Economic Research Note

US: happy fifth birthday to the expansion, with more to come

- **The current expansion just turned five, which is longer than most expansions last**
- **However, still-elevated levels of slack mean there's more room to run**
- **Expansions normally slow down as they get mature**
- **However, that relation hasn't been quite as strong in recent cycles**

The current expansion recently celebrated its fifth birthday, as the National Bureau of Economic Research has determined that the Great Recession troughed in 2Q09. In the post-war period the average expansion has lasted just under five years. This simple statistic might suggest that the current business cycle is now living on borrowed time. In fact, this probably oversimplifies: taking into account a few aspects of the current state of the cycle would lead one instead to conclude that the expansion should run for another 2-4 years.

Still not in overtime

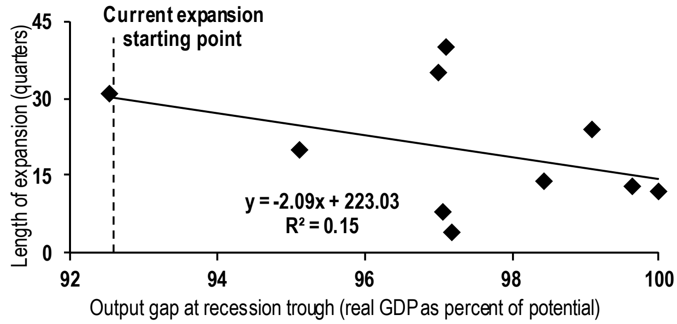
A natural way of looking at the business cycle is to view it as beginning with a certain amount of slack resources, which then allows the economy to grow faster than trend for a while, after which point the economy must slow down or else run into the resource constraints that generate inflation. In principle there is no reason that once the economy reaches its capacity it can't then live happily ever after – expanding in line with the growth in the economy's productive resources. In practice this never happens. The momentum of an expansion isn't easily amenable to Fed efforts to fine-tune growth to glide smoothly into a soft landing.

This simple way of looking at business cycles produces two testable implications: first, cycles that start with more slack should last longer, and second, cycles that grow slower should last longer. With only ten full expansions since the end of WWII it is hard to gain much statistical confidence, but it does appear that both of these predictions are borne out in the data. Every percentage point larger the output gap is at the beginning of an expansion implies that the expansion should last an extra two quarters. And every percentage point slower that growth is relative to trend should add about eight quarters to the expansion.

The implication of these results is favorable for the prospects for continued growth. Because we started this expansion with so much slack, and because we have not grown too much faster than the economy's speed limit, there is still time to go before we run into the constraint of an economy operating at full capacity. Put another way, labor costs are still contained, business profit margins are fat, and so the classic symptoms of a late-cycle stage are not to be found. Somewhat counter-intuitively, the shortcomings of this expansion – an initially high unemployment rate and slow growth – are virtues when thinking about how much longer the expansion will run.

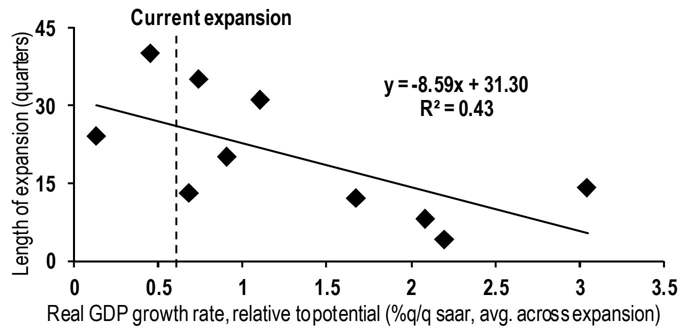
The unemployment rate has declined 0.8%-point per year, on average, in the five years of this expansion. If that pace of decline were sustained over the next two years, the

Output gap at beginning of expansion vs. length of expansion



Source: BEA, CBO, J.P. Morgan

Growth rate vs. length of expansion



Source: BEA, CBO, J.P. Morgan

Real GDP during expansions (%q/q, saar, avg.)

Expansion midpoint	First half	Second half	Difference
1951Q3	10.7	4.8	5.9
1956Q1	5.4	2.0	3.4
1959Q2	9.2	2.1	7.1
1965Q3	5.9	4.2	1.7
1972Q2	5.8	4.5	1.3
1977Q3	5.3	3.4	1.9
1981Q1	8.1	0.9	7.2
1986Q4	5.2	3.3	1.9
1996Q1	3.2	4.1	-1.0
2004Q4	3.2	2.5	0.7
Average across cycles	6.2	3.2	3.0

Source: BEA. Note: Midpoint quarter included in both halves when expansion had odd number of quarters.

unemployment rate would reach the mid-4s, or about where it bottomed in the last expansion – a bottoming that was associated with high and rising labor costs, declining business margins, Fed tightening, and ultimately the end of the expansion. Simply projecting a continuation of 0.8%-point annual decline in unemployment is a fairly naïve approach, but when it comes to forecasting at distant horizons the naïve approach is generally a reasonable starting point.

When thinking about risks to a 0.8%-point annual drop in the unemployment rate, it would seem the risks are skewed toward a slower pace of decline in the unemployment rate. Some pickup in labor supply could occur as the economy gets closer to full employment, and last week's July employment report was perhaps an early indication that such a dynamic may be taking hold. This would suggest the expansion has at least two more years to go, with risks skewed toward longer than two years.

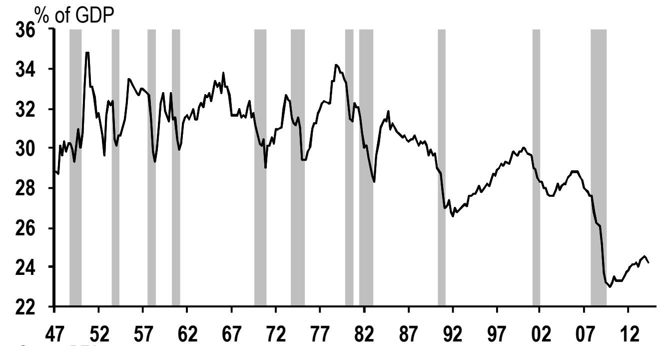
Consistent with this view, in the era of modern central banking (i.e., post-1979) expansions have, on average, ended about three years after unemployment fell below its natural rate – and we anticipate that unemployment will not get to its natural rate until the middle of next year, which would put the peak risk of a recession about four years on the horizon.

Demand indicators not as reliable

The preceding analysis could be viewed as a supply-side view of the business cycle: when thinking about the length of expansion we talked about the supply of slack resources that would fuel above-trend growth. A competing view looks at demand-side indicators to discern where we stand in the business cycle. During recessions the components of demand that get hit down tend to be interest-sensitive sectors, i.e., durable goods and structures. If these sectors haven't fully recovered from the previous downturn, so the story goes, then it will be hard for another recession to take hold. Elevated levels of spending on housing, capex, and autos indicate elevated recession risks; low levels signal reduced risk.

We are sympathetic to this approach, as it is intuitively appealing. However, we have to admit that it doesn't hold up too well under scrutiny. As the accompanying chart shows, before the 2001 recession, the level of cyclically sensitive GDP was close to the lows of the prior cycle, and yet recession came. In the last cycle, cyclically sensitive GDP was low throughout the expansion, falsely signaling reduced recession risk, even as the Great Recession was just around the corner. While the composition of demand did not signal the end of the last cycle, the supply-side indicators (low unemployment, rising labor costs, declining profit margins) were sending a cautious signal.

Durables and structures



Source:BEA

Nonfarm productivity and hours during expansions (%q/q, saar, avg.)

	First half		Second half	
Expansion midpoint	Productivity	Hours	Productivity	Hours
1951Q3	5.4	5.2	1.9	2.9
1956Q1	2.4	3.9	1.5	0.2
1959Q2	4.9	6.7	0.7	0.5
1965Q3	4.0	2.6	2.2	1.9
1972Q2	4.7	2.6	1.5	3.6
1977Q3	3.2	3.4	0.2	3.4
1981Q1	5.7	3.6	-0.7	0.0
1986Q4	2.7	3.3	1.3	2.0
1996Q1	1.9	1.8	2.7	2.0
2004Q4	3.4	0.2	1.7	1.2
Average across cycles	3.8	3.3	1.3	1.8

Source: BLS. Note: Midpoint quarter included in both halves when expansion had odd number of quarters.

What will it look like?

If we're right that the expansion will continue, what kind of expansion will it be? A while back we discussed how the "plucking cycle" view of business cycles predicts that the first year or so of the expansion is usually the strongest (see "What kind of plucking recovery is this?" GDW, April 8, 2011). A more general point can be seen in the table that looks at first- and second-half GDP growth in expansions. In every expansion except for the 1990's GDP growth slowed in the second half relative to the first half.

Digging a little deeper, it seems the exceptionalism of the 1990s cycle was related to the once-in-a-generation technological lurch forward, which resulted in an unusual acceleration in productivity growth. We are not especially hopeful that productivity is set to accelerate in a big way (see "Five reasons productivity growth will remain stuck in the mud," *GDW*, June 4, 2014). Even so, we think there are reasons growth won't necessarily step down dramatically in the latter half of this expansion. As we discussed in our earlier note, the plucking cycle phenomena appears to be less dramatic in recent cycles – perhaps due to better inventory management practices or more disciplined monetary policy – and thus the slowing from early expansion to late expansion may not be as great as in the past.