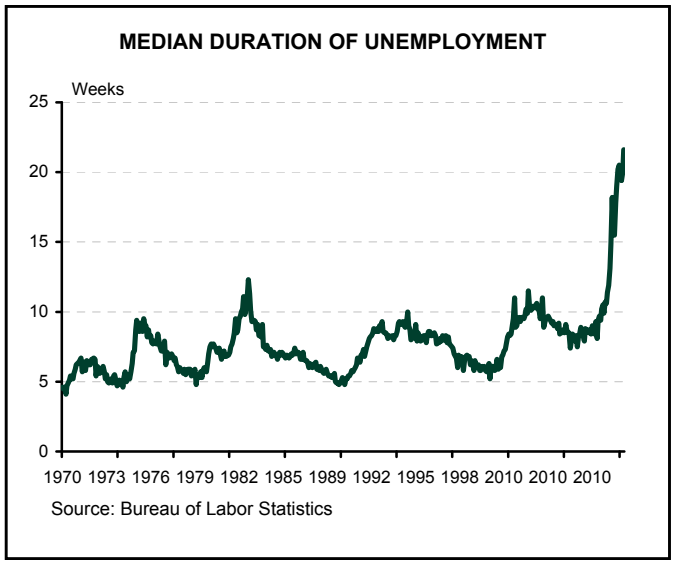
3) A major downsizing of industries, such as autos, finance, and real estate, after a period of over-expansion. In other words, some of the unemployment by industry is structural not cyclical.

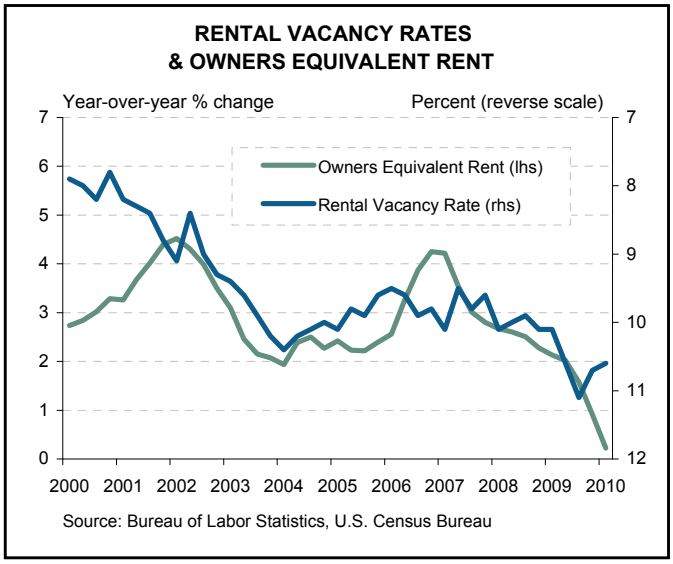
4) Ongoing re-alignment of the global economy in the context of over-capacity.

All of this argues that the U.S. unemployment rate will persist at higher levels than has been historically the case and, likewise, the economy faces a higher 'natural' rate of unemployment, perhaps in the 6-7% range, as opposed to the prior view of close to 5%.

Although it is difficult to get a precise gauge of the natural unemployment rate, without a doubt, it is below the current rate of 9.9%. In other words, the current environment is certainly disinflationary. And, the disinflationary forces at work in the labor force are most evident in unit labor costs, which measure the change in the cost of output for each additional worker. Unit labor costs have been at historic lows since the fourth quarter of 2009. As labor costs make up the majority of the input costs of busineses, cheaper labor should imply lower prices.

However, there is a limit on the deflationary pressures. Just as important as the current level of unit labor costs is the direction in which they are changing. On a year-over-year basis, the change in unit labor costs ticked up in the first quarter of 2010. Moreover, as we have argued in our note, "*Corporate Profit Growth to Slow as Hiring Resumes*," the return to positive corporate earnings has already lead to a renewed pace of hiring. Job growth has pleasantly surprised in each of the last two months and has importantly been driven





primarily by private sector hiring. So while we believe the unemployment rate will remain elevated, more than 2 million Americans are expected to return to corporate payrolls this year, with another 4 million or more next year joining the ranks. This will ultimately push the unemployment rate down - away from economic slack. As slack diminishes so too will the risk of deflation. In the remaining sections we discuss several other factors that support the notion that the current disinflationary environment is transitory.

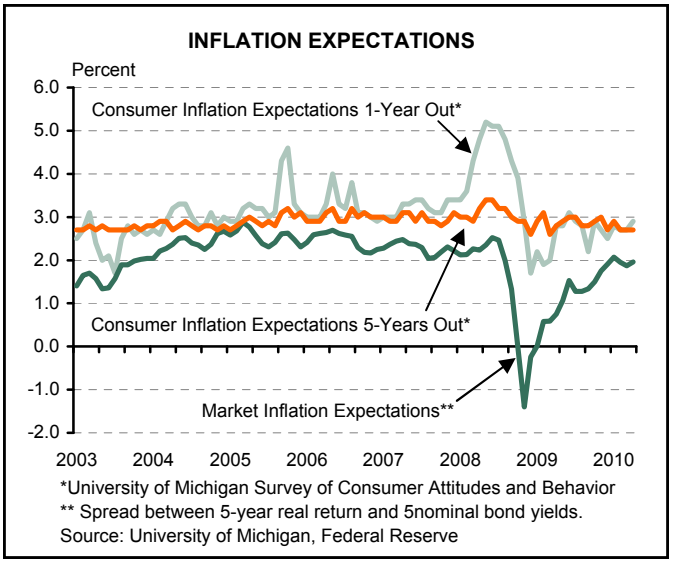
Housing market woes at the core of the problem

Although the Federal Reserve looks at a number of inflation measures, the one that often grabs the most market attention is core CPI. This measure dipped to 1.1% in March, after starting the year at 1.6%. The dominant downward influence has been owner's equivalent rent (OER), which shaved 0.5 percentage points off the annual rate in core CPI in each of the past five months.

This rent component is a heavy weight in core CPI, representing about one-third of the index. The measurement of OER has generated its fair share of debates among market pundits, especially during the housing boom (2003-2005) when home prices were climbing at a double digit annual pace and the OER component held steady at 2.3%. At that time, this led some to speculate that the OER index was underestimating price pressures in the economy. However, the OER is not meant to reflect home prices; rather, it tries to capture the user cost of capital. In other words, it approximates rent costs and not changes in the asset value. As a result, the OER component more closely tracks rental prices than home price movements. This leads us to believe that at least some of the downward pressure on CPI from the OER component should abate as the year progresses because rental vacancy rates peaked in the third quarter of 2009 and have since been edging down. In addition, the renter's market has been facing stiff competition in recent years from the homeowner's market where rental supply has increased. But here too vacancy rates have come down from their peaks. Plus, home prices are beginning to stabilize and supply is being slowly squeezed lower. Over time, all of this should take some of the downward pressure off the OER component. Although we don't expect the rental market to tighten up in any meaningful way, it should at least stabilize and improve alongside the economy, and this alone should temper the degree to which the OER component drags inflation. Put another way, for OER to continue to have a dampening impact on inflation, it would need to continue to fall. In contrast, as it stabilizes, the drag to CPI diminishes and eventually ceases to have a downward influence on the year-over-year calculation.

Great expectations

Looking at how CPI is currently behaving is a bit backward looking, because by the time we receive data on consumer prices, it's already old news. As Fed Chairman Bernanke simply stated in a speech, "the state of inflation expectations greatly influences actual inflation, and thus the central bank's ability to achieve price stability." If people think prices are going lower, they are more likely to defer a purchase in order to hold out for a cheaper price. When this occurs en mass, it becomes a self-fulfilling prophecy because firms are forced to discount prices when faced with

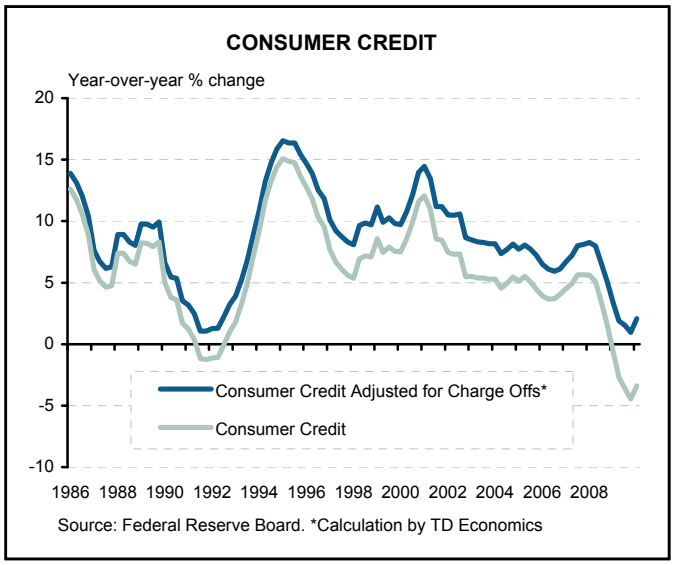


weakening demand and excess inventories.

So, it is important that long-run inflation expectations remain anchored, irrespective of what happens in the near-term data, such as core inflation dipping below 1%. Unfortunately, there isn't one perfect measure that can accurately capture inflation expectations. However, we can get a pretty good idea of market expectations by looking for consistency across a number of measures. One of the most popular is to compare yields on nominal and inflation-indexed Treasury securities (TIPS). This spread captures the breakeven inflation rate and is generally thought to be a better guide of inflation expectations than consumer or business surveys because it is determined in a market in which investors back their views with real money. As the graph on the previous page indicates, for a brief period of time at the height of the financial crisis in late 2008, the rush to the safety and liquidity of nominal government bonds dramatically pushed down nominal interest rates at the expense of every other asset class, including TIPS. This pushed the spread between nominal and real return bonds into negative (deflationary) territory, sparking concerns that if the market was anticipating deflation, it could quickly become the order of the day. In retrospect, the actions of policy makers to inject liquidity directly into funding markets quickly eased credit conditions and returned market inflation expectations towards their longer run level, now holding just shy of the 2% mark.

While TIPs are a preferred market measure to gauge inflation expectations, it does have its shortcomings. TIPs have only been around since 1997, leaving a relatively short period of time to test their accuracy in capturing expectations. In addition, the break-even point not only represents inflation expectations, but also captures an inflation risk premium and a TIPS liquidity premium.

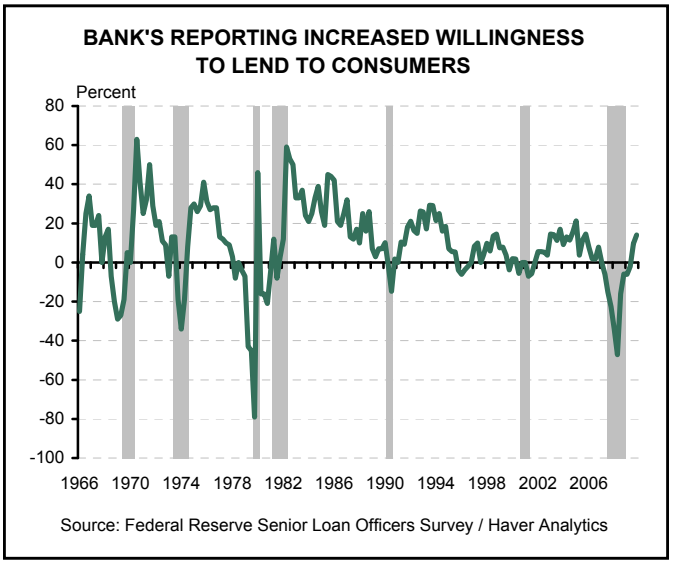
This is why it's important to check for consistency and get a cross section of inflation expectations. We can do so by also looking at business and consumer surveys, including the University of Michigan's Survey of Consumer Attitudes and Behavior and the Blue Chip Survey or Survey of Professional Forecasters. In this way, we can gather inflation expectations from different groups of stakeholders, be it financial market participants, economists, or consumers. Regardless of the survey, they all point to inflation expectations anchored in the 2.0% to 3.0% range. And, while each measure has individual shortcomings, there is broad consistency in pointing in the same direction. So while disinflationary pressures will likely continue in the near term,



the well-anchored nature of longer term inflation expectations mitigates the risk of deflation setting in – provided that the economic recovery is maintained.

Money and credit growth

One of the factors that heightens the risk that deflation may creep into the economy centres on the ongoing contraction in credit. At times such as these, credit growth is important to watch because it provides insight into the success of monetary policy in influencing aggregate demand. There appears to be two main influences driving credit trends of late. On the demand side, households have experienced high unemployment and have seen dramatic decreases in net worth, likely leading to increased reluctance to take on more credit for purchases. On the supply side, balance sheet uncertainty and heightened risk aversion around higher



loan losses has led to a slower pace of credit expansion by lending institutions than otherwise would have taken place.

Taking the data at face value, it is clear that consumer credit is deeply in the red, having fallen by 5.2% from peak to trough. However, it is important to note that changes in outstanding consumer credit also reflect write-offs of bad debt by lending institutions. While we do not have data on all lenders, we do have it for commercial banks, which are the largest single holder of consumer credit. The charge-off rate on consumer loans peaked in the third quarter of 2009 at 5.8%. Adjusting consumer credit for charge offs reveals a better underlying picture for credit growth, which looks to have remained positive on a year-year-basis. Encouragingly, overall consumer credit increased in both January and March, a sign that credit growth is starting to pick up in the U.S. economy.

Besides the change in overall credit, recent Federal Reserve surveys of Senior Loan Officers have shown that in contrast to just a few months ago, credit standards are no longer being tightened and in some cases are actually being loosened. Moving forward, a continued freeing up of credit will go a long way to increasing the total supply of money circulating in the economy, limiting downside risks of deflation from taking hold. [1]

Bottom Line

Downward movement in rents, in addition to a fairly significant degree of economic slack has resulted in a core rate of consumer price inflation that will likely drift below 1.0% in the coming months. This will invariably create concerns over deflation in some corners. In our view, the risks of a certifiable deflationary period are limited. As the job market continues its nascent recovery, and conditions in the housing market begin to stabilize, the current downward pressure on prices is likely to dissipate. Just as important, well anchored inflation expectations and evidence that credit growth is beginning to recover should ensure that the current disinflationary environment is a transitory one. In all likelihood the core rate of consumer price inflation will trough at 0.7% towards the end of this year. As the U.S. economy moves forward on the admitedly long path to claw away at economic slack, inflation will trend back up, likely reaching a level of 1.5% by the end of 2011.

Endnotes

1 One way of measuring the success of monetary policy in influencing credit demand and therefore broader economic activity is to look at the velocity (or circulation) of money. The velocity of money can be calculated by taking the ratio of nominal GDP (total economic activity at current prices) to the money supply. The broadest measure of money supply available in the U.S. is M2, which includes currency, demand deposits, saving deposits, and retail money market funds.The velocity of money fell dramatically over the course of the recession from a height of 2 dollars of nominal GDP for every dollar of M2 in 2006, to a low of under 1.7 in late 2009. Recently, the velocity of money has begun to edge up, although ever so slightly.