VOL. 12, NO. 1 • JANUARY 2017

DALLASFED

Economic Letter

Is the Next Recession Around the Corner? Probably Not

by Anton Cheremukhin

ABSTRACT: A "profits recession" often predicts a real recession. A view of recessions as gluts of competition explains why this time a real recession is not imminent.

Gross domestic product (GDP) growth slowed considerably during the first half of 2016. Wages have increased faster than inflation since 2014, cutting into firms' profit margins. Following dismal earnings through mid-2016, some market participants spoke about a "profits recession."

These developments prompt a natural question: When is the next real recession coming? Economists remain far from a consensus on what causes recessions, but there is general belief in a model in which recessions are caused by large exogenous shocks that by their nature are unpredictable.

There is, however, an alternative paradigm that views recessions as coordination failures among firms trying to time their contraction or exit from the market. This interpretation of recessions as gluts of competition allows analysis of the economy's current state and evaluation of how fragile the economy is.

The recent path of economic variables viewed through this depiction of business cycles sheds new light on the factors that may have been at play recently and how they will shape the next downturn. An interpretation of the data implies that a recession is likely within the next two to three years; a downturn, however, is not imminent.

Business Activity Cyclicality

To understand when the next recession might be coming, it's helpful to understand why recessions occur and determine their distinguishing features.

A recession is a phase of the business cycle characterized by a sharp slowdown in the pace of expansion.[1] The business cycle generally is not just a sequence of downturns in economic output, but also features strong co-movement among many economic variables. Understanding this co-movement helps understand their source.

Another perspective suggests that asymmetries in cyclical fluctuations are driven by inattention of firms to the state of the economy, to the amount of competition and to when the time is right to shrink operations or leave the market.[2] Because of inattention, firms overestimate their prospects and tend to overexpand and overstay, heating up competition among companies, driving down markups and profits.

Overheating continues until either competitive pressure increases to the point where it becomes unbearable and firms panic, or the "fragile" economy is hit by an adverse shock. A recession happens when this glut of competition unravels, one way or another, and a large number of firms decide simultaneously to close or shrink their operations.

In the aftermath of a recession, the playing field is much less congested. Surviving firms take advantage of increased market power, which quickly translates into higher markups. Later in the expansion, as firms increase their capacity and new firms with superior technologies enter the market, markups start a gradual slide toward the next recession. The switch from the "recovery" stage of the business cycle to the stage of "fragility" occurs in the middle of an expansion when output growth slows and markups start falling.

Looking at the U.S. history of co-movements between output and markups, one can identify the transitions from recovery to fragility (*Chart 1*).[3] After each recession (pink), there is a visually distinguishable recovery period (green) characterized by fast growth and elevated markups. Each recovery period is followed by a fragility period (white) where growth slows and markups decline.[4]

The same statistical procedure that identifies the switches historically suggests that the U.S. economy entered the state of fragility recently—in third quarter 2014. Growth significantly slowed that fall, and markups declined about 4 percent.

Business-Cycle Co-movement

The behavior of major economic variables over the course of the business cycle provides insight into how the process proceeds. Specifically, recession dates as well as the dates when switches to fragility occurred in the past can be used to evaluate the average performance of output, the unemployment rate, markups, profits, price inflation and wage growth.

First, note the average responses of these economic indicators to a recession (*Chart 2*). In an average postwar recession, output declined sharply by about 3 percent below potential; unemployment increased sharply from the average of 5.5 percent prior to the recession to around 8 percent; markups stayed 3 percent below trend throughout the recession and then quickly increased back to trend almost two years following the beginning of a recession.

Profits declined from 10 percent of GDP in anticipation of a recession to 8 percent at its deepest point and then increased back toward 10 percent of GDP in the aftermath of a recession. Core inflation and wage growth, which gradually rose prior to the recession, reversed course and returned to normal during the recession and recovery.

The average responses of the same economic quantities to a switch from recovery to fragility are similarly tracked (*Chart 3 on back page*). In an average postwar switch to fragility, output growth slowed considerably, leading to a gradual decline in the output gap toward potential; the unemployment rate flattened out between 5 and 6 percent, while markups started a gradual decline after remaining elevated over the course of the recovery.

Profits, which remained a relatively constant fraction of GDP over the course of the recovery, declined 2 percentage points as a share of GDP during the first two years of fragility. Core inflation did not appear to respond much to postwar switches, and wage growth accelerated a little bit following a typical switch.

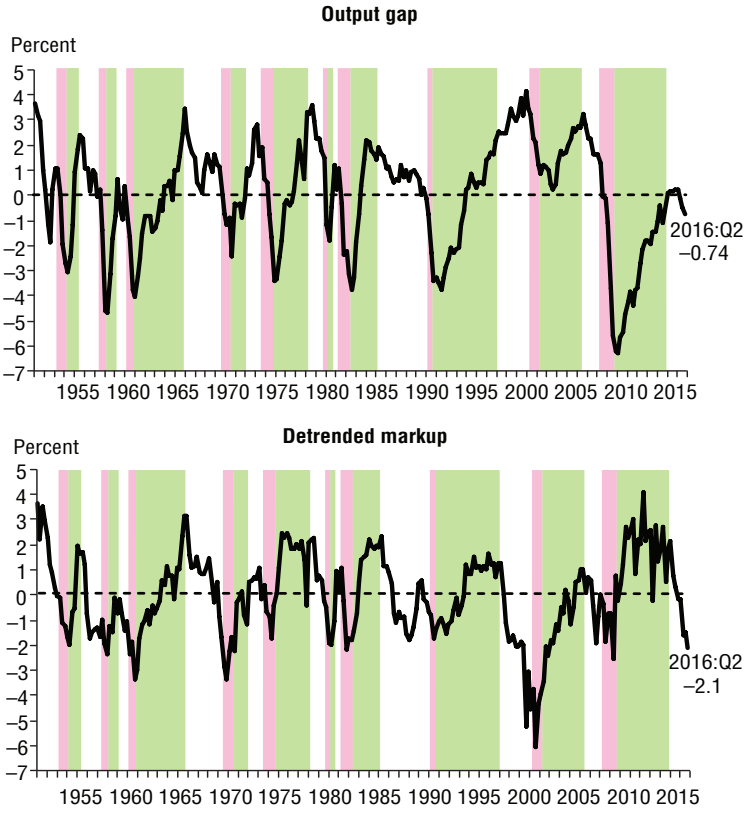
The path of the U.S. economy around the time of the most recent switch mimics closely the typical behavior from past switches. Growth has slowed since 2014, markups and profits have been declining, the unemployment rate has slid to a very low level by historical standards, inflation has remained steady and wage growth has accelerated a bit.

Predicting Recessions

When the economy is already fragile, what are the telltale signs of a coming recession?

Research suggests that the likelihood of a recession remains largely unchanged over the entire period of fragility, remaining at a higher level when compared with the recovery period. Specifically, a recession results from one of two forces: 1) the failure of ineffective businesses to coordi-

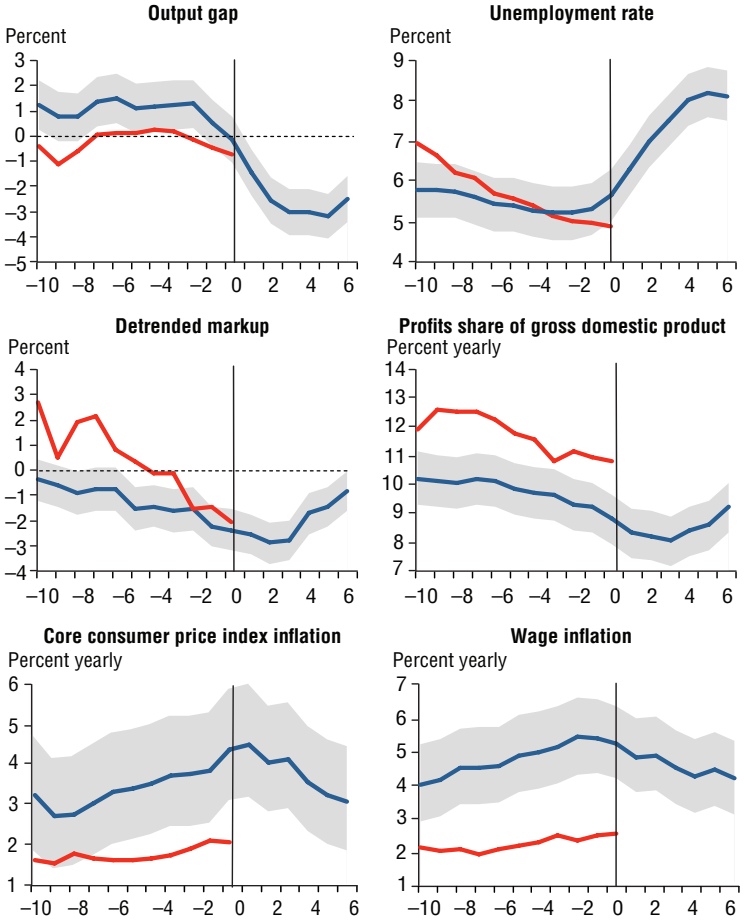
Chart 1 Output Gap, Markups Tend to Narrow When Recovery Ends



NOTES: Pink-shaded areas indicate recession. Green-shaded areas indicate recovery. White areas indicate fragility. Detrended markup indicates movement absent long-term trends.

SOURCES: Federal Reserve Board; National Bureau of Economic Research; author's calculations.

Chart 2 Economic Variables During Recession Versus Recent Path



NOTES Blue line shows paths during switches from fragility to recession with 95 percent confidence intervals. Red line shows recent path. Vertical line indicates years before/after the switch.

SOURCES: Bureau of Economic Analysis; Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

nate their timely exit, which is inherently unpredictable; or 2) an external shock that knocks the economy out of balance. Policy action or favorable circumstances could help the least-productive firms stop their expansion and coordinate their timely exit.

Availability of information about firms' future prospects could be one such policy device. However, the longer the economy remains in a fragile state, the smaller the size of the shock needed to create imbalances, so the likelihood of recession increases, albeit very gradually, over time.

When the economy is already fragile, the best indicator of how far away it is from slipping into recession is the level of markups and profits. The lower they are and the longer they stay low, the more likely a recession will occur. If the majority of businesses are not paying attention to these indicators, the firms will continue expanding, further heating up competition. When the downturn hits, it will be as unexpected as always.

In such circumstances, a relatively large disturbance can lead to a wave of exits and contractions by firms which, through wide information transmission, spirals the economy into recession. However, a relatively small shock can lead to only a small number of the least-productive firms exiting, allowing recessionary pressures to abate while lessening competitive pressure. In this case, markups increase slightly, but the length of the expansion is extended.

The key question about current experience is whether the circumstances are right for a major contraction and whether a potential recent shock would be large enough to create a major imbalance.

Dodging the Bullet

The recent path of profits and markups suggests that a recession may be indeed right around the corner, as some market participants suggest. On the other hand, would an examination of GDP, profits and markups have predicted all previous recessions? Yes, these seem to be necessary signs as reduction in markups and slow growth did precede previous recessions.

On the other hand, they do not seem to be a sufficient indicator. There were two episodes—in 1986 and 1998—when the same criterion indicated an imminent recession. But a recession did not materialize, despite the stock market crash of 1987 and a pair of international shocks in 1998.[5]

The distinguishing feature of both these episodes relative to prerecession periods was a low level of inflation. Coincidentally, the current levels of price inflation and wage growth are low by the standards of a typical prerecession period. Core personal consumption expenditures inflation has barely exceeded 2 percent, while usually it exceeds 4 percent when a recession is imminent. Wage growth has been in the 2–3 percent range, while it usually also far exceeds 4 percent when a recession is around the corner. Therefore, it does not seem like all preconditions for a recession have been met.

Moreover, drawing on the two aforementioned episodes, preemptive tightening in the 1980s and 1990s could be the kind of small shock that enabled a longer expansion by signaling to the least competitive firms that it is time to leave and let other, more productive, firms grow.

The most recent energy plunge, coupled with the strengthening of the dollar, could be the small shock that temporarily defuses the competitive pressure and prolongs the current expansion. The most recent earnings data seem to point in that direction. Nevertheless, the U.S. economy is in a fragile state and a large enough shock could throw the economy into a downturn

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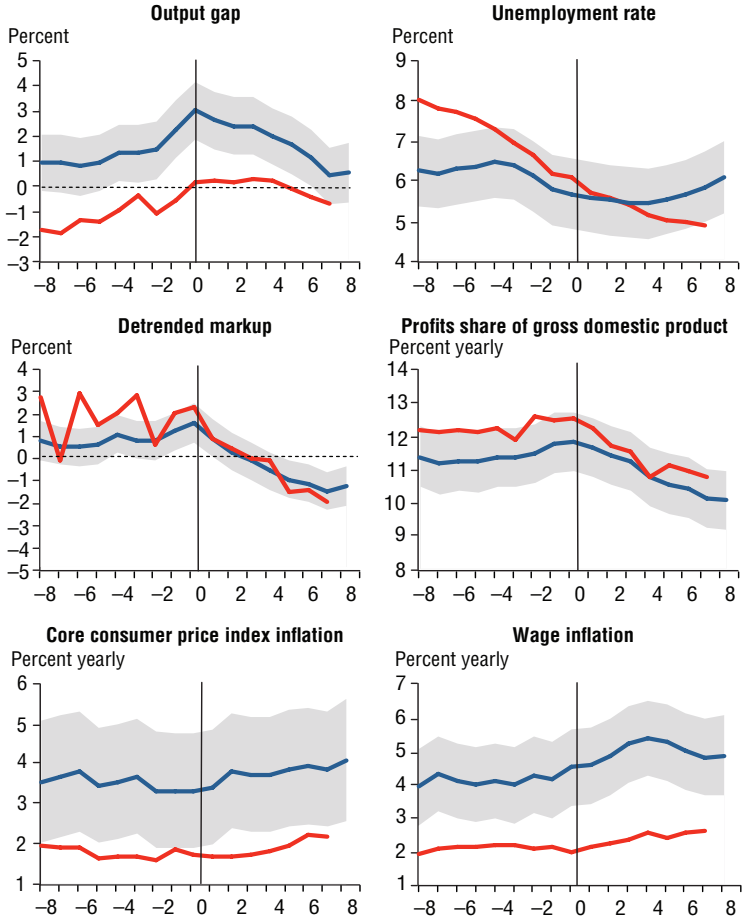
Chart 3 Economic Variables During a Switch to Fragility Versus Recent Path



NOTES Blue line shows paths during switches from recovery to fragility with 95 percent confidence intervals. Red line shows recent path. Vertical line indicates years before/after the switch.

SOURCES: Bureau of Economic Analysis; Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Notes

[1] For the U.S., a slowdown in the pace of expansion implies a contraction, but for countries with higher average growth rates, this is not necessarily the case.

[2] "Information Rigidities and Asymmetric Business Cycles," by Anton Cheremukhin and Antonella Tutino, *Journal of Economic Dynamics and Control*, vol. 73, December 2016, pp. 142–58.

[3] The output gap is the difference between the actual level of GDP and the potential level, which measures how much the economy can produce when operating at full capacity. The measure of potential output used here is described in "Estimating the Output Gap in Real Time," by Anton Cheremukhin, Federal Reserve Bank of Dallas, Staff Paper, no. 22, December 2013. The markup series is detrended by subtracting an extremely smooth long-term trend obtained by using a Hodrick-Prescott filter.

[4] To identify a switch from recovery to fragility, abrupt changes in the growth rate of the output gap and markup series were identified. After some experimentation, a simple ad hoc rule was employed. It computes the difference in the change over the preceding five-quarter period versus the following five-quarter period. The most likely switches were identified by taking the biggest break in the growth rate in output gap and markups over each expansion. When the two dates did not coincide, the later date was chosen.

[5] The Asian financial crisis was followed by the Russian financial crisis and led to the collapse and bailout of the Long-Term Capital Management hedge fund.

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