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

COMMENTARY NUMBER 976

Third-Quarter 2018 GDP, September 2018 New Orders for Durable Goods, New-Home Sales
October 30, 2018

Real Third-Quarter 2018 GDP Gained 3.50%, Against 4.16% in Second-Quarter, Yet, Where 70.7% of the Increase in the Level of Quarterly GDP Was in Inventories, Annualized Real Final Sales Growth Plunged to 1.43% from 5.33%

Third-Quarter Real GDP Stood 18.5% Above Its 2007 Pre-Recession Peak, but Held Shy by 4.9% (-4.9%) of Recovering that Peak, Corrected for Understated GDP Inflation

Advance Estimate of Third-Quarter Real Merchandise Trade Deficit Indicated Worst-Ever Quarterly Merchandise Trade Shortfall

Third-Quarter GDP Confirmed Massive Quarterly Trade-Balance Deterioration, Worst-Ever Quarterly Shortfall in Net Exports of Goods and Services

September New-Home Sales Collapsed to a 21-Month Low on Top of Downside Revisions; Second-Consecutive Quarterly Contraction and Sharply Deepening Six-Month Downtrend Confirmed Plunging Headlines Seen in Other Residential Construction and Sales Series; Activity Constrained by FOMC Policies Pummeling Consumer Liquidity

Third-Quarter GDP Also Showed Third-Consecutive Quarterly Contraction in Private Residential Investment

Federal Reserve Tightening Has Hit Consumer- and Systemic-Liquidity Hard, Continuing to Threaten Any Nascent Economic Recovery

September Real New Orders for Durable Goods Growth of 0.6% Was a Contraction of 0.8% (-0.8%), Ex-Defense, With Gains Increasingly Driven by Government Spending, Not by the Consumer

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PLEASE NOTE: The next regular *Commentary No. 977*, planned for Friday, November 2nd will provide at least an initial review of October Employment and Unemployment, the September Trade Deficit and Construction Spending and October Monetary Conditions.

Hyperinflation and Consumer Liquidity Watches. Both of the most-recent *Watches, Hyperinflation Watch – No. 3* of August 12th and *Consumer Liquidity Watch – No. 4* of August 10th will be updated shortly in *Special Editions*.

DAILY UPDATE Coverage. Detail on new headline economic data is posted in the **Daily Update** section in the top (right-hand) section of the <u>www.ShadowStats.com</u> home page. When major economic releases are published, brief, summary headline details are posted there usually within an hour or two of the release. Those details remain posted until they are covered separately in a subsequent *Commentary*.

The planned ShadowStats Publication Schedule, Schedule Revisions and Notes to Subscribers also are provided regularly at the end of that column.

Your comments and suggestions always are invited.

Best wishes to all, John Williams (707) 763-5786, johnwilliams@shadowstats.com

Today's (October 30th) *Opening Comments* reviews evolving economic circumstances, including initial indications of the third-quarter 2018 real Merchandise Trade Deficit. It also updates the regular, ShadowStats quarterly assessment of underlying economic reality against headline reporting of the "advance" Third-Quarter 2018 Gross Domestic Product (GDP), versus the ShadowStats GDP estimate adjusted for understated GDP inflation and against a number of better quality, private- and government-economic indicators.

The *Reporting Detail* covers September 2018 New-Home Sales, New Orders for Durable Goods and the first-estimate of Third-Quarter 2018 GDP, with historical detail on the Net-Export (Trade Balance) Account.

The *Week, Month and Year Ahead* previews pending economic releases and provides background on recent *Commentaries*.

Commentary No. 976 contents, including graphs and tables, are indexed and linked on following page.

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OPENING COMMENTS

UNDERLYING ECONOMIC REALITY

Exploding Real Merchandise Trade Deficit Clobbered Third-Quarter GDP
Contracting Consumer Sector versus Growing Government Consumption
Private Residential Investment in GDP Contracted for Third Consecutive Quarter

Broad U.S. Economic Outlook Continued to Dim, as Federal Reserve Tightening Continues to Hammer Away at Systemic and Consumer Liquidity and as the Trade Deficit Explodes Anew. Despite above-consensus and headline-strong 3.5% annualized real growth in the "advance" estimate of Third-Quarter 2018 Gross Domestic Product (GDP), the economic reporting of the last week was broadly weaker than expected, with collapsing home sales and an exploding trade deficit auguring poorly for nearterm economic activity. Not only did the GDP confirm the renewed trade deficit deterioration (see *Table II* and the new *Graphs 14* to 17, beginning on page 42), and the intensifying weakness in residential real estate investment (see the new *Graph 1* on page 27), but also the headline GDP "strength" itself was far from what was headlined, given unusual inventory and inflation volatility. Discussed in prior *Commentary No. 975*, the primary issue pummeling residential real-estate sales and construction are heavily constrained consumer liquidity conditions, which continue to intensify as a direct result of ongoing tightening policies of the Federal Reserve's Federal Open Market Committee (FOMC).

Separately, September New Orders for Durable Goods gained in the month, thanks to surging defense orders and perhaps from some hurricane-replacement motor vehicle orders, as discussed in the *Reporting Detail*. Discussed last month in *Commentary No. 971*, however, orders activity increasingly reflects surging government spending, not consumer spending.

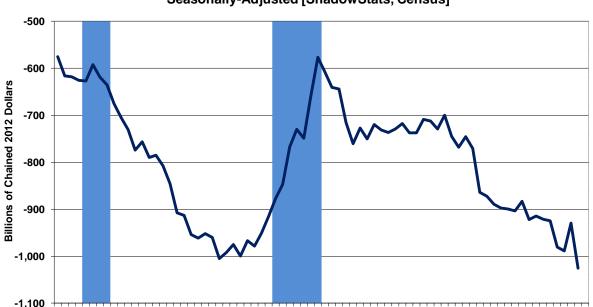
These *Opening Comments* provide a quick review of the late-breaking trade data and then update the *Underlying Economic Reality* section of *Special Commentary No. 968-Extended*, *Section II* (see also *Commentary No. 971*), both as to fully updated graphs and headline trends.

Pending Deterioration in the Third-Quarter Real Merchandise Trade Deficit. Based on the continued monthly deterioration of the U.S. trade deficit in goods, indicated in the October 25th release of the advance-estimate of the September 2018 goods deficit, there is good reason to expect a sharp deterioration in the headline September Trade Deficit (to be published on November 2nd, see Pending Releases in the Week, Month and Year Ahead section). As a result, the third-quarter 2018 real merchandise trade deficit likely will set a new record, surpassing the worst-ever quarterly real U.S. deficit of fourth-quarter 2005, reflected in Graph OC-1 (same as Graph 14 in the Reporting Detail).

Confirming that circumstance, initial reporting of real net exports (effectively the real trade deficit in goods and services) deteriorated sharply, particularly in the goods sector, in the first estimate of third-quarter 2018 GDP, with the deficits in both the "goods" and the "goods and services" sector hitting record levels, as discussed in the *Reporting Detail* (see *Graphs 14* to *17*). The effect knocked 1.78% (-1.78%) off annualized real growth in third-quarter GDP (see *Table II* on page 42. With an ongoing negative trend, it should have continuing negative implications for fourth-quarter 2018 GDP growth. Further detail will follow in pending *Commentary No. 977*, subsequent to the full headline trade deficit reporting of Friday, November 2nd.

Graph OC-1: Real Merchandise Trade Deficit ("Advance" Third-Quarter 2018)

(See Graphs 14 to 17 in the GDP section of the Reporting Detail)



Real U.S. Merchandise Trade Deficit (Census Basis)
Quarterly Deficit at Annual Rate, 1q2000 to "Advance" 3q2018
Seasonally-Adjusted [ShadowStats, Census]

Updated Review of Underlying Economic Reality—Nascent Recovery Continues, But No Economic Expansion, Amidst Intensifying, Early Signs of a Liquidity-Driven Pullback. The following material updates and expands upon the *Underlying Economic Reality* section of <u>Special Commentary No. 968-Extended</u>, Section II and <u>Commentary No. 971</u>), reflecting the latest data in comparative graphs. Some of the accompanying text is repetitive from the earlier version.

Unlike Booming Headline GDP, Real-World Business Activity Is Off Bottom by 2.3%, Still Well Shy of Full Recovery and Economic Expansion. Noted regularly in these GDP Commentaries, the headline Gross Domestic Product (GDP) detail, as published by the Bureau of Economic Analysis (BEA) simply remains the most worthless of the popular government economic series, in terms of indicating realistic U.S. business activity. "Headline Real GDP" is plotted in accompanying Graphs OC-2 and a truncated version in OC-6. That same series "Corrected" for roughly two-percentage points of understated inflation, used in deflating the headline nominal GDP is plotted in Graphs OC-3 and a truncated OC-8. That ShadowStats "Corrected" Real GDP in Graph OC-8 is compared and contrasted here with a number of better-quality, private- and public-economic measures of broad activity (see the Opening Comments of Special Commentary No. 968-Extended).

Those comparative numbers in *Graphs OC-10* to *OC-28* tend to confirm the reporting patterns of the "Corrected" *Graph OC-8*. Early recovery seen in the "Corrected" series remains extraordinarily fragile, with the Fed's current tightening of liquidity conditions threatening to pull the rug out from underneath a nascent rebound. Housing activity, for example, already has turned down sharply (see *Graphs OC-20* to *OC-27*, today's *Reporting Detail* and the *Residential Construction* and *Existing-Home Sales* section of *Commentary No.* 975).

Viewed in terms of standard economic definitions, an "Economic Recovery" begins as the economy moves off bottom, off the trough in activity, until it "Recovers" its pre-recession peak activity. Thereafter, economic growth is in "Expansion." As reported by the BEA, headline third-quarter 2018 GDP has expanded by 18.5% beyond its pre-recession peak, although no other major economic or employment indicator confirms gains of that order of magnitude.

The BEA's real GDP series showed annualized quarterly growth of 3.5% in third-quarter 2018, versus 4.1% in second-quarter 2018, with year-to-year growth of 3.0% in third-quarter 2018, versus 2.9% in second-quarter 2018.

The ShadowStats "Corrected" Real GDP has been moving off bottom, growing quarter-to-quarter and year-to-year, since second-quarter 2017, yet it remains shy by 4.9% (-4.9%) of recovering its pre-recession peak. Currently off bottom, having "recovered" by 2.3%, the ShadowStats "Corrected" series remains shy of beginning its period of economic "expansion" by that 4.9% (-4.9%).

As measured in terms of quarterly and annual growth, again structured off the formal reporting of the Bureau of Economic Analysis series, the ShadowStats "Corrected" series showed annualized real quarterly growth of 1.4% in third-quarter 2018, versus 2.1% in second-quarter 2018, with year-to-year growth of 1.0% in third-quarter 2018, versus 0.8% in second-quarter 2018.

The Fed Has No Way Out. A basic systemic issue is that the Federal Reserve remains mired in efforts to restore stable- and normal-functioning to domestic banking, subsequent to the 2008 near-collapse of the banking system. Despite the Fed's continued tightening, which is on the brink of, if not already having

pushed the economy back into broad contraction (again, see <u>Commentary No. 975</u>), there are no easy options available to stabilizing the circumstance, shy of an overhaul of the domestic banking system and its oversight by the Federal Reserve. If the domestic system falls back into another 2007/2008 liquidity panic, which is likely, such a crisis very easily could trigger that systemic overhaul.

Freight Activity, Manufacturing, Durable Goods Orders, Petroleum Consumption, Residential Construction and Sales, Civilian Employment-Population Ratio All Are Shy of Pre-Recession Levels. The headline, inflation-adjusted estimates of U.S. GDP growth and level of activity, consistently have been overstated through the government's use of deliberately understated headline inflation in deflating economic series. Again, that inflation-rate differential for the GDP is running at about two-percentage points on an annual basis, at present, slightly increased in the post-2018 GDP benchmark revisions.

Graph OC-2 and Graph OC-6 of the first estimate of third-quarter 2018 Headline Real GDP are adjusted for the headline Implicit Price Deflator (IPD) and are used as the Headline systemic standard measure, where Graphs OC-3 and OC-8 are the standard measure of the headline Corrected Real GDP.

Consider "Headline GDP" *Graphs OC-2* and *OC-6*, versus *Graphs OC-3* and *OC-8* of the "Corrected GDP." In terms of plotted level, Headline GDP plunges but recovered and expanded, while the "Corrected" GDP plunged and has yet to recover fully. In terms of year-to-year growth, the Headline Series shows annual growth about 2.0% higher, reflecting the headline inflation differential.

The comparative *Graph OC-10* shows the Cass Freight IndexTM measure of North American freight volume through September 2018, used with the permission of Cass Information Systems, Inc. Few measures better reflect the actual flow of goods in commerce than freight activity (see *Commentary No.* 975). As a broad measure of basic domestic economic activity, the index has much more in common with the "corrected" GDP in *Graph OC-8*, than with the headline GDP of *Graph OC-6*. The 12-month trailing average of the level of activity (as seen in *Graph OC-10*) is plotted otherwise, only where a particular series is not seasonally-adjusted, or where a seasonally-adjusted series, such as Consumer Goods should have some meaningful relationship to national freight activity.

Graph OC-12 reflects September 2018 production of Consumer Goods, *Graph OC-14* plots September Manufacturing and *Graph OC-16* reflects September real New Orders for Durable Goods and *Graph OC-18* plots U.S. July Petroleum Consumption.

Graphs OC-20 to OC-27 ranging from New-Home Sales to inflation-adjusted total U.S. Construction Spending, which includes everything from roads and office buildings to residential construction, are among the variety of indicators that show patterns of economic collapse into 2009/2011, followed by some minimal (not full) recovery and ongoing stagnation, now renewed downturn. In addition, worthy of consideration here are the related construction and home sales plots in Graph 31 to 46 in the Reporting Detail of Commentary No. 975, in conjunction with Graphs 1 to 4 in today's Reporting Detail.

Graph OC-28 of the employment-to-population ratio also remains a solid indicator of underlying labor conditions and economic activity, in the context of the broad population and long-term discouraged and displaced workers, reflected there through September 2018. The higher the ratio, usually the healthier the labor conditions and the stronger the economy.

Government Spending and a Burgeoning Budget Deficit, Provide an Economic Boost, While Fed Tightening Increasingly Clamps Down on the Consumer? Real Construction Spending declined month-to-month for the third-straight month in August 2018, as noted Commentary No. 971, with September details pending release on November 1st. Summary detail coverage of the September numbers will be posted then in the Daily Update on the www.ShadowStats.com homepage, within an hour or two of the data release, which is scheduled for 10 am ET; full coverage of September Construction Spending will follow in Commentary No. 977.

The August detail showed Private Residential and Nonresidential Construction Spending revising lower, consistent with the slowing consumer activity seen in Existing- and New-Home Sales, and related New Residential Construction activity, a pattern that continued in those measures released so far in September (again see *Graphs OC-20* to *OC-27*, the New-Home Sales section of today's *Reporting Detail* and *Commentary No. 975*). The developing pattern has been one of increased public spending and declining private spending.

Where August real Private Construction Spending continued to tumble, growth was seen in upwardly revised Public Spending, a pattern that likely continued in September. As noted last month, and as discussed in today's New Orders for Durable Goods section of the *Reporting Detail*, new orders activity in both August and September reflected strength from increased government spending, not from consumer spending.

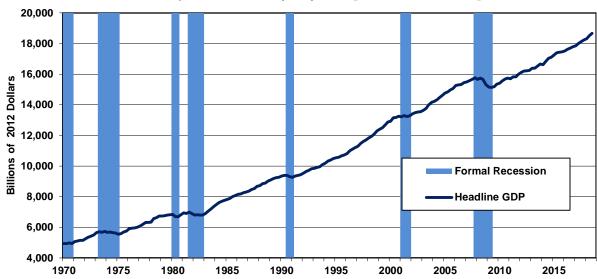
As seen now with both the recent real durable goods orders and real construction spending, growth here has come from increased government spending, not from the liquidity-stressed consumer, who remains under siege from the current and recent Federal Reserve policies.

Where increased government spending indeed provides economic stimulus, it also needs to be paid for by something other than the U.S. Treasury selling its Notes and Bonds. While increased government spending should help the economy in the short term, ultimately it will savage the federal budget deficit, the stability of U.S. fiscal conditions and the long-range solvency prospects for the U.S. Treasury. These issues will be reviewed in the pending update to $\underline{Hyperinflation\ Watch-No.\ 3}$.

[Graphs OC-2 to OC-28 begin on the next page.]

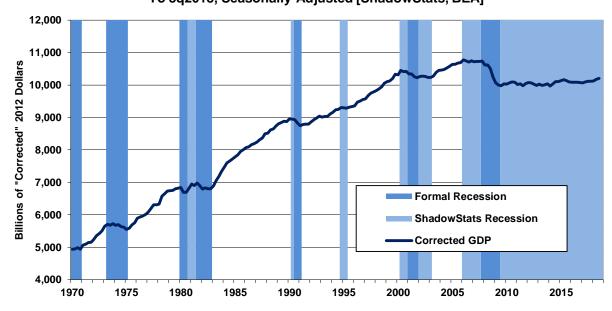
Headline Real GDP and Corrected for the Understatement of Headline Inflation Graph OC-2: Real GDP (1970 -2018), First-Estimate of Third-Quarter 2018

Headline Real Gross Domestic Product Nominal GDP Deflated by Implicit Price Deflator To 3q2018, Seasonally-Adjusted [ShadowStats, BEA]

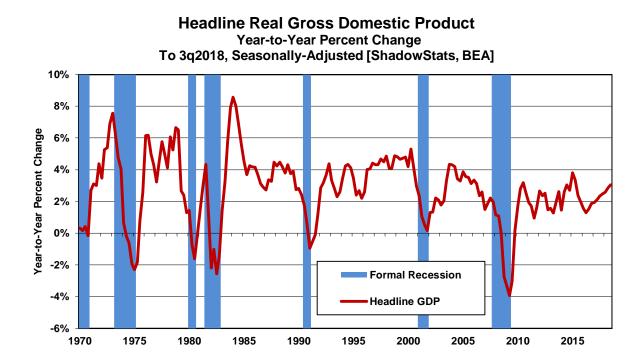


Graph OC-3: "Corrected" Real GDP (1970 -2018), First-Estimate of Third-Quarter 2018

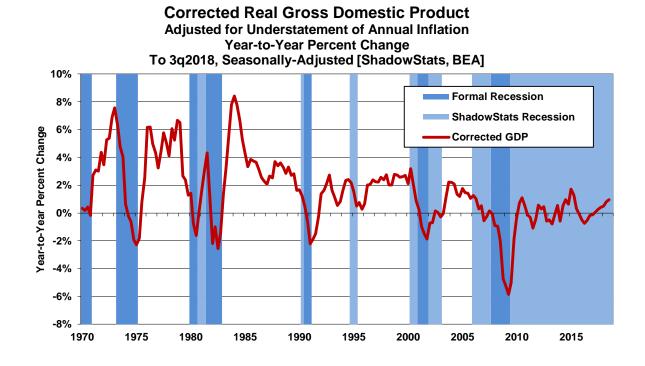
Corrected Real Gross Domestic Product Nominal GDP Deflated by Implicit Price Deflator Adjusted for Understatement of Annual Inflation To 3q2018, Seasonally-Adjusted [ShadowStats, BEA]



Graph OC-4: Quarterly GDP Real Year-to-Year Change (2000 to 2018), First-Estimate of Third-Quarter 2018

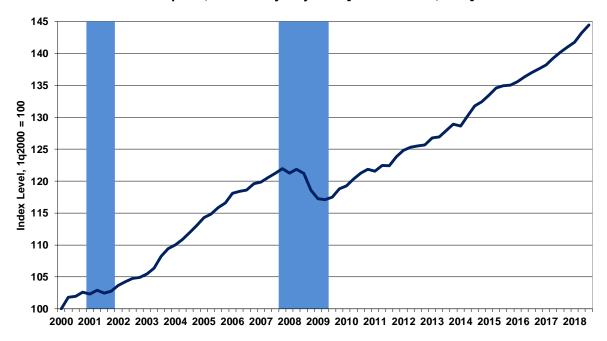


Graph OC-5: Corrected-GDP, Year-to-Year Percent Change (First-Quarter 2000 to Third-Quarter 2018)



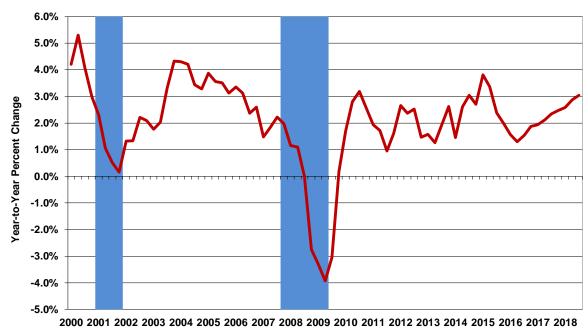
Graph OC-6: Headline Real GDP Index — First-Quarter 2000 through First-Estimate of Third-Quarter 2018
(Truncated, Indexed Version of Graph OC-2)

Headline Real Gross Domestic Product -- Index Level GDP Deflated by Official Implicit Price Deflator To 3q2018, Seasonally-Adjusted [ShadowStats, BEA]



Graph OC-7 Headline GDP Real Year-to-Year Change (First-Quarter 2000 to Third-Quarter 2018)]
(Truncated Version of Graph OC-4, Same as Graph 19 in the Reporting Detail)

Quarterly Real Gross Domestic Product Year-to-Year Change, 1q2000 to 3q2018 [ShadowStats, BEA]

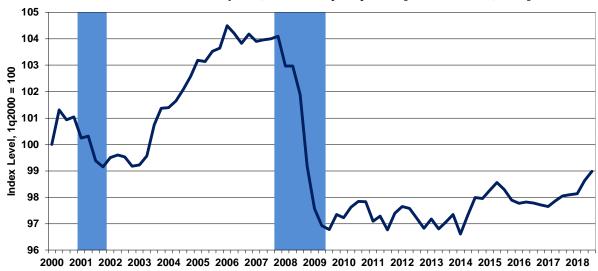


Graph OC-8: "Corrected" Real GDP Index (First-Quarter 2000 to First-Estimate of Third-Quarter 2018)

(Truncated, Index Version of Graph OC-3)

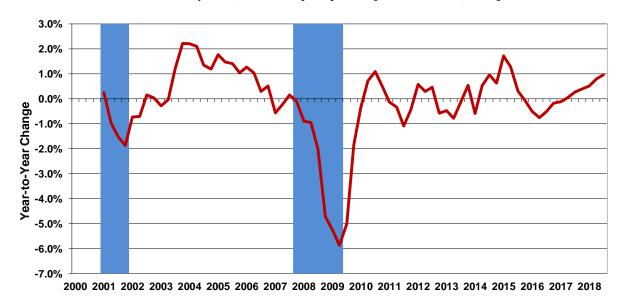
Corrected Real Gross Domestic Product

Nominal GDP Deflated by Implicit Price Deflator Corrected for Roughly Two-Percentage Point Understatement of Annual Inflation "Advance" Estimate 3q2018, Seasonally-Adjusted [ShadowStats, BEA]



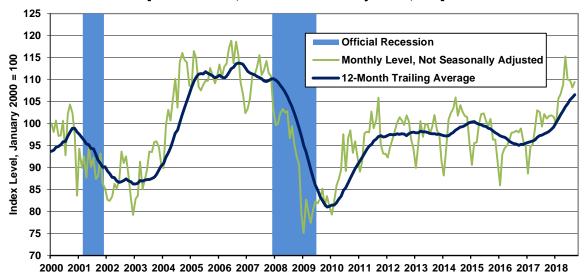
Graph OC-9: Corrected-GDP, Year-to-Year Percent Change (First-Quarter 2000 to Third-Quarter 2018)
(Truncated Version of Graph OC-5)

Corrected Gross Domestic Product, Yr-to-Yr Percent Change 2000 to 3q2018, Seasonally-Adjusted [ShadowStats, BEA]



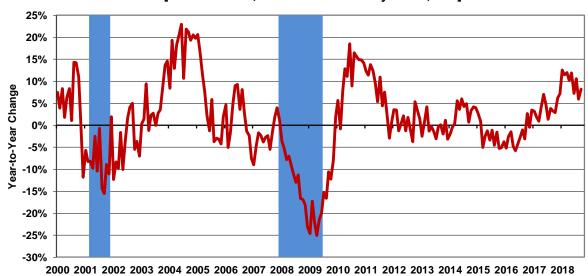
Graph OC-10: CASS Freight Index™ Moving-Average Level (January 2000 to September 2018) (Same as Graph OC-1 in Commentary No. 975)

Cass Freight Index[™] (Jan 2000 = 100) To September 2018, Not Seasonally Adjusted [ShadowStats, Cass Information Systems, Inc.]



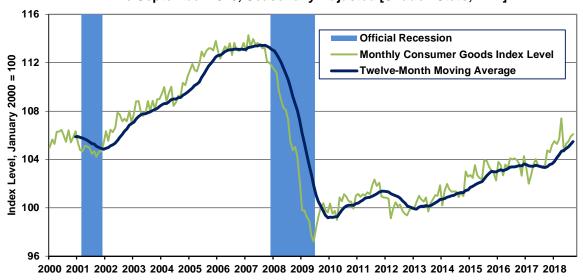
Graph OC-11: CASS Freight Index, Monthly Year-to-Year Percent Change (January 2000 to September 2018)
(Same as Graph OC-3 in Commentary No. 975)

Cass Freight Index™ (Year-to-Year Percent Change) Monthly to September 2018, Not Seasonally Adjusted [ShadowStats, Cass Information Systems, Inc.]



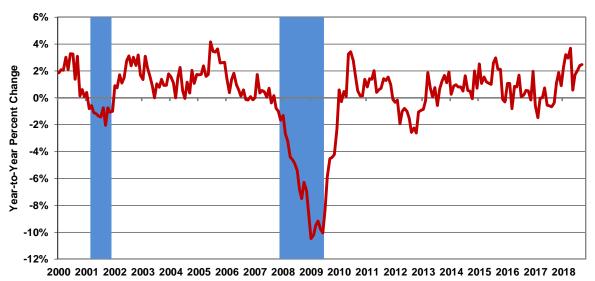
Graph OC-12: U.S. Industrial Production – Consumer Goods (January 2000 to September 2018)

Production of Consumer Goods Index Reset to January 2000 = 100, Monthly and 12-Month Moving Average To September 2018, Seasonally Adjusted [ShadowStats, FRB]



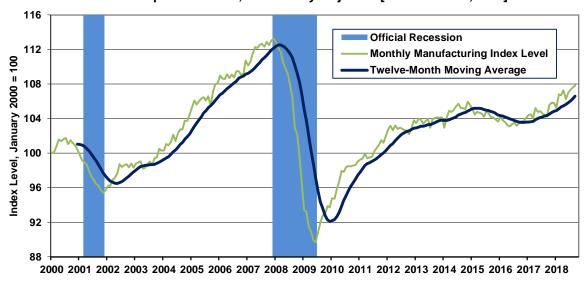
Graph OC-13: Year-to-Year Percent Change, Production of Consumer Goods (January 2000 to September 2018)

Production - Consumer Goods (Year-to-Year Percent Change) To September 2018, Seasonally-Adjusted [ShadowStats, FRB]



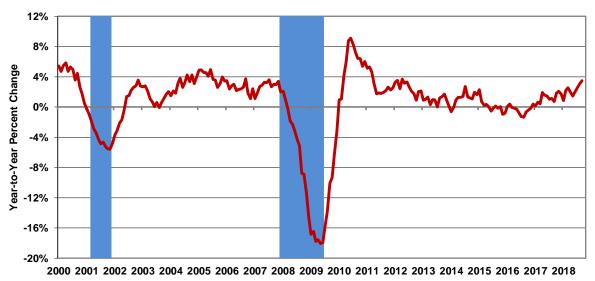
Graph OC-14: Industrial Production-Manufacturing, 12-Month Moving-Average Level (2000 to September 2018)
(Same as Graph OC-2 in Commentary No. 975)

Production - Manufacturing (SIC)
Index Reset to January 2000 = 100, Monthly and 12-Month Moving Average
To September 2018, Seasonally Adjusted [ShadowStats, FRB]



Graph OC-15: Manufacturing, Year-to-Year Percent Change (2000 to September 2018)
(Same as Graph 16 in Commentary No. 975)

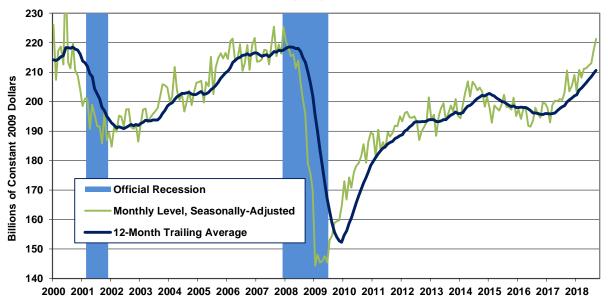
Production - Manufacturing (Year-to-Year Percent Change) To September 2018, Seasonally-Adjusted [ShadowStats, FRB]



Graph OC-16: New Orders for Durable Goods, 12-Month Moving-Average Level (Jan 2000 to Sep 2018)

Real Durable Goods Orders (Ex-Commercial Aircraft)

Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



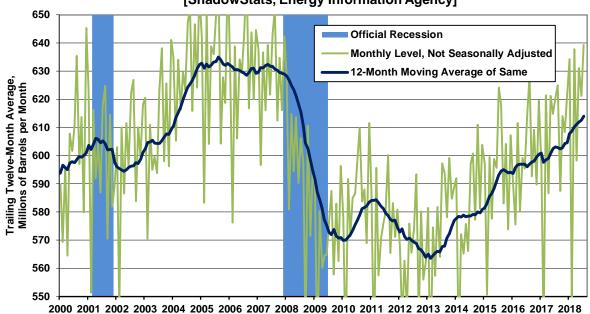
Graph OC-17: New Orders for Durable Goods, Year-to-Year Percent Change (January 2000 to September 2018)

(Same as Graph 7 in the Reporting Detail)

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

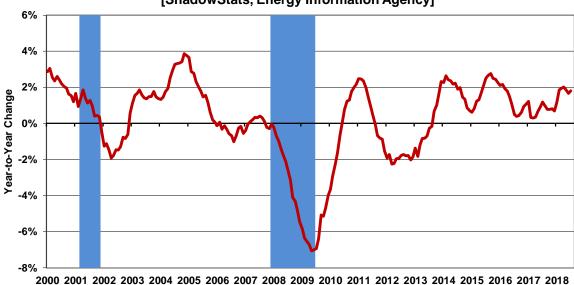
Graph OC-18: U.S. Petroleum Consumption (January 2000 – July 2018)
(Same as Graph 6 in Commentary No. 972)

U.S. Product Supplied of Crude Oil and Petroleum Product To July 2018, Not Seasonally Adjusted, Millions of Barrels per Month, Trailing Twelve-Month Average [ShadowStats, Energy Information Agency]



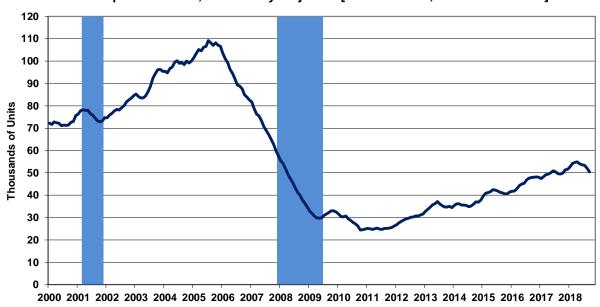
Graph OC-19: Year-to-Year Change, U.S. Petroleum Consumption (January 2000 – July 2018)

Oil Consumption, Year-to-Year Percent Change Smoothed 12-Month Moving Average Millions of Barrels July 2018, Not Seasonally Adjusted [ShadowStats, Energy Information Agency]



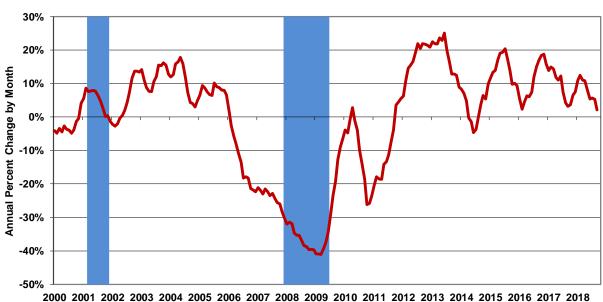
Graph OC-20: New-Home Sales (Six-Month Moving Average)
(Same as Graph 2 in the Reporting Detail)

New-Home Sales (Six-Month Moving Average) To September 2018, Seasonally-Adjusted [ShadowStats, Census and HUD]



Graph OC-21: New-Home Sales (Six-Month Moving Average, Year to-Year Change)

New-Home Sales (Six-Month Moving Average, Yr-to-Yr Change) To September 2018, Seasonally-Adjusted [ShadowStats, Census and HUD]



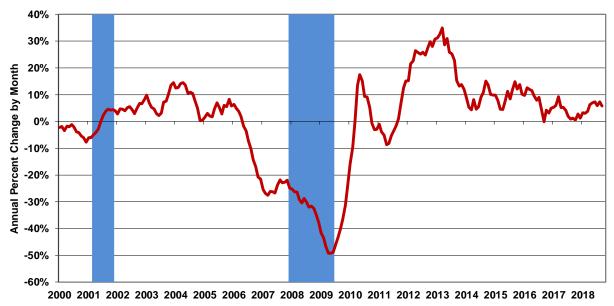
Graph OC-22: Aggregate Housing Starts (Six-Month Moving Average, Monthly Rate of Activity)
(Same as Graph 34 in Commentary No. 975, see also Graphs 31 to 46)

Aggregate Housing Starts (Six-Month Moving Average) To September 2018, Seasonally-Adjusted [ShadowStats, Census and HUD]



Graph OC-23: Aggregate Housing Starts (Six-Month Moving Average, Year-to-Year Percent Change)

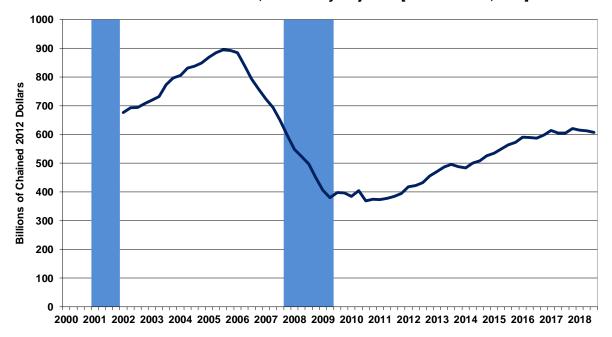
Housing Starts (Six-Month Moving Average Yr-to-Yr Change) To September 2018, Seasonally-Adjusted [ShadowStats, Census and HUD]



Graph OC-24: Gross Domestic Product – Real Residential Investment (1q2002 to 3q2018)

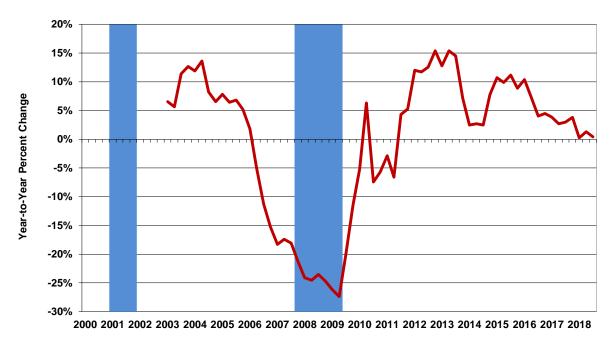
(Same as Graph 1 in the Reporting Detail, the series breakout begins in 2002)

GDP Gross Private Domestic Investment - Residential Billions of Chained 2012 Dollars To Third-Quarter 2018, Seasonally-Adjusted [ShadowStats, BEA]



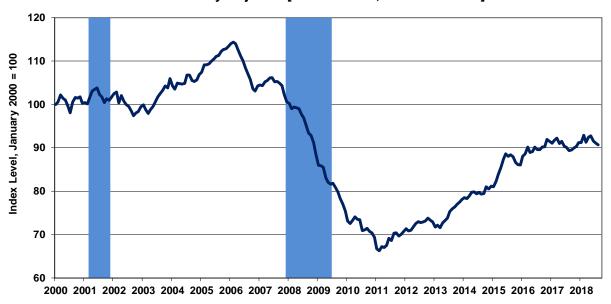
Graph OC-25: Gross Domestic Product - Real Residential Investment (Year-to-Year Percent Change)

GDP Gross Private Domestic Investment - Residential Real Year-to-Year Change, 1q2003 to 3q2018 [ShadowStats, BEA]



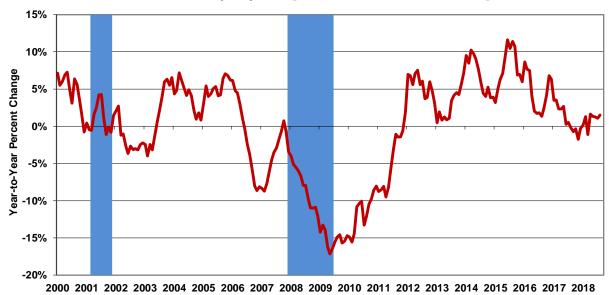
Graph OC-26: Total Real U.S. Construction Spending (January 2000 – August 2018)
(Same as Graph 21 in Commentary No. 972)

Index of Real Total Value of Construction Put in Place To August 2018, CCD-Inflation Adjusted (Jan 2000 = 100) Seasonally-Adjusted [ShadowStats, Census Bureau]

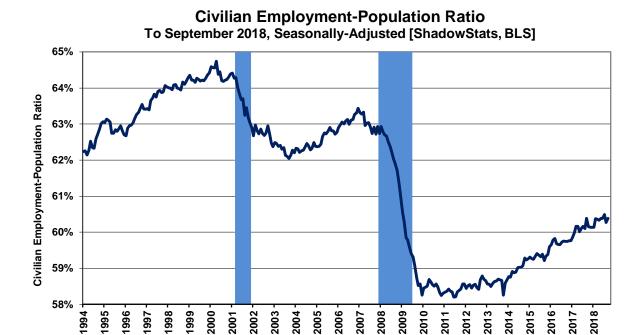


Graph OC-27: Yr-to-Yr Percent Change Real Total U.S. Construction Spending (January 2000 – August 2018)
(Same as Graph 17 in Commentary No. 972)

Real Total Value of U.S. Construction Put in Place Year-to-Year Percent Change to August 2018 Seasonally-Adjusted [ShadowStats, Census Bureau]



Graph OC-28: Civilian Employment-Population Ratio (January 2000 - September 2018)
(Same as Graph 3 in Commentary No. 972)



[The Reporting Detail begins on the next page]

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REPORTING DETAIL

New-Home Sales (September 2018)

New-Home Sales Plunged to a 21-Month Low, in Deepening Downtrend, Contracting for a Second Consecutive Quarter, Confirming Similar Patterns in Related Residential Construction and Sales. September 2018 New-Homes Sales contracted sharply as measured month-to-month and year-to-year, in a deepening six-month downtrend and in a second consecutive quarter-to-quarter contraction. Such confirmed similar patterns of activity seen across-the-board for Existing-Home Sales and New Residential Construction—Building Permits and Housing Starts, and as just reported as a third-consecutive quarterly contraction in the Private Residential Investment component of third-quarter Gross Domestic Product (see the later GDP section in this *Reporting Detail*.

As usual, headline monthly numbers were highly volatile, with no statistically meaningful changes in aggregate monthly or annual data. Against expectations of monthly stability, and on top of downside revisions to prior reporting, the headline monthly decline of 5.0% (-5.0%) in September 2018 was a drop of 12.1% (-12.1%) net of revisions. Year-to-year, sales fell by 13.2% (-13.2%) in the month, having gained 4.8% in August. Hurricane activity appeared to have had minimal impact in the South. Plunging activity in the Northeast and West in September generally offset unusually large gains in August reporting.

Of substance, though, were the deepening six-month downtrend, and consecutive quarter-to-quarter contractions in sales activity, discussed shortly. The major unfolding issue remains constraint on demand, reflecting intensified consumer liquidity stresses. Liquidity issues have been exacerbated by the Federal Reserve continuing to raise interest rates in an economy that never fully recovered from the Great Recession. For example, consider that September New-Home Sales held shy of recovering its prerecession peak by 60.2% (-60.2%). See the *Opening Comments* of <u>Commentary No. 975</u> on FOMC policy, for extended discussion.

Consecutive Quarterly Contractions, Deepening Downtrends and Continuing Economic Non-Expansion in Residential Construction, Sales and Investment. Updating the discussion and detail from prior <u>Commentary No. 975</u>, all series here have been reported through third-quarter 2018, with the exception of Construction Spending (September detail will be published November 1st).

- *New-Home Sales* (Census Bureau, count of contracts signed), two consecutive quarterly contractions (units) are in place, down at an annualized quarter-to-quarter pace of 29.2% (-29.2%) in third-quarter 2018, having dropped at an annualized quarterly pace of 13.5% (-13.5%) in second-quarter 2018, with a year-to-year decline of 0.6% (-0.6%) in third-quarter 2018, versus an annual gain of 4.7% in second-quarter 2018.
- *Existing-Home Sales* (National Association of Realtors, count of home sales closed) back-to-back quarterly contractions (units) are in place now for three consecutive quarters, down at an annualized quarterly pace of 10.0% (-10.0%) in third-quarter 2018, versus 6.6% (-6.6%) in second-quarter 2018, and 6.1% (-6.1%) in first-quarter 2018, with an annual contraction of 2.4% (-2.4%) in third-quarter 2018, versus year-to-year declines of 2.4% (-2.4%) in second-quarter 2018 and 1.7% (-1.7%) in first-quarter 2018.
- *Building Permits* (Census Bureau) back-to-back annualized quarter-to-quarter contractions (units) were 15.6% (-15.6%) in third-quarter 2018, versus 10.3% (-10.3%) in second-quarter 2018, with a year-to-year contraction of 0.5% (-0.5%) in third-quarter 2018, versus an annual gain of 4.9% in second-quarter 2018.
- *Housing Starts* (Census Bureau) back-to-back annualized quarter-to-quarter contractions (units) were 13.0% (-13.0%) in third-quarter 2018, versus 16.0% (-16.0%) in second-quarter 2018, with a year-to-year gain of 3.9% in third-quarter 2018 down from an annual gain of 7.7% in second-quarter 2018.
- *GDP Fixed Residential Investment* (Bureau of Economic Analysis) back-to-back quarterly contractions (inflation-adjusted, constant dollars) are in place now for three consecutive quarters, down at an annualized quarterly pace of 4.0% (-4.0%) in third-quarter 2018, versus 1.3% (-1.3%) in second-quarter 2018, and 3.4% (-3.4%) in first-quarter 2018, with year-to-year gains of 0.4% in third-quarter 2018, 1.3% in second-quarter 2018 and 0.2% in first-quarter 2018. See also the later GDP section in this *Reporting Detail*.
- **Real Construction Spending** (Census Bureau) in the United States is trending for an initial third-quarter 2018 contraction (inflation-adjusted, constant dollars) in both aggregate and in private residential construction spending, but the numbers are extremely volatile in headline reporting and in revisions each month (see <u>Commentary No. 972</u> for prior detail, the September data release is scheduled for November 1, 2018).

Not One of Those Series Has Come Close to Recovering Its Pre-Recession Peak. Reflecting the broad economic non-expansion in all these series, as of the latest headline details, Building Permits and Housing Starts (September) both remained well shy of recovering there pre-recession highs, down from those prior peaks respectively by 47.2% (-47.2%) and by 52.2% (-52.2%). Existing- and New-Home Sales (September) were down respectively by 29.2% (-29.2%) and 60.2% (-60.2%), while Real GDP Residential Fixed Investment (Third-Quarter) was down by 32.2% (-32.2%) and aggregate Real Construction Spending (August) was down by 20.7% (-20.7%).

New-Home Sales Continued in an Increasingly Significant, Deepening Six-Month Downtrend.

Released October 24th by the Census Bureau and the Department of Housing and Urban Development, the highly volatile and unstable New-Home Sales series, which counts new-home sales contracts signed (as opposed to the count of home sales closed in the Existing-Home Sales series reviewed in prior Commentary No. 975), declined month-to-month in September 2018 by a statistically-insignificant 5.5% (-5.5%) +/- 14.2% (all confidence intervals are expressed at the 95% level, as detailed in the New Residential Construction section of Commentary No. 975. That followed revised month-to-month declines of 3.0% (-3.0%) [previously a gain of 3.5%] in August, 1.5% (-1.5%) [previously 1.6% (-1.6%), initially 1.7% (-1.7%)] in July and 6.3% (-6.3%) [previously 5.4% (-5.4%), initially 2.4% (-2.4%)] in June and against an unrevised 3.2% monthly gain in May, as reflected in Graph 3 and as contrasted with September Existing-Home Sales, plotted in Graph 4 (again see expanded detail in Commentary No. 975).

Where headline monthly activity for the New-Home Sales remained shy of its pre-recession peak by 60.2% (-60.2%), this series also has continued in a deepening downtrend, smoothed with a six-month moving average, as reflected in *Graph 2*, accompanied by *Graph 1* of the GDP's Real Residential Investment, plotted quarterly through third-quarter 2018

Annual Change. The year-to-year change in September 2018 New-Home sales was a statistically-insignificant decline of 13.2% (-13.2%) +/- 15.9%, versus revised annual gains of 4.5% [previously 12.7%] in August 2018, 8.5% [previously 9.4%, initially 12.8%] in July 2018, and a revised decline of 0.6% (-0.6%) [previously gains of 0.3%, 3.6%, and initially 2.4%] in June 2018.

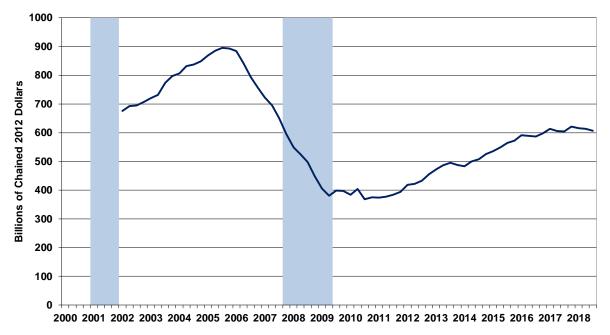
Quarterly Change. Reflecting increasingly negative and unstable monthly and quarterly swings, Fourth-Quarter 2017 activity surged at an unrevised annualized pace of 58.9%, with First-Quarter 2018 showing an unrevised gain of 0.4% and the fourth estimate of Second-Quarter 2018 showing a revised annualized contraction of 13.5% (-13.5%) [previously 12.4% (-12.4%), 8.4% (-8.4%) and initially 6.0% (-6.0%)]. Based just on the still unstable detail for July, August and September 2018, initial reporting of third-quarter 2018 was for an annualized quarterly contraction of 29.2% (-29.2%).

Intensifying Consumer Liquidity Constraints Impair Residential Real Estate Activity, Including Construction and Existing- and New-Home Sales. The intensifying liquidity bind besetting consumers continues to constrain residential real estate activity, as discussed in the Opening Comments and New Residential Construction Section of Commentary No. 975 and as reviewed in Consumer Liquidity Watch—No. 4 (pending update in CLW-5). Without sustainable growth in real income, and without the ability or willingness to take on meaningful new debt (including mortgages) in order to make up for an income shortfall, the U.S. consumer remains unable to sustain positive growth in domestic personal consumption, including residential real estate activity and the related pass-through to demand for residential construction. That circumstance—in the last twelve-plus years of economic collapse and stagnation—has prevented a normal recovery in broad U.S. economic activity.

New Graph of Real GDP Residential Investment. Graphs 1 and 2 include the new graph of GDP Residential Investment (through third-quarter 2018) along with the regular plot of six-month smoothed moving average of New-Home Sales (through September 2018). Graphs 3 and 4 plot the usual raw, seasonally-adjusted monthly New-Home Sales versus Existing-Home Sales series. Again, see New Residential Construction Section of Commentary No. 975 for other comparative plots of the related Housing Starts series.

Graph 1: Gross Domestic Product - Real Residential Investment (1q2002 to 3q2018)

GDP Gross Private Domestic Investment - Residential Billions of Chained 2012 Dollars To Third-Quarter 2018, Seasonally-Adjusted [ShadowStats, BEA]



Graph 2: New -Home Sales (Six-Month Moving Average)

New-Home Sales (Six-Month Moving Average) To September 2018, Seasonally-Adjusted [ShadowStats, Census and HUD]



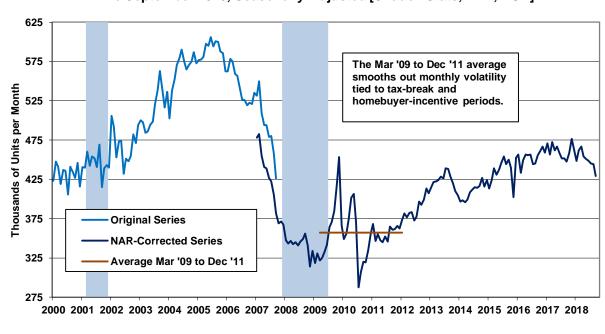
Graph 3: New-Home Sales (Monthly Rate of Activity)

New-Home Sales (Monthly Rate) To September 2018, Seasonally-Adjusted [ShadowStats, Census and HUD]



Graph 4: Existing-Home Sales (Monthly Rate of Activity)

Existing-Home Sales (Monthly Rate) Single- and Multiple-Unit Sales, Non-Annualized Monthly Level To September 2018, Seasonally-Adjusted [ShadowStats, NAR, HUD]



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New Orders for Durable Goods (September 2018)

Depressed by Declining Commercial Aircraft Orders, Real September New Orders Rose by 0.58%, but Declined by 0.79% (-0.79%) Net of Defense Orders. Reported by the Census Bureau on October 25th, total nominal New Orders for Durable Goods were reasonably positive, propped by irregular defense orders, and possibly with some boost from hurricane-replacement orders for automobiles. They rose month-to-month by a nominal 0.76% in September 2018, having gained a revised 4.65% [previously 4.45%] in August and having declined by a revised 1.16% (-1.16%) [previously 1.18% (-1.18%), initially by 1.69% (-1.69%)] in July 2018.

In the context of September 2018 monthly decline of 17.51% (-17.51%) in highly volatile Commercial Aircraft Orders, shifting from a revised 63.67% [previously 69.15%] jump in August, and an unrevised decline of 29.09% (-29.09%) in July, New Orders for Durable Goods Ex-Commercial Aircraft were up by 2.00% in September, versus a revised 2.15% [previously 1.71%] in August and a revised 0.51% [previously 0.50%, initially 0.33%] in July.

Net of an 18.22% nominal monthly gain in September Defense Orders, Aggregate New Orders net of Defense Orders declined by 0.62% (-0.62%) in the month, having gained 2.55% in August.

Real Durable Goods Orders—September 2018. ShadowStats uses the Producer Price Index (PPI) component inflation measure "Durable Manufactured Goods" for deflating the new orders for durable goods series. Published only on a not-seasonally-adjusted basis, the related September 2018 PPI series (2009 = 100) showed headline month-to-month inflation of 0.17%, versus 0.11% August, 0.17% in July, 0.35% in June, 0.46% in May, 0.35% in April, 0.41% in March, 0.35% in February and a 0.41% gain in January. Related year-to-year annual inflation was 3.31% in September 2018, versus 3.25% in August 2018, 3.20% in July 2018, 2.96% in June 2018, 2.66% in May 2018, 2.19% in April 2018, 2.08% in March 2018, 1.84% in February 2018 and 1.79% in January 2018 (see Commentary No. 974).

Adjusted for that 0.17% month-to-month inflation reading in September 2018 and the respective inflation rates in earlier months, and as reflected in the accompanying graphs, real aggregate durable goods orders in September 2018 gained 0.58%, having gained 4.53% in August and having declined month-to-month by 1.33% (-1.33%) in July. September real orders held shy of recovering their pre-recession peak by

6.52% (-6.52%). Ex-commercial aircraft, real month-to-month orders rose by 1.82% in September 2018, versus 2.03% in August and 0.32% in July. Ex-commercial aircraft, August 2018 real orders remained shy of recovering their pre-recession peak by 1.76% (-1.76%).

Real total new orders gained year-to-year by 4.40% in September 2018, versus 8.52% in August 2018, and 6.59% in July 2018. Ex-commercial aircraft, September 2018 real orders rose year-to-year by 5.09%, versus 7.05% in August 2018 and 6.21% in July 2018. *Table I* summarizes the just presented monthly numbers by category and inflation-adjusted or not-inflation-adjusted status.

Table I: Summary Detail of September 2018 New Orders for Durable Goods

		Re	al		
Month	onth Millions of Current				Constant
		Dollars		2009 D	ollars
	Total		Ex-	Total	Ex-
	New	Commercial	Commercial	New	Commercial
	Orders	Aircraft	Aircraft	Orders	Aircraft
Jul 18	248.571	10.110	238.461	222.045	213.01
Aug 18	260.128	16.547	243.581	232.103	217.33
Sep 18	262.098	13.649	248.449	233.459	221.30
	Percent Change			Percent Change	
	Mo/Mo	Mo/Mo	Mo/Mo	Mo/Mo	Mo/Mo
Jul 18	-1.16%	-29.09%	0.51%	-1.33%	0.349
Aug 18	4.65%	63.67%	2.15%	4.53%	2.03%
Sep 18	0.76%	-17.51%	2.00%	0.58%	1.82%
Prior M/M					
Jul 18	-1.18%	-29.09%	0.50%	-1.35%	0.329
Aug 18	4.45%	69.15%	1.71%	4.33%	1.59%
	Yr/Yr		Yr/Yr	Yr/Yr	Yr/Yr
Jul 18	9.99%		9.61%	6.59%	6.21%
Aug 18	12.06%		10.54%	8.52%	7.05%
Sep 18	7.86%		8.57%	4.40%	5.09%
Prior Y/Y					
Jul 18	9.98%		9.59%	6.57%	6.19%
Aug 18	11.83%		10.04%	8.30%	6.57%

Government Defense Spending versus Constrained Consumer Liquidity. The headline detail for the monthly new orders reflected some consumer weakness in September that ran counter to the continued aggregate orders boost from increased government spending. For example, real new orders for

computers, communications equipment and appliances were down for the month. Motor vehicle orders, however, were up, likely reflecting some insurance funded orders for replacement vehicles destroyed in hurricane activity, while the monthly decline there in August well may have reflected tightening consumer liquidity. As discussed in today's *Opening Comments*, defense orders/spending kept aggregate new durable goods orders in the plus-column for the second month.

New Orders, Production and North American Freight Activity and Broad Domestic Economic Activity. ShadowStats concentrates on the inflation-adjusted real New Orders for Durable Goods series, excommercial aircraft, as a leading indicator to the dominant Manufacturing sector of Industrial Production, as well as its relationship with the Cass Freight IndexTM, a key private-sector indicator of broad activity. Those relationships usually are highlighted in this section. Instead, those and a number of other economic indicators are updated and reviewed against both the headline GDP and the ShadowStats "Corrected" Alternate GDP measure, as detailed in today's Opening Comments (see Graph OC-10 versus OC-16).

Graphs of Inflation-Adjusted and Smoothed Durable Goods Orders and Recent Benchmark Revisions. The headline September 2018 New Orders for Durable Goods of October 25th and accompanying revisions all were in the context of the prior, meaningful, downside annual benchmark revisions (through March 2018) of May 17th, discussed primarily in Commentary No. 951 and Commentary No. 950. Intervening headline monthly details for April to August 2018 were discussed in Commentary No. 957, Commentary No. 961, Commentary No. 967 and Commentary No. 971, with the September details updated in Graphs 5 and 6.

In the context of those benchmark revisions, *Graphs 12* and *13* show the current headline monthly detail, as well as the six-month moving-average activity for both the aggregate new orders series and the same series net of the irregularly-volatile commercial-aircraft orders. The broad pattern of smoothed, real activity generally has remained at a low-level of non-recovered, but uptrending stagnation.

The moving-average levels in *Graphs 5* and 6 turned lower into year-end 2014, and after an uptick in mid-2015—some smoothed bounce-back—the trend turned down anew into late fourth-quarter 2015, with continued minor fluttering into third-quarter 2016, and initially a small uptick in fourth-quarter 2016. Activity continued on the upside into 2017 and 2018, although softened by the downside benchmark revisions (again, see *Graphs 12* and *13*). Starting with August and September of 2017, however, broad orders activity was spiked temporarily by natural-disaster recovery, a pattern that largely had passed, but may be returning a bit in the wake of September 2018 hurricane damage..

Three sets of inflation-adjusted graphs (*Graphs 5* to 7, *Graphs 8* and 9, and *Graphs 10* and 11) follow. The first set shows the headline monthly detail, as well as the six-month moving-average activity for both the aggregate new orders series and the series net of irregular commercial-aircraft orders. It also shows annual growth for the real series (net of commercial aircraft). The moving-average levels in both the durable goods series (*Graphs 5* and 6) had turned lower into year-end 2014 and the first two quarters of 2015, with some smoothed bounce-back into third-quarter 2015, followed by renewed downturn into 2016 with a late-year uptick continuing into March 2017, which largely was revised away with the May 2017 benchmarking. Along with a period of uptrending stagnation, boosted by disaster recovery, the same pattern of growth and downside benchmark revision largely was repeated through May 2018, as can be seen in *Graphs 12* and 13.

The second set of graphs (*Graphs 8* and 9) shows the patterns of six-month moving averages of historical, headline real new orders for durable goods (net of official inflation), as well as that pattern "corrected" for understatement of that inflation (and for the corresponding overstatement of official, inflation-adjusted growth). The third set of graphs (*Graphs 10* and *11*) shows largely the same patterns, although they are for the aggregate durable goods orders series, net of commercial aircraft orders.

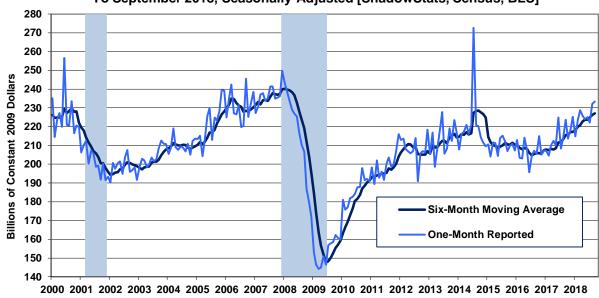
Broad Patterns of New Orders Activity. There has been a general pattern of stagnation or bottom-bouncing evident in the orders of recent years—clearly not the booming recovery seen in official GDP reporting. The real monthly and six-month moving-average levels of new orders in September 2018 remained below both the pre-2007 recession high, as well as the pre-2000 recession high for the series. The pattern of low-level stagnation and fluctuating trend in the annual inflation-adjusted series since mid-2014—net of the irregular aircraft-order effects—again is one that most commonly precedes and/or coincides with a recession or non-economic expansion, as is the current circumstance. These series remain in non-recovered, non-expanding, low-level, albeit uptrending stagnation (see the *Opening Comments* of *Commentary No.* 966).

[Graphs 5 to 7 begin on the next page.]

Headline New Orders Detail, Aggregate and Ex-Commercial Aircraft

Graph 5: Real Total New Orders for Durable Goods to Date

Real New Orders for Durable Goods Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]

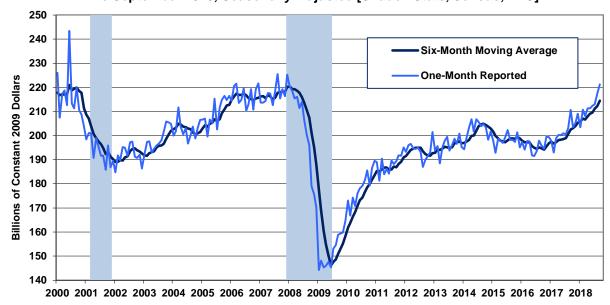


Graph 6: Real New Orders for Durable Goods – Ex-Commercial-Aircraft Orders to Date

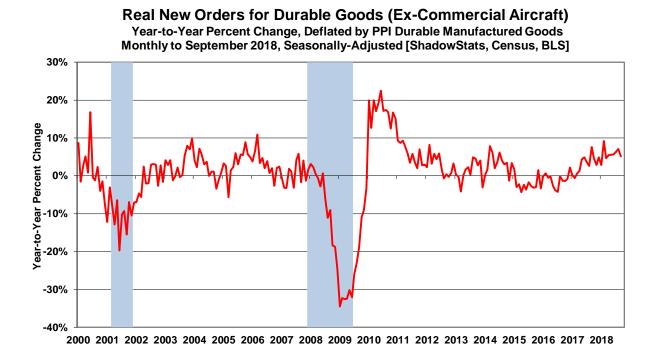
Real New Orders for Durable Goods (Ex-Commercial Aircraft)

Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods

To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 7: Yr-to-Yr % Change, Real New Orders for Durable Goods — Ex-Commercial Aircraft (2000 to Date)
(Same as Graph OC-17 in the Opening Comments)



The Real New Orders Series "Corrected" for Inflation Understatement. As with other economic series distorted by deflation using official government inflation measures, headline estimates of inflationadjusted growth in new orders for durable goods generally are overstated, due to the understatement of official inflation. Among other issues, that understatement comes from the government's use of hedonic-quality adjustments—quality issues usually not perceived by the users or consumers of the involved products—in justifying a reduced pace of headline inflation used in deflating some series (see <u>Public Commentary on Inflation Measurement</u>).

As done for other series such as Industrial Production, Retail Sales and the GDP (see *Graphs 9* and 2 in *Commentary No. 975*, and *Graphs OC-3* and *OC-5* in today's *Opening Comments*), ShadowStats publishes an experimental, corrected-inflation version of the graph of real New Orders for Durable Goods. Real activity, in this case, is corrected for the understatement of the inflation used in deflating the new orders series with the headline PPI inflation for manufactured durable goods.

Two sets of graphs follow. The first set (*Graph 8* and *Graph 9*) shows the aggregate series or total durable goods orders; the second set (*Graph 10* and *Graph 11*) shows the ex-commercial aircraft series. The aggregate orders series in *Graphs 8* and 9 includes the monthly commercial aircraft orders. Placed years in advance, aircraft orders are a better indicator of long-range production activity, than they are as a near-term leading indicator of production activity. Again, *Graphs 10* and *11* are shown net of those volatile commercial aircraft orders.

The first graph in each of the two sets shows the official six-month moving average, the same heavy darkblue line shown in *Graph 5* and *Graph 6*, along with the light-blue thin line of monthly detail. The second graph in each set is the same six-month, moving-average series shown in the first graph, but it has been re-deflated to correct for the ShadowStats estimate of the understatement of the PPI manufactured durable goods inflation measure used in the headline-deflation process. The "corrected" graphs all are indexed to January 2000 = 100.

The 2000 indexing simply provides for some consistency in the series of revamped "corrected" graphics such as Retail Sales and Industrial Production, discussed in their respective sections of <u>Commentary No.</u> 975, the GDP, discussed in the next section. The indexing does not affect the appearance of the graph or reported growth rates (as can be seen with a comparison of the moving average in *Graph 5* to the later *Graph 10*, which has the standard, headline indexing).

[Graphs 8 to 11 begin on the next page.]

Smoothed Real Series and Real Series Corrected for Inflation-Understatement Graph 8: Index of Real Total New Orders for Durable Goods, 6-Month Moving Average

Total Real New Orders for Durable Goods

Six-Month Moving Average, Deflated by PPI Durable Manufactured Goods To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 9: Corrected Index of Real Total New Orders for Durable Goods, 6-Month Moving Average

ShadowStats Corrected Total Real New Orders for Durable Goods Six-Month Moving Average, Deflation Corrected for Hedonic Adjustments To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 10: Index of Durable Goods Orders – Ex-Commercial Aircraft, 6-Month Moving Average

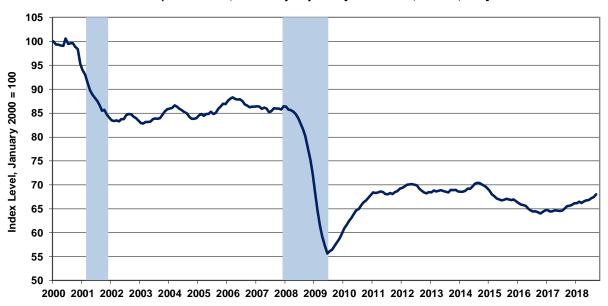
Real New Orders for Durable Goods (Ex-Commercial Aircraft)
Six-Month Moving Average, Deflated by PPI Durable Manufactured Goods
To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 11: Corrected Index of Durable Goods Orders - Ex-Commercial Aircraft, 6-Month Moving Average

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

Six-Month Moving Average, Deflation Corrected for Hedonic-Adjustments To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Caution: Beyond Regular Upside Biases Built Into Headline Reporting, Seasonally-Adjusted Monthto-Month Data Simply Are Not Comparable. The Census Bureau published its 2018 annual benchmark revisions to Manufacturers' Shipments, and the subsidiary series New Orders for Durable Goods on May 17th, which broadly were to the downside. They also largely were consistent with major downside revisions to the Industrial Production series in its March 23rd benchmarking and in its unusual monthly revisions of May 16th (see Commentary No. 951, Commentary No. 950 and Commentary No. 942-B), and suggestive of some likely parallel hits in the GDP revisions. Yet, there was no clear, parallel impact on the recently-published GDP "comprehensive" benchmark revisions discussed in GDP Special No. 968.

This circumstance has been the common experience in economic reporting of recent years and decades. Discussed in <u>Special Commentary No. 885</u>, there is a broad upside bias often built into the underlying assumptions that drive the headline reporting of many, widely-followed and politically-sensitive economic series.

As an example of the regular, annual downside restatement of recent activity in the New Orders for Durable Goods series, consider accompanying *Graphs 12* and *13* of both aggregate (*Graph 12*) and excommercial aircraft (*Graphs 13*) real new orders for durable goods. The plots reflect the net revisions to the six-month moving averages of those two series for the 2018 benchmarking, as well as for the three prior benchmarkings, along with subsequent headline reporting through the September 2018 headline detail.

For a substantive review of the last two years of benchmark revisions to New Orders for Durable Goods, and the parent Manufacturers' Shipments series, see <u>Commentary No. 951</u>, <u>Commentary No. 950</u> and <u>Special Commentary No. 885</u>.

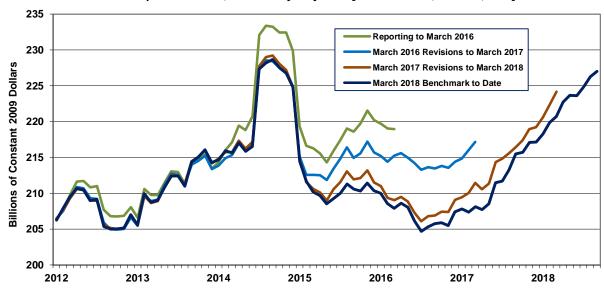
Current headline durable-goods reporting remains subject not only to the upwardly-biased sampling assumptions seen in the pre-benchmarking reporting, but also to the concurrent-seasonal-adjustment problems commonly seen with series such as retail sales, and payroll and unemployment reporting. Unusual seasonal-factor volatility raises issues as to the significance of comparing reported seasonally-adjusted changes, be they monthly or quarterly, or on a year-to-year basis. While those issues were brought into balance, for a period of eight days, with the annual benchmark revision to durable goods orders through March 2018 on May 17, 2018 (again see *No. 950*), that consistency ceased with the May 25th release of the headline April 2018 detail.

For all monthly reporting from the April 2018 detail until the next annual benchmarking in May 2019, unpublished, monthly historical seasonal-adjustment revisions, calculated along with each new current headline month's detail, and with each month to follow, make the latest detail (September 2018) inconsistent with all the headline historical numbers. (See the related discussion in *Supplemental Labor-Detail Background* in *Commentary No.* 972.

[Graphs 12 and 13 follow on the next page.]

Graph 12: Benchmark Revisions to Real Total New Orders for Durable Goods, Smoothed for 6-Month Moving Avg
Revisions to Real New Orders for Durable Goods

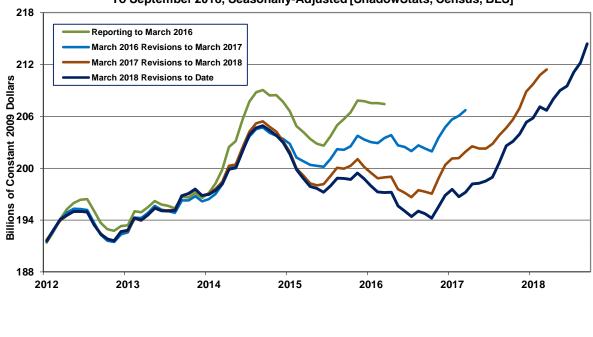
Smoothed with a Six-Month Moving Average Billions of \$2009, Deflated by PPI Durable Manufactured Goods To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Graph 13: Benchmark Revisions to Real Total New Orders for Durable Goods, Ex-Commercial Aircraft

Revisions to Real New Orders (Ex-Commercial Aircraft)

Smoothed with a Six-Month Moving Average
Billions of Constant \$2009, Deflated by PPI Durable Manufactured Goods
To September 2018, Seasonally-Adjusted [ShadowStats, Census, BLS]



Gross Domestic Product (Third-Quarter 2018)

"Advance" Third-Quarter GDP Real Growth Slowed to 3.50% from 4.16% in Second Quarter, Propped Heavily by Inventory Building and Plunging Inflation, Hit by a Widening Trade Deficit. The first or "advance" estimate of real Third-Quarter 2018 Gross Domestic Product (GDP) came in at an annualized 3.50% +/- 2.5% (95% confidence interval), somewhat above consensus expectations, against an unrevised 4.16% in second-quarter GDP (see *Graphs 18* and 20). Year-to-year real growth in third-quarter 2018 GDP was 3.04%, versus 2.87% in second-quarter 2018 and 2.58% in first-quarter 2018 (see *Graphs 19* and 21). Both the headline annual and quarterly real growth rates for third-quarter 2018 GDP were above the respective 40-year averages of 2.69% and 2.67%. Summary GDP and component details are covered in *Table II*.

GDP inflation (the Implicit Price Deflator or IPD) for third-quarter 2018 was an annualized 1.38% quarter-to-quarter, versus 3.31% in second-quarter 2018 and 2.02% in first-quarter 2018 (see *Graph 24*). Year-to-year inflation was 2.36% in third-quarter 2018, versus 2.50% in second-quarter 2018 and 1.95% in first-quarter 2018 (see *Graph 24*).

Third-Quarter 2018 Real GDP Was Not As Hot As It Looked. Where the headline annualized real growth of 3.50% in real third-quarter 2018 GDP came in somewhat above expectations, albeit down from 4.16% in second-quarter 2018, consider:

- An inventory build-up accounted for 70.7% of the increase in the dollar level of real GDP, with Final Sales (GDP minus Inventories) growth plunging to 1.43% in third-quarter 2018, versus 5.33% in second-quarter 2018 (see *Table II*).
- Given unusual patterns in third-quarter versus second-quarter activity, the GDP annualized quarterly inflation (Implicit Price Deflator) dropped to 1.38% from 3.31% in the second quarter. The weaker the inflation measure, usually the stronger the inflation-adjusted growth, particularly where the headline CPI-U moves in the other direction, as it did here, increasing to 2.00% in third-quarter 2018, from 1.66% in second-quarter 2018 (again see *Graph 24*).

The GDP (or the broader GNP detail headlined in earlier decades) remains the most worthless of the popular government economic series, in terms of determining what really is happening to U.S. business activity. The series is the most-heavily-modeled, politically-massaged and gimmicked government indicator of the economy. It has been so since at least the 1960s (see the discussion in today's *Opening Comments* and those of *GDP Special No. 968* and *Special Commentary No. 885*).

Notes on GDP-Related Nomenclature and Definitions

For purposes of clarity and the use of simplified language in the text of the GDP analysis, here are definitions of several key terms used related to GDP reporting (* denotes an exclusive ShadowStats series):

Gross Domestic Product (GDP) is the headline number and the most widely followed broad measure of U.S. economic activity. It is published quarterly by the <u>Bureau of Economic Analysis</u> (BEA), with two successive monthly revisions, along with annual Benchmark Revisions usually in the following July, coincident with the "advance" GDP estimate for the second quarter of that year. Every five years or so, those annual revisions are "Comprehensive," restating the series back to its earliest 1929 estimate. The GDP popularly is reported and followed in real terms, net of inflation, reflecting annualized quarter-to-quarter or year-to-year change.

*GDP Corrected for Headline Understatement of Inflation is a ShadowStats version of real GDP that adjusts headline real GDP activity only for the understated inflation used in deflating the series. Where the inflation used to deflate the various GDP components series tends to be understated in aggregate by roughly two-percentage points per year, the resulting headline real GDP growth is overstated by roughly that amount (see the discussion in Public Commentary on Inflation Measurement and the Opening Comments of GDP Special No.968 Graphs OC-4 and OC-5).

*ShadowStats Alternate GDP Estimate is a ShadowStats version of real GDP, which adjusts the headline real GDP activity for nominal biases built into the headline GDP reporting from methodological redefinitions that usually are introduced with annual benchmark revisions. Discussed in the Opening Comments, these biases almost always are positive—the ShadowStats "Pollyanna Creep"—and have added 18.1% to the headline level of nominal GDP since 1980 (see Table OC-1 of GDP Special No. 968). Since those numbers are nominal, before inflation-adjustment, the annual bias estimates are separate from the inflation-adjusted distortions of the previous "Corrected" series. Graph OC-7 in No. 968, however, is an inflation-adjusted, year-to-year version of this series, posted regularly on the Alternate Data Tab of www.ShadowStats.com. It will be fully updated and overhauled in the near future.

Gross Domestic Income (GDI) is the theoretical equivalent to the GDP, but the popular press generally does not follow it. Where GDP reflects the consumption side of the economy and GDI reflects the offsetting income side. When the series estimates do not equal each other—invariably the case—where the series are surveyed separately, the difference is added to or subtracted from the GDI as a "statistical discrepancy." Although the BEA touts the GDP as the more accurate measure, the GDI is relatively free of the GDP's monthly political targeting.

Gross National Product (GNP) is the broadest measure of the U.S. economy published by the BEA. Once the headline number, now it rarely is followed by the popular media. GDP is the GNP net of trade in factor income (interest and dividend payments). GNP growth usually is weaker than GDP growth for net-debtor nations. Games played with headline money flows between the United States and the rest of the world tend to mute that impact on the reporting of U.S. GDP growth.

Real (or **Constant Dollars**) means the data have been adjusted, or deflated, to reflect the effects of inflation.

Nominal (or **Current Dollars**) means the growth or level of activity has not been adjusted for inflation. This is the way a business normally records revenues or an individual views day-to-day income and expenses.

GDP Implicit Price Deflator (IPD) is the inflation measure used to convert GDP data from nominal to real. The adjusted numbers are based on "Chained 2012 Dollars," a concept introduced with the 2013 and comprehensive revisions, when 2009 was used as the base year for inflation (updated to 2012 dollar in 2018). "Chained" refers to a substitution methodology, where the GDP components with the strongest nominal growth, automatically get a weaker, deflating inflation rate, which artificially boosts the headline real GDP growth.

Quarterly growth, unless otherwise stated, is in terms of seasonally-adjusted, annualized quarter-to-quarter growth, i.e., the growth rate of one quarter over the prior quarter, raised to the fourth power, a compounded annual rate of growth. While some might annualize a quarterly growth rate by multiplying it by four, the BEA uses the compounding method, raising the quarterly growth rate to the fourth power. So a one percent quarter-to-quarter growth rate annualizes to 1.01 x 1.01 x 1.01 x 1.01 = 1.0406 or 4.1%, instead of $4 \times 1.0\% = 4.0\%$.

Annual	arowth	is uear-	to-uear	chanae	of the	referenced	period vei	rsus the s	same period t	he uear bef	ore.
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First Estimate of Third-Quarter 2018 GDP by Sector. Detailed in *Table II*, the headline "advance" estimate of Third-Quarter 2018 GDP came in at a slower but still strong, annualized real quarterly growth rate of 3.50%, versus 4.16% second-quarter 2018, 2.22% in first-quarter 2018, 2.29% in fourth-quarter 2017, 2.82% in third-quarter 2017, 2.99% in second-quarter 2017 and 1.79% in first-quarter 2017.

Table II shows the breakout of GDP growth by quarter, by economic sector and by general product sector back to third-quarter 2017. Not shown in the table are the year-to-year real GDP growth rates, 3.04% in third-quarter 2018, versus 2.87% in second-quarter 2018, 2.58% in first-quarter 2018, 2.47% in fourth-quarter 2017 2.34% in third-quarter 2017.

Table II: "Advance" Estimate of Third-Quarter 2018 GDP, Growth Distribution versus the Prior Four Quarters

Annualized Quarterly Real Growth in Headline Gross Domestic Product First Estimate of Third-Quarter 2018 GDP Growth Contribution by Consumption and Product Sector										
	3rd-Q	2nd-Q	1st-Q	4th-Q	3rd-Q					
GDP	2018	2018	2018	2017	2017					
COMPONENTS	"Advance"	Final	Final	Final	Final					
CONTRIBUTING ECONOMIC SECTOR										
Personal Consumption Expenditures										
- Goods	1.20%	1.16%	-0.13%	1.42%	0.86%					
- Services	1.49%	1.42%	0.49%	1.22%	0.65%					
Gross Private Domestic Investment										
- Fixed Investment	-0.04%	1.10%	1.34%	1.04%	0.44%					
- Change in Private Inventories	2.07%	-1.17%	0.27%	-0.91%	1.04%					
Net Exports of Goods and Services	-1.78%	1.22%	-0.02%	-0.89%	0.01%					
Government Consumption/Investment	0.56%	0.43%	0.27%	0.41%	-0.18%					
GDP ANNUALIZED REAL GROWTH	3.50%	4.16%	2.22%	2.29%	2.82%					
Final Sales, GDP Less Inventories	1.43%	5.33%	1.95%	3.20%	1.78%					
CONTRIBUTING PRODUCT SECTOR										
Goods	1.89%	1.91%	1.20%	0.34%	2.40%					
Services	1.82%	1.78%	0.73%	1.32%	0.74%					
Structures	-0.21%	0.47%	0.28%	0.64%	-0.32%					
GDP Annualized Real Growth	3.50%	4.16%	2.22%	2.29%	2.82%					
SUPPLEMENTAL: GDI AND GNP										
Gross Domestic Income (GDI)		1.62%	3.90%	1.49%	1.28%					
Gross National Product (GNP)		4.04%	2.20%	2.57%	3.57%					
Sources: Bureau of Economic Analysis (BEA), ShadowStats.										

Consumer Sector Remained Heavily Stressed, Confirming Faltering Residential Investment. Real Residential Investment (not detailed in *Table II*, but a sub-component of "Fixed Investment" there) contracted in third-quarter 2018 for the third consecutive quarter, as plotted and discussed in the earlier Reporting Detail section covering New-Home Sales (see the new Graph 1 on page 27, and Graphs 2 to 4 there, and Graphs OC-24 and OC-25 and the related surrounding Graphs OC-20 to OC-27 in the Opening Comments beginning on page 19). Discussed there, and as detailed in prior Commentary No. 975, the primary issues pummeling residential-estate sales and construction activity are tied to heavily constrained and deteriorating consumer liquidity conditions, which continue to intensify as direct result of ongoing tightening policies of the Federal Reserve's Federal Open Market Committee (FOMC).

Shortfalls in Real Net Exports and the Pending Real Merchandise Trade Deficit Hit Record Levels. Discussed and plotted (*Graph OC-1*) in the *Opening Comments* (page 6), and as reflected in *Graphs 14* to 17 following Table II, the real Merchandise Trade Deficit likely hit its historical nadir in third-quarter 2018, as did the real deficit in the GDP's Net Export account, both in terms of total net exports of goods and services, and of total net exports of goods. The services sector usually generates a small surplus

[Graphs 14 to 17 begin on the next page.]

Graph 14: Real Merchandise Trade Deficit ("Advance" Third-Quarter 2018)

(Same as Graph OC-1 in the Opening Comments)

Real U.S. Merchandise Trade Deficit (Census Basis)
Quarterly Deficit at Annual Rate, 1q2000 to "Advance" 3q2018
Seasonally-Adjusted [ShadowStats, Census]



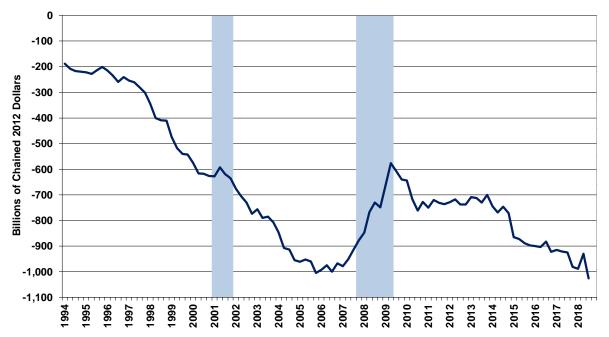
Graph 15: Real U.S. Net Exports of Goods (Third-Quarter 2018 GDP)

Real U.S. Net Exports of Goods (GDP Accounting) Quarterly Deficit at Annual Rate, 1q2002 to 3q2018 Seasonally-Adjusted [ShadowStats, BEA]



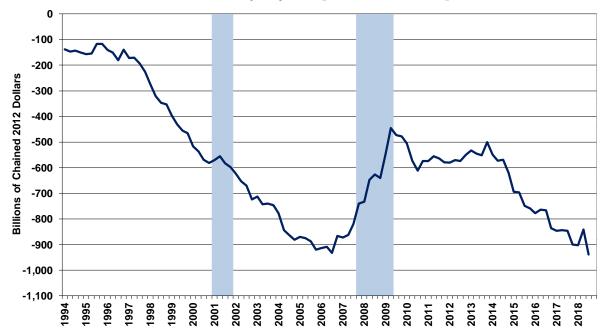
Graph 16: Real Merchandise Trade Deficit (First-Quarter 1994 to "Advance" Third-Quarter 2018)

Real U.S. Merchandise Trade Deficit (Census Basis)
Quarterly Deficit at Annual Rate (1994 to "Advance" 3q2018)
Seasonally-Adjusted [ShadowStats, Census]



Graph 17: U.S. Net Exports of Goods and Services (1994 to Third-Quarter 2018 GDP)

U.S. Net Exports of Goods and Services (GDP Accounting) Quarterly Deficit at Annual Rate (1q1994 to 3q2018) Seasonally-Adjusted [ShadowStats, BEA]



Real GDP Levels and Annual Growth Rates. Graphs 18 and 20 plot headline levels of real quarterly GDP activity, respectively showing short-term (since 2000) and long-term (since the historical onset of the quarterly GDP series in 1947) perspectives. Graphs 19 and 21 show the year-to-year quarterly detail for the same series. The current-cycle trough in quarterly annual change was second-quarter 2009, reflecting a year-to-year decline of 3.92% (-3.92%).

That was the deepest year-to-year contraction for any quarterly GDP in the history of the quarterly series, which began with first-quarter 1947 (1948 in terms of available year-to-year detail). Shown in *Graph 23*, the annual decline of 2.54% (-2.54%) in 2009 was the steepest regular annual drop in economic activity since the Great Depression. The 1946 production shutdown and economic reorganization following World War II, however, resulted in an annual GDP decline of 11.61% (-11.61%), minimally narrower than the 1932 annual economic crash of 12.88% (-12.88%).

Graphs 22 and 23 show the levels of annual real GDP activity, as well as annual percent change, as estimated beginning in 1929. Reflected in *Graph* 22, the annual-average real GDP growth in 2017 was 2.22%, versus 1.57% in 2016, 2.88% in 2015 and 2.45% in 2014. The annual growth rate of 1.55% in 2011 was the slowest pace of annual growth in the post-2009 "recovery," although effectively the same level of growth as seen in 2016.

Gross National Product (GNP) and Gross Domestic Income (GDI). Initial estimates of third-quarter 2018 GNP and GDI will be published along with the first revision of third-quarter 2018 GDP on November 28th. Headline GNP and GDI details lag the parallel GDP reporting by one month, as usual, due to a lack of available, significant underlying detail, a problem that remains common to the headline GDP detail, as well.

GNP is the broadest National Income measure, reflecting GDP plus the net international trade-flows of factor income, specifically interest and dividend payments. As a reporting gimmick aimed at boosting the headline reporting of economic growth for net-debtor nations such as the United States, international reporting standards were shifted some decades back to reporting headline GDP instead of what had become a relatively weaker GNP. With no unusually large swings in headline factor income, however, second-quarter 2018 GNP reporting moved largely along with the GDP. The last formal estimate of second-quarter 2018 GNP showed annualized quarterly real growth of 4.04%, versus 2.20% in first-quarter 2018 and 2.57% in fourth-quarter 2017. Year-to-year growth in second-quarter 2018 was 3.09%, versus 2.73% in first-quarter 2018 and 2.56% in fourth-quarter 2017.

GDI is the theoretical income-side equivalent to the consumption-side GDP estimate, yet the two measures rarely come close to showing similar quarterly growth patterns, with some relatively wild quarterly swings in the current numbers. Accordingly, on just a bookkeeping basis, the GDP and GDI are made to equal each other, every quarter, with the addition of an ever-fluctuating "statistical discrepancy" to the GDI-side of the equation. Yet, the headline GDI growth patterns reflect only the headline GDI estimate, not any "discrepancy" accounting.

Accordingly, against the headline second-quarter GDP growth 4.16%, up from 2.22% in the first quarter 2018 and versus 2.29% in fourth-quarter 2017, second-quarter GDI grew at an annualized pace of 1.62%, down from 3.90% in first quarter 2018 and against 1.49% in fourth-quarter 2017 (see *Table II*). Annual GDI growth rose by 2.07% in second-quarter 2018, versus 2.36% in first-quarter 2018 and 2.25% in fourth-quarter 2017.

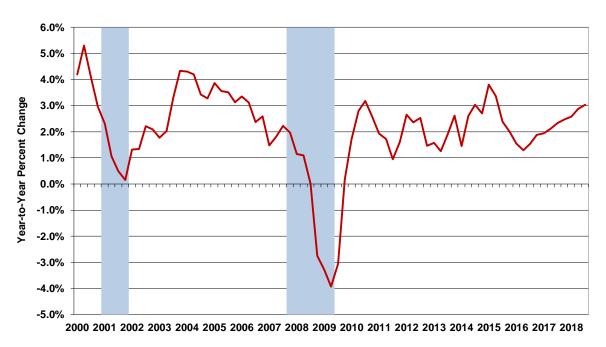
Graph 18: Quarterly GDP in Billions of 2012 Dollars (2000 to 2018), First-Estimate of Third-Quarter 2018

Real Gross Domestic Product Quarterly in Billions of 2012 Dollars 2000 to 3q2018, Seasonally-Adjusted [ShadowStats, BEA]

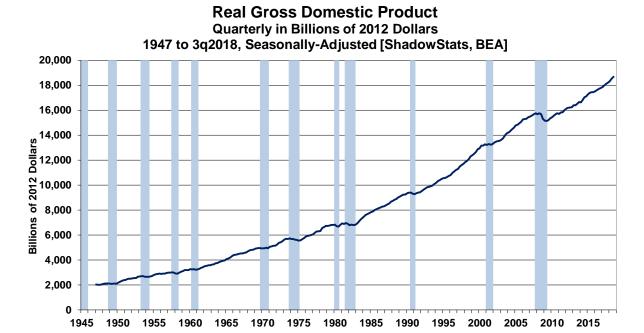


Graph 19: Quarterly GDP Real Year-to-Year Change (2000 to 2018), First-Estimate of Third-Quarter 2018

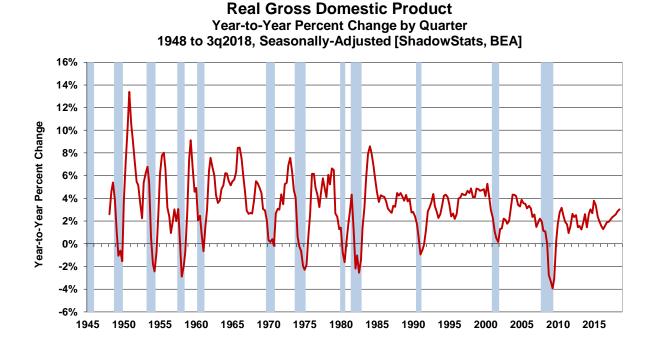
Quarterly Real Gross Domestic Product Year-to-Year Change, 1q2000 to 3q2018 [ShadowStats, BEA]



Graph 20: Quarterly GDP in Billions of 2012 Dollars (1947-2018), First-Estimate of Third-Quarter 2018

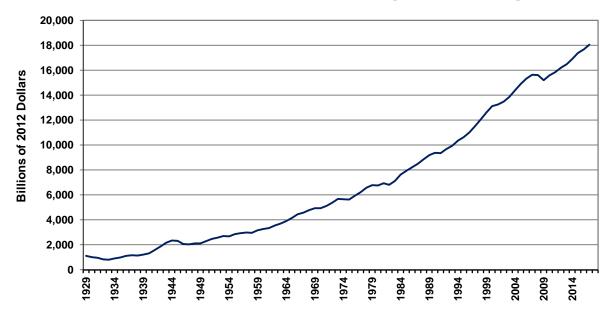


Graph 21: Year-to-Year GDP Real Change (1948-2018), First-Estimate of Third-Quarter 2018



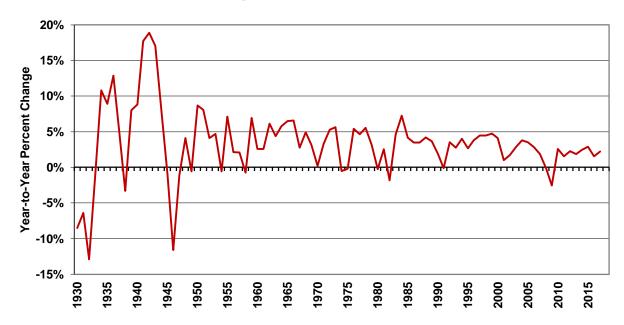
Graph 22 Annual GDP in Billions of 2012 Dollars (1929-2017)

Annual Real Gross Domestic Product Level in Billions of 2012 Dollars, 1929 to 2017 [ShadowStats, BEA]



Graph 23: Real Annual Percent Change (1930-2017)

Annual Real Gross Domestic Product Percent Change, 1930 to 2017 [ShadowStats, BEA]



Implicit Price Deflator (IPD). The IPD is the effective inflation rate used in deflating the before-inflation-adjustment or nominal GDP, to an after-inflation-adjustment, or real GDP basis. As general guidance, the weaker the inflation rate used in deflating an economic series, the stronger will be the resulting inflation-adjusted growth, and vice versa.

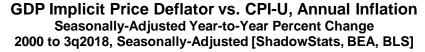
The seasonally-adjusted Implicit Price Deflator showed that annualized quarterly inflation for the "advance" estimate of third-quarter 2018 GDP dropped to 1.38%, versus 3.31% in second-quarter 2018, 2.02% in first-quarter 2018, having gained 2.72% in fourth-quarter 2017, 1.94% in third-quarter 2017, 1.14% in second-quarter 2017, and 2.10% in first-quarter 2017.

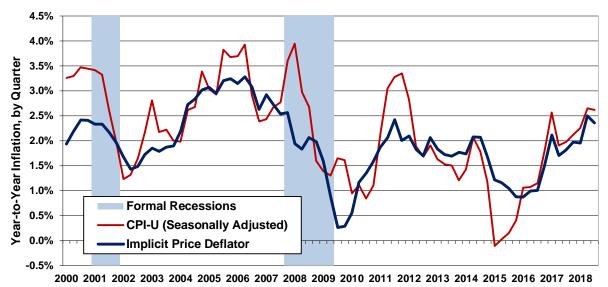
Year-to-year, the "advance" estimate of third-quarter 2018 IPD was 2.35%, versus 2.50% in second-quarter 2018, 1.95% in first-quarter 2018, 1.97% in fourth-quarter 2017, 1.81% in third-quarter 2017, 1.70% in second-quarter 2017, 2.11% in first-quarter 2017 (see *Graph 24*).

For comparison, seasonally-adjusted, annualized quarterly CPI-U inflation, consistent with the way the seasonally-adjusted, headline real GDP is worked, showed annualized quarterly gains of 2.00% in third-quarter 2018, versus 1.66% in second-quarter 2018, 3.50% in first-quarter 2018, 3.31% in fourth-quarter 2017, 2.13% in third-quarter 2017, 0.10% in second-quarter 2017 and 2.95% in first-quarter 2017.

Seasonally-adjusted, year-to-year quarterly CPI-U inflation, consistent with the way the seasonally-adjusted, headline real GDP is worked, showed annual gains of 2.61% in third-quarter 2018, versus 2.65% in second-quarter 2018, 2.25% in first-quarter 2018, versus 2.12% in fourth-quarter 2017, 1.97% in third-quarter 2017, 1.90% in second-quarter 2017 and 2.57% in first-quarter 2017 (see *Graph 24*).

Graph 24: Year-to-Year Inflation, Implicit Price Deflator vs. CPI-U, to Third-Quarter 2018, First Estimate IPD





ShadowStats Alternate GDP (Including Inflation Distortions and "Pollyanna Creep." The ShadowStats-Alternate GDP, which incorporates not only the GDP "Corrected" for understatement of inflation, but also the "Pollyanna Creep" of recent decades (reviewed broadly in the *Opening Comments* of *GDP Special No. 968*), reflected a year-to-year decline of 1.2% (-1.2%) in third-quarter 2018, versus a headline annual GDP headline gain of 3.0%. That was against a ShadowStats annual decline of 1.3% (-1.3%) and a headline annual gain of 2.9% in second-quarter 2018. Details are highlighted in the Alternate Data tab on the GDP on the www.ShadowStats.com home page.

While the annualized, real quarterly growth rate is not estimated formally on an alternate basis, the heavily bloated, overstated, "advance" estimate of an annualized, headline quarter-to-quarter gain of 3.5% in third-quarter 2018 likely was much weaker in reality, net of all the happy assumptions and regular reporting gimmicks.

Irrespective of the recent headline benchmark revisions, real-world quarterly contractions still appear to have been a realistic possibility for bloated, headline inflation-adjusted GDP a number quarters since the official, second-quarter 2009 end to the 2007 recession (see today's *Opening Comments*).

The alternate GDP estimates are reviewed in the *Opening Comments* and *Section I* of <u>GDP Special No.</u> <u>968</u>. Discussed there is the "Corrected" GDP and the ShadowStats-Alternate GDP, which reflect reversing additional methodological distortions (again "Pollyanna Creep") of recent decades, highlighted in the Alternate Data tab on the GDP on the <u>www.ShadowStats.com</u> home page.

Comprehensive GDP Benchmark Revisions of 2018 and Subsequent Updates. Current headline detail is in the context of the recent comprehensive benchmark revisions to the series back to 1929. Incorporated here by reference, <u>Special Commentary No. 968-Extended</u> (with a shortened link: <u>GDP Special No. 968</u>) of September 6th, was structured into four sections:

- The *Opening Comments* in <u>GDP Special No. 968</u> reviewed inflation-related and definitional distortions built into headline GDP reporting over the decades. Issues and details there supplement today's GDP-Related Nomenclature and Definitions section, specifically tied to the ShadowStats GDP Corrected for Headline Understatement of Inflation and the ShadowStats Alternate GDP Estimate.
- Part I reviewed the first-revision to second-quarter GDP (first post-benchmarking revision), with the second revision covered in *Commentary No. 971*.
- Part II discussed underlying U.S. economic reality, a section that is updated and expanded upon in today's *Opening Comments*, beginning on page 5, previously as updated in *Commentary No. 971*.
- Part III provided expanded coverage of the Comprehensive GDP Benchmark Revision back to 1929, released July 27, 2018, which is available for review, again, at *GDP Special No. 968*.

The Velocity of Money

Third-Quarter 2018 Velocity of Money Turned Slightly Higher for Money Supply M3, Primarily Due to Slowing M3 Growth; Impact Was Neutral on M1 and M2. The Velocity of Money turned higher for M1, M2 and M3 with the initial reporting of second-quarter 2018 GDP on July 27th, reflecting a combination of upwardly spiked headline GDP and rapidly slowing annual growth in the Money Supply growth. With the initial reporting of somewhat slower third-quarter 2018 GDP and somewhat stronger M1 and M2, but weaker M3, velocity flattened out quarter to quarter, despite a minimal uptrend for M3.

Reflected in accompanying graphs, only quarterly data from 1959-on are used, where that is the starting point of consistent, historical estimates of Money Supply M1, M2 and M3. When the Federal Reserve ceased publishing its M3 measure in 2006, ShadowStats began publishing a continuing M3 estimate based as closely as possible on the Federal Reserve definitions. This Velocity of Money analysis is updated from the previous coverage of the benchmarked "advance" estimate of Second-Quarter 2018 GDP reviewed in *Hyperinflation Watch – No. 3*.

Reflecting continued nominal growth in the third-quarter GDP broadly in parallel with the headline money supply measures (albeit slightly faster than M3 growth), the third-quarter 2018 Velocity of Money held steady versus second-quarter 2018 Money Supply M1, M2 and M3. Second-quarter velocity, however, had notched higher in a manner not seen since bottoming of the economic collapse in 2009, all as reflected in *Graphs 25* and 26. Velocity is a measure of how many times the money supply turns over in a year, versus the broad economy (GDP). The higher the velocity, usually the higher the pace of inflation and often the level of economic activity.

Velocity is calculated simply as the ratio of the nominal GDP to the nominal Money Supply measure. Nominal GDP is in the numerator and the nominal Money Measure is in the denominator of the velocity ratio. Slowing velocity indicates a relatively slower pace of nominal economic growth versus the money supply growth, and vice versa.

Both before and after the various recent GDP benchmark revisions, Velocity had plunged into first-quarter 2015 for M1 and M2. Since the end of 2010, however, the broader measure of M3 velocity had been reasonably steady through third-quarter 2014, when it also turned lower. With the exception of an uptick in second-quarter 2015, all velocity measures had been declining since late-2014, except for the flattening or small increase seen in the broader measures in fourth-quarter 2017 and first-quarter 2018.

Consider that perhaps 70% or more of the cash-in-circulation component of that M1 (with cash accounting for about 43.2% of M1 in September 2018) could be physically outside the United States, per the Federal Reserve. Where that has been an increasing trend, a true measure of domestic M1 velocity well could be showing a significant uptrend. In like manner, where M1 includes cash, M2 includes M1, and M3 includes M2, M2 and M3 velocities also would be higher (headline cash accounts for roughly 11.3% of M2 and 8.5% of M3).

M3, versus M1 and M2, had been showing opposite patterns since 2011, because growth in M3 had been weaker than growth in M1 and M2, a pattern that had intensified. The reason behind that difference was that much of the relatively stronger M1 and M2 growth reflected cash moving out of M3 categories—such as large time deposits and institutional money funds—into M2 or M1 accounts. The clarity of what happened there is why ShadowStats still tracks what had been the broadest money measure (M3) available. More recently, M3 had started to rise anew, with M1 and M2 annual growth rates starting to reverse. Since third-quarter 2017, however, all three monetary aggregates generally have been showing sharply slowing annual growth rates, in tandem, despite some recent monthly fluctuations.

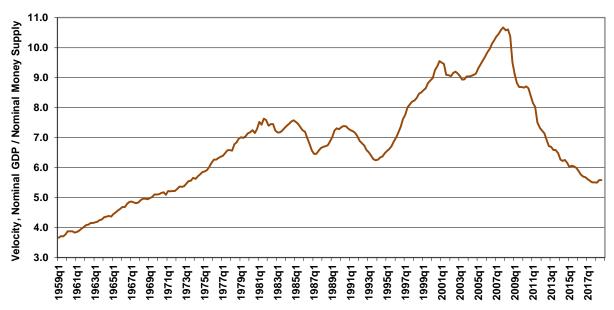
Subscribers often ask for specifics on the velocity of the money supply, with the result that this section has become a standard feature for *Hyperinflation Watches* and *Commentaries* covering the "advance" GDP reporting of a given quarter. The nature of velocity is discussed in further detail in the 2008 *Money Supply Special Report*. Again, velocity simply is the number of times the money supply turns over in the economy in a given year, or the ratio in nominal terms (not adjusted for inflation) of GDP to the money supply. It is a residual number, not otherwise open to calculation or independent surveying.

Velocity has theoretical significance. In combination with money-supply growth, it should be a driving force behind inflation. Yet, since velocity is a ratio of two not-particularly-well or realistically-measured numbers, its actual estimate is of limited value. As an inflation predictor, it has to be viewed in the context of accompanying money-supply growth and vice versa, generally as a coincident indicator. Again, full definitions can be found in the *Money Supply Special Report*, with headline money supply estimates for July 2018 discussed here and in the earlier *Money Supply* section, detailed on the <u>Alternate Data</u> tab of www.ShadowStats.com.

[Graphs 25 and 26 follow on the next page.]

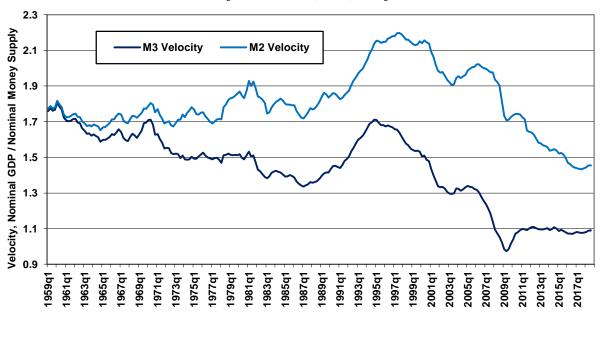
Graph 25: Velocity of Money Supply M1 Through the "Advance" Third-Quarter 2018 GDP

Velocity of Money Supply M1 (1q1959 to 3q2018) Nominal Gross Domestic Product/Nominal Money Supply [ShadowStats.com, FRB, BEA]



Graph 26: Velocities of Money Supply M2 and M3 Through the "Advance" Third-Quarter 2018 GDP

Velocities of Money Supply M3 and M2 (1q1959 to 3q2018) Nominal Gross Domestic Product/Nominal Money Supply [ShadowStats, FRB, BEA]



WEEK, MONTH AND YEAR AHEAD

MOUNTING RISK OF INTENSE FINANCIAL MARKET TURMOIL

[The following text is as published in <u>Special Commentary No. 973 – ALERT</u> of October 14th, and as discussed throughout <u>Commentary No. 974</u> and in the <u>Opening Comments</u> of <u>Commentary No. 975</u>. The <u>ALERT</u> remains in place, updated here only for the latest references and links. Going forward, this section will be included, revised and updated regularly in pending and subsequent <u>Hyperinflation Watch</u> editions, including a discussion of ongoing instabilities in the markets.]

Risks of Intense Dollar and Financial-Market Turmoil Are Magnified by Deteriorating Economic, Fiscal and Political Conditions and Are Exacerbated by Mounting Systemic- and Consumer-Liquidity Stresses. In the context of recent intensified, negative Stock Market volatility, the happy hype on the ongoing stock market boom has begun to pull back a bit. Discussed here are risks of extraordinary financial-market disruptions and turmoil—selloffs—mounting rapidly in the near-term, in the next six months or even in the next couple of weeks. Further background and detail were discussed in the Opening Comments on Consumer Liquidity, the CPI section of the Reporting Detail and the Week, Month and Year Ahead section of Commentary No. 974, and Opening Comments of Commentary No. 975, to be expanded upon in the pending Special Editions of the Consumer-Liquidity and Hyperinflation Watches.

With the backdrop of the *Squirrelly Season* and likely tipping point for the markets discussed in <u>Commentary No. 970</u>, likely rapid deterioration in near-term headline economic activity and rapidly mounting risks of near-term political turmoil and/or perceptions of same are combining to widen the risk of major downside movements in the U.S. dollar and U.S. equity markets, all coming together at the same point in time.

A sudden sell-off in the U.S. dollar, likely would be coincident with, if not the proximal trigger for the intensifying flight from liquid dollar-denominated assets such as stocks and bonds.

Consider as basic background <u>Hyperinflation Watch – No. 3</u> and <u>Consumer Liquidity Watch – No. 4</u>. Both *Watches* will be updated shortly in *Special Editions*, but the basic concepts discussed there already are in play, or as otherwise discussed here.

What continues to unfold is the still-unresolved 2007/2008 banking-system collapse, where the Federal Reserve has done its best to bailout, obfuscate, forestall or mask a systemic problem that has had neither an easy nor a rapid solution. Despite trillions of dollars used to prop the banks in the last decade, neither the U.S. banking system nor the U.S. economy has been able to return to anything close to normal functioning, post-2007. As the FOMC moves to reverse course by raising interest rates and tightening domestic liquidity, it also is killing whatever nascent economic recovery was beginning to surface (again see the *Opening Comments* of *Commentary No. 975*).

Accordingly, the U.S. dollar and financial markets remain at extreme risk of intense, panicked declines that could happen at any time. The financial system and the markets eventually should become self-healing, but not without likely significant cost to or alteration of existing circumstances.

Holdings of physical gold and silver remain the ultimate hedges—stores of wealth—for preserving the purchasing power of one's U.S. dollar assets, during times of high U.S. inflation and currency debasement and/or political- and financial-system upheaval. Such circumstances increasingly are likely in the next six months, but, again, they could begin to break at any time.

Please call (707) 763-5786, or contact me by e-mail at <u>johnwilliams@shadowstats.com</u>, if you would like to discuss current circumstances, or otherwise.

Best wishes – John Williams

PENDING ECONOMIC RELEASES

Note: Summary observations of these numbers are posted as soon as possible (usually within two hours of the headline release) to the *Daily Update* section at the top right-hand side of the www.ShadowStats.com homepage.

Construction Spending (September 2018). The Commerce Department will release its estimate of September 2018 Construction Spending on Thursday, November 1st, and covered in *Commentary No.* 977 of November 2nd. Given the extreme regular volatility of this series, almost anything is possible in the near-term, headline monthly detail. Discussed in today's *Opening Comments* (pages 8 and 9), any strength reported more likely will be seen in Public Spending rather than in Private Spending.

Look for September Residential Construction Spending to be weaker than expected.

Trade Deficit (September 2018). Details for the headline September 2018 Trade Deficit will be released on Friday, November 2nd, and covered in *Commentary No. 977* of that date. Discussed in today's *Opening Comments* and *GDP – Net Exports* sections (pages 6, 44 to 45), the deficit should widen, much as broadly expected.

The September Trade Deficit should widen, resulting in a record Real Merchandise Trade Deficit for Third-Quarter 2018.

Employment and Unemployment (October 2018). The Bureau of Labor Statistics (BLS) will publish its headline October 2018 labor numbers on Friday, November 2nd, with at least summary coverage of the detail in *Commentary No. 977* of that date, with some possible extended coverage, over the weekend. The consensus outlook appears to be for an October payroll gain in the 190,000-to-200,000 jobs range, with headline U.3 unemployment expected hold at its record low 3.7%.

Despite the nearing elections, underlying reality favors negative surprises both with a smaller-than-expected payroll gain, and perhaps with some back up in the unemployment rate. The heavily-stressed Household Survey measures (Employment-Population Ratio and Participation Rate) likely will continue under negative pressure.

LINKS TO PRIOR COMMENTARIES, SPECIAL REPORTS AND OTHER WRITINGS

Most Recent Hyperinflation and Consumer-Liquidity Watches:

The *Consumer Liquidity Watch* of August 10th: <u>Consumer Liquidity Watch – No. 4</u>.

The *Hyperinflation Watch* of August 12th: *Hyperinflation Watch – No. 3*.

The latest Watches always are available on www.ShadowStats.com and by link from the current Commentary. Updates pending in the coming week will be advised by e-mail as they are posted.

Special Pieces Underlying the Regular and Special Commentaries: Underlying the recent Special Commentary No. 935 (Part One) and the pending Special Commentaries (Part Two) on Inflation, and (Part III) on the Federal Reserve and U.S. banking system, are Commentary No. 899 and General Commentary No. 894, along with general background from regular Commentaries throughout 2017.

These missives also are built upon writings of prior years, including <u>No. 777 Year-End Special</u> <u>Commentary</u> (December 2015), <u>No. 742 Special Commentary: A World Increasingly Out of Balance</u> (August 2015) and <u>No. 692 Special Commentary: 2015 - A World Out of Balance</u> (February 2015). In turn, they updated the long-standing hyperinflation and economic outlooks published in <u>2014</u> <u>Hyperinflation Report—The End Game Begins</u> – First Installment Revised (April 2014) and <u>2014</u> <u>Hyperinflation Report—Great Economic Tumble</u> – Second Installment (April 2014).

The two *Hyperinflation* installments remain the primary background material for the hyperinflation circumstance. Other references on underlying economic reality are the <u>Public Commentary on Inflation</u> <u>Measurement</u> and the <u>Public Commentary on Unemployment Measurement</u>.

Recent Regular Commentaries: [Listed here are Commentaries of the last several months or so, plus recent Special Commentaries and a sampling of others covering a variety of non-monthly issues, including annual benchmark revisions. Please Note: Complete ShadowStats archives back to 2004 are available at www.ShadowStats.com (left-hand column of home page).]

These regular *Commentaries* should be published about weekly, with *Consumer Liquidity* and *Hyperinflation Watches* updated every several weeks or so, updating general economic, consumerliquidity and financial-market circumstances as they develop.

<u>Commentary No. 975</u> (October 22nd) covered FOMC policy and deteriorating consumer- and systemic-liquidity conditions along with headline September 2018 Retail Sales, Industrial Production, New Residential Construction (Building Permits, Housing Starts), Existing-Home Sales, the Cass Freight IndexTM, Hurricane Impact and pending Elections.

<u>Commentary No. 974</u> (October 15th) expanded upon elements of the *No. 973 ALERT*, previewed elements of updated consumer and systemic liquidity measures and covered the September 2018 Consumer and Producer Price Indices.

<u>Special Commentary No. 973 – ALERT</u> (October 14th) was a single-page discussion and warning of rapidly mounting risks of instabilities in the domestic financial markets in six months ahead. See the latest *Hyperinflation* and *Consumer-Liquidity Watches* and *Commentary No. 970*.

<u>Commentary No. 972</u> (October 7th) covered September 2018 Employment and Unemployment, Monetary Conditions and the August Trade Deficit and Construction Spending.

<u>Commentary No. 971</u> (October 3rd) reviewed August 2018 New Residential Construction, Existing- and New-Home Sales, New Orders for Durable Goods and the third estimate of Second-Quarter 2018 GDP, along with an updated review of underlying economic reality.

<u>Commentary No. 970</u> (September 26th) discussed a potential, pending Tipping Point in the U.S. financial markets along with a review of August 2018 CPI, PPI, Retail Sales, Industrial Production and the CASS Freight IndexTM.

<u>Commentary No. 969-Extended</u> (September 16th) Reviewed the reporting of 2017 Real Median Annual Household Income and related measures of Income Dispersion, along with extended coverage of the August 2010 Employment and Unemployment numbers, including an updated Supplemental Labor-Detail Background Supplement.

<u>Flash Commentary No. 969-Advance</u> (September 7th) covered initial headline employment and unemployment detail for August 2018 (expanded upon in *No 969-B*), July Construction Spending, the July Trade Deficit and a review of August Monetary Conditions.

<u>Special Commentary No. 968-Extended</u> (September 6th) reviewed underlying economic reality, in the context of statistical deception used in boosting headline GDP activity, and against the background of extended analysis of the 2010 Comprehensive GDP Benchmarking. Separately covered was extended coverage of the second estimate of second-quarter 2018 (see <u>Flash Commentary No. 968-Advance</u>).

Flash Commentary No. 968-Advance (August 29th) provided a summary review of the headline first revision, second estimate of Second-Quarter 2018 GDP and initial estimates of GDI and GNP. Also updated were early indications from the latest Consumer Liquidity measures.

<u>Commentary No. 967</u> (August 24th) discussed the annual squirrely season and reviewed July 2018 New Orders for Durable Goods and New- and Existing-Home Sales and the preliminary benchmark revision to 2018 payroll employment.

<u>Commentary No. 966</u> (August 17th) reviewed July 2018 Retail Sales, Industrial Production, New Residential Construction and the CASS Freight IndexTM.

<u>Commentary No. 965</u> (August 12th) covered the July 2018 Consumer and Producer Price Indices (CPI and PPI), and Real Average Weekly Earnings and deteriorating consumer liquidity conditions.

<u>Commentary No. 964-A</u> (August 3rd) preliminary coverage of July 2018 Employment/Unemployment, Conference Board Help Wanted OnLine[®] Advertising, M3 and the June Trade Deficit and Construction Spending.

<u>Commentary No. 963</u> (July 31st) reviewed June Retail Sales, Industrial Production, New Orders for Durable Goods and the Cass Freight Index, all in the context of the GDP revisions and unfolding, underlying economic reality.

<u>Commentary No. 962</u> (July 27th) provided initial coverage of the first or "advance" estimate of Second-Quarter 2018 Gross Domestic Product (GDP) and the Comprehensive Benchmark Revisions to the series back to 1929. A full update and extended coverage are in today's (September 4th) *Special Commentary*.

<u>Commentary No. 961</u> (July 26th) provided full coverage on New Residential Investment (Housing Starts, Building Permits and New- and Existing-Home Sales. Preliminary coverage was provided on June Retail

Sales, Industrial Production, New Orders for Durable Goods and the Cass Freight IndexTM, all of which were expanded upon in *Commentary No. 963*.

<u>Commentary No. 960</u> (July 15th) reviewed the June Consumer and Producer Price Indices (CPI and PPI), Real Earnings and related implications for consumer and systemic liquidity

<u>Commentary No. 959-B</u> (July 11th) provided extended detail on June 2018 Employment and Unemployment, the May 2018 Trade Deficit and updated economic outlook, along with expanded discussion on issues affecting the credibility of the headline employment and unemployment data.

<u>Commentary No. 959-A</u> (July 6th) provided flash headlines and summary details of the June 2018 Employment and Unemployment and the May 2018 Trade Deficit, expanded upon in *Commentary No. 959-B* and headline coverage of June 2018 Conference Board Help Wanted OnLine[®] Advertising.

<u>Commentary No. 958</u> (July 3rd) covered May 2018 Construction Spending and the accompanying annual benchmarking to that series.

<u>Commentary No. 957</u> (July 1st) covered May 2018 New Orders for Durable Goods and the third estimate of First-Quarter 2018 Gross Domestic Product (GDP) and the coincident second estimates of Gross National Product (GNP) and Gross Domestic Income (GDI).

<u>Commentary No. 956</u> (June 27th) reviewed May 2018 Retail Sales, Industrial Production, New Residential Construction (Housing Starts and Building Permits), New- and Existing-Home Sales, along with detail on the May 2018 Cass Freight IndexTM and some potential twists to the pending July 27th Comprehensive Benchmark Revision to the GDP.

<u>Commentary No. 955</u> (June 18th) analyzed May 2018 inflation as reported with the May 2018 Consumer and Producer Price Indices (CPI and PPI), Real Average Weekly Earnings, along with the latest *Hyperinflation Watch* covering FOMC policy, the U.S. dollar and financial markets. Summary headline details also were provided for May Retail Sales, Industrial Production and the Cass Freight Index TM.

<u>Commentary No. 954</u> (June 8th) reviewed the comprehensive annual benchmark revisions to the Trade Deficit, in the context of recent benchmark revisions to other major economic series and implications for the pending GDP benchmark revisions. Such also covered the headline reporting of the April 2018 headline Trade Deficit detail and an updated Consumer Liquidity Watch.

<u>Commentary No. 953-B</u> (June 5th) analyzed the discrepancies between the record-low headline unemployment rate and near-record-high readings of labor-market stress, in the context of extended coverage the May 2018 Employment and Unemployment and April 2018 Construction Spending, previously headlined in *No. 953-A*.

<u>Commentary No. 953-A</u> (June 1st) provided flash headlines and summary details of the May 2018 Employment and Unemployment and April 2018 Construction Spending, expanded upon in the supplemental coverage of *Commentary No. 953-B*. Current monetary conditions were reviewed, along with the initial estimate of annual growth in the May 2018 ShadowStats Ongoing Estimate of Money Supply M3.

<u>Commentary No. 952</u> (May 30th) reviewed the second estimate of First-Quarter 2018 GDP, initial estimates of first-quarter GNP and GDI, extended detail on the annual benchmarking of the Retail Sales series, and headline coverage of the May 2018 Conference Board Help Wanted OnLine[®] Advertising.

<u>Commentary No. 951</u> (May 25th) reviewed April 2018 New Orders of Durable Goods, in the context of the annual revisions (see prior *No. 950*), New- and Existing-Home Sales and brief coverage of the annual benchmarking of the Retail Sales series.

<u>Commentary No. 950</u> (May 20th) reviewed April Retail Sales, Industrial Production, New Residential Construction (Housing Starts, Building Permits and annual revisions), the Cass Freight IndexTM and annual benchmark revisions to Manufacturers' Shipments, including New Orders for Durable Goods.

<u>Commentary No. 949</u> (May 11th) reviewed inflation as reported with the April 2018 Consumer and Producer Price Indices (CPI and PPI), Real Average Weekly Earnings, along with the latest *Hyperinflation Watch* on the U.S. dollar and financial markets.

<u>Commentary No. 948</u> (May 9th) explored unusual circumstances with April 2018 Employment and Unemployment numbers, along with the April Conference Board Help Wanted OnLine[®] Advertising, April Monetary Conditions, the March Trade Deficit and Construction Spending, along with the reintroduction of Sentier Research's monthly Real Median Household Income to March 2018.

<u>Commentary No. 947</u> (April 27th) detailed the first estimate of First-Quarter 2018 GDP and the related Velocity of Money, March New Orders for Durable Goods, New- and Existing-Home Sales and the "advance" estimate of the March 2018 merchandise goods deficit.

<u>Commentary No. 946</u> (April 22nd) covered March 2018 Retail Sales, Industrial Production, New Residential Construction (Housing Starts and Building Permits), the Cass Freight IndexTM and a review of the current state of the GDP reporting and an outlook for first-quarter 2018 activity.

<u>Commentary No. 945</u> (April 11th) reviewed the March 2018 Consumer and Producer Prices Indices (CPI and PPI), Real Average Weekly Earnings, along with the latest *Hyperinflation Watch* on the U.S. dollar and financial markets.

<u>Commentary No. 944</u> (April 8th) covered March 2018 Employment and Unemployment, the March Conference Board Help Wanted OnLine[®] Advertising, March Monetary Conditions and the full February Trade Deficit and Construction Spending.

<u>Commentary No. 943</u> (March 29th) covered the third-estimate of, second-revision to Fourth-Quarter 2017 GDP and the only estimates to be made in current reporting of the GDI and GDP, as well as the "advance" estimate of the February merchandise trade deficit.

<u>Commentary No. 942-B</u> (March 27th) reviewed the Industrial Production annual benchmark revisions, general reporting-quality issues, February 2018 New Orders for Durable Good, New- and Existing-Home Sales and the Cass Freight IndexTM.

<u>Commentary No. 942-A</u> (March 23rd) provided a very brief summary of the much more extensive Industrial Production benchmarking details covered in *Commentary 942-B*.

<u>Commentary No. 941</u> (March 19th) covered February Industrial Production and New Construction Spending (Housing Starts and Building Permits), along with a general discussion in the *Opening Comments* on economic conditions and a preview of the Industrial Production benchmark revisions.

<u>Commentary No. 940</u> (March 15th) covered February 2018 Retail Sales, CPI, PPI and related Real Average Weekly Earnings, real Annual Growth in M3 and updated financial market prospects.

<u>Commentary No. 939</u> (March 9th) covered the February 2018 Employment and Unemployment details, the full reporting of the January 2018 Trade Deficit, February Conference Board Help Wanted OnLine[®] Advertising and February Monetary Conditions.

<u>Commentary No. 938</u> (March 1st) reviewed January 2018 Construction Spending and the second estimate of Fourth-Quarter 2017 GDP.

<u>Commentary No. 937</u> (February 27th) covered January 2018, New Orders for Durable, New- and Existing-Home Sales, the "advance" estimate of the January 2018 Merchandise Trade Deficit and the Cass Freight IndexTM.

<u>Commentary No. 936</u> (February 19th) covered the January 2018 CPI and PPI, Retail Sales, Industrial Production and New Residential Construction (Housing Starts and Building Permits).

<u>Special Commentary No. 935</u> (February 12th) was the first part of a three part-series reviewing economic and financial conditions of 2017 and the year-ahead, inflation and the U.S. government's balance sheet and conditions in the U.S. banking system and Federal Reserve options.

<u>Commentary No. 934-B</u> (February 6, 2018) provided extended coverage on the January 2018 Employment and Unemployment details, the 2017 benchmark revisions to Payroll Employment and the January annual recasting of population, along with coverage of the December 2017 Trade Deficit.

<u>Commentary No. 934-A</u> (February 2, 2018) provided initial detail on the January 2018 Employment and Unemployment details and the 2017 benchmark revisions to Payroll Employment, along with coverage of January Conference Board Help Wanted OnLine[®] Advertising, January Monetary Conditions and December 2017 Construction Spending.

<u>Commentary No. 933</u> (January 26, 2018) covered December New Orders for Durable Goods, the Cass Freight IndexTM and the first estimate of Fourth-Quarter 2017 GDP.

<u>Commentary No. 932</u> (January 18, 2018) covered December Industrial Production and New Residential Construction (Housing Starts and Building Permits).

<u>Commentary No. 931</u> (January 15, 2018) reviewed December 2017 Retail Sales and the CPI and PPI, along with an update on the U.S. dollar, the financial markets and gold graphs.

<u>Commentary No. 930-B</u> (January 8th) expanded upon the December 2017 Employment and Unemployment numbers and Household Survey benchmarking, Conference Board Help Wanted OnLine[®] Advertising, December Monetary Conditions and the November 2017 Trade Deficit and Construction Spending, otherwise headlined in *No. 930-A*.

Advance Commentary No. 930-A (January 5, 2018) provided a brief summary and/or comments (all expanded in Commentary No. 930-B) on December 2017 Employment and Unemployment numbers, Household Survey benchmarking, Conference Board Help Wanted OnLine® Advertising, December Monetary Conditions and the November 2017 Trade Deficit and Construction Spending.

<u>General Commentary No. 929</u> (December 28, 2017) reviewed current economic and market conditions at year-end 2017.

<u>Commentary No. 926</u> (December 15, 2017) reviewed the headline November 2017 numbers for Retail Sales (both real and nominal), and Industrial Production, along a discussion on the dampening economic impact of business and consumer "uncertainty."

<u>Commentary No. 909</u> (September 14, 2017) assessed the annual release of 2016 Real Median Household Income, along with a review of August Consumer Price Index (CPI) and the Producer Price Index (PPI) and an updated *Alert* on the financial markets.

<u>Special Commentary No. 904</u> (August 14, 2017) issued an "Alert" on the financial markets (including U.S. equities, the U.S. dollar gold and silver, as well as FOMC policy), in the context of historical activity and unfolding circumstances of deteriorating economic and political conditions. Separately, headline details were reviewed for the July Consumer Price Index (CPI) and the Producer Price Index (PPI).

<u>Special Commentary No. 888</u> (May 22, 2017) discussed evolving political circumstances that could impact the markets and the economy, reviewed the annual benchmark revisions to Manufacturers' Shipments and New Orders for Durable Goods and updated Consumer Liquidity Conditions.

<u>Commentary No. 887</u> (May 18, 2017) reported on the April 2017 detail for Industrial Production and Residential Construction (Housing Starts), with some particular attention to historic, protracted periods of economic non-expansion, of which the current non-recovery is the most severe.

<u>Special Commentary No. 885</u>, entitled *Numbers Games that Statistical Bureaus*, Central Banks and Politicians Play, (May 8, 2017) reviewed the unusual nature of the headline reporting of the April 2017 employment and unemployment details.

<u>Commentary No. 876</u> (March 30, 2017) current headline economic activity in the context of formal definitions of the business cycle (no other major series come close to the booming GDP, which is covered in its third revision to fourth-quarter activity). Also the February 2017 SentierResearch reading on real median household income was highlighted.

<u>Commentary No. 875</u> (March 24, 2017) assessed and clarified formal definitions of the U.S. business cycle, which were expanded upon significantly, subsequently, in *No. 876*. It also provided the standard review of the headline February 2017 New Orders for Durable Goods, New- and Existing-Home Sales and the Cass Freight IndexTM.

<u>General Commentary No. 867</u> (February 24, 2017) assessed mixed signals for a second bottoming of the economic collapse into 2009, which otherwise never recovered its pre-recession level of activity. Such was in the context of contracting and faltering industrial production rivaling the economic collapse in the Great Depression as to duration. Also covered were prior January 2017 New- and Existing Home Sales.

No. 859 Special Commentary (January 8, 2017) reviewed and previewed economic, financial and systemic developments of the year passed and the post-election year ahead.

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