Where Are We in the Economic Cycle?

Presented to
The Philadelphia Council for Business Economics

April 2016

Lakshman Achuthan
Co-Founder & Chief Operations Officer

This year began with recession fears throwing a spotlight on the elephant in the room: as *The Economist* magazine put it a few weeks back, the Fed may be out of ammo to fight recession. ■

The Elephant in the Room

Since then, the Fed has backed off of its projection of four rate hikes in 2016, the markets have recovered and recession fears have receded.

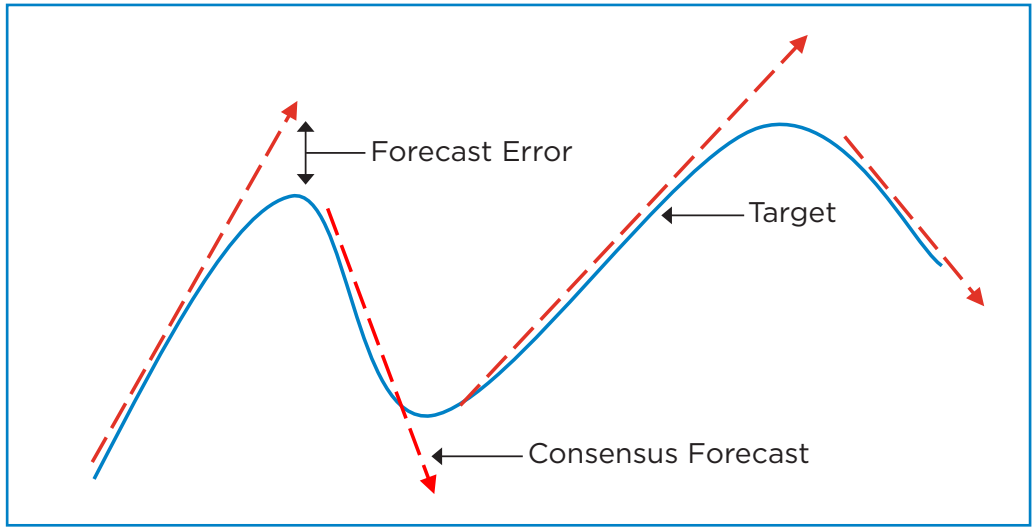
This does not mean that the aforementioned elephant has left the room, and the Fed has the ammo to deal with a recession.

Rather, with recession fears easing, the spotlight has simply shifted away from the elephant, leaving her in the shadows again.

Looking at this quick ebb and flow of recession fears, keep in mind that the IMF's conclusion, following a 63-country study, was that "The record of failure to predict recessions is virtually unblemished."

Why is that? ■

A Key Forecasting Problem

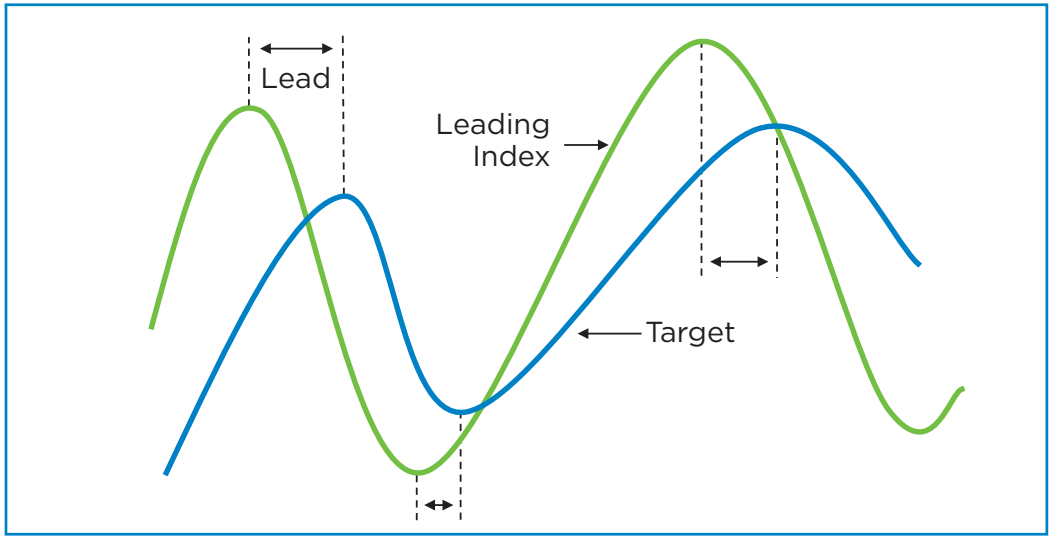


This is a stylized chart where the blue wavy line depicts the economy cycling up and down, while the red dashed lines show consensus expectations, and how they tend to extrapolate recent trends.

It underscores the reality that consensus forecasts, known to be pretty accurate away from turning points, systematically make large errors in the vicinity of cycle turning points.

This is perhaps the biggest challenge in economic forecasting, and it's ECRI's primary focus. This is why we sometimes seem contrarian. So let's take a look at the building blocks of our approach. ■

Leading Indexes Can Time Turns



Our approach is rooted in the pioneering work of our mentor and ECRI co-founder Geoffrey Moore, whom *The Wall Street Journal* called "the father of leading indicators."

This stylized chart shows the basic usefulness of the leading index approach.

Again the blue line shows the economy cycling up and down, and we're trying to predict its turning points.

The green line is a leading index designed to anticipate the turning points of the economy.

Our focus is on the behavior of the leading index in the vicinity of turning points in the target, which is the economy. The point is that the peaks and troughs in the leading index precede the economy's peaks and troughs.

Notice that the amplitude of the leading index and the target may not match, and that the lead times may vary somewhat.

As we move from these stylized concepts to reality, we should clarify just what a turning point in the economy, a peak or trough in the business cycle, is all about. ■

What is a Recession?

First, what is a recession?

This is not as trivial a question as some may think. We actually had to publish a paper on this topic some years ago in a peer-reviewed economics journal, because a lot of people think a recession is simply defined as two straight quarters of falling GDP, which is neither a necessary nor a sufficient condition for recession.

For example, most of you will recall the 2001 recession, which was associated with the loss of nearly three million jobs. However, if you look, you won't see two straight down quarters of GDP. Same for the 1960-61 recession.

In fact, a recession is not about any one statistic like GDP. Rather, it's a process.

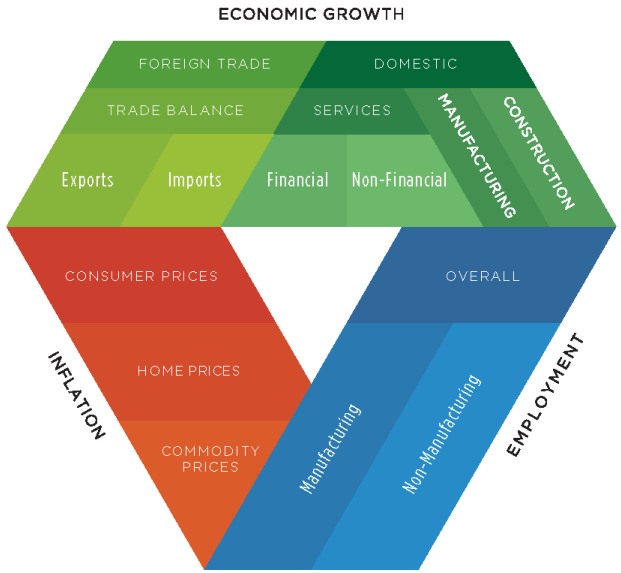
It's a specific kind of vicious cycle, where, for instance, under certain circumstances a drop in sales triggers a drop in production, leading to declines in employment and income, which in turn lead to a further decline in sales and so on, all the while spreading from industry to industry and region to region.

So the indicators that are used to determine the official start and end dates of recession are precisely those: output, employment, income and sales...

At a certain point this feedback loop flips, so you instead get a virtuous cycle of rising output, employment, income and sales.

The point of transition from a vicious to a virtuous cycle is a turning point, marking the business cycle trough, and the transition from a virtuous to a vicious cycle occurs at the peak of the business cycle. ■

The ECRI Framework



Since Geoffrey Moore developed the original leading economic indicators half a century ago, we've made significant progress, and ECRI now uses a much more nuanced "many-cycles" framework to understand the complex dynamics of the global economy.

For the U.S. economy alone, we monitor an array of more than a dozen specialized leading indexes covering various sectors and aspects of the economy.

These indexes anticipate turning points not only in the level of economic activity, relating to classical business cycle, but also to growth rate cycles, which refer to alternating periods of acceleration and deceleration in economic growth. Our framework covers 21 economies, incorporating over 100 proprietary indexes designed to be comparable across borders.

So, over the last couple of years this framework has given us a very different perspective from the consensus view.

Recall, it was just a couple of years ago when growth was near its peak, and optimism was high. As 2014 began, Ken Rogoff observed at the Davos conference, "People are euphoric here, they think everything is going to be fantastic." Of course, oil prices were high and stable, and Q3 2014 started off with oil trading well over $100 a barrel.

Yet, in July, our global long leading indexes began to warn of a turn in the cycle. ■

July 2014: Global Slowdown

ECRI
International Cyclical Outlook
ESSENTIALS

Chart 1e: Leading Indicators of Industrial Growth (%)

Early Signs of Global Growth Slowdown

20CIGDI measures the proportion of coincident indexes whose growth rates are higher than they were a

the 20LLIGDI also in a cyclical downturn, reports of easing growth are likely to become more widespread internationally.

In fact, the long leading index growth rates for some of the most important economies – ranging from China to the US., Japan and Germany – are now exhibiting greater weakness. In this context, a handoff from policy stimulus to self-sustaining expansions is likely to prove troublesome, as we predicted at the beginning of this year.

Indeed, as discussed recently (*WSCO, July 2014*), given the rise in the U.S. Future Inflation Gauge to a 70-month high (*Chart 4, page 11*), inflation is likely to rise more than most expect, further sapping real earnings growth, which Ms. Yellen considers a *sine qua non* for starting a rate hike cycle. Under the circumstances, caught between unsatisfactory growth in the months ahead – given the weakness of housing

and Japanese Coincident Index (JACI
a fashion that bears an uncanny resem
behavior 17 years earlier" (*WCO, May*
then, growth in the Japanese Long Le
(JALLI) has slid further to a three-yea
31, page 38), staying uncomfortably cl
pattern. Given the serious implicatio
report soon on the results of a detaile
Japanese business cycle.

So while the global industrial grow
predicted recently, based on the upt
(*WCO, June 2014*), will benefit in the
some powerful drivers in the form of
and German industrial sectors, it is n
firing on all cylinders. Among the lagg
be Japan and parts of the Eurozone.

Stepping back to see the big pictu
there are already signs of spreading w
economic growth. This is evident fro
in ECRI's 20-Country Coincident In
Diffusion Index (20CIGDI) to a ten-

Chart 1f: Diffusion Indexes of 20-Country Long Leading and Coincident Index Growth

20LLIGDI

20CIGDI

July 2014 | International Cyclical Outlook Essentials | Economic Cycle Research Institute Volume XX, No. 7

businesscycle.com © 2014 All rights reserved. 2/5

We concluded we were seeing the early signs of a global growth slowdown.

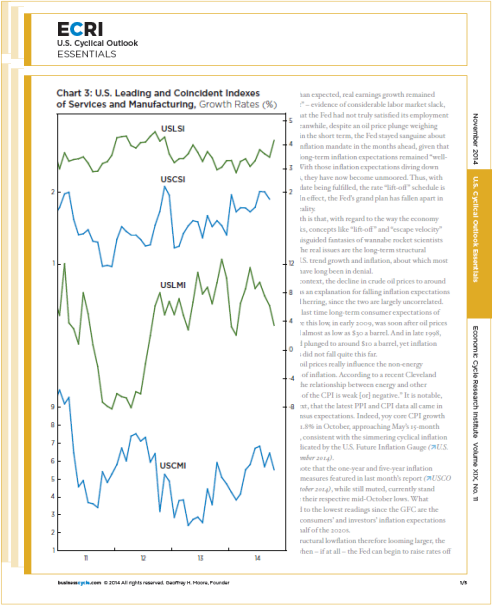
Here we see 20-country long leading index growth falling, and its coincident counterpart also starting to roll over.

This is just about when oil prices started dropping, and they had fallen by 30% to under $75 per barrel before Thanksgiving 2014.

Following this drop, there was the Saudi declaration that Thanksgiving that they were not cutting production, immediately pushing supply concerns to the fore.

Meanwhile the leading indexes had tipped us off to something new. ■

November 2014: Two-Speed Economy



ECRI
U.S. Cyclical Outlook
ESSENTIALS

Chart 3: U.S. Leading and Coincident Indexes of Services and Manufacturing, Growth Rates (%)

ECRI
U.S. Cyclical Outlook
ESSENTIALS

The downturn in U.S. growth is being driven by a manufacturing slowdown, while non-manufacturing growth holds up for the time being.

While most people were focused on the oil supply issue, our leading indexes were flagging a two-speed economy, adding up to a cyclical slowdown in overall growth driven by the manufacturing sector, partly offset by a resilient service sector.

Thus, the window of opportunity to normalize Fed policy was starting to close, prompting us to ask the rhetorical question … ■

January 2015: They Should Have Tightened Then

ECRI
U.S. Cyclical Outlook
ESSENTIALS

January 2015 | U.S. Cyclical Outlook Essentials | Economic Cycle Research Institute | Volume XX, No. 1

Two-Speed Economy to Result in Easing Growth

If Not Now, When? Given half a chance, the Fed would like to raise rates this year – and sooner rather than later. Indeed, a number of Fed governors have recently reiterated their expectations of a mid-year rate hike. The sixty-four thousand dollar question is whether they will get that opportunity.

hourly earnings (AHE) of production and nonsupervisory employees actually dropping in December, and year-over-year (yoy) AHE growth falling to a two-year low (Chart 1, upper panel). With the economy apparently revving up, this data so blindsided most economists that they dismissed it as a statistical anomaly.

Nine months ago, when many analysts were prematurely celebrating the increase in earnings growth, we pointed out

Ebbing Expectations With yoy CPI inflation dropping closer to zero, and inflation expectations continuing to plummet, some analysts doubt that the Fed would raise rates by mid-year when it is so far from fulfilling its inflation mandate. Yet, in its latest statement, the Federal Open Market Committee said that it "expects inflation to rise gradually toward 2 percent as the labor market improves further and the transitory effects of lower energy prices and other factors dissipate."

upswing in U.S. Leading Employment Index (USLEI) growth, which rose in December to a 13-month high (*MUS. Indexes, January 2015*). Unfortunately, multiple jobholders, who typically obtain low-paying jobs, have accounted for a disproportionate number of the jobs added lately (*MUSCO Essentials, December 2014*).

As we discussed recently (*MUSCO Focus, January 2015*), the correlation between wage growth and the jobless rate moves in cycles, typically switching signs every year and a half or so. Indeed, from November 2012 through September 2013, an increase in wage growth accompanied a decline in the jobless rate. "However, in the most recent period, from October 2013 through December 2014 ... declines in the jobless rate have been accompanied by hardly any change in wage growth, and more recently by declining wage growth. ...This suggests that, if this current relationship holds, a further decline in the jobless rate would not be a harbinger of rising wage growth." While this is normal behavior, not a conundrum, the question is whether the weakness in wages or the recent drop in inflation will restrain the Fed from raising rates.

year earlier (not shown), while rental inflation has also stayed in a sustained cyclical upswing.

In other words, the U.S. inflation cycle bottomed in the fall of 2013 and then entered a cyclical upswing – in line with the upturn in the USFIG – that continued at least through mid-2014. The subsequent decline in inflation has been driven

Chart 2: Forward-Looking Measures of Inflation

businesscycle.com © 2016 All rights reserved.

2/6

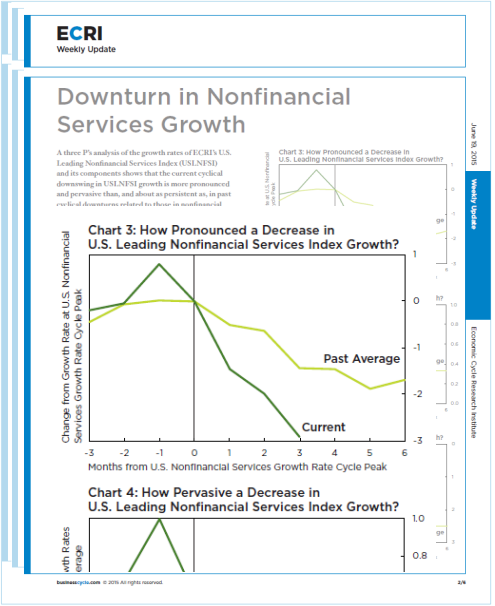
... "If not now, when?"

That was at the start of 2015, and, as we now know, the Fed waited until year-end for "lift-off" from the zero-lower-bound, following which we heard from a number of observers that the Fed should actually have started tightening months before they did.

The simplest explanation for their actual rate hike timing is that the Fed was focused not on the direction of the economic cycle, but on how far we were from full-employment and their inflation target.

Meanwhile, the two-speed economy was evolving ... ■

June 2015: One-Speed Economy



ECRI
Weekly Update

Downturn in Nonfinancial Services Growth

A three P's analysis of the growth rates of ECRI's U.S. Leading Nonfinancial Services Index (USLNFSI) and its components shows that the current cyclical downswing in USLNFSI growth is more pronounced and pervasive than, and about as persistent as, in past cyclical downturns related to those in nonfinancial

Chart 3: How Pronounced a Decrease in U.S. Leading Nonfinancial Services Index Growth?

Chart 3: How Pronounced a Decrease in U.S. Leading Nonfinancial Services Index Growth?

Chart 4: How Pervasive a Decrease in U.S. Leading Nonfinancial Services Index Growth?

businesscycle.com © 2016 All rights reserved. 2/4

June 15, 2015 | Weekly Update | Economic Cycle Research Institute

ECRI
U.S. Cyclical Outlook
ESSENTIALS

upper panel, thin green line).

Please note that, for the past four years, it has averaged just over ½% *per year* (red line) – far below its post-World War II (1948–2008) average of around 2¼% per year (gold line). Indeed, its trend (thick green line) has never been this low except around the early 1980s. Moreover, since the end of 2013, productivity growth has averaged only –0.7% a year. In fact, one could say that the U.S. is now in a "productivity recession," having seen the largest back-to-back quarterly productivity *decline* in 22 years.

At the Fed it is generally assumed, in line with the consensus, that yoy productivity growth will rebound to its old

This helps explain why the Fed has underestimated the pace of decline in the jobless rate for years on end. On the other hand, the dismal performance of productivity growth, which has stubbornly refused to get back to its decades-old pace, may be why the Fed has so consistently overestimated GDP growth each year.

Given the stream of innovation that has converted even our smartphones into such all-purpose technological marvels, it may be hard for some to understand why productivity is not rising faster. But while a number of popular "apps" may have made people's lives easier, that has scarcely boosted output per hour for the workforce, which is what determines

Growth Prospects Worsen

Growth in nonfinancial services, which accounts for 65% of U.S. jobs, has entered a cyclical downturn.

disappoints." Hope springs eternal but, given its recent dismal performance, we see no good reason for it to average much more than ½% a year over the next few years.

The long-term trend of yoy growth in hours worked (light blue line, lower panel) should reflect potential labor force growth (thick blue line), which, according to Congressional Budget Office projections, should stay at ½% *per year* at least for the next decade. This is pretty much set in stone, given the demographics.

Meanwhile, yoy actual labor force growth (thin navy blue line) – although perking up a bit very recently – has essentially tracked potential labor force growth, as expected. Lately, the actual labor force has expanded by about 100,000 per month, so job growth merely needs to exceed that threshold for the jobless rate to keep falling, as it has in recent years. Looking at the persistent gap between growth in hours worked and labor force growth since about 2010, one might wonder how the former could stay that high for so long. Yet, a quick calculation shows that, while potential labor force growth has averaged just ½% a year since 2007, growth in hours worked has averaged 0% over the same period, i.e., it is still playing catch-up after the massive recessionary losses.

Yellen's hopes notwithstanding.

Meanwhile, growth in hours worked was as good as it gets in late 2014, and has started to ease this year. If the USLI and the USLNFSI are correct, it is poised to see a near-term cyclical downswing. So GDP growth is likely to flag over the next few quarters, in line with the downturn in USLLI growth.

More troubling is the likely trend growth of ½% for productivity and ½% for hours worked, which add up to just 1% longer-term real GDP growth. Given that arithmetic, with no good reason to believe that productivity growth will get back to its old 2¼% average, trend GDP growth may very well stay stuck in the 1% range for years to come.

Weak nominal growth, which effectively caps longer-term yields, leaves limited room for rate hikes without inverting the yield curve. That reality may be beginning to dawn at the Fed, as witnessed by the reduction in their *end-2017* Fed Funds rate projection to 2⅞% from 3⅛% last fall.

Meanwhile, with a cyclical slowdown under way against a backdrop of persistently weak secular trend growth, actual growth could much more easily fall below zero, leaving very little room for error. Is the Fed ready to face this slowdown? ■

For details about ECRI's reports, please contact us at: +1.212.553.7788 or visit us at www.businesscycle.com. This report contains confidential/proprietary information intended for member use only. Any dissemination or other action in reliance upon this communication could result in legal liability to you and your institution.

businesscycle.com © 2016 All rights reserved. 4/4

June 2015 | U.S. Cyclical Outlook Essentials | Economic Cycle Research Institute Volume XX, No. 6

... into a one-speed economy, where the manufacturing slowdown was joined by a service-sector slowdown.

And as a result, the Fed's promised rate hike plans ... ■

July 2015: Collision Course

ECRI
U.S. Cyclical Outlook
ESSENTIALS

July 2015

U.S. Cyclical Outlook Essentials

Economic Cycle Research Institute Volume XX, No. 7

A Spreading Slowdown

With economic growth set to stay in a cyclical downtrend, hopes for a "second-half rebound" are likely to be dashed. However, a recession is not yet at hand.

Collision Course The Fed's rate hike plans are on a collision course with the economic cycle. According to Fed Chairman Janet Yellen's congressional testimony last week, "economic conditions likely would make it appropriate at some point this year to raise the federal funds rate target," i.e., if not by September, then by December. But while the Fed clearly expects a pickup in growth, ECRI's leading

Any potential stock price correction is unlikely to be magnified by

Collision Course The Fed's rate hike plans are on a collision course with the economic cycle.

growth declining further in June to a 16-month low (*NEWU, July 17, 2015*).

And as we recently noted (*NUSCO Focus, July 2015*), this is no longer a two-speed economy. Services growth has joined the industrial growth downturn foreseen earlier by the U.S. Leading Manufacturing Index (USLMI), in the context of which "industrial production has declined a bit, on balance, since the turn of the year," as Ms. Yellen just acknowledged.

Following the recent upturn in USLMI growth, which touched a seven-month high in June, industrial production actually inched up in June, as did its smoothed growth rate after six straight months of decline. But should this uptick develop into a cyclical upswing in U.S. industrial growth, it may not be enough to counter an intensifying services slowdown. As we concluded recently, "[w]ith services growth slowing, the current slowdown in overall U.S. growth is set to intensify to the extent that even a manufacturing upturn may be unable to end the broader slowdown" (*NUSCO Focus, July 2015*).

This downbeat growth outlook is corroborated by the U.S. Long Leading Index (USLLI), whose growth rate remains in a three P's downturn (*NEWU, July 17, 2015*) despite edging up in June. The bottom line is that, spearheaded by a deepening downturn in nonfinancial services growth (*NEWU, June 19, 2015*), service sector growth will continue to slow in the coming months, to the extent that it will likely overshadow any nascent upturn in manufacturing growth. The good news is that, notwithstanding the continued slowdown, ECRI's indexes are not yet pointing to recession.

businesscycle.com © 2015 All rights reserved. Geoffrey H. Moore, Founder 1/9

... were on a collision course with the economic cycle.

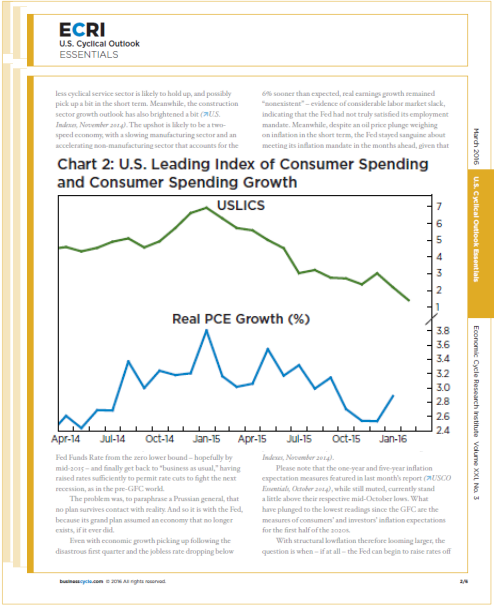
According to Chair Yellen's July congressional testimony, "economic conditions likely would make it appropriate at some point this year to raise the federal funds rate target," meaning if not by September then by December.

But while she clearly expected a pickup in growth, ECRI's leading indexes suggested the opposite.

So as we all know, we had the December rate hike, following which there was some turmoil.

Now, fast-forwarding to what we were looking at last month ... ■

March 2016: A Cautious Consumer



ECRI
U.S. Cyclical Outlook
ESSENTIALS

March 2016 | U.S. Cyclical Outlook Essentials | Economic Cycle Research Institute | Volume XXI, No. 3

less cyclical service sector is likely to hold up, and possibly pick up a bit in the short term. Meanwhile, the construction sector growth outlook has also brightened a bit (*WUS. Indexes, November 2014*). The upshot is likely to be a two-speed economy, with a slowing manufacturing sector and an accelerating non-manufacturing sector that accounts for the Fed Funds Rate from the zero lower bound – hopefully by mid-2015 – and finally get back to "business as usual," having raised rates sufficiently to permit rate cuts to fight the next recession, as in the pre-GFC world.

The problem was, to paraphrase a Prussian general, that no plan survives contact with reality. And so it is with the Fed, because its grand plan assumed an economy that no longer exists, if it ever did.

Even with economic growth picking up following the disastrous first quarter and the jobless rate dropping below 6% sooner than expected, real earnings growth remained "nonexistent" – evidence of considerable labor market slack, indicating that the Fed had not truly satisfied its employment mandate. Meanwhile, despite an oil price plunge weighing on inflation in the short term, the Fed stayed sanguine about meeting its inflation mandate in the months ahead, given that *Indexes, November 2014*).

Please note that the one-year and five-year inflation expectation measures featured in last month's report (*WUSCO Essentials, October 2014*), while still muted, currently stand a little above their respective mid-October lows. What have plunged to the lowest readings since the GFC are the measures of consumers' and investors' inflation expectations for the first half of the 2020s.

With structural lowflation therefore looming larger, the question is when – if at all – the Fed can begin to raise rates off

businesscycle.com © 2016 All rights reserved. 2/8

Chart 2: U.S. Leading Index of Consumer Spending and Consumer Spending Growth

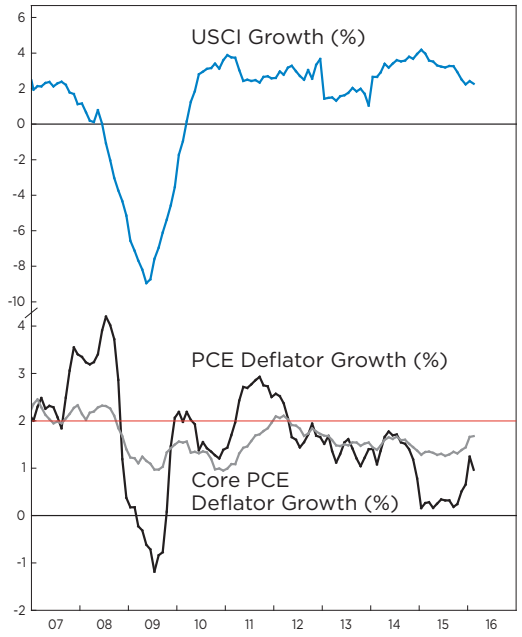
While the data that the markets focus on have been mixed, our forward-looking indexes didn't see an end to the ongoing slowdown.

A case in point was our Leading Index of Consumer Spending, which continued to ease. And consumer spending growth kept trending down.

Since this chart was produced there have been some downward revisions to consumer spending, but the picture looks pretty much the same.

Indeed, the economy as a whole remains in a slowdown. ■

"Stagflation Lite"



We can see that slowdown here in the upper panel, which shows the year-over-year growth rate of the U.S. Coincident Index, which includes output, employment, income and sales, the same indicators I showed in the earlier slide about the vicious cycle. So it includes both GDP and jobs.

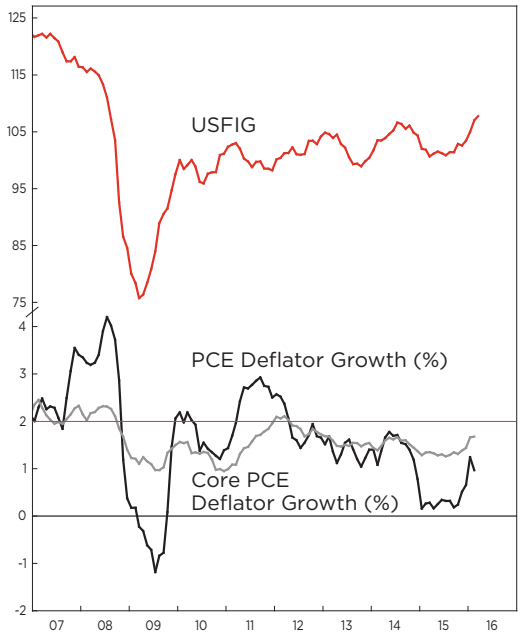
As you can see, it peaked at the start of 2015, and it's now hovering around a two-year low.

But there's a further complication. Inflation is on the rise in terms of both headline and core PCE deflator growth, with the latter approaching the Fed's 2% target shown by the red line.

On this score, last week Chair Yellen reiterated the Fed's view that we'll get to that 2% inflation target in two to three years time, implying inflation will ease back in the near term.

Once again, our forward-looking indicators see something different ... ■

Indicators of U.S. Inflation



Our U.S. Future Inflation Gauge, shown in the upper panel here, has now risen to a 7½-year high.

To be clear, this does not imply a 7½-year high in inflation. Rather, it simply tells us that the current inflation upswing is not transitory, and will persist in coming months.

This is why we've been saying that the Fed is faced with "stagflation lite."

This gives you a good sense for where we believe we are in the economic cycle. But I would be remiss if I did not place these cyclical moves in a broader context that we first identified years ago. ■

June 2015: Simple Math

ECRI
U.S. Cyclical Outlook
ESSENTIALS

less cyclical service sector is likely to hold up, and possibly pick up a bit in the short term. Meanwhile, the construction sector growth outlook has also brightened a bit (*WUS. Indexes, November 2014*). The upshot is likely to be a two-speed economy, with a slowing manufacturing sector and an accelerating non-manufacturing sector that accounts for the lion's share of U.S. jobs.

6% sooner than expected, real earnings growth remained "noncsistent" – evidence of considerable labor market slack, indicating that the Fed had not truly satisfied its employment mandate. Meanwhile, despite an oil price plunge weighing on inflation in the short term, the Fed stayed sanguine about meeting its inflation mandate in the months ahead, given that medium-to-long-term inflation expectations remained "well-

Chart 4: Growth In Labor Productivity, Hours Worked and Labor Force (%)

Shaded areas represent U.S. business cycle recessions.

inflation just above the Fed's 2% target, but resulting, most importantly, in stronger real earnings growth. Having thus met its dual mandate and confident that growth would not fall back, the Fed would proceed to "lift-off" for the Fed Funds Rate from the zero lower bound – hopefully by mid-2015 – and finally get back to "business as usual," having raised rates sufficiently to permit rate cuts to fight the next recession, as in the pre-GFC world.

The problem was, to paraphrase a Prussian general, that no plan survives contact with reality. And so it is with the Fed, because its grand plan assumed an economy that no longer exists, if it ever did.

Even with economic growth picking up following the disastrous first quarter and the jobless rate dropping below

at that consensus, that the above 2% PCE core inflation is above consensus expectations. Indeed, yoy core CPI growth ticked up to 1.8% in October, approaching May's 15-month high of 1.9%, consistent with the simmering cyclical inflation pressures indicated by the U.S. Future Inflation Gauge (*WUS. Indexes, November 2014*).

Please note that the one-year and five-year inflation expectation measures featured in last month's report (*WUSCO Essentials, October 2014*), while still muted, currently stand a little above their respective mid-October lows. What have plunged to the lowest readings since the GFC are the measures of consumers' and investors' inflation expectations for the first half of the 2020s.

With structural lowflation therefore looming larger, the question is when – if at all – the Fed can begin to raise rates off

June 2015 U.S. Cyclical Outlook Essentials Economic Cycle Research Institute Volume XX, No. 6

businesscycle.com © 2015 All rights reserved. 3/4

ECRI
U.S. Cyclical Outlook
ESSENTIALS

upper panel, thin green line).

Please note that, for the past four years, it has averaged just over ½% *per year* (red line) – far below its post-World War II (1948-2008) average of around 2¼% per year (gold line). Indeed, its trend (thick green line) has never been this low except around the early 1980s. Moreover, since the end of 2013, productivity growth has averaged only -0.7% a year. In fact, one could say that the U.S. is now in a "productivity recession," having seen the largest back-to-back quarterly productivity *decline* in 22 years.

At the Fed it is generally assumed, in line with the consensus, that yoy productivity growth will rebound to its old average of around 2¼% per year. But what is the logical basis for that premise, which implicitly assumes that productivity

This helps explain why the Fed has underestimated the pace of decline in the jobless rate for years on end. On the other hand, the dismal performance of productivity growth, which has stubbornly refused to get back to its decades-old pace, may be why the Fed has so consistently overestimated GDP growth each year.

Given the stream of innovation that has converted even our smartphones into such all-purpose technological marvels, it may be hard for some to understand why productivity is not rising faster. But while a number of popular "apps" may have made people's lives easier, that has scarcely boosted output per hour for the workforce, which is what determines labor productivity. This is not to say that productivity growth cannot take off at some point in the future, merely that it is

More troubling is the likely trend growth of ½% for productivity and ½% for hours worked, which add up to just 1% longer-term real GDP growth. Given that arithmetic, with

disappoints." Hope springs eternal but, given its recent dismal performance, we see no good reason for it to average much more than ½% a year over the next few years.

The long-term trend of yoy growth in hours worked (light blue line, lower panel) should reflect potential labor force growth (thick blue line), which, according to Congressional Budget Office projections, should stay at ½% *per year* at least for the next decade. This is pretty much set in stone, given the demographics.

Meanwhile, yoy actual labor force growth (thin navy blue line) – although perking up a bit very recently – has essentially tracked potential labor force growth, as expected. Lately, the actual labor force has expanded by about 100,000 per month, so job growth merely needs to exceed that threshold for the jobless rate to keep falling, as it has in recent years. Looking at the persistent gap between growth in hours worked and labor force growth since about 2010, one might wonder how the former could stay that high for so long. Yet, a quick calculation shows that, while potential labor force growth has averaged just ½% a year since 2007, growth in hours worked has averaged 0% over the same period, i.e., it is still playing catch-up after the massive recessionary losses.

Yellen's hopes notwithstanding.

Meanwhile, growth in hours worked was as good as it gets in late 2014, and has started to ease this year. If the USLFI and the USLNFSI are correct, it is poised to see a near-term cyclical downswing. So GDP growth is likely to flag over the next few quarters, in line with the downturn in USLLI growth.

More troubling is the likely trend growth of ½% for productivity and ½% for hours worked, which add up to just 1% longer-term real GDP growth. Given that arithmetic, with no good reason to believe that productivity growth will get back to its old 2¼% average, trend GDP growth may very well stay stuck in the 1% range for years to come.

Weak nominal growth, which effectively caps longer-term yields, leaves limited room for rate hikes without inverting the yield curve. That reality may be beginning to dawn at the Fed, as witnessed by the reduction in their *end-2015* Fed Funds rate projection to 2⅝% from 3⅛% last fall.

Meanwhile, with a cyclical slowdown under way against a backdrop of persistently weak secular trend growth, actual growth could much more easily fall below zero, leaving very little room for error. Is the Fed ready to face this slowdown? ■

For details about ECRI's reports, please contact us at: +1.212.537.7788 or visit us at www.businesscycle.com. This report contains confidential/proprietary information intended for member use only. Any dissemination or other action in reliance upon this communication could result in legal liability to you and your institution.

June 2015 U.S. Cyclical Outlook Essentials Economic Cycle Research Institute Volume XX, No. 6

businesscycle.com © 2016 All rights reserved. 4/4

In the context of the fact that trend growth has been declining for decades, last June we underscored the simple math underlying this reality.

As you know, labor productivity growth and potential labor force growth add up to potential GDP growth. The CBO pegs the latter at under half a percent a year for the next five years, and productivity growth has averaged under half a percent a year for the last five years, and they add up to just 1% longer-term real GDP growth. And the latest data are actually a bit worse.

A key reason the Fed has been frustrated is that they cannot change this fundamental reality. And in any case, they've run out of ammo, which remains the elephant in the room.

This is why a potential recession is a mortal threat to the grand experiment of ZIRP and QE policies that we've had for seven years, that was supposed to get us back to "business as usual." ■

October 2015: Too Big to Fail

ECRI
International Cyclical Outlook
ESSENTIALS

October 2015 | International Cyclical Outlook Essentials | Economic Cycle Research Institute | Volume XX, No. 10

less cyclical service sector is likely to hold up, and possibly pick up a bit in the short term. Meanwhile, the construction

6% sooner than expected, real earnings growth remained "nonexistent" – evidence of considerable labor market slack,

Three grand experiments — the Fed exiting ZIRP, Abenomics, and a smooth transition in China — are at increasing risk of failing.

The problem was, to paraphrase a Prussian general, that no plan survives contact with reality. And so it is with the Fed, because its grand plan assumed an economy that no longer exists, if it ever did.

Even with economic growth picking up following the disastrous first quarter and the jobless rate dropping below

have plunged to the lowest readings since the GFC are the measures of consumers' and investors' inflation expectations for the first half of the 2020s.

With structural lowflation therefore looming larger, the question is when – if at all – the Fed can begin to raise rates off

businesscycle.com © 2016 All rights reserved. Geoffrey H. Moore, Founder

1/4

Actually, there are three grand experiments that are too big to fail, and yet they are at risk of failing.

In China, a smooth transition to a consumer-led economy remains at best a tricky proposition, even though they've calmed market jitters for the moment.

The Fed's predicament, we've just discussed, but the real issue is their fear that the U.S. – and for that matter Europe – will essentially become Japan, in the event of another recession. Hence the concern about falling long-term inflation expectations.

But if you do become Japan, Abenomics was supposed to be the way out.

Yet after three years, Abenomics is clearly failing.

Two years ago, Japan had its fourth full-blown recession since 2008, and last year it had negative GDP growth in two of four quarters. Looking ahead we're monitoring the risk of another recession in 2016, which would be a deathblow to Abenomics. ■

Thank you.

Economic Cycle Research Institute
businesscycle.com

Follow us on Twitter
twitter.com/businesscycle

ECRI