John Williams' Shadow Government Statistics Analysis Behind and Beyond Government Economic Reporting

Special Commentary Number 985

U.S. Economic Review - Unfolding Recession and Latest Headline Activity

December 4, 2019

Second Consecutive, Negative Holiday Shopping Season Is Underway

Collapsing October 2019 Production, Retail Sales and Freight Activity Suggested a Quarterly Contraction in Real Fourth-Quarter 2019 GDP; N.Y. and Atlanta Fed GDP Forecast Models Currently at 0.8% and 1.3%

Amidst Increasingly Impaired Indicators of Economic and Systemic Health, the Flummoxed FOMC Should Be Easing Anew at Its December Meeting,

Despite Current Protestations to Contrary

FOMC Claim of Sustainable, Moderate Economic Growth Was Nonsense and Is Evaporating; Market Expectations Should Move Towards Expanded Easing, With Dollar Selling and Flight to Gold Likely to Intensify

Consensus Economic Outlook Increasingly Should Tumble, Amidst Unfolding Negative Headline Activity, Combined With Pending, Corrective Downside Benchmark Revisions to Key Series through July 2020

Overstated Growth for Retail Sales, Manufacturing and Related Series, Reflected Data Disruptions, Distortions and Delays from the Partial Government Shutdown and Related Federal-Budget Constraints

Market Recognition of the Unfolding Economic Downturn Continues to Mount, but Formal Recession Recognition Is Not Likely Before Late-2020

Two Notes to Subscribers – "No. 985" and "Updated ShadowStats Commentaries"

Special Commentary No. 985

Section I of today's Commentary No. 985 reviews the state of the U.S. economy, in the context of ShadowStats' contention of a still-deepening and ongoing recession, in place for the last year, as indicated by a number of high quality domestic business indicators. Nonetheless, formal recognition of same has lagged, masked by data disruptions and distortions resulting from the December 2018/January 2019 U.S. Government shutdown and related Federal Budget delays. Market recognition of the still-deepening downturn should mount in the months ahead, amidst (1) subsequent, negative economic benchmark revisions already in hand, (2) a number of major corrective, downside benchmark revisions pending through the July 30, 2020 annual GDP benchmarking, and (3) continuing negative concurrent headline reporting.

Section II reviews and graphs the current headline reporting of major monthly economic numbers, along with prospects for a pending headline contraction in the first-estimate of Fourth-Quarter 2019 Real GDP on January 30, 2020. That would be the first headline quarterly GDP decline, since First-Quarter 2014, which foreshadowed the unofficial Mini-Recession that began in late 2014. Yet, that reporting should meld into a pattern of increasing market recognition of a deepening, historical economic contraction, since Fourth-Quarter (November) 2018, which will continue to evolve with the reporting of the pending benchmarkings discussed in Section I.

Some Thoughts on Current Stock-Market Madness and a Flummoxed Fed. Consider that amidst recent headlines of successive record-high stock market prices, current gains in the popular stock indices from their prior historic peaks of late-August to early-October 2018 remain well shy of the increase in gold and silver prices in the same period, detailed in *Flash Update No. 14* - *Table I* (through the November 15, 2019 market highs). Subsequent market volatility, higher and lower, since November 15th has not changed those basic relationships. As this *Special Commentary* is put to bed on December 4th, against November 15th, stock prices are a bit lower, the gold price a bit higher, with the Trade-Weighted U.S. dollar on the brink of turning negative, year-to-year, for the first time in eighteen months.

Discussed separately in <u>Flash Update No. 13</u>, and updated in today's narrative, the October FOMC claim of a "sustained moderate economic expansion" in place, along with the suggestion that the FOMC's rate cuts had run their course, are concepts not likely to survive the FOMC's December 11th Press Conference unscathed. Headline U.S. economic numbers should continue weakening meaningfully, in the weeks and months ahead, with financial-market and political pressures for expanded Fed accommodation likely to mount, going into and beyond next week's December 10th to 11th FOMC Meeting. Those issues will be covered and updated shortly in subsequent *Bullet Edition No. 15* and *Flash Update No. 16*, along with subsequent, revised *Consumer Liquidity* and *Hyperinflation Watches*.

The *ShadowStats* Outlook Has Not Changed. As the deepening U.S. economic contraction accelerates, the more negative will become the pressure on the U.S. Dollar against traditionally stronger currencies such as the Swiss Franc, the stronger the flight-to-safety in precious metals and the more dangerous the

situation for domestic equity prices and stock-market stability. A rapidly weakening U.S. Dollar and rallying gold and silver prices are solid signs of impaired systemic and market conditions that can mutate investor concerns into actions in other markets.

Updated ShadowStats Commentaries and Scheduling

Making the Various ShadowStats Commentaries More Concise With More-Frequent Scheduling Updated Timing, Re-Tasking and Scope of the Various ShadowStats Commentaries: Daily Updates, Bullet Editions, Flash Updates, Special Commentaries & Watches (Effective Immediately):

- The *Daily Update* (Unrevised) posts daily, as needed, on the *ShadowStats* home page: www.ShadowStats.com, right-hand column, providing initial coverage of all major U.S. economic reporting, within two-to-three hours of headline publication, as well as coverage of unusual financial-market or political developments.
- **Bullet Edition** (Revised) publishes each weekend, providing *ShadowStats* primary coverage of the past week's unfolding activity, reviewing economic releases, financial-market, systemic and political developments. [Next planned release: **Bullet Edition No. 15** (December 8th) covering November Labor and October Trade Data, and previewing the December FOMC.]
- *Flash Update* (Revised) interspersed with *Bullet Editions* are limited in scope, highlighting nearterm events or developments—usually same- or next-day—with the economy, financial markets, politics, the Federal Reserve or with other news of significance that should be reviewed in advance of the Weekend *Bullet Edition*. [Next release planned: *Flash Update No. 16* (December 11th, covering the December FOMC Meeting.]
- Special Commentaries (Revised) should publish every quarter or so, providing a more-comprehensive overview of general, broad economic and financial conditions and tends, such as seen in this Special Commentary No. 985.
- Hyperinflation and Consumer Liquidity Watches (Revised) will supplement irregularly the weekly Bullet Edition, covering evolving market and consumer circumstances, otherwise with occasional specific data covered directly in the weekly Bullet Editions.
- *Economic Surveys of the General Public* are conducted irregularly and are open to both subscribers and nonsubscribers.
- *Telephone Consulting* is included as part of our regular service. If you have a question or otherwise would like to talk, please call John Williams at (707) 763-5786.

All *Current* and *Earlier ShadowStats Commentaries* (back to 2004) are available in the <u>Archives</u> (click on *All Commentaries*, then *List Commentaries*) in the left-hand column of the <u>ShadowStats Home Page</u>.

Your comments and suggestions are invited. Always happy to discuss what is happening.

Best Wishes — John Williams (707) 763-5786, johnwilliams@shadowstats.com

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* Overview *

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Recession Recognition Should Shift Back to Fourth-Quarter 2018, Amidst the Revisions
Key Sectors of the Economy Continue to Falter in Latest Reporting

Expectations Building for a Fourth-Quarter 2019 Recession Onset Should Shift Back in Time to Fourth-Quarter 2018, Subsequent to Major Benchmark Revisions Pending into July 2020. ShadowStats contention remains that the United States economy has been in recession, in a deepening business downturn, for the last year, following a likely economic peak in November 2018, and a related Real GDP peak in Fourth-Quarter 2018. Irrespective of headline positive GDP reporting of recent quarters, that premise remains very much in play, as indicated by a number of high quality domestic business indicators, reviewed in Section 1: Shadows of an Unfolding Recession (beginning on page 10).

The recession was triggered by a too-rapid tightening of domestic liquidity, as the Federal Reserve's Federal Open Market Committee (FOMC) moved to raise its targeted Federal Funds Rate every quarter by 0.25%, beginning in Fourth-Quarter 2017. By December 2018, the domestic financial markets were beginning to recognize an unfolding contraction. The Stock Market crashed that month, in response to

continued FOMC tightening and indications then of still further constraint well into 2019. In response to the crash, the FOMC halted its rate hikes, and began easing rates in mid-2019, while reintroducing something akin to expanded Quantitative Easing to address deteriorating systemic liquidity issues.

No Contracting GDP Here. Nonetheless, headline GDP growth has remained positive up through its just published Third-Quarter 2019 second estimate (albeit with a continuously slowing real annual growth rate). Further, in his October 30th FOMC Press Conference, Federal Reserve Chairman Powell went so far as to declare that the FOMC's recent actions had triggered "sustainable, moderate economic growth" in the United States. The message for the markets was that there was no need for additional FOMC accommodation in order to stimulate business activity (except for continued expansion of Quantitative Easing, which was not to be called Quantitative Easing).

Nonetheless, "sustainable moderate economic growth" in the current U.S. economy is a fiction. Although there is no reporting or market recognition in place of a recession having begun in Fourth-Quarter 2018, at present, that is due only to a confluence of unusual distorting circumstances in data reporting, not due to any particularly prescient policy moves by the FOMC.

Major disruptions to and distortions in the reporting of key economic series resulted from the partial U.S. government shutdown in December 2018 and January 2019, which heavily skewed some post-Third-Quarter 2018 economic data to the upside. Such skewing is a common circumstance in headline government economic reporting, when those putting the headline numbers together have to guess at the underlying detail (discussed later). Bloated headline numbers subsequently were institutionalized by the woefully incomplete July 26, 2019 annual benchmarking of the Gross Domestic Product (GDP). Those distortions back to Fourth-Quarter 2018, largely should be corrected with the next GDP benchmarking on July 30, 2020. That said, two major negative benchmarking indications already have surfaced subsequent to the July 2019 GDP benchmarking.

Expectations Are Building for Possible Fourth-Quarter 2019 GDP Contraction. Irrespective of pending data revisions and benchmark revisions through July 2020, currently weakening headline economic activity (such as seen with October 2019 Industrial Production, Retail Sales and the Cass Freight Index) have started to build market expectations for a U.S. economic recession, with a pending contraction in Fourth-Quarter 2019 GDP, discussed in *Section II: Latest Economic Reporting*, beginning on page 43. Such recognition appears to be building momentum. Yet, again, in the context of underlying, major downside benchmarkings of key series pending by mid-year 2020, such as Retail Sales and Industrial Production, market perceptions are likely to shift towards a sharply negative 2020 GDP benchmarking that will push the eventual formal recognition of still-deepening recession back to Fourth-Quarter or November of 2018.

The FOMC's purported attainment of perfect economic conditions no longer remains in play, based on currently unfolding headline monthly economic data (again see *Section II*). Accordingly, the FOMC likely will face increasing pressures and expectations for a more-accommodative stance at next week's December 10th and 11th meeting.

* Section I: Shadows of an Unfolding Economic Recession *

Benchmark Revisions Show How Bad-Reporting Masked a 2014 Downturn

November 2018 Capacity Utilization Signaled a New Recession

Government-Shutdown Data Disruptions Masked a 2018/2019 Downturn

2019 Manufacturing Benchmark Revision Was Eviscerated

2019 GDP Benchmarking Institutionalized Government Shutdown Distortions

Subsequent Construction-Spending and Payroll Benchmarks Were Sharply Negative

Delayed Economic Census Already Suggests Negative Manufacturing 2020 Benchmarking

October 2019 Manufacturing Showed Unprecedented 143rd Month of Non-Expansion

Increasing Recognition of a Deepening Recession Should Follow Downside Benchmark Revisions to Key Data in Coming Months, Specifically Including the July 30, 2020 GDP Annual Benchmarking. ShadowStats' contention remains that recent broad U.S. economic activity peaked in November 2018, as confirmed by a number of solid economic indicators. Yet, much of the ensuing weakness that should have surfaced in the headline Gross Domestic Product (GDP) and in key underlying series, was masked by reporting distortions tied to operational disruptions, including economic surveying, that resulted from the partial shutdown of the federal government in December 2018 and January 2019, as well as the budget-delayed release of the 2017 Economic Census.

The July 26th GDP Benchmarking Locked in Government-Shutdown Disrupted and Bloated Fourth-Quarter 2018 and First-Quarter 2019 Economic Reporting Until July 30th 2020. Accordingly, 2019 benchmark revisions to key data underlying the GDP were incomplete, late or never took place, with the effect that unusually poor quality reporting and bloated, overly optimistic economic guesstimates of key series were institutionalized in the woefully incomplete July 26, 2019 annual GDP benchmarking up through First-Quarter 2019, with carry through, so far, to the second estimate of Third-Quarter 2019 GDP reporting.

Conventional Political Wisdom: It Is Much Better to Overstate than Understate Guesstimated Data. Why the pending revisions most likely will be and usually would be to the downside, was discussed in Special Commentary No. 885, entitled Numbers Games that Statistical Bureaus, Central Banks and Politicians Play. A party involved in the preparation of the monthly payroll data at the Bureau of Labor Statistics, explained the creation of the upside bias factor that now standardly is added into the regular monthly payroll growth estimates, as follows:

Historically, the upside-bias process was created simply by adding in a monthly "bias factor," so as to prevent the otherwise potential "political embarrassment" to the BLS of understating monthly jobs growth. The creation of the "bias factor" process resulted from such an actual embarrassment, with the underestimation of jobs growth coming out of the 1983 recession. That process eventually was recast as the now infamous Birth-Death Model (BDM), which purportedly models the relative effects on payroll employment of jobs creation due to new businesses starting up, versus jobs lost due to bankruptcies or closings of existing businesses.

The practice of using upside assumptions/positive reporting biases appears to be commonplace with most government economic numbers, where monthly revisions to many series, and where annual benchmark revisions to most series almost always are to the downside.

Early Benchmarkings, Post-2019 GDP Benchmarking. ShadowStats contends that underlying, inflation-adjusted real U.S. economic activity peaked in fourth-quarter 2018 and has been in a deepening recession, ever since, as evidenced by headline reporting of a number of high-quality economic series such as Industrial Production and related Capacity Utilization, the Cass Freight Index, Domestic Oil/Petroleum Consumption, etc., discussed shortly.

Even so, headline reporting of key series such as Retail Sales and even Industrial Production were heavily distorted in Fourth-Quarter 2018 and First-Quarter 2019 by meaningful reporting disruptions and distortions resulting from the December 2018/January 2019 partial government shutdown and/or the lack of normal annual benchmark revisions, and otherwise due to the budget-deficit delayed publication of the 2017 Five-Year Economic Benchmark Census, to which almost all major economic series are benchmarked.

Early Downside Benchmarkings Already Have Begun to Surface for 2018/2019. Subsequent subsidiary economic annual benchmark revisions, such as seen with the initial indication for 2019 Payroll Employment and the full annual 2018 Construction Spending benchmarking, already have confirmed a weaker 2018/2019 economic history than initially reported and currently institutionalized in headline GDP. Again, those revamped numbers and other broadly downside revisions pending in the next eight months, will not be adjusted into the headline GDP history until the July 30, 2020 annual GDP benchmark revisions. It is at the time of the 2020 benchmarking that the late-2018 (not late-2019) onset of the current downturn is likely to gain broad market recognition.

GDP Distortions from Delayed Benchmark Revisions of Underlying Economic Indicators. Further, the budget-delayed 2007 Economic Census finally was released with its preliminary findings on September 19th, the day following an FOMC meeting. Early indications from the Economic Census were that some major delayed downside benchmark revisions loom for series such as Manufacturing in Industrial Production, and New Orders for Durable Goods, which did not have their normal, full 2019 benchmarkings that would have been in place for the July 26th GDP benchmarking. While full results are

pending, early indications from payroll accounting indicate that the Manufacturing series, for example, will face some downside revision as a result of the 2017 Census. Consider the following:

Release of Delayed 2017 Economic Census Indicates Downside Manufacturing Revisions

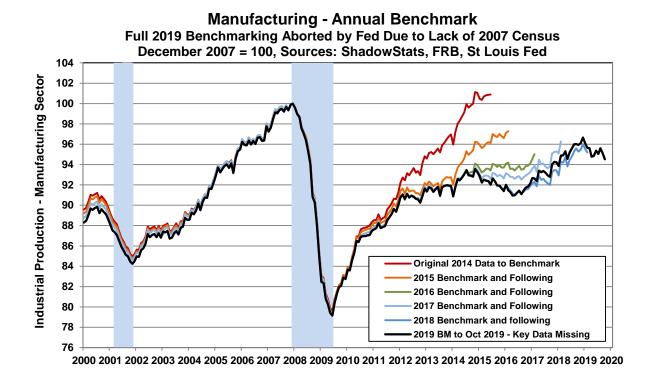
Key Series Consistently Are Showing Meaningful Downturn and Recession Patterns

A Missing Recession

Missing 2019 Benchmark Revisions. Discussed in <u>Bullet Edition No. 3</u> of March 15th, and per the <u>Federal Reserve</u> statistical release of that date (page 3, with emphasis added):

The Federal Reserve Board plans to issue its annual revision to the index of industrial production (IP) and the related measures of capacity utilization on March 27, 2019, at noon EDT. The [government mandated] *Economic Census for 2017 will not be available from the U.S. Census Bureau by early 2019, so no new annual benchmark data will be included for manufacturing*.

Graph 1: Annual Benchmark Revisions to the Dominant Manufacturing Sector of Industrial Production



Preliminary Results of the Budget-Delayed 2017 Economic Census Suggested Major, Pending Downside Benchmark Revisions to Series Such as Industrial Production and Manufacturing. Much delayed by federal budget issues, the first reading and preliminary findings of the 2017 Economic Census were released on September 19, 2019. Early indications were that delayed, major downside benchmark revisions loom for series such as Manufacturing in Industrial Production and New Orders for Durable

Goods, which did not have their normal, full 2019 benchmarkings. Had the full information been available, the data would have been in place for the July 26, 2019 GDP benchmarking. Correspondingly, without those revisions, significant elements of the benchmarked GDP growth were overstated, at least partially driving current bloated assessments of U.S. economic activity, including FOMC and Wall Street hyperbole of a "sustainable, moderate economic growth" at hand, nearly perfect economic conditions. Those missing benchmark revisions should be in place for the July 30, 2020 GDP Benchmarking.

No Meaningful Benchmark Revision Was Being Allowed for Manufacturing in 2019. Seen in Graph 1, annual benchmark revisions to the Manufacturing Sector invariably have been to the downside for recent prior history, but not in the 2019 benchmarking, which lacked usual underlying detail needed for benchmarking. Bearing some repetition, the reason for consistently negative benchmarkings, as seen in Graph 1, is that almost all government reporting has to incorporate underlying assumptions. The tendency by reporting agencies usually is to make overly positive assumptions, allowing for later downside corrections in the benchmarking (again, see the prior reference to Special Commentary No. 885).

Seen in *Graph 1*, the usual downside annual benchmarking of the Manufacturing Sector of the U.S. economy did not take place in time for the July 26, 2019 GDP benchmarking, but it has now, in time for the June 30, 2020 GDP benchmarking.

Manufacturing Sector of the U.S. Economy Never Has Recovered Fully from the Great Recession, Still Shy by 5.5% (-5.5%) of Regaining Its December 2007 Pre-Recession Peak. As most recently reported, October 2019 U.S. Manufacturing declined year-to-year by 1.5% (-1.5%), down for the fourth consecutive month, with Third-Quarter 2019 down year-to-year by 0.6% (-0.6%), the first quarterly annual decline since 2016, at the depths of the 2014 to 2016 Mini-Recession (see *Graphs 6* and 7).

By definition, an economic recession is a downturn in activity from what becomes recognized as the prerecession high or peak activity. Activity declines until its bottoms in a trough. Economic recovery is the period of activity measured off an economic trough, until the series hits its pre-recession high. Economic expansion is measured as growth beyond the recovery or regaining the pre-recession peak activity.

So defined, the Manufacturing Sector in October 2019 held shy of recovering its pre-recession monthly peak activity of December 2007 by 5.5% (-5.5%), having completed a record 143 straight months (and counting) of economic-non expansion. Conditions are deteriorating, where Third-Quarter 2019 Manufacturing had completed a record 47 straight quarters of economic non-expansion, holding just 4.5% (-4.5%) shy of ever recovering its pre-recession peak of Fourth-Quarter 2007. Those 11-plus straight years of economic non-expansion, are a circumstance never before seen in the 101-year history of Industrial Production reporting, as reflected later in *Graphs 51* and *52* of *Section II*.

Missing or Misleading Annual Benchmark Revisions Can and Have Masked What Should Have Been Recognized as Formal Recessions. What became evident in 2014 annual benchmark revisions of the Manufacturing Sector was that U.S. Manufacturing had recovered from the Great Recession, hitting a new historic high level of activity (see Graph 1). Yet, as shown there in the annual plots of successive benchmark revisions, beginning with the 2015 annual benchmarking of Manufacturing, through the 2019 restrictive benchmarking, the Manufacturing series actually had entered a new downturn or recession in 2014, through 2017, again, as reflected in Graph 1. It remains ShadowStats contention that the limited

2019 benchmarking was woefully shy of reality, masking the onset of what should be recognized eventually as the 2018/2019 recession, likely to be timed from November 2018, continuing throughout 2019 into 2020.

On a quarterly basis, Third-Quarter 2019 Manufacturing was 4.5% (-4.5%) shy of ever recovering its pre-Great Recession peak of Fourth-Quarter 2007, in contrast to the headline second-estimate Third-Quarter 2019 GDP, which stood at a record 26.4% above its Fourth-Quarter 2007 pre-Great Recession peak activity. Discussed frequently in the *ShadowStats* assessments of headline GDP reporting, no other economic or employment measure comes anywhere close to matching the purported headline economic post-Great Recession recovery reported for the headline GDP.

Annual Bias Factors and Belated Benchmark Revisions Appear Once Again to Be Masking What Should Become a Formal Recession, This One Beginning in Late-2018. If one looks at the current plots of Capacity Utilization of Manufacturing (Graph 2) versus the blue-shaded bands that mark periods of formal recession, there appears to be a missing, formal-recession band from the late-2014 to an early-2016 trough period.

Although there were indications at the time of a new recession, including common experience, a recession never was indicated formally, in the initial key reporting of Industrial Production and Manufacturing. It only was in the annual production benchmark revisions of 2017 and 2018 that what otherwise likely would have been called a formal recession, surfaced in the headline detail, as reflected in *Graph 1*.

ShadowStats Consistent Business-Cycle Timing Shows Post-Great Recession Downturns Consistent Business-Cycle Timing Signaled Onset of Current 2018/2019 Recession

Consistent Recession Signals. *Graphs 2* and *3* plot the current headline detail of Manufacturing-related Capacity Utilization through October 2019, with *Graph 2* reflecting the shaded bars of headline formal recessions, as defined by the National Bureau of Economic Research (the <u>NBER</u>), which formally declares and times U.S. economic recessions. *Graph 3* reflects those headline recessions, along with what *ShadowStats* suggests is a more accurate rendition of the 2014 to 2016 period, plus what appears to be an unfolding recession in the current circumstance.

Sharp Downturns in Capacity Utilization Usually Signal the Formal Onset of a Recession. Where sharp downturns in Utilization historically usually mark and often have defined the onset of a formal recession, such would support the concept of a renewed "headline" recession, a double-dip downturn that began at the end of 2014, as indicated by the Industrial Production series. That remains ShadowStats' estimate of the timing of a likely "headline" double-dip recession, which formally began at the end of 2007, bottomed in 2009, peaked in late in 2014 and then bottomed anew in 2016, although—again—nothing confirming that showed up formally in the 2018 comprehensive GDP benchmarking. Contrary to the consensus hype of fully recovered and expanding U.S. economic activity, again, as seen in the Manufacturing Sector, much of the headline U.S. economy never recovered fully from the 2007 downturn. Separately, current headline detail is showing what likely is unfolding as a new downturn in economic activity.

October 2019 Capacity Utilization declined to a twenty-five month low of 76.74%, the weakest showing since latter part of the 2014 to 2016 Mini-Recession, down from a November 2018 peak of 79.5%, which likely will be designated as the pre-recession peak activity and onset of timing for the unfolding 2018 recession.

The prior peak was 79.4% of October 2014, the pre-recession peak of the 2014 Mini Recession, which followed the pre-Great Recession peak of 81.13% in October 2007. Again, current activity never has recovered its pre-Great Recession high.

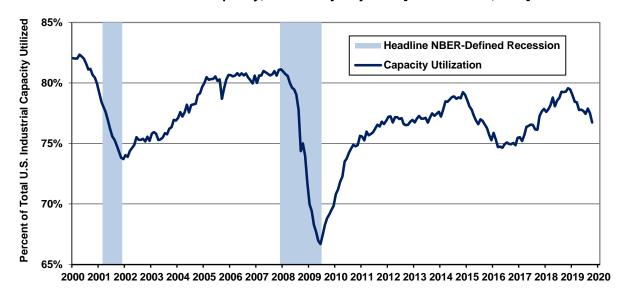
Nonetheless, barring a new year-end government shutdown, and based on currently weakening key subsidiary data, a U.S. economic recession likely will be gaining financial-market recognition as having begun in Fourth-Quarter 2019, not 2018. That later recognition already appears to be in its early stages. *Section II* reviews the latest headline data as reported for the major economic series reported each month. Yet, in the context of underlying, major downside benchmarkings of key series pending by mid-year 2020, such as Retail Sales and Industrial Production, market perceptions are likely to shift towards a sharply negative 2020 GDP benchmarking that will push the eventual formal recognition of still-deepening recession back to November 2018.

The following set of *Graphs 2* to *14* reflect a series of economic indicators reflecting current, unfolding economic recession, although a recession has not been formally indicated.

[Graphs 2 to 14 begin on the next page.]

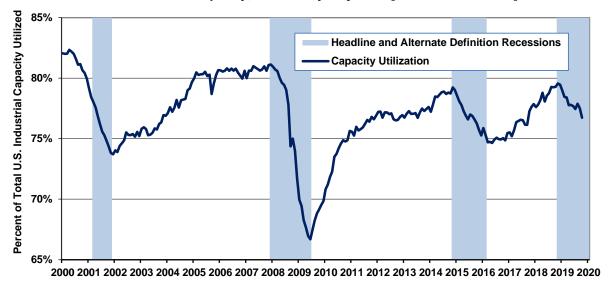
Graph 2: Utilization of Total U.S. Industrial Production and Manufacturing Capacity (NBER Recessions)

Capacity Utilization: Total U.S. Industry to October 2019 With Standard Headline Recessions (NBER) Percent of Capacity, Seasonally-Adjusted [ShadowStats, FRB]



Graph 3: Utilization of Total U.S. Industrial Production and Mfr. Capacity (ShadowStats Alternate Recessions)

Capacity Utilization: Total U.S. Industry to October 2019 With An Alternate Recession Definition Percent of Capacity, Seasonally-Adjusted [ShadowStats, FRB]



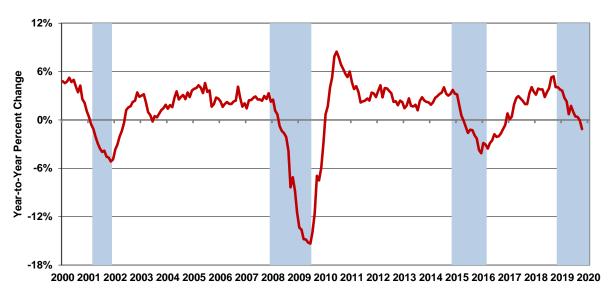
Graph 4: Aggregate Industrial Production

Index of Industrial Production (2012 = 100) Level to October 2019, Seasonally-Adjusted [ShadowStats, FRB]



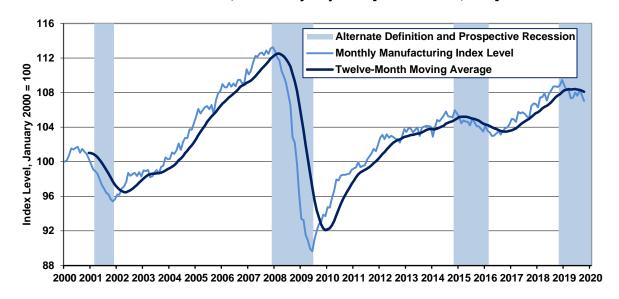
Graph 5: Aggregate Industrial Production, Year-to-Year Percent Change

Industrial Production (Year-to-Year Percent Change) To October 2019, Seasonally-Adjusted [ShadowStats, FRB]



Graph 6: Industrial Production - Manufacturing

Production - Manufacturing (SIC)
Index Reset to January 2000 = 100, Monthly and 12-Month Moving Average
To October 2019, Seasonally Adjusted [ShadowStats, FRB]



Graph 7: Manufacturing, Year-to-Year Percent Change

Industrial Production - Manufacturing (Yr-to-Yr Percent Change) To October 2019, Seasonally-Adjusted [ShadowStats, FRB]

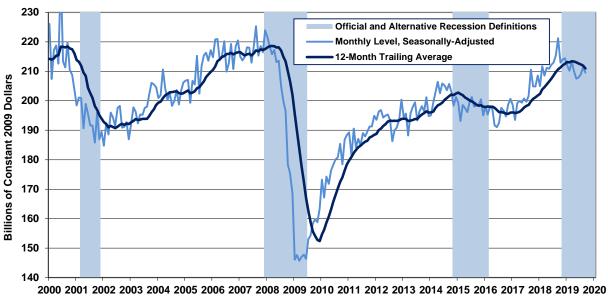


[Graphs 8 to 14 continue on the next page, also, see Graphs 47 to 60 and related discussion in Section II.)

Graph 8: Real New Orders for Durable Goods (Ex-Commercial Aircraft)

Real Durable Goods Orders (Ex-Commercial Aircraft)

Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods To September 2019, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 9: Real New Orders for Durable Goods (Ex-Commercial Aircraft), Year-to-Year Percent Change

Real New Orders for Durable Goods (Ex-Commercial Aircraft)

Year-to-Year Percent Change, Deflated by PPI Durable Manufactured Goods Monthly to September 2019, Seasonally-Adjusted [ShadowStats, Census, BLS]



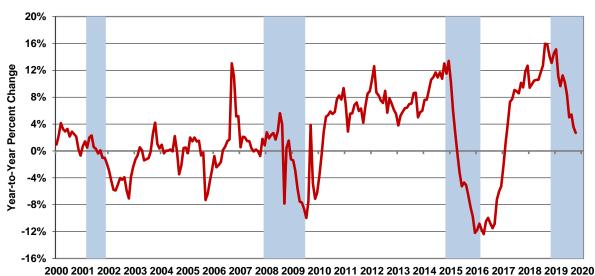
Graph 10: Industrial Production - Mining Activity, Including Oil and Gas Production and Exploration

Industrial Production - Mining (Including Oil & Gas) To October 2019, (2012 = 100) Seasonally-Adjusted [ShadowStats, FRB]

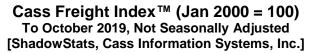


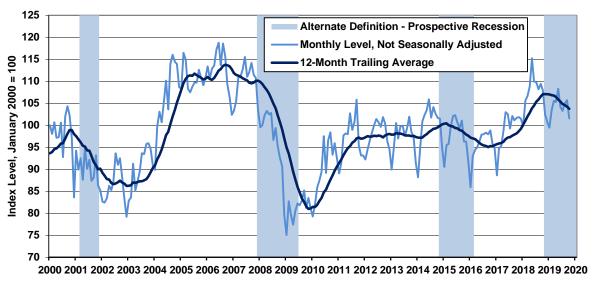
Graph 11: Mining Year-to-Year Change, Including Oil and Gas Production and Exploration

Production - Mining (Year-to-Year Percent Change) To October 2019, Seasonally-Adjusted [ShadowStats, FRB]

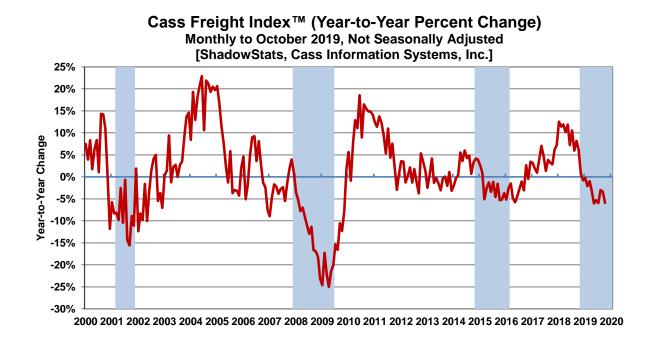


Graph 12: CASS Freight Index[™], 2000 to October 2019, versus Alternate/Prospective Recession Measures

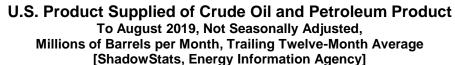


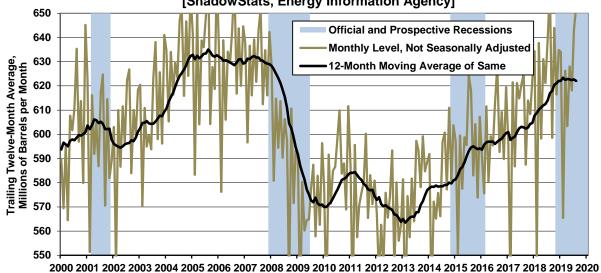


Graph 13: CASS Freight Index[™], Yr-to-Yr, 2000 to Oct 2019, versus Alternate/Prospective Recession Measures



Graph 14: Total Petroleum Product Supplied in the U.S., 2000 to Aug 2019, vs. Alternate/Prospective Recession





[Series Benchmark Revisions Post-GDP Benchmarking follow on next page.]

Revisions Post-GDP 2019 Benchmarking Indicate Weaker GDP

GDP Distortions from a Partial Government Shutdown

Headline GDP, Benchmarkings and Missed Benchmarkings

Shutdown Disrupted GDP Activity Was Worse than Headlined

Shutdown-Delayed Construction Spending Benchmarking Showed Intensified Collapse

Initial Payroll Benchmarking, Post-GDP Benchmarking, Implied Weaker GDP

Government-Shutdown Distorted and Delayed Numbers Have Begun to Surface, With Delayed Accounting Showing Artificially Spiked Growth Now Enshrined in the 2019 GDP Benchmarking. Disrupted and distorted by the partial government shutdown, heavily bloated headline First-Quarter 2019 GDP is locked in place until its benchmark revision of July 30, 2020. The first major confirmation of this circumstance came with the September 3rd, shutdown-postponed 2019 annual benchmark revisions to Construction Spending, subsequent to the initial 2019 GDP benchmark revisions of July 26th.

Shutdown-Delayed Construction Spending Benchmark Revisions Helped to Generate Overstated Benchmarked Headline GDP Growth. Annual benchmarking of the Construction Spending Series should have been published in early July 2019, prior to, and then incorporated with the July 26th GDP Annual Benchmark Revisions. Due to the December 2018/January 2019 partial shutdown of the Federal Government, however, the Construction Spending benchmarking was delayed until September 3rd. Those revised Construction numbers showed a sharp deterioration in already weakened, recent headline Construction Spending, a pattern that would have generated weaker quarterly GDP growth than has been headlined in the current "healthy" economy, and as otherwise touted by those on the FOMC not wanting to cut interest rates (see *Flash Update No. 6* and *Flash Update No. 13*).

Indeed, the current headline GDP and FOMC economic assumptions are overstated as a result. The benchmarking showed and upside revision to the series in 2015, which held relatively constant until annual growth began to tumble, with revised nominal year-to-year Construction Spending turning negative in Fourth-Quarter 2018 and after, previously having held positive until Second-Quarter 2019. The last time nominal annual Construction Spending growth turned negative was in First-Quarter 2008, at the formal onset of the Great Recession.

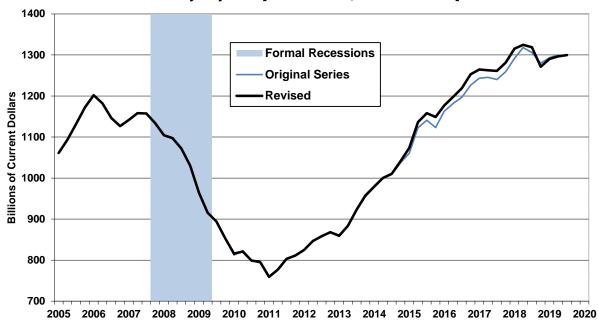
Had the new Construction Spending detail been available on its regularly scheduled basis for the GDP benchmarking (as it is now for the next GDP benchmarking in July 2020), it would have resulted in weaker, benchmarked headline GDP growth patterns in Second-Quarter 2018 and after, than currently is headlined. Reflected in *Graphs 15* and *16*, consider that nominal year-to-year change in Third-Quarter 2018 Construction Spending revised lower to 4.57% from 5.29%, while Fourth-Quarter 2018 revised from an annual nominal gain of 1.65% to an annual decline of 0.80% (-0.80%), with First-Quarter 2019 revising from a positive 0.16% to a negative 1.91% (-1.91%) and Second-Quarter 2019 revising from a contraction of 1.35% (-1.35%) to 2.04% (-2.04%), with a subsequent second-quarter revision to an annual contraction of 2.11% (-2.11%), as published with the latest headline October 2019. Third-Quarter activity showed an initial nominal year-to-year decline of 2.14% (-2.14%), which revised to a decline of 1.47% (-1.47%) with the just-published October 2019 detail.

Separately, net of ShadowStats Construction Inflation estimates, the broad ongoing monthly, quarterly and annual contractions in real Construction Spending have continued in a deepening pattern. Headline details for the latest, October 2019 real monthly reporting and are covered beginning on page 62, in *Graphs 69* to 72. As with Manufacturing and the Freight Index, Construction Spending never has recovered its pre-Great Recession peak activity.

[Graphs 15 and 16 follow on the next page.]

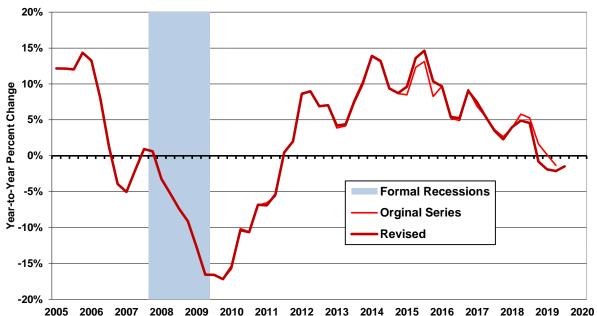
Graph 15: Nominal Construction Spending, Quarterly Annual Rate, Billions of Dollars, to Third-Quarter 2019

Benchmarked Nominal Construction Spending Billions of Dollars, 1q2015 to 3q2019 Seasonally-Adjusted [ShadowStats, Census Bureau]



Graph 16: Nominal Construction Spending, Quarterly Yr-to-Yr % Change, Benchmark and Third-Quarter 2019

Benchmarked Nominal Construction Spending Year-to-Year Percent Change 1q2005 to 3q2019 Seasonally-Adjusted [ShadowStats, Census Bureau]



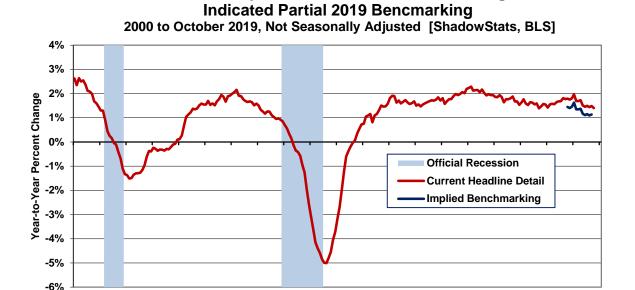
Preliminary 2019 Payroll Employment Benchmarking Deleted 501,000 (-501,000) Jobs It Wiped Out 20% of Last Year's Jobs Growth

Monthly Payroll Growth Was Depressed in Its Preliminary Benchmarking. Current headline payroll numbers do not incorporate the August 11th initial 2019 downside annual payroll benchmark revision estimate of 501,000 (-501,000) jobs, which wiped out 20% of the headline jobs growth in the year before. Full details are to be published with February 7, 2020 release of the January 2020 Payroll Employment. *Graph 17* shows a suggestion of what that benchmarking will look like.

Particularly hard hit was implied Retail Sales activity, with sharp drops in both Retail Trade and Leisure and Hospitality payrolls, which make up the bulk of the headline Retail Sales series.

Nonfarm Payrolls Year-to-Year Percent Change

Graph 17: Indicated Preliminary March 2019 Payroll Benchmark Revision - Yr-to-Yr % Change in Payrolls



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

GDP Benchmarking Showed Downshift in Annual Growth

A Number of Weaker, Underlying Benchmarkings Were Not Available

Fourth-Quarter 2018 to Second-Estimate Third-Quarter 2019 GDP Numbers Are Distorted

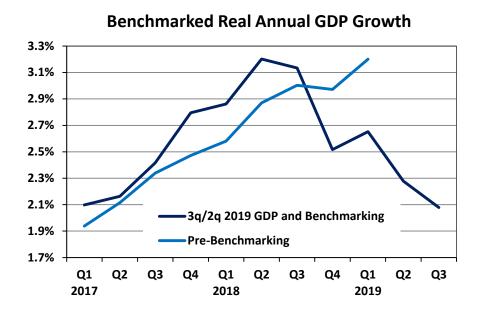
Catch Up on Missing Data Broadly Should Be to the Downside, with Likely Negative GDP Revisions Pending for Next Year's July 30, 2020 Benchmarking. Discussed in prior sections, incomplete, late and missed 2019 subsidiary economic benchmark revisions, which normally would have been included in the GDP benchmarking, likely would have lowered headline growth. As a result, current headline GDP activity is overstated.

As published and plotted here, the current headline details incorporate the 2019 GDP Benchmark Revisions through First-Quarter 2019 GDP, the "Final" Estimate of Second-Quarter 2019 GDP and the "Second" Estimate of Third-Quarter 2019 GDP. While the headline 2019 Benchmarking was shy of detail from a number of subsidiary series, due to previously discussed data disruptions, the benchmarking showed minimal revisions to the level of headline activity, but some sharp swings to the downside in annual change, particularly for Gross Domestic Product (GDP) as reflected in Gross Domestic Product *Graphs* 18 and 19, and 24 and 25.

Uptrending Annual GDP Growth Suddenly Flipped to, and Has Continued in, a Downtrend. The July 26, 2019 annual benchmark revisions to the Gross Domestic Product, shown in the following simple summary graphs of the 2019 GDP benchmark revisions reflect the sudden and rapid revised downside flips in headline 2018 annual and quarterly real GDP growth rates that are now leading the broad economy into recession. When in final form next July, the year-to-year changes in *Graph 18* likely will have turned negative.

Growth Revised Sharply Lower for Both Gross Domestic Income (GDI) and Gross National Product (GNP). Annualized real quarterly growth in Second-Quarter 2019 GDI, theoretical income-side equivalent of the consumption-side GDP, revised down to 1.82%, from its initial estimate of 2.11%, versus 3.24% in unstable second-quarter accounting, with annual growth revising to 2.28% (previously 2.35%), versus 2.00% in First-Quarter 2019. GNP, which is GDP plus the balance of trade in factor income (interest and dividend payments) revised down to 2.78%, from 3.18% in initial Second-Quarter 2019 reporting, versus 3.09% in First-Quarter 2019, with revised annual growth of 2.38% (previously 2.48%) in Second-Quarter 2019, versus 2.47% in First-Quarter 2019. Those details are updated in accompanying *Tables I* and *II* through initial third-quarter reporting. Following the tables, *Graphs 18* to 41 plot the details of the related GDI and GNP, as well as the ShadowStats Alternate GDP, with extended discussion in *Flash Update No. 15*.

Graph 18: Benchmarked Year-to-Year Real Quarterly GDP Growth and to 3rd-Quarter 2019 GDP



Graph 19: Benchmarked Annualized Quarterly Real GDP Growth and to 3rd-Quarter 2019 GDP

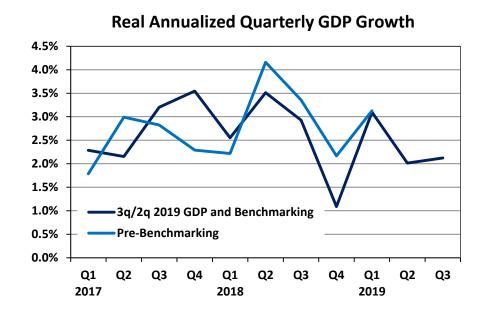


Table I: Quarterly 2018 GDP, Before and After July 2019 Benchmark Revisions

Annualized Quarterly Real Growth in Headline 2018 Gross Domestic Product July 2019 Benchmark Revisions Versus Previously "Final" Data Growth Contribution by Consumption and Product Sector

GDP COMPONENT GROWTH	First-Quarter 2018		Second-		Third-Quarter 2018		Fourth-Quarter 2018	
CONTRIBUTION BY SECTOR	Zu "Final"	Revised	"Final"	18 Revised	"Final"	Revised	"Final"	Revised
ECONOMIC SECTOR	rinai	Reviseu	rinai	Reviseu	rinai	Reviseu	rinai	Reviseu
Personal Consumption								
- Goods	-0.13%	0.27%		1.13%		0.75%		0.33%
Motor Vehicles	-0.35%	-0.15%	0.16%	0.18%		0.01%	0.20%	0.07%
- Services	0.49%	0.88%	1.42%	1.57%	1.47%	1.59%	1.12%	0.65%
Gross Private Domestic Investment								
- Fixed Investment	1.34%	0.94%	1.10%	0.89%	0.21%	0.13%	0.54%	0.46%
Residential	-0.14%	-0.21%	-0.05%	-0.15%	-0.14%	-0.16%	-0.18%	-0.18%
- Change in Private Inventories	0.27%	0.13%	-1.17%	-1.20%	2.33%	2.14%	0.11%	0.07%
Net Exports of Goods and Services	-0.02%	0.00%	1.22%	0.67%	-1.99%	-2.05%	-0.08%	-0.35%
Government Consumption	0.27%	0.33%	0.43%	0.44%	0.44%	0.36%	-0.07%	-0.07%
GDP ANNUALIZED REAL GROWTH	2.22%	2.55%	4.16%	3.51%	3.36%	2.93%	2.17%	1.09%
Final Sales, GDP Less Inventories	1.95%	2.42%	5.33%	4.71%	1.03%	0.79%	2.17%	1.09%
PRODUCT SECTOR								
PRODUCT SECTOR								
Goods	1.20%	1.16%	1.91%	1.55%	1.76%	1.41%	1.66%	1.39%
Services	0.73%	1.24%	1.78%	1.70%		1.73%	0.99%	0.37%
Structures	0.28%	0.15%	0.47%	0.26%	-0.17%	-0.21%	-0.48%	-0.67%
GDP ANNUALIZED REAL GROWTH	2.22%	2.55%	4.16%	3.51%	3.36%	2.93%	2.17%	1.09%
		SUPPL	EMENTAL					
Annualized Quarter-to-Qua	arter Real	GDP Cha	nge and F	<mark>leadline I</mark> r	<mark>nplicit Pri</mark>	ce Deflato	Inflation	
Gross Domestic Product (GDP)	2.22%	2.55%	4.16%	3.51%	3.36%	2.93%	2.17%	1.09%
Gross Domestic Income (GDI)	3.90%	4.46%	0.87%	0.71%	4.56%	3.28%	0.52%	0.78%
Gross National Product (GNP)	2.20%	2.85%		3.12%		3.00%		0.68%
ShadowStats Corrected GDP**	0.15%	0.45%		1.42%		0.84%	0.10%	-0.96%
Implicit Price Deflator (IPD) Inflation	2.02%	2.38%	3.31%	3.43%	1.51%	1.78%	1.86%	1.78%
Year-to-Year Real				_				
Gross Domestic Product (GDP)	2.58%			3.20%		3.13%		2.52%
Gross Domestic Income (GDI)	2.36%			2.21%		2.83%		2.34%
Gross National Product (GNP)	2.73%	3.08%		3.42%		3.17%		2.41%
ShadowStats Corrected GDP*	0.51%	0.78%		1.11%		1.05%	0.89%	0.44%
Implicit Price Deflator (IPD) Inflation	1.95%	2.15%	2.50%	2.67%	2.39%	2.59%	2.17%	2.34%

Sources: Bureau of Economic Analysis, www.ShadowStats.com (ShadowStats).

^{*}Real GDP corrected for understated headline inflation, see Special Commentaries No. 968 Extended and 983-B for background.

Table II: Before-and-After Benchmarked 3q2018 to 1q2019 GDP, Headline 2q2019 and 3q2019 GDP by Estimate

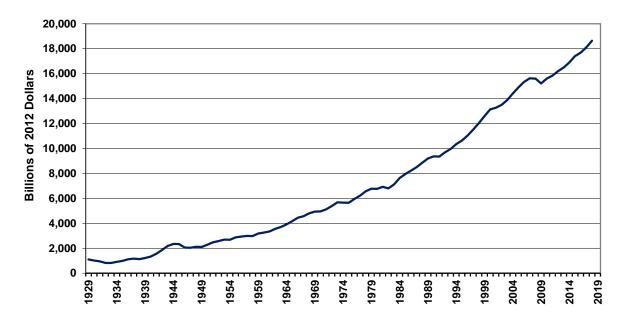
Annualized Quarterly Real Growth in Headline Gross Domestic Product Benchmark Revised Third-Quarter 2018 to First-Quarter 2019 and "Final" Second-Quarter and "Second Estimate" Third-Quarter 2019 Growth Contribution by Consumption and Product Sector

GDP COMPONENT GROWTH CONTRIBUTION BY SECTOR	Third-Quarter 2018		Fourth-Quarter 2018		First-Quarter 2019		Second- Quarter	Third-Quarter 2019	
	Old	Revised	Old	Revised	Old	Revised	2019	First	Second
	"Final"	"Final"	"Final"	"Final"	"Final"	"Final"	"Final"	Estimate	Estimate
ECONOMIC SECTOR									
Personal Consumption									
- Goods	0.90%	0.75%	0.54%	0.33%	0.15%	0.32%	1.74%	1.14%	1.17%
Motor Vehicles	-0.05%	0.01%	0.20%	0.07%	-0.46%	-0.27%	0.37%	0.02%	0.07%
- Services	1.47%	1.59%	1.12%	0.65%	0.48%	0.46%	1.29%	0.79%	0.80%
Gross Private Domestic Investment									
- Fixed Investment	0.21%	0.13%	0.54%	0.46%	0.53%	0.56%	-0.25%	-0.22%	-0.18%
Residential	-0.14%	-0.16%	-0.18%	-0.18%	-0.08%	-0.04%	-0.11%	0.18%	0.18%
- Change in Private Inventories	2.33%	2.14%	0.11%	0.07%	0.55%	0.53%	-0.91%	-0.05%	0.17%
Net Exports of Goods and Services	-1.99%	-2.05%	-0.08%	-0.35%	0.94%	0.73%	-0.68%	-0.08%	-0.11%
Government Consumption	0.44%	0.36%	-0.07%	-0.07%	0.48%	0.50%	0.82%	0.35%	0.28%
GDP ANNUALIZED REAL GROWTH	3.36%	2.93%	2.17%	1.09%	3.13%	3.10%	2.01%	1.92%	2.12%
Final Sales, GDP Less Inventories	1.03%	0.79%		1.02%	2.58%	2.57%	2.92%	1.97%	1.95%
	110070	011 070	2.0070					1101 70	110070
PRODUCT SECTOR									
Goods	1.76%	1.41%	1.66%	1.39%	2.11%	2.12%	0.62%	1.35%	1.51%
Services	1.77%	1.73%	0.99%	0.37%	0.56%	0.66%	1.66%	0.91%	0.90%
Structures	-0.17%	-0.21%	-0.48%	-0.67%	0.46%	0.32%	-0.26%	-0.33%	-0.29%
GDP ANNUALIZED REAL GROWTH	3.36%	2.93%	2.17%	1.09%	3.13%	3.10%	2.01%	1.92%	2.12%
			IPPLEMEN						
Annualized Quarter-to									
Gross Domestic Product (GDP)	3.36%	2.93%		1.09%	3.13%	3.10%		1.92%	2.12%
Gross Domestic Income (GDI)	4.56%	3.28%		0.78%	1.00%	3.24%			*2.39%
Gross National Product (GNP)	3.05%	3.00%	2.12%	0.68%	3.16%	3.09%	2.78%		2.19%
ShadowStats Corrected GDP**	1.27%	0.84%	0.10%	-0.96%	1.04%	1.01%	-0.05%	-0.14%	0.06%
Implicit Price Deflator (IPD) Inflation	1.51%	1.78%	1.86%	1.78%	0.64%	0.78%	2.59%	1.57%	1.68%
Year-to-Year								0.000/	2.000/
Gross Domestic Product (GDP)	3.00%	3.13%		2.52%	3.20%	2.65%		2.03%	2.08%
Gross National Product (GNP)	2.69% 2.96%	2.83% 3.17%	2.45% 2.85%	2.34% 2.41%	1.73% 3.09%	2.00% 2.47%	r2.04% 2.38%		*1.81% 2.18%
Gross National Product (GNP)					3.09% 1.11%				
ShadowStats Corrected GDP** Implicit Price Deflator (IPD) Inflation	0.92% 2.39%	1.05% 2.59%	0.89% 2.17%	0.44% 2.34%	1.11%	0.58% 1.94%	0.21% 1.73%	-0.04% 1.68%	0.01% 1.70%
Sources: Bureau of Economic Analysis, Shado									
q2019 Y/Y unaffected. (**) Real GDP corrected for understated headline inflation, see Special Commentaries No. 968 and 983-B for background.									

Gross Domestic Product (GDP), 2019 Benchmarking and Second-Estimate 3q2019

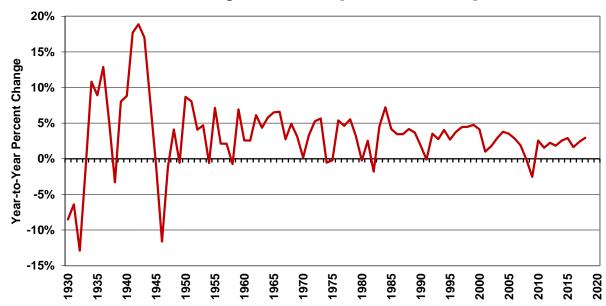
Graph 20: Headline Real GDP Level 1929 to 2018

Annual Real Gross Domestic Product - Benchmarked Level in Billions of 2012 Dollars, 1929 to 2018 [ShadowStats, BEA]

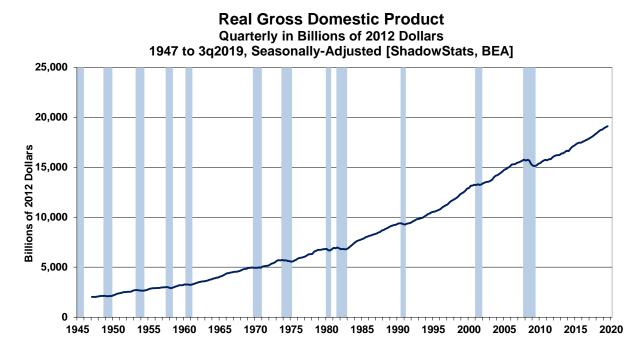


Graph 21: Headline Real GDP Annual Percent Change 1939 to 2018

Annual Real Gross Domestic Product (GDP) Percent Change, 1930 to 2018 [ShadowStats, BEA]

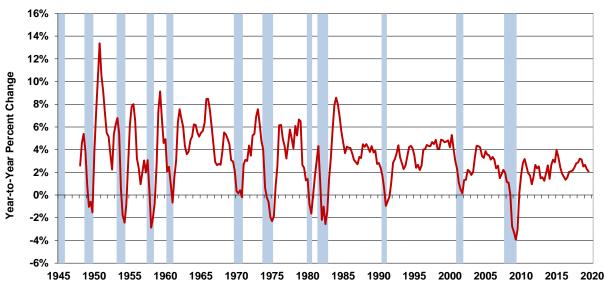


Graph 22: Headline Real Quarterly GDP 1947 to 3q2019



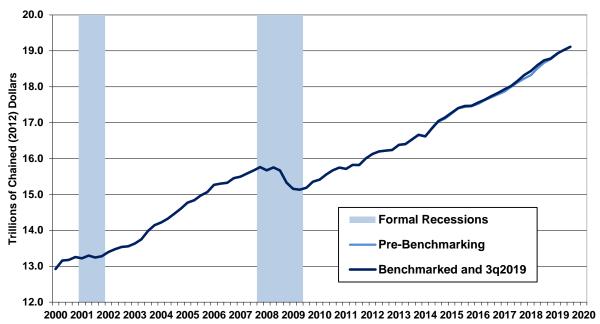
Graph 23: Headline Real GDP 1948 to 3q2019, Year-to-Year Percent Change by Quarter

Real Gross Domestic Product Year-to-Year Percent Change by Quarter 1948 to 3q2019, Seasonally-Adjusted [ShadowStats, BEA]



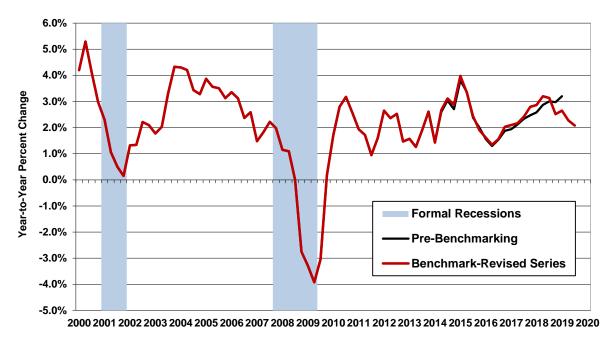
Graph 24: Benchmark Revised Real GDP and Second- and Third-Quarter 2019

Benchmarking and 3q2019 Real Gross Domestic Product Trillions of Chained (2012) Dollars Seasonally-Adjusted [ShadowStats, BEA]



Graph 25: Benchmark Revised Real GDP and Second- and Third-Quarter 2019, Year-to-Year Change

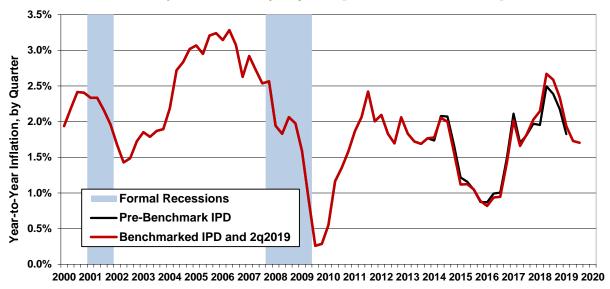
Benchmark-Revised Real Gross Domestic Product Year-to-Year Change, 1q2000 to 3q2019 [ShadowStats, BEA]



Graph 26: Benchmark-Revised GDP Implicit Deflator, Yr-to-Yr Annual GDP Inflation, Second Estimate 3q2019

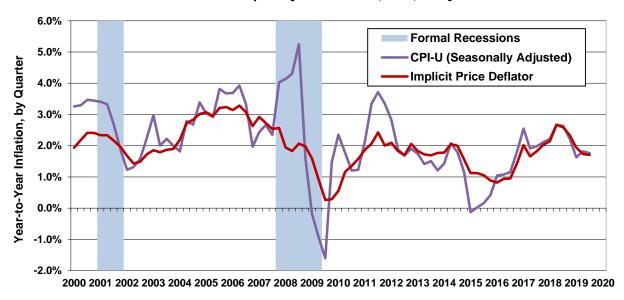
Benchmark Revised GDP Implicit Price Deflator Annual Inflation Seasonally-Adjusted Year-to-Year Percent Change

Seasonally-Adjusted Year-to-Year Percent Change 2000 to 3q2019, Seasonally-Adjusted [ShadowStats, BEA, BLS]



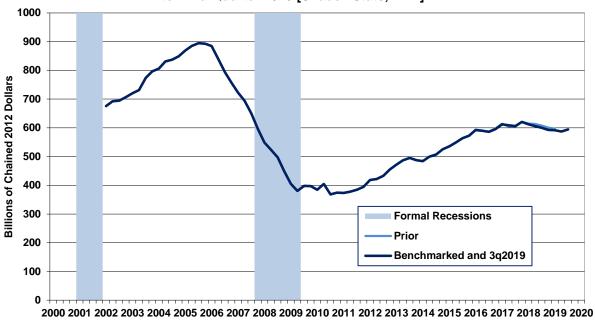
Graph 27: Annual Inflation - GDP Implicit Price Deflator vs. CPI-U, Second-Estimate 3q2019

GDP Implicit Price Deflator vs. CPI-U, Annual Inflation Seasonally-Adjusted, Year-to-Year Percent Change 2000 to 3q2019 [ShadowStats, BEA, BLS]



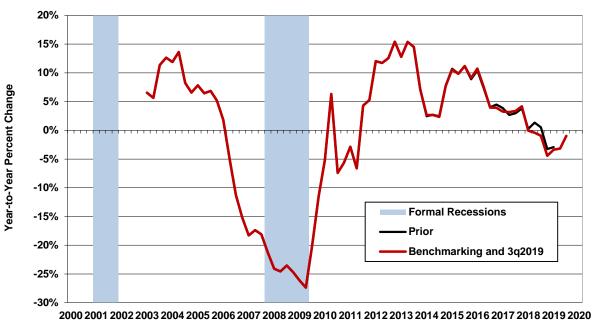
Graph 28: Benchmark Revised GDP - Real Residential Investment, Second-Estimate, Third-Quarter 2019 GDP





Graph 29: Benchmarked Real Residential Investment, Year-to-Year Change

GDP Gross Private Domestic Investment - Residential Real Year-to-Year Change, 1q2003 to 3q2019 [ShadowStats, BEA]



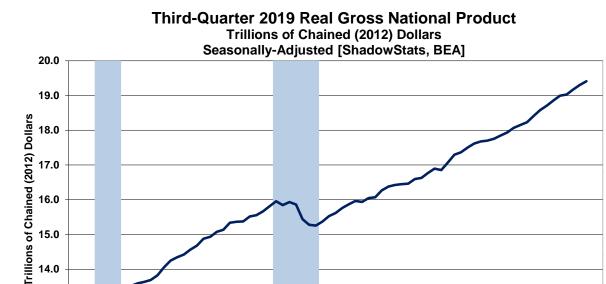
First-Estimate, Third-Quarter 2019 Gross National Product (GNP)

Graph 30: Real GNP, First-Estimate Third-Quarter 2019

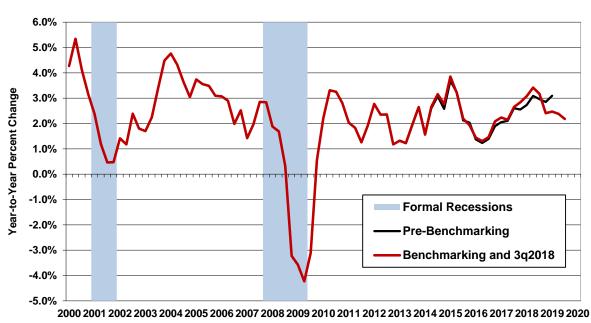
14.0

13.0

12.0



Graph 31: Benchmark Revised Real GNP and Third-Quarter 2019, Year-to-Year Change

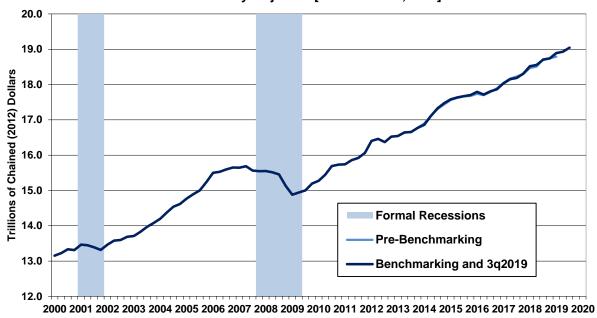


2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

First-Estimate, Third-Quarter 2019 Gross Domestic Income (GDI)

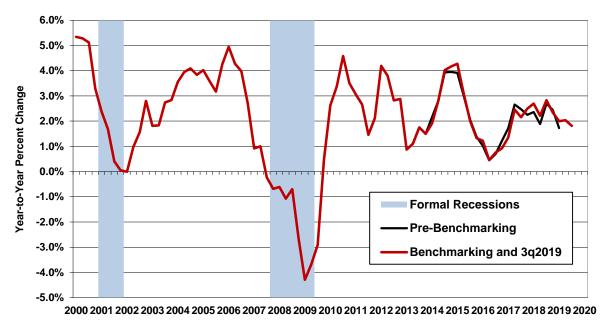
Graph 32: Benchmark Revised Real GDI and Third-Quarter 2019

Benchmarked and 3q2019 Real Gross Domestic Income Trillions of Chained (2012) Dollars Seasonally-Adjusted [ShadowStats, BEA]



Graph 33: Benchmark Revised Real GDI and Second-Quarter 2019, Year-to-Year Change

Benchmarked and 3q2019 Real Gross Domestic Income Year-to-Year Change, 1q2000 to 3q2019 [ShadowStats, BEA]



Second-Estimate, Third-Quarter 2019 ShadowStats Alternate GDP Real GDP Shows No Economic Expansion, When Corrected for Understated Inflation

While Headline Real GDP Has Rallied by 26.4% Off Its Fourth-Quarter 2007 Pre-Recession Peak, No Other Series Has. *Graphs* 22 to 25 plot the headline real quarterly GDP as published and benchmarked by the Bureau of Economic Analysis (BEA). Discussed in *Special Commentary No. 983-B*, *Section 4: Underlying Reality* (page 35), headline real GDP growth has been systematically overstated, through the recasting and understatement of headline GDP inflation. ShadowStats regularly restates the GDP series for the gimmicked inflation understatement of about two-percent, and has updated those graphs and calculations through third-quarter 2019 GDP (see *Graphs 34* to 41). See *Special Commentary No. 968-Extended* for full background detail.

Updated from <u>Special Commentary No. 983-B</u>, the headline, initial real Third-Quarter 2019 GDP has fully recovered its Fourth-Quarter 2007 pre-recession peak, and has expanded beyond that peak by 26.4%, growing at an annualized quarterly pace of 2.1%. In contrast, the ShadowStats Corrected-Inflation Measure, which shows a pattern of economic growth paralleling the Manufacturing Sector, remains shy of recovering its Fourth-Quarter 2007 peak by 4.6% (-4.6%), with annualized real Third-Quarter 2019 contraction of 0.1% (-0.1%).

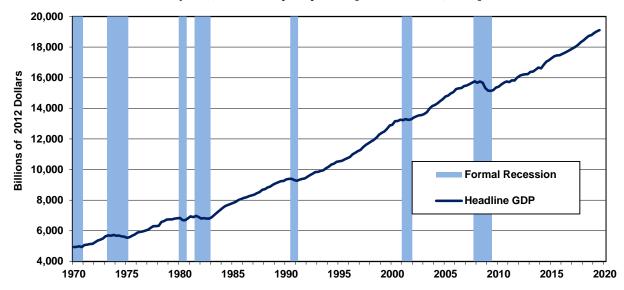
[Graphs 34 to 41 begin on the Next Page]

Underlying Economic Reality – Alternate Real GDP Using Corrected Inflation

The plots in Graphs 34 to 41 reflect GDP deflated by the Implicit Price Deflator corrected for understated annual inflation. For background, see *Special Commentary No. 983-B* and *Special Commentary No. 968-Extended*.

Graph 34: Real GDP 1970 to Third-Quarter 2019

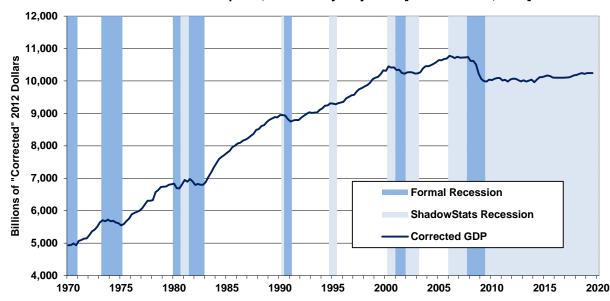
Headline Real Gross Domestic Product Nominal GDP Deflated by Implicit Price Deflator To 3q2019, Seasonally-Adjusted [ShadowStats, BEA]



Graph 35: ShadowStats Alternate Real GDP, Year-to-Year Change, 1970 to Third-Quarter 2019

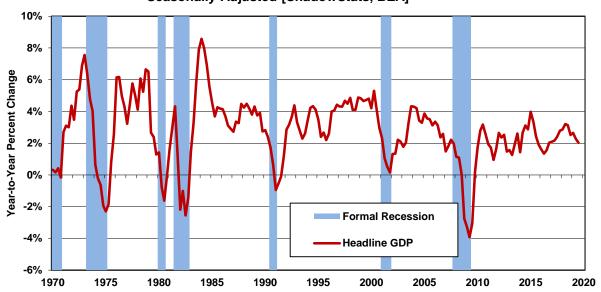
Corrected Real Gross Domestic Product

Nominal GDP Deflated by Implicit Price Deflator
Adjusted for the Understatement of Annual Inflation
To Second-Estimate 3q2019, Seasonally-Adjusted [ShadowStats, BEA]



Graph 36: Real GDP 1970 to Third-Quarter 2019, Year-to-Year Percent Change

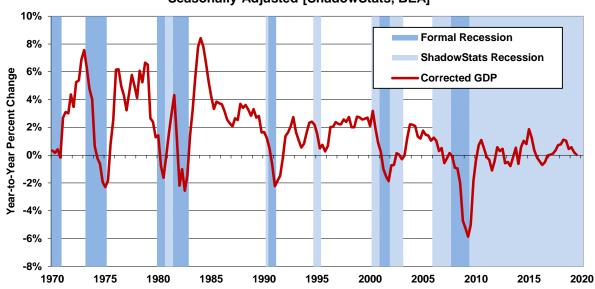
Headline Real Gross Domestic Product Year-to-Year Percent Change to 3q2019 Seasonally-Adjusted [ShadowStats, BEA]



Graph 37: ShadowStats Alternate Real GDP 1970 to Third-Quarter 2019, Year-to-Year Percent Change

Corrected Real Gross Domestic Product Adjusted for Understatement of Annual Inflation

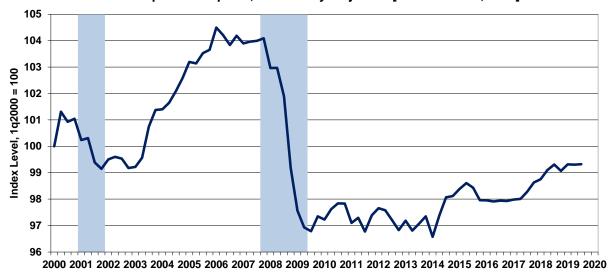
Year-to-Year Percent Change, To Second-Estimate 3q2019, Seasonally-Adjusted [ShadowStats, BEA]



Graph 38: ShadowStats-Corrected Real GDP, 2000 to Third-Quarter 2019

Corrected-Inflation Real Gross Domestic Product Nominal GDP Deflated by Implicit Price Deflator Corrected for

Roughly Two-Percentage Point Understatement of Annual Inflation 1g2000 to 3g2019, Seasonally-Adjusted [ShadowStats, BEA]



Graph 39: ShadowStats Corrected Real GDP, Year-to-Year Change, 2000 to Third-Quarter 2019

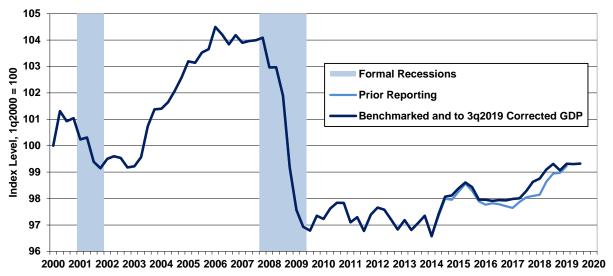
Corrected-Inflation GDP, Year-to-Year Percent Change 1q2000 to 3q2019, Seasonally-Adjusted [ShadowStats, BEA]



Graph 40: Benchmark Revised and Second- and Third-Quarter 2019 ShadowStats Corrected Real GDP

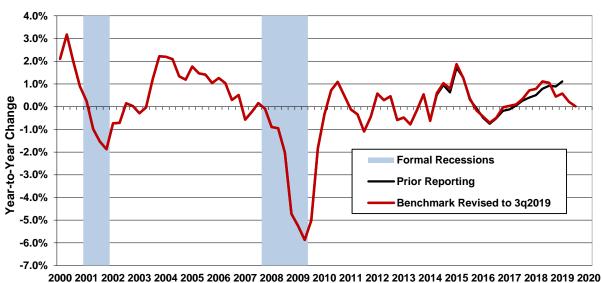
Corrected-Inflation Real Gross Domestic Product

Nominal GDP Deflated by Implicit Price Deflator Corrected for Roughly Two-Percentage Point Understatement of Annual Inflation Benchmarked to Headline 3q2019, Seasonally-Adjusted [ShadowStats, BEA]



Graph 41: Benchmark Revised, 2nd- and 3rd-Quarter 2019 ShadowStats Corrected Real GDP, Yr-to-Yr Change

Corrected-Inflation GDP, Year-to-Year Percent Change 2019 Benchmark Revised to Headline 2q2019 and 3q2019 Seasonally-Adjusted [ShadowStats, BEA]



* Section II: Latest Monthly Economic Series *

This *Section II* is something of a picture show along with some commentary, publishing graphs of monthly activity grouped into the major productive sectors of the economy (major hard physical product, reflecting consumer and business demand), through October 2019. Where the headline Gross Domestic Product (GDP), in theory, encompasses these series in aggregate, the July 26, 2019 annual GDP benchmarking and latest headline reporting of Third-Quarter 2019 GDP are reviewed in *Section I*, beginning on page 31, with the latest Third-Quarter 2019 GDP detail otherwise covered in *Flash Update No. 15*. Also discussed in *Section I*, and referenced here, are unusual reporting circumstances, unfolding recession trends and benchmarking considerations for a number of the monthly economic series. It is worth noting, again that most-recent "surprise" weakness seen key series such as Production and Retail Sales was the last reporting of those series before next week's December FOMC meeting.

The first grouping (*Graphs 42* to *66*, beginning on page 45) covers Real New Orders for Durable Goods, Industrial Production, Real Retail Sales and related activity seen in Freight Volume (CASSTM Freight Index), sectors that continue broadly in deepening and ongoing contractions. The Freight and Manufacturing sectors never have recovered their pre-Great Recession peak levels of activity, ranging from down by 5.5% (-5.5%) in Manufacturing, 5.8% (-5.8%) in Freight Activity (not seasonally adjusted activity, smoothed with a twelve-month moving average), to 10.0% (-10.0%) in Real New Orders for Durable Goods (including commercial aircraft, extreme monthly volatility smoothed with a six-month moving average).

The second grouping (*Graphs 67* to 72, beginning on page 61) covers total Real Construction Spending along with Residential Construction and related Sales activity. This sector has been in protracted sharp decline, with some signs of low-level bottom bouncing in Residential Sales activity of recent months, with intermittent swings in Public Construction activity. Broadly, Construction Activity remains negative, and down sharply from ever having recovered pre-Great Recession peak activity, ranging from down 25.4% (-25.4%) in total Real Construction Spending to 47.9% (-47.9%) in Real Private Residential Spending, see *Graphs 69* to 72.

In unit count, Existing-Homes Sales are down about 25.0% (-25.0%) from pre-Great Recession peak activity, versus a decline of 47.2% (-47.2%) in New-Home Sales see *Graphs* 79 to 82, with Residential Building Permits down by 35.4% (-35.4%) and Housing Starts down by 42.2% (-42.2%), *Graphs* 75 to 78. The Bureau of Labor Statistics reporting shows "Construction Employment" down by 2.6% (-2.6%), see *Graphs* 67 to 68.

Consumer Employment and Liquidity Conditions follow in Successive *Bullet Editions*. The latest on Labor conditions and Consumer Liquidity follow in immediately succeeding *Bullet Editions 15* (Labor) and *16* (Liquidity), broadly showing rapidly softening employment and Real Income conditions, with Real Consumer Credit still holding well shy of pre-Great Recession levels, irrespective of any happy hype out of the December 10/11 FOMC Meeting.

New Orders, Production, Retail Sales and Cass Freight Index – Deepening Recession

October 2019 CASS Freight Index Dropped Year-to-Year for the 11th Straight Month; Indications of a Deepening Downturn and Risk of GDP Contraction. Published November 14th, by Cass Information Systems, the October CASS Freight Index Methods showed its eleventh-straight month of annual decline, down by 5.9% (-5.9%), as well as its eleventh-straight month of a downtrending twelve-month moving average, reflected in *Graphs 42* and *43* (see also *Graphs 12* and *13* and the related discussion there on the signal for pending recession). The current growth patterns were seen last at the onset of the Great Recession and at the depths of the 2014 to 2016 Mini-Recession. Freight activity provides a leading or coincident signal of New Orders, Production and Retail Sales (see *Flash Update No. 15*).

After warning for the fifth straight month that its Index was "signaling an economic contraction," Cass also noted: "... material increases in the rates of decline, signal... the contraction is getting worse, " and added "... we see a growing risk that GDP will go negative by year's end." See the full text of the monthly press linked above.

Separately, the Index's 12-month moving average (calculated by ShadowStats) declined month-to-month for its eleventh straight month. The year-to-year change and 12-month-moving-average metrics neutralize seasonality in this unadjusted series. ShadowStats regularly follows and analyzes the CASS Index as a highest-quality coincident/leading indicator of underlying economic reality. We thank www.CassInfo.com for their permission to graph and to use their numbers in our *Commentaries*.

October 2019 Real New Orders for Durable Goods Continued in Still-Deepening Recession.

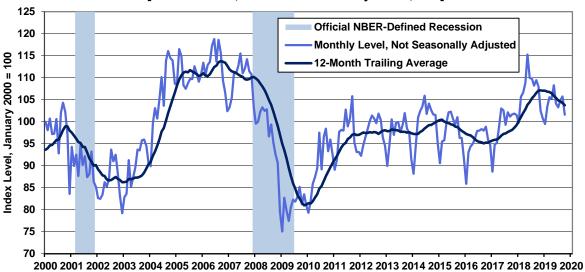
October Real New Orders for Durable Goods continued to crash, with year-to-year contractions in Second-Quarter 2019 and on track for Third-Quarter 2019, both before and after consideration of volatile Commercial Aircraft Orders, as reported by the Census Bureau on November 27th. Real Orders have contracted quarterly and/or annually in each the last five quarters, consistent with annual declines in Freight and Manufacturing activity as last seen in the 2014-2016 mini-recession. Where there were nominal moth-to-month gains, those reflected nothing more than relative sharp downside revisions to September activity. Expanded detail (including a deepening consumer downturn) is found in <u>Flash</u> <u>Update No. 15</u>.

Third-Quarter 2019 New Orders for Durable Goods showed a still-deepening recession, with year-to-year contractions in both Second- and Third-Quarter 2019 New Orders, both before and after consideration of inflation, and volatile Commercial Aircraft Orders. October 2019 showed those trends to be continuing in Fourth-Quarter activity (see *Graphs 44* to *46*). See also *Graphs 8* and *9*, and the related discussion of pending recession in *Section I*. These annual contractions followed three consecutive quarter-to-quarter declines through Second-Quarter 2019 activity. These patterns remain consistent with current annual contractions in Freight and Manufacturing activity, as last seen in the 2014 to 2016 Mini-Recession in Industrial Production/Manufacturing.

[Graphs 42 to 46 begin on the next page.]

Graph 42: Cass Freight Index, 2000 to October 2019





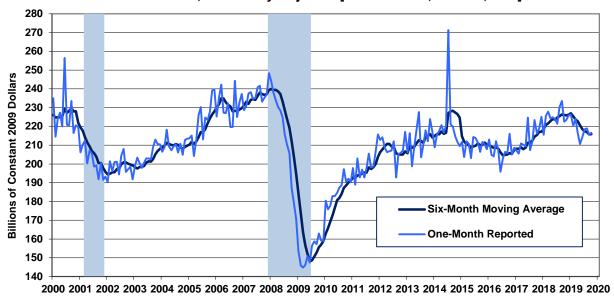
Graph 43: Cass Freight Index, 2000 to October 2019, Year-to-Year Change

Cass Freight Index[™] (Year-to-Year Percent Change) Monthly to October 2019, Not Seasonally Adjusted [ShadowStats, Cass Information Systems, Inc.]



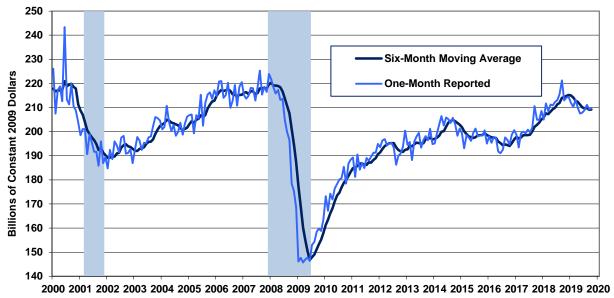
Graph 44: Real New Orders for Durable Goods

Real New Orders for Durable Goods Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods To October 2019, Seasonally-Adjusted [ShadowStats, Census, BLS]



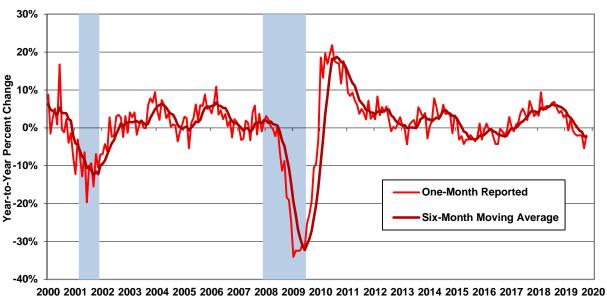
Graph 45: Real New Orders for Durable Goods (Ex-Commercial Aircraft)

Real New Orders for Durable Goods (Ex-Commercial Aircraft) Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods To October 2019, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 46: Real New Orders for Durable Goods (Ex-Commercial Aircraft), Year-to-Year Percent Change





Industrial Production – Manufacturing, Mining and Utilities

October Industrial Production Continued to Collapse, Down 0.8% (-0.8%) in the Month, Still Down by 0.5% (-0.5%) Separate from the Auto Strike; the Major and Mining and Manufacturing Components Both Were in Sharp Monthly Decline, with Deteriorating Annual Growth.

Industrial Production activity and its key Manufacturing and Mining sectors continued to plunge in October 2019, amidst collapsing year-to-year growth as reported November 15th by the Federal Reserve Board, a pattern not seen otherwise since the 2014 to 2016 Mini-Recession.

In context of the General Motors Auto Strike, October Production Dropped by 0.84% (-0.84%) in the month, with Manufacturing down by 0.63% (-0.63%) [the Federal Reserve Board estimated ex-strike that Production was down by 0.5% (-0.5%), with Manufacturing down 0.1% (-0.1%)]. In GDP accounting, the effects of strikes are included. October Capacity Utilization slowed to 76.7% from an unrevised 77.5% in September.

Amidst some upside revisions to recent Oil and Gas Production, October Mining activity continued to collapse, down by 0.68% (-0.68%) in the month, reflecting a deepening annual plunge in Oil and Gas Exploration. Exploration was down by 18.95% (-18.95%) year-to-year in October, versus an unrevised September drop of 13.88% (-13.88%), with respective monthly declines of 5.09% (-5.09%) and 5.49% (-5.49%). Utilities declined by a random 2.57% (-2.57%) in October, having gained a revised 1.87% (previously 1.36%) in September.

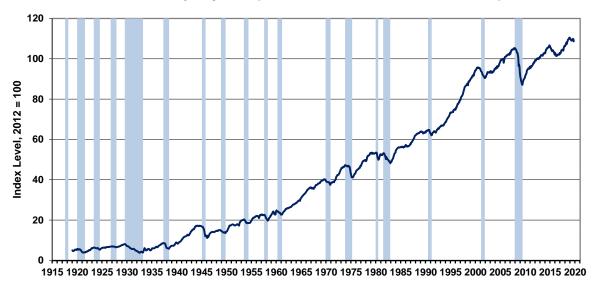
Fourth-Quarter 2019 Industrial Production was in early trend for its third quarterly contraction in the last four quarters. The same holds true for the Manufacturing sector, while the Mining sector was on track for its second consecutive quarterly decline. Again, the GM strike will add downside pressure to the Fourth-Quarter 2019 GDP estimate.

Separately, reflecting ongoing economic non-recovery from the Great Recession, October 2019 Manufacturing remained 5.5% (-5.5%) shy of ever having recovered its pre-recession peak activity. Seen specifically in *Graph 51*, in the 101-year history of Industrial Production, that reflects a record 143 consecutive months and counting (one-month shy of a full 12 years) of economic non-expansion, as measured in the Federal Reserve Board's monthly surveying, see accompanying *Graphs 47* to *60* and also *Graphs 2* to *14* with related/complimentary discussion in *Section 1*.

[Graphs 47 to 60 begin on the next page.]

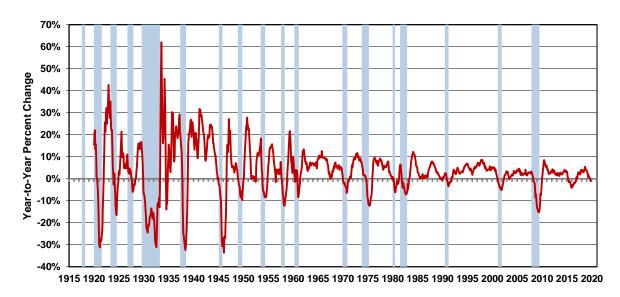
Graph 47: Index of Industrial Production – Full History

Index of Industrial Production (2012 = 100) 100-Plus Years of Industrial Production Jan 1919 to Oct 2019 Seasonally-Adjusted [ShadowStats, Federal Reserve Board]



Graph 48: Industrial Production, Year-to-Year Change – Full History

Industrial Production (Year-to-Year Percent Change) January 1920 to October 2019, Seasonally-Adjusted [ShadowStats, FRB]



Graph 49: Index of Industrial Production, 2000-to- October 2019

Index of Industrial Production (2012 = 100) Level to October 2019, Seasonally-Adjusted [ShadowStats, FRB]



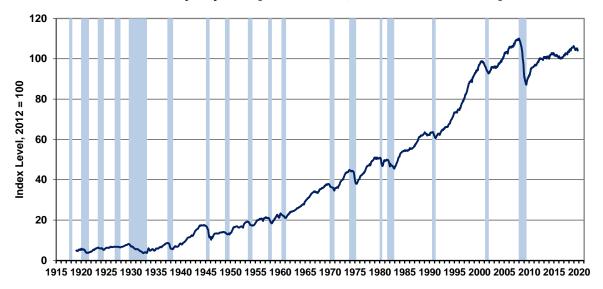
Graph 50: Index of Industrial Production - Year-to-Year Change, 2000-to- October 2019

Industrial Production (Year-to-Year Percent Change) To October 2019, Seasonally-Adjusted [ShadowStats, FRB]



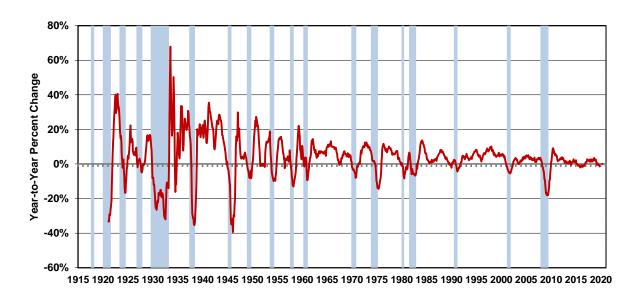
Graph 51: Manufacturing - Full History

Industrial Production - Manufacturing Sector (2012 = 100) 100-Plus Years, January 1919 to October 2019 Seasonally-Adjusted [ShadowStats, Federal Reserve Board]



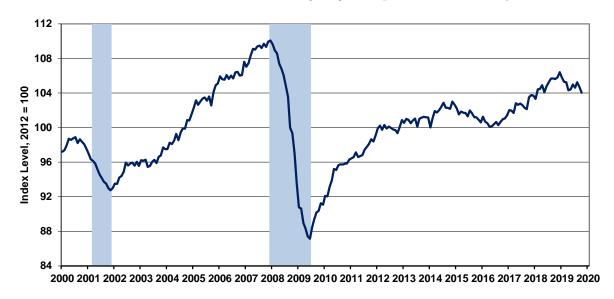
Graph 52: Manufacturing, Year-to-Year - Full History

Manufacturing Sector (Year-to-Year Percent Change) January 1920 to October 2019, Seasonally-Adjusted [ShadowStats, FRB]



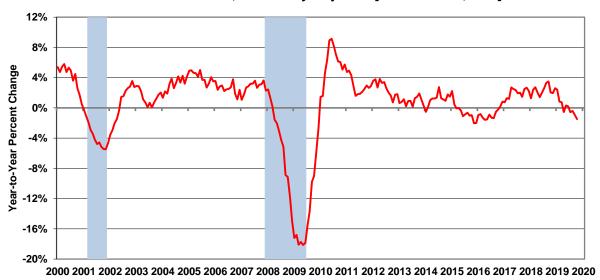
Graph 53: Manufacturing - 2000-to-October 2019

Industrial Production - Manufacturing (SIC) (2012 = 100) Level to October 2019, Seasonally-Adjusted [ShadowStats, FRB]



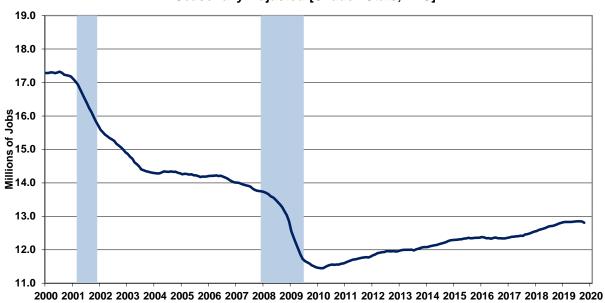
Graph 54: Manufacturing, Year-to-Year Change - 2000-to-October 2019

Industrial Production - Manufacturing (Yr-to-Yr Percent Change) To October 2019, Seasonally-Adjusted [ShadowStats, FRB]



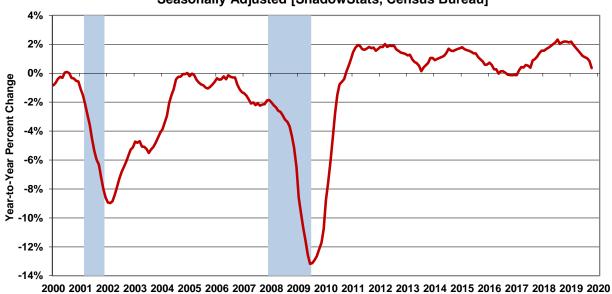
Graph 55: Manufacturing Employment





Graph 56: Manufacturing Employment, Year-to-Year Change

Manufacturing Payroll Employment Year-to-Year Percent Change to October 2019 Seasonally Adjusted [ShadowStats, Census Bureau]



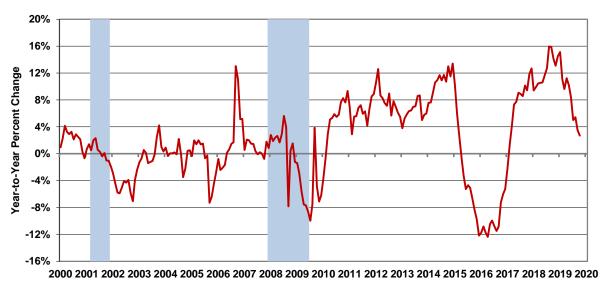
Graph 57: Mining - 2000-to-October 2019





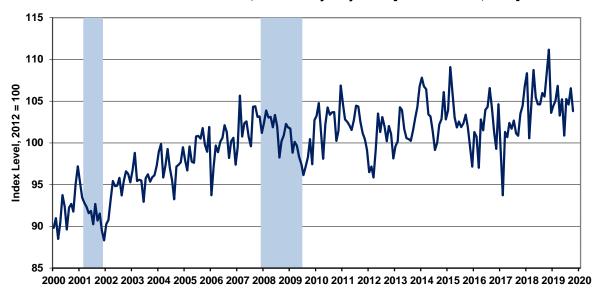
Graph 58: Mining, Year-to-Year - 2000-to-October 2019

Production - Mining (Year-to-Year Percent Change) To October 2019, Seasonally-Adjusted [ShadowStats, FRB]



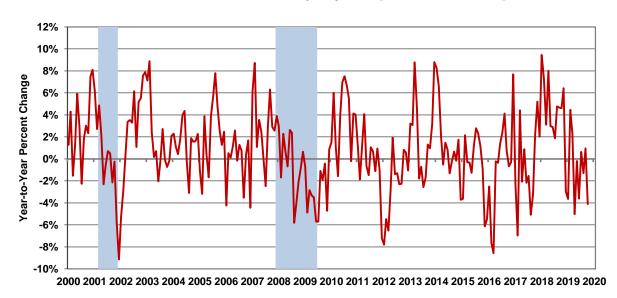
Graph 59: Utilities - 2000-to-October 2019





Graph 60: Utilities, Year-to-Year - 2000-to-Date

Production - Utilities (Year-to-Year Percent Change) To October 2019, Seasonally-Adjusted [ShadowStats, FRB]



Second Consecutive Real Month-to-Month Decline in October Retail Sales Was First Since the Disastrous 2018 Holiday Season. Despite small downside revisions to September and August activity, the nominal October 2019 Retail Sales gain of 0.27% was weaker than the headline 0.36% October CPI-U, meaning negative real growth. As usual in the often-nonsensical Retail Sales data, the headline change was not meaningful, with the 90% confidence interval encompassing zero growth. As reported November 15th by the Census Bureau, such was a potential early signal for a second consecutive Holiday Shopping Season.

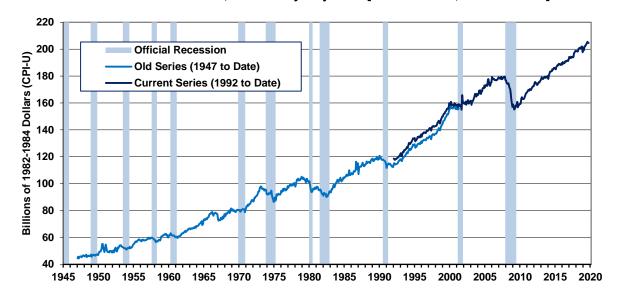
Before inflation adjustment, nominal October Retail Sales gained 0.3% (0.27% at the second decimal point), having declined by an "unrevised" 0.3% (-0.3%) [0.33% (-0.33%), previously 0.25% (-0.25%)] in September, and gained a revised 0.56% [previously 0.57%, initially 0.36%] in August. As regularly calculated by the Saint Louis Fed, net of 0.36% monthly CPI-U inflation, Real Retail Sales declined by 0.09% (-0.09%) in October, having declined by 0.35% (-0.35%) [previously 0.28% (-0.28%)] in September. Quarterly Real Retail Sales slowed to a revised annualized 4.0% [previously 4.1%] gain in 3q2019, versus 4.6% in 2q2019. If Real Retail Sales hold at the October level in November and December, Fourth-Quarter 2019 would show a quarterly decline of 0.64% (-0.64%). Year-to-year real sales slowed to 1.31% in October 2019, versus a revised 2.30% [previously 2.34%] in September, and a revised 2.35% [previously 2.56%] in August.

[Graphs 61 to 66 begin on the next page.]

Retail Sales

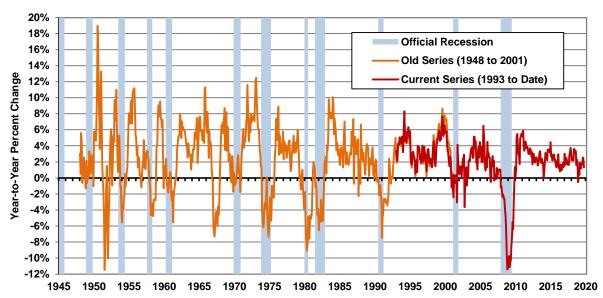
Graph 61: Real Retail Sales, 1947 to October 2019

Real Retail Sales (Deflated by the CPI-U) 1947 to October 2019, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



Graph 62: Real Retail Sales, 1947 to October 2019, Year-to-Year Change

Real Retail Sales Year-to-Year Percent Change 1948 to October 2019, Seasonally-Adjusted [ShadowStats, St. Louis Fed]



Graph 63: Real Retail Sales, 1947 to October 2019, Year-to-Year Change

Real Retail Sales Level (Deflated by CPI-U) To October 2019, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 64: Real Retail Sales, 2000 to October 2019, Year-to-Year Change

Real Retail Sales Year-to-Year Percent Change To October 2019, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 65: Retail Trade, Payroll Employment





Graph 66: Retail Trade, Payroll Employment, Year-to-Year Change

Retail Trade Payroll Employment Year-to-Year Percent Change to October 2019 Not Seasonally Adjusted [ShadowStats, Census Bureau]



Construction and Housing

October 2019 Real Construction Spending Dropped in the Month, on Track for Its Fifth Consecutive Quarter of Year-to-Year Contraction. In inflation-adjusted real terms, October 2019 Real Construction Spending was on track for its fifth consecutive quarter of annual decline, with Real Private Residential Construction Spending on track for its sixth straight annual drop, as reported by the Census Bureau on December 2nd (see *Graphs 69 to 72*).

In nominal terms, before inflation adjustment, and supplemental to *Graphs 15 and 16* and related text in *Section I* as to the annual decline of 1.5% (-1.5%) in Third-Quarter 2019 Aggregate Construction Spending, consider that the year-to-year decline in Third-Quarter Private Residential Construction Spending was 5.5% (-5.5%) in contrast to a 1.5% annual gain in the Residential Investment Component of Third-Quarter 2019 GDP. Federal Reserve Chairman Jerome Powell that "strong" rebound in Residential Investment at his October 20th FOMC Press Conference.

On top of upside revisions to September and August 2019 activity, nominal October Construction Spending declined 0.9% (-0.9%) in the month, gaining 1.1% year-to-year from against rapidly collapsing activity at the informal recession onset of the year before. Nominal October Private Construction declined 1.0% (-1.0%) month-to-month and by 1.8% (-1.8%) year-to-year, with Public Construction down by 0.2% (-0.2%) month-to-month, but up by 10.2% in the year, dominated by the Nonresidential Sector. The major categories continued in real monthly, quarterly and annual contraction, a pattern last seen beginning in First-Quarter 2008, at the onset of the Great Recession. October 2019 total real Construction Spending held shy by 25.4% (-25.4%) of ever having recovered its pre-recession peak.

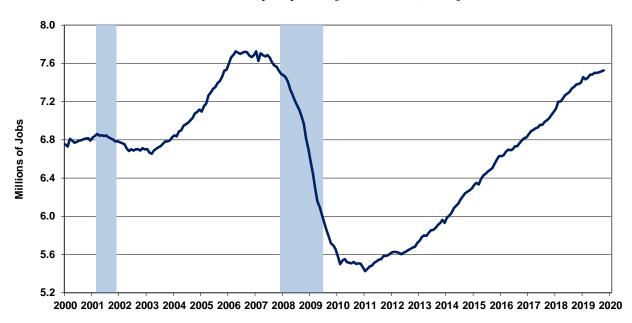
Smoothed October 2019 Housing Starts and Building Permits Showed Some Pick-Up, Despite Regular Nonsense Volatility. October Housing Starts headlined respective monthly and annual gains of 3.8% and 8.5%, but neither of those increases, nor any of the underlying subsidiary aggregate number, were meaningfully different from zero at the 90% confidence interval, as reported by the Census Bureau and HUD on November 19th, see *Graphs 73* to 78.

In contrast, the often more-stable changes in Building Permits (particularly the dominant single-unit category) were meaningful, up by 5.0% in the month, 14.1% year-to-year (Aggregate Permits), 3.2% in the month, 7.4% year-to-year (Single-Unit Permits). Despite smoothed Building Permits and Housing Starts beginning to notch higher, both series remained meaningfully shy of ever having recovered pre-recession peak activity, down respectively by 35.4% (-35.4%) and by 42.2% (-42.2%).

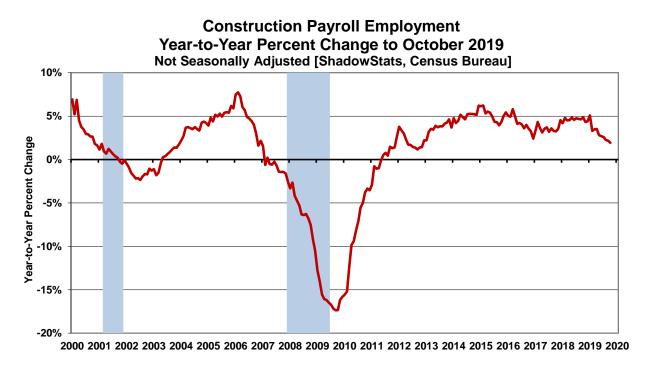
[Graphs 67 to 78 begin on the next page.]

Graph 67: Construction Payroll Employment, 2000 to October 2019

Construction Payroll Employment to October 2019 Seasonally-Adjusted [ShadowStats, BLS]

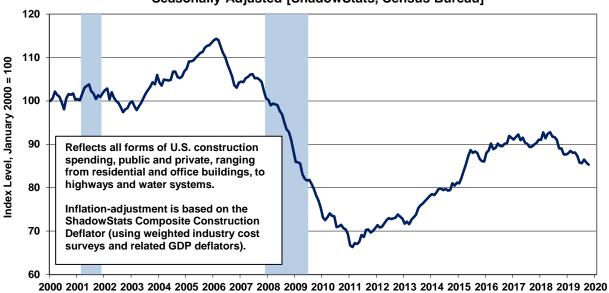


Graph 68: Construction Payroll Employment, Year-to-Year Change, 2000 to October 2019



Graph 69: Real Construction Spending to October 2019





Graph 70: Real Construction Spending, Yr-to-Yr Percent Change, 2000 to October 2019

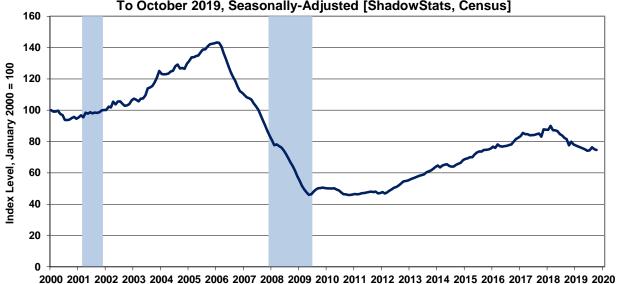
Real Value of U.S. Construction Put in Place Year-to-Year Percent Change to October 2019 Seasonally-Adjusted [ShadowStats, Census Bureau]



Graph 71: Real Private Residential Construction Spending, 2000 to October 2019

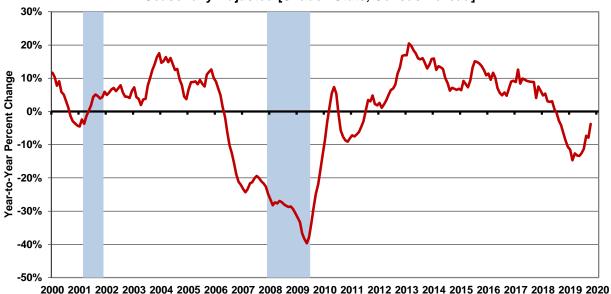
Index of Value of Private Residential Construction Inflation-Adjusted (Jan 2000 = 100)

Real Data Reflect ShadowStats Composite Construction Deflator To October 2019, Seasonally-Adjusted [ShadowStats, Census]



Graph 72: Real Residential Construction Spending, Yr-to-Yr Percent Change, 2000 to October 2019

Year-to-Year Percent Change to October 2019 Real Private Residential Construction Seasonally Adjusted [ShadowStats, Census Bureau]



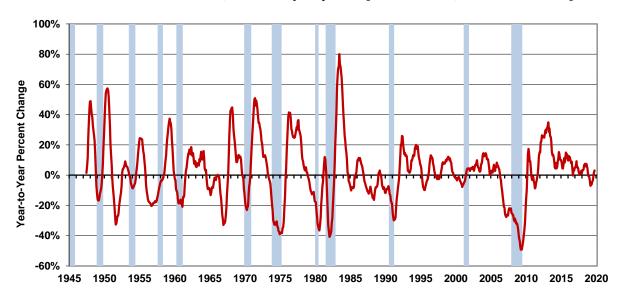
Graph 73: Housing Starts, 1946 to October 2019

Housing Starts (Annual Rate by Month) 1946 to October 2019, Seasonally-Adjusted [ShadowStats, Census and HUD]



Graph 74: Housing Starts, Year-to-Year Change, 1946 to October 2019

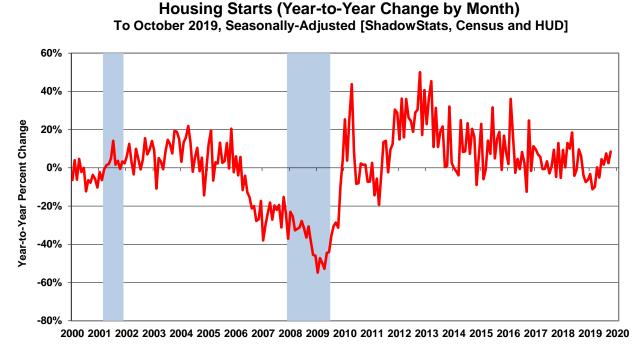
Housing Starts (Yr-to-Yr Percemt Change, 6-Month Moving Avg) 1947 to October 2019, Seasonally-Adjusted [ShadowStats, Census and HUD]



Graph 75: Housing Starts, 1947 to October 2019

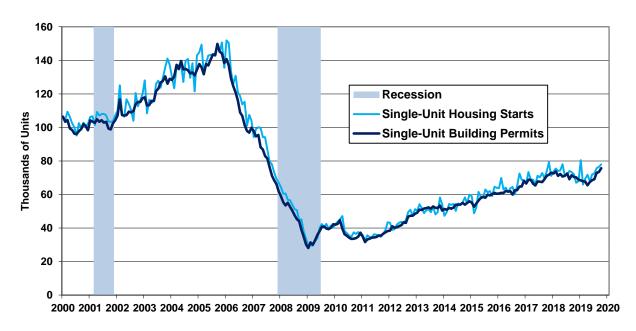


Graph 76 Housing Starts, Year-to-Year Change, 2000 to October 2019



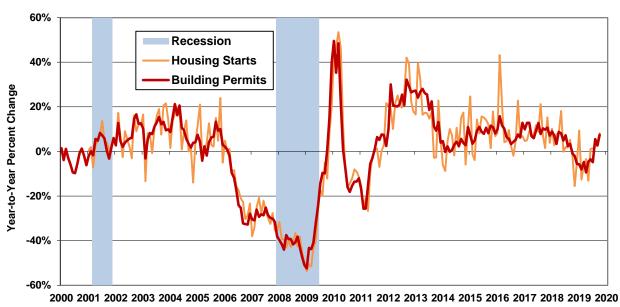
Graph 77: Single-Unit Building Permits vs. Single-Unit Housing Starts, 2000 to October

Single-Unit Building Permits vs. Housing Starts (Monthly Rate) To October 2019, Seasonally-Adjusted [ShadowStats, Census and HUD]



Graph 78: Single-Unit Building Permits vs. Single-Unit Housing Starts, Year-to-Year, 2000 to October 2019

Single-Unit Building Permits/Housing Starts (Yr-to-Yr Change) To October 2019, Seasonally-Adjusted [ShadowStats, Census and HUD]



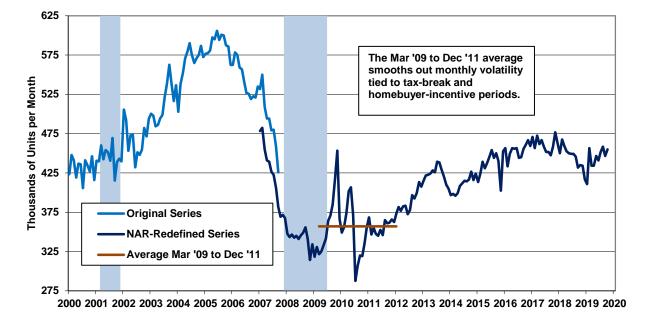
October 2019 Existing-Home Sales Picked-Up Following a Deeper September Decline. October monthly Existing-Home Sales rose by 1.9%, following a downwardly revised drop of 2.5% (-2.5%) [previously down by 2.2% (-2.2%)] in September, as reported by the National Association of Realtors (NAR) on November 21st (see press release at www.nar.realtor, under research/housing statistics for details). Given a long-term perspective, the October 2019 New-Home Sales series continued in protracted non-recovery, holding shy by roughly 25% (-25%) [incorporates some series redefinition as reflected in Graphs 79 and 80] of ever having recovered or expanded beyond its pre-Great Recession peak activity. The NAR Existing Home Sales series is of better quality than the Census Bureau's nonsensically volatile New-Home Sales estimates.

New-Home Sales Declined by 1.7% (-1.7%) in the Month but Gained 4.5% Net of Revisions, in Regular Nonsense Volatility. Commonly seen with the Census Bureau's monthly estimates of headline activity in residential sales and construction, the monthly decline of 0.7% (-0.7%) +/- 20.4% in October New-Home Sales was not meaningfully different from zero at a 90% confidence interval. The October monthly decline of 0.7% (-0.7%), followed a revised September gain of 4.5% [previously down by 0.7% (-0.7%)], against an unrevised level in August and a downside revision to July. That nonsensically volatile detail was reported by the Census Bureau and HUD non November 26th and is plotted in *Graphs* 81 and 82.

[Graphs 79 to 82 begin on the next page.]

Graph 79: Existing-Home Sales, 2000 to October 2019

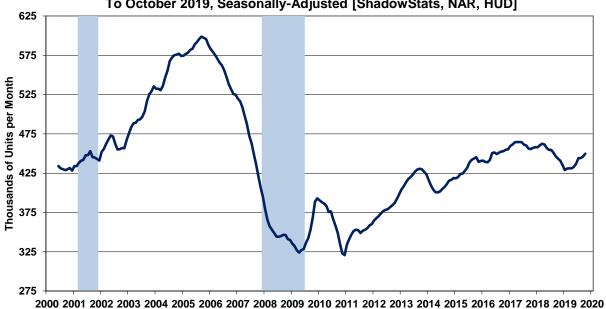
Existing-Home Sales (Monthly Rate) Single- and Multiple-Unit Sales, Non-Annualized Monthly Level To October 2019, Seasonally-Adjusted [ShadowStats, NAR, HUD]



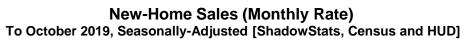
Graph 80: Existing Home Sales, Six-Month Moving Average (Blended 2006-2007 History), 2000 to October 2019

Existing-Home Sales (Six-Month Moving Average)

Old and New Series Blended in 2006/2007
Single- and Multiple-Unit Sales, Non-Annualized Monthly Rate
To October 2019, Seasonally-Adjusted [ShadowStats, NAR, HUD]



Graph 81: New-Home Sales, 2000 to October 2019





Graph 82: New-Home Sales, Six-Month Moving Average, 2000 to October 2019

New-Home Sales (Six-Month Moving Average) To October 2019, Seasonally-Adjusted [ShadowStats, Census and HUD]



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