John Williams'

Shadow Government Statistics

Analysis Behind and Beyond Government Economic Reporting

COMMENTARY NUMBER 798
March Retail Sales and Producer Price Index (PPI)

April 13, 2016

**First-Quarter 2016 Retail Sales Contracted Quarter-to-Quarter,
Before and Most Likely Also After Inflation Adjustment**

**Non-Comparable Seasonal-Adjustment Revisions Boosted March Sales to a
Decline of 0.3% (-0.3%), Instead of About 0.8% (-0.8%)**

**Retail Sales Series Faces Likely Major Downside Revisions in
April 30th Benchmarking**

**March 2016 PPI Goods Inflation rose by 0.19%,
PPI Services Profit Margins Fell by 0.18% (-0.18%), Leaving
Aggregate Final-Demand PPI Inflation Down by 0.09% (-0.09%)**

PLEASE NOTE: The next regular Commentary, *scheduled for tomorrow, Thursday, April 14th will cover the March CPI and related real Retail Sales and Earnings. It also will review the current U.S. dollar, gold, silver and oil circumstances. A* Commentary *on the 15th will cover March Industrial Production and brief economic update.*

Best wishes to all — John Williams

OPENING COMMENTS AND EXECUTIVE SUMMARY

Increasingly Bleak Outlook for First-Quarter 2016 GDP. Today's (April 13th) full reporting of first-quarter 2016 nominal retail sales showed a quarterly contraction. A first-quarter contraction in inflation-adjusted real terms likely will be confirmed with tomorrow's (April 14th) headline March 2016 CPI-U. A first-quarter contraction in industrial production likely will be confirmed on Friday (April 15th), and there even is a chance of a headline quarterly contraction in the highly-volatile housing starts series on April 19th. Circumstances increasingly favor an outright quarterly contraction in headline first-quarter 2016 real GDP, with a possible shift in consensus expectations into negative territory before the "advance" estimate on April 28th.

ShadowStats will update the economic outlook in *Commentary No. 800* of April 15th, with a discussion of developing implications for central bank activity, the value of the U.S. dollar, and for gold, silver and oil prices, in tomorrow's *Commentary No. 799* of April 14th.

Today's *Commentary* (April 13th). The balance of these *Opening Comments* provides summary coverage of March 2016 nominal Retail Sales and the Producer Price Index (PPI), along with a brief update on Consumer Conditions, covering the release of a benchmark-revised Consumer Credit Outstanding series, with reporting through February 2016. The most recent *Hyperinflation Outlook Summary* is found in *Commentary No. 783*, again with *No. 777 Year-End Special Commentary* as background to currently unfolding financial-market circumstances.

The *Week Ahead* section previews reporting in the next two days of the CPI, real Retail Sales and Industrial Production, all for March 2016, and for initial full-reporting of related first-quarter 2016 economic activity for those series.

Nominal Retail Sales—March 2016—First-Quarter Contraction; Headline March Decline of 0.3% (-0.3%) Would Have Been 0.8% (-0.8%) but for Covert Seasonal Adjustment Shifts. In the context of upside revisions, headline March 2016 nominal Retail Sales declined month-to-month by 0.3% (-0.3%) with a sharp slowing in year-to-year growth, along with a quarterly contraction of 0.5% (-0.5%) for first-quarter 2016. ShadowStats affiliate www.ExpliStats.com has charted the latest nominal retail sales, viewable here: *Nominal Retail Sales*.

Given a likely headline increase of about 0.2% in the March 2016 CPI-U—the consensus expectation as well as the ShadowStats estimate (see *Week Ahead*)—first-quarter inflation-adjusted real retail sales also likely contracted quarter-to-quarter. Headline CPI-U would have to decline by 0.08% (-0.08%) in March in order to boost real sales into neutral quarterly activity.

A quarterly contraction in real sales dims further the already faltering outlook for initial first-quarter 2016 GDP reporting on April 29th. That said, the annual benchmark revision to retail sales on April 30th will alter significantly today's headline reporting, likely revising historical activity of recent years sharply to the downside (see discussion in the *Reporting Detail* section).

Revisions and Seasonal-Adjustment Warping. In the context of an upside revision to February 2016 sales from a statistically-insignificant decline of 0.15% (-0.15%) to a statistically-insignificant gain of 0.03%, the statistically-insignificant headline monthly decline in March 2016 activity of 0.30% (-0.30%) included a boost of 0.48% built in from underlying and historically-inconsistent seasonal-factor shifts.

Discussed in the *Seasonal-Factor Distortions* section of the *Reporting Detail,* the issues here remain within the usual inconsistent and non-comparable shifts in the published seasonally-adjusted data, based on monthly "concurrent seasonal adjustment" calculations and lack of relevant publication of consistent, historical data. Accordingly, using old-fashioned consistent reporting, headline nominal March 2016 retail sales likely were down by about 0.8% (-0.8%) month-to-month, instead of the headline decline of 0.3% (-0.3%).

Separately, also before inflation consideration, seasonally-adjusted, nominal annual growth slowed sharply on a monthly basis, against 2015. Year-to-year change in sales narrowed to 1.75% in March 2016, versus an upwardly revised 3.65% in February 2016. That pattern reflected March 2015 having gained against February 2015, with both numbers affected by year-ago revisions (again, see *Seasonal-Factor Distortions*).

Nominal (Not-Adjusted-for-Inflation) Retail Sales—March 2016. In the context of an upside revision to February 2016 Retail Sales, and boosted sharply by implied seasonal-factor shifts from a large upside revision to headline March 2015 relative to February 2015, nominal sales declined by 0.3% (-0.3%) in March 2016. At the second decimal point, March 2016 retail sales showed a statistically-insignificant, seasonally-adjusted monthly decline of 0.30% (-0.30%). Net of prior-period revisions, March sales fell by 0.09% (-0.09%).

Such followed a statistically-insignificant, revised February gain of 0.03% and a revised monthly decline of 0.36% (-0.36%) in January.

March 2016 nominal year-to-year change was a statistically-significant increase of 1.75%, versus an upwardly revised 3.65% in February 2016, and minimally-revised 3.02% in January 2016.

Annualized Quarterly Changes. Reflecting the inconsistent seasonal-adjustment shifts both in the current and year-ago data, the pace of annualized nominal retail sales decline in first-quarter 2015 deepened to a contraction of 3.91% (-3.91%), still the worst quarter-to-quarter showing since the economic collapse. The revision to first-quarter 2015 had nothing to do with better-quality historical detail, only with the use of concurrent seasonal-adjustment revisions that shifted headline sales activity into current headline reporting, again, as discussed in the *Seasonal-Factor Distortions* section.

In like manner, with the creeping seasonal-factor inconsistencies now in both February 2015 and March 2015, relative second-quarter 2015 retail sales growth widened to a revised annualized growth rate of 6.18%, while the annualized third-and fourth-quarter 2015 annualized growth rates were unrevised, holding respectively at 4.51% and 1.19%.

Initial full reporting of first-quarter 2016 showed an annualized nominal contraction of 0.54% (-0.54%). Previously, based solely on January and February 2016, first-quarter 2016 growth had been on track for an annualized contraction of 0.64% (-0.64%). Based solely on initial January 2016 reporting, the outlook for first-quarter 2016 had been for an annualized quarterly gain of 1.59%.

Annualized first-quarter real retail sales change—also in a likely quarterly contraction—will be updated with tomorrow's CPI-U *Commentary No. 799*. That said, adjusted for realistic inflation (see *Commentary No. 793* and *No. 777 Year-End Special Commentary*), real retail sales and the broad economy never truly recovered from the economic collapse into 2008 and 2009.

Real (Inflation-Adjusted) Retail Sales—March 2016. The monthly decline of 0.30% (-0.30%) in nominal March 2016 retail sales was before accounting for inflation. The monthly change in real Retail Sales for March awaits tomorrow's headline estimate of the CPI-U consumer inflation for March 2016. Discussed in the *Week Ahead* section, the headline CPI-U outlook is for roughly a 0.2% gain in headline monthly inflation, which would reduce the headline change in real sales by a parallel amount versus nominal activity, with real sales likely to end up around a negative 0.5% (-0.5%), plus or minus. Annual inflation in the general vicinity of one-percent should knock down the headline real annual sales gain to below one-percent, an intense signal of recession, while the quarter-to-quarter change in first-quarter 2016 real retail sales also should be negative.

Consumer Conditions Updated for Consumer Credit. Continuing to constrain Retail Sales activity, the consumer remains in an extreme liquidity bind, as briefly updated here for February Consumer Credit Outstanding and as reviewed fully in *Commentary No. 796* and *No. 777 Year-End Special Commentary*. Without sustained growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer is unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise.

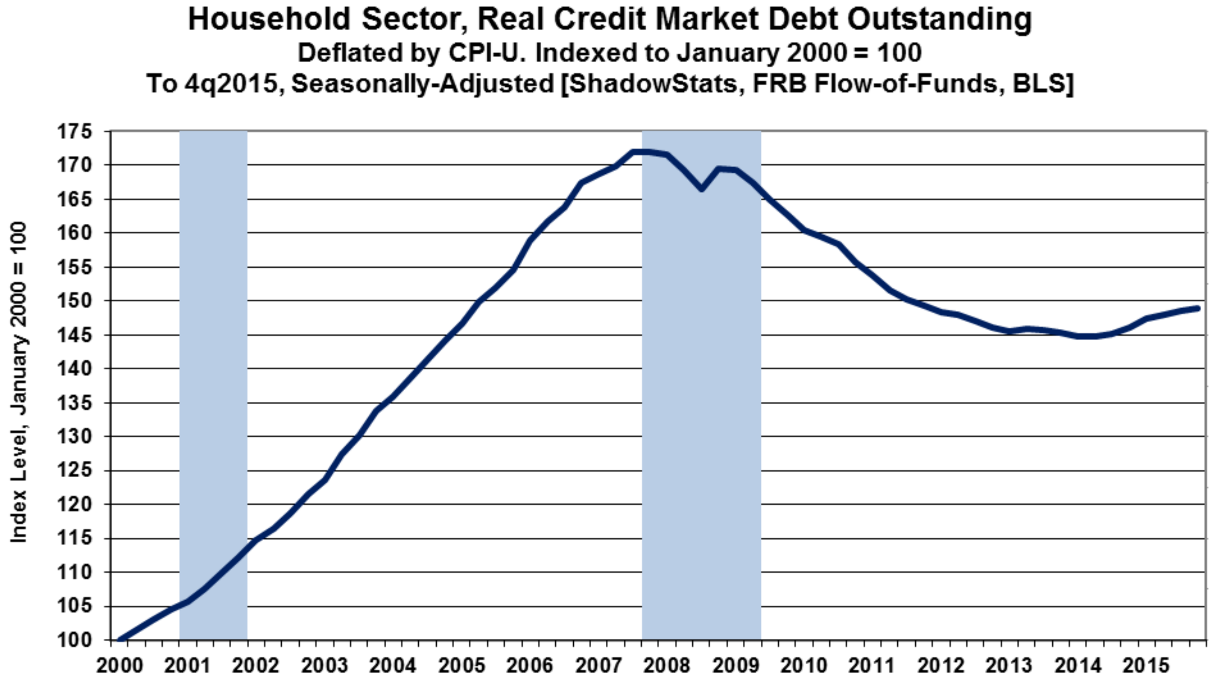
Underlying fundamentals to consumer economic activity, such as liquidity, have been severely impaired in the last decade or so, having driven economic activity into collapse and prevented meaningful or sustainable economic rebound, recovery or ongoing growth. The level of and growth in sustainable real income, and the ability and willingness of the consumer to take on new debt, remain at the root of the liquidity issues.

Consumer Borrowing. Debt expansion can help make up for a shortfall in income growth. As previously published, *Graph 1* of *Household Sector, Real Credit Market Debt Outstanding* shows household debt declined in the period following the Panic of 2008, and it has not recovered, based on the Federal Reserve's flow-of-funds accounting for fourth-quarter 2015 and headline reporting of the Consumer Price Index (CPI-U).

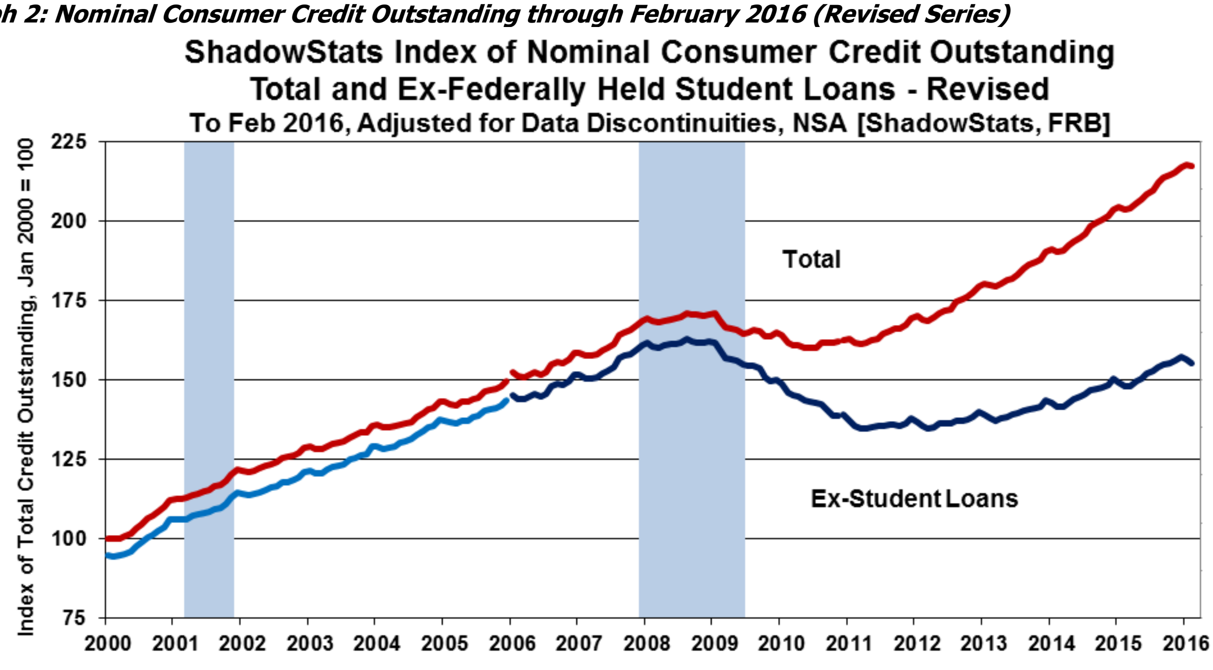
That series includes mortgages, automobile and student loans, credit cards, secured and unsecured loans, etc., again, all deflated by the headline CPI-U. The level of real debt outstanding has remained stagnant for several years, reflecting, among other issues, lack of normal lending by the banking system into the regular flow of commerce.

The slight upturn seen in the series through 2015, as also seen in the patterns of the real monthly median household income survey, has been due partially to gasoline-price-driven, negative CPI inflation, which continues to impact the system. Fourth-quarter activity also reflected surging student loans, as shown in the *Graph 2*.

Graph 1: Household Sector, Real Credit Market Debt Outstanding through Fourth-Quarter 2015



Graph 2: Nominal Consumer Credit Outstanding through February 2016 (Revised Series)



Shown through the just-released (April 7th) February 2016 reporting, *Graph 2* of monthly Consumer Credit Outstanding is a subcomponent of *Graph 1* on real Household Sector debt, but *Graph 2* is not adjusted for inflation. The series was just revised back to January 2006, but as indexed, and with reporting gaps adjusted so as to smooth discontinuities in the series, the new series versus old series were so close together as to be indistinguishable from in each other when plotted. Accordingly, *Graph 2* reflects just the new series.

Post-2008 Panic, outstanding consumer credit has continued to be dominated by growth in federally-held student loans, not in bank loans to consumers that otherwise would fuel broad consumption or housing growth. Although in a slower uptrend, the nominal level of Consumer Credit Outstanding (ex-student loans) has not recovered since the onset of the recession, and slowing in growth relative to the total series. These disaggregated data are available and plotted only on a not-seasonally-adjusted basis, with February 2016 levels reflecting a continuing seasonal drop in a not-seasonally-adjusted series, ex-student loans.

Producer Price Index (PPI)—March 2016—Depressed by Seasonal Adjustments, Goods Inflation Increased by 0.19%; Services Profit Margins Declined by 0.18% (-0.18%); Aggregate PPI Fell by 0.09% (-0.09%). On the goods side, where headline wholesale inflation rose by 0.19% in the month of March 2016, the dominant effect was from rising energy prices, with a minimal boost from "core" inflation (net of food and energy) and a partial negative from food.

The offset to the gain in goods inflation was a decline of 0.18% (-0.18%) in the more-heavily-weighted and counter-intuitive services sector. While the downside in services profit margins was spread broadly among different categories, it included perverse negative price movements attributed to rising costs for oil and oil–related products, within the context of declining services profit margins. Where gasoline prices rose by 7.1% in the month on the product side, a decline of 4.9% (4.9%) in the margins of fuel retailers who had not yet quite caught up with raising their prices, was used as a deflationary offset in the trade component of the services sector.

The conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily or meaningfully in the PPI. The dual measures are more meaningful viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand, as discussed in *Inflation that Is More Theoretical than Real World?* in the *Reporting Detail*.

March 2016 Headline PPI Detail. The seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for March 2016 was a decline of 0.09% (-0.09%), versus a decline of 0.18% (-0.18%) in February. The impact of seasonal adjustments on the headline PPI reporting was broadly negative in March, where the unadjusted monthly March measure gained 0.18%.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in March 2016 was down by 0.09% (-0.09%), having been "unchanged" at 0.00% annual growth in February 2016.

For the three major subcategories of March 2016 Final Demand PPI, headline monthly Goods inflation rose by 0.19%, Services inflation fell by 0.18% (-0.18%), and Construction inflation rose by 0.09%.

Final Demand Goods (Weighted at 33.60% of the Aggregate Index). Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in March 2016 rose by 0.19%, having declined in February by 0.56% (-0.56%). There was negative impact on the aggregate headline March reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, March Final Demand Goods inflation rose by 0.38% for March.

Unadjusted, year-to-year goods inflation in March declined by 2.56% (-2.56%), versus a February 2016 annual contraction of 2.66% (-2.66%).

Headline seasonally-adjusted monthly changes by major components of the March 2016 Final Demand Goods:

- "Foods" inflation (weighted at 5.56% of the total index) fell month-to-month in March 2016 by 0.94% (-0.94%), having declined in February by 0.34% (-0.34%). Seasonal adjustments were a negative factor for the March monthly change, which was down by 0.52% (-0.52%) unadjusted. Unadjusted and year-to-year, annual March 2016 foods inflation declined by 2.46% (-2.46%), versus a February 2016 annual contraction of 2.53% (-2.53%).
- "Energy" inflation (weighted at 5.23% of the total index) rose by 1.78% in March 2016, having declined by 3.43% (-3.43%) in February, with the March reading hit by seasonal adjustments. Unadjusted, monthly energy inflation rose by 3.74% in March. Unadjusted and year-to-year, the March 2016 annual contraction in energy prices narrowed to 13.84% (-13.84%), versus a drop of 14.46% (-14.46%) in February.
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 22.81% of the total index) rose by 0.09% in March 2016, the same monthly gain as seen in February. Seasonal adjustments were positive for monthly core inflation, with an unadjusted monthly "unchanged" at 0.00% in March. Unadjusted and year-to-year, March 2016 was up by 0.27%, having increased in February 2016 by 0.18%.

Final Demand Services (Weighted at 64.32% of the Aggregate Index). Headline monthly Final Demand Services inflation declined by 0.18% (-0.18%) in March 2016, having been unchanged at 0.00% in February. The overall seasonal-adjustment impact on headline March services inflation was negative, with an unadjusted monthly March reading of "unchanged" at 0.00%. Year-to-year, unadjusted March 2016 services inflation slowed to 1.18%, from 1.46% in February 2016.

The headline monthly changes by major component for March 2016 Final Demand Services inflation:

- "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 38.97% of the total index), declined by 0.09% (-0.09%) in March 2016, having gained 0.27% in February. Seasonal-adjustment impact on the adjusted March detail was negative, where the unadjusted monthly reading had been "unchanged" at 0.00%. Unadjusted and year-to-year, March 2016 "other" services inflation was 1.66%, versus 1.76% in February 2016.
- "Transportation and warehousing" inflation (weighted at 4.99% of the total index) fell month-to-month in March 2016 by 0.26% (-0.26%), having declined in February by 0.70% (-0.70%). Seasonal adjustments had negative impact on the headline March number, where the unadjusted monthly reading had been a gain of 0.53%. Unadjusted and year-to-year, March 2016

transportation inflation fell by 2.32% (-2.32%), little changed from the annual decline of 2.33% (2.33%) in February 2016.

- “Trade” inflation (weighted at 20.36% of the total index) declined for the month of March 2016 by 0.53% (-0.53%), versus a decline of 0.35% (-0.35%) in February. Seasonal adjustments had a negative impact here, where unadjusted monthly inflation declined by 0.18% (-0.18%) in March. Unadjusted and year-to-year, March 2016 trade inflation rose by 1.17%, having gained 1.90% in February 2016.

<u>Final Demand Construction (Weighted at 2.08% of the Aggregate Index).</u> Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Nonetheless, headline numbers are published, and month-to-month construction inflation rose by 0.09% in March 2016, having contracted by 0.09% (-0.09%) in February. The impact of seasonal factors on the March reading was neutral, where the unadjusted monthly change also was a gain of 0.09%.

On an unadjusted basis, year-to-year construction inflation rose by 1.07% in January 2016, versus an annual gain of 0.98% in February 2016.

- “Construction for private capital investment” headline monthly inflation (weighted at 1.40% of the total index) was “unchanged” at 0.00% in March 2016, having declined month-to-month by 0.09% (-0.09%) in February. As usual, seasonal adjustments had neutral impact here, where the unadjusted March monthly inflation also was “unchanged” at 0.00%. Unadjusted and year-to-year, March 2016 private construction inflation was up by 0.89%, unchanged from 0.89% in February 2016.
- “Construction for government” inflation (weighted at 0.68% of the total index) gained month-to-month by 0.09% in March 2016, having declined by 0.09% (-0.09%) in February. Seasonal adjustments had negative impact, where unadjusted monthly inflation showed a gain of 0.18%. Unadjusted and year-to-year, March 2016 government construction inflation was 1.43%, up from 1.25% in February 2016.

**[The *Reporting Detail*, which follows on the next page,
includes expanded information on both the March Retail Sales and PPI.]**

REPORTING DETAIL

NOMINAL RETAIL SALES—March 2016

First-Quarter Sales Contracted Quarter-to-Quarter; Headline March Decline of 0.3% (-0.3%) Would Have Been 0.8% (-0.8%) but for Covert Seasonal Adjustment Shifts. In the context of upside revisions to sales activity in January and February 2016, headline March 2016 nominal Retail Sales declined by 0.3% (-0.3%) for the month, with a sharp slowing in year-to-year growth, along with a quarterly contraction of 0.5% (-0.5%) for first-quarter 2016. ShadowStats affiliate www.ExpliStats.com has charted the latest nominal retail sales, viewable here: *Nominal Retail Sales*.

Given a likely headline increase of about 0.2% in the March 2016 CPI-U—the consensus expectation as well as the ShadowStats estimate (see *Week Ahead*)—first-quarter inflation-adjusted real retail sales also likely contracted quarter-to-quarter. Headline CPI-U would have to decline by 0.08% (-0.08%) in March in order to boost real sales into neutral quarterly activity.

A quarterly contraction in real sales would dim further the already faltering outlook for initial first-quarter 2016 GDP reporting on April 29th. That said, the annual benchmark revision to retail sales on April 30th will alter significantly today's headline reporting, likely revising historical activity of recent years sharply to the downside.

Revisions and Seasonal-Adjustment Warping. In the context of an upside revision to February sales from a statistically-insignificant decline of 0.15% (-0.15%) to a statistically-insignificant gain of 0.03%, the statistically-insignificant headline monthly decline in March 2016 activity of 0.30% (-0.30%) was boosted by 0.48% from underlying and historically-inconsistent seasonal-factor shifts.

Discussed in the *Seasonal-Factor Distortions* section of this *Reporting Detail*, the issues here remain within the usual inconsistent and non-comparable shifts in the published seasonally-adjusted data, based on monthly "concurrent seasonal adjustment" calculations and lack of relevant publication of consistent, historical data. Accordingly, using old-fashioned consistent reporting, headline nominal March 2016 retail sales likely were down by about 0.8% (-0.8%) month-to-month, instead of by 0.3% (-0.3%).

Separately, also before inflation consideration, seasonally-adjusted, nominal annual growth slowed sharply on a monthly basis, against 2015. Year-to-year change in sales narrowed to 1.75% in March 2016, versus an upwardly revised 3.65% [previously 3.09%] in February 2016. That pattern reflected March 2015 having gained against February 2015, with both numbers affected by year-ago revisions (again, see *Seasonal-Factor Distortions*).

Structural Liquidity Issues Constrain Consumer Economic Activity. Constraining retail sales activity, the consumer remains in an extreme liquidity bind, as updated briefly in today's *Opening Comments*, and as discussed broadly in in *Commentary No. 796* and *No. 777 Year-End Special Commentary*. Without sustained growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer is unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise. That circumstance—in the last eight-plus years of economic collapse and stagnation—has continued to prevent a normal recovery in broad U.S. economic activity, 70% of which is dependent on personal spending.

Nominal (Not-Adjusted-for-Inflation) Retail Sales—March 2016. In the context of an upside revision to February 2016 Retail Sales, and boosted sharply by implied seasonal-factor shifts from a large upside revision to March 2015 relative to February 2015, the Census Bureau reported this morning (April 13th) that headline nominal sales declined by 0.3% (-0.3%) in March 2016. At the second decimal point, March 2016 retail sales showed a statistically-insignificant, seasonally-adjusted monthly decline of 0.30% (-0.30%) +/- 0.59% (this and all other confidence intervals are expressed at the 95% level). Net of prior-period revisions, March sales fell by 0.09% (-0.09%).

Such followed a statistically-insignificant, revised February gain of 0.03% +/- 0.35% [previously down by 0.15% (-0.15%)] and a revised monthly decline of 0.36% (-0.36%) [previously down by 0.40% (-0.40%, initially a gain of 0.18%] in January 2016.

Year-to-Year Annual Change. March 2016 nominal year-to-year change was a statistically-significant increase of 1.75% +/- 0.82%, versus a revised 3.65% [previously up by 3.09%] in February 2016, and minimally -revised 3.02% [previously up by 2.99%, initially up by 3.44%] in January 2016.

Annualized Quarterly Changes. Reflecting the inconsistent seasonal-adjustment shifts both in the current and year-ago data, the pace of annualized nominal retail sales decline in first-quarter 2015 deepened to a contraction of 3.91% (-3.91%) [previously down by 3.67% (-3.67%), by 4.26% (-4.26%), by 4.48% (-4.48%), by 4.42% (-4.42%), by 4.23% (-4.23%), and initially down by 4.04% (-4.04%)], still the worst quarter-to-quarter showing since the economic collapse. The revision to first-quarter 2015 had nothing to do with better-quality historical detail, only with the use of concurrent seasonal-adjustment revisions that shifted headline sales activity into current headline reporting, again, as discussed in the *Seasonal-Factor Distortions* section.

In like manner, with the creeping seasonal-factor inconsistencies now in both February 2015 and March 2015, relative second-quarter 2015 retail sales growth widened to a revised annualized growth rate of 6.18% [previously up by 5.91%, up by 6.57% and initially at 6.81%], while the annualized third-and fourth-quarter 2015 annualized growth rates were unrevised, holding respectively at 4.51% and 1.19%.

Initial full reporting of first-quarter 2016 showed an annualized nominal contraction of 0.54% (-0.54%). Previously, based solely on January and February 2016, first-quarter 2016 growth had been on track for an annualized contraction of 0.64% (-0.64%). Based solely on initial January 2016 reporting, the outlook for first-quarter 2016 had been for an annualized quarterly gain of 1.59%.

Annualized first-quarter real retail sales change—also in a likely quarterly contraction—will be updated with tomorrow's CPI-U *Commentary No. 799*. That said, adjusted for realistic inflation (see *Commentary No. 793* and *No. 777 Year-End Special Commentary*), real retail sales and the broad economy never truly recovered from the economic collapse into 2008 and 2009.

March 2016 Core Retail Sales—Core Monthly Sales Change. Reflecting an environment that should be seeing rising food prices and a small seasonally-adjusted increase [an unadjusted gain of 10.63% per the

Department of Energy] in gasoline prices, seasonally-adjusted monthly grocery-store sales were virtually flat, down by 0.03% (-0.03%) in March 2016, with gasoline-station sales up by 0.94% for the month.

Under normal conditions, the bulk of non-seasonal variability in food and gasoline sales is in pricing, instead of demand. "Core" retail sales—consistent with the Federal Reserve's preference for ignoring food and energy prices when "core" inflation is lower than full inflation (or vice versa for some at the Fed trying to boost interest rates at the moment)—are estimated using two approaches:

Version I: March 2016 versus February 2016 seasonally-adjusted retail sales series—net of total grocery store and gasoline station sales—reflected a monthly decline of 0.45% (-0.45%), versus the official headline aggregate sales contraction of 0.30% (-0.30%).

Version II: March 2016 versus February 2016 seasonally-adjusted retail sales series—net of the monthly change in revenues for grocery stores and gas stations—reflected a month-to-month contraction of 0.36% (-0.36%), versus the official headline aggregate sales decline of 0.30% (-0.30%).

Real (Inflation-Adjusted) Retail Sales—March 2016. The monthly decline of 0.30% (-0.30%) in nominal March 2016 retail sales was before accounting for inflation. The monthly change in real Retail Sales for March awaits tomorrow's headline estimate of the CPI-U consumer inflation for March 2016. Discussed in the *Week Ahead* section, the headline CPI-U outlook is for roughly a 0.2% gain in headline monthly inflation, which would reduce the headline change in real sales by a parallel amount versus nominal activity, with real sales likely to end up around a negative 0.5% (-0.5%), plus or minus. Annual inflation in the general vicinity of one-percent should knock down the headline real annual sales gain to below one-percent, an intense signal of recession, while the quarter-to-quarter change in first-quarter 2016 real retail sales also should be negative.

Likely-Downside Annual Retail Sales Revisions Scheduled for April 29th. Subsequent to today's headline reporting of March 2016 nominal and tomorrow's release of real retail sales, the Census Bureau has planned its annual benchmark revision of Retail Sales for Friday April 29, 2016. Encompassing results of the 2014 Annual Retail Trade Series and the long-delayed final results from the 2012 Economic Census, the historical Retail Sales (and related July 29th GDP benchmark revisions) should suffer meaningful downside revisions. Such has been the common experience over time, where overly-optimistic assumptions—standardly built into the headline economic reporting—generally are brought down to more-realistic levels with underlying, hard data. Similar circumstances were issues and were discussed in the recent Industrial Production benchmark revision (*Commentary No. 796-A*).

Seasonal-Factor Distortions Generated Artificially-High Headline March Sales, and Other Reporting Instabilities. Without inconsistent shifting in seasonal-adjustment factors, the March 2016 headline change would have been a contraction of about 0.8% (-0.8%), instead of 0.3% (-0.3%). Headline detail in this series is subject to a pattern of distorted revisions. These revisions are unique to the inconsistent reporting of the government's concurrent-seasonal-factor-adjustment process, as seen regularly in recent and current reporting of retail sales. The usual seasonal-factor games were at play in the March 2016 reporting, where the headline data reflected new seasonal-factor adjustments, but the purportedly comparable historical series did not. The only "comparable" headline historical details published with today's headline March 2016 sales data were the sales levels for the prior two months of February 2016 and January 2016, and the year-ago months of March and February 2015.

Revisions to the year-ago periods are tip-offs as to how the current, headline month's seasonal factors have been altered. The month-to-month contraction of 0.30% (-0.30%) in March 2016, actually included a positive boost of 0.48% that came the from inconsistent, shifting adjustment patterns. Net of these distortions, the headline contraction in March 2016 sales would have about 0.78% (-0.78%).

In initial headline decline of 0.15% (-0.15%) in February 2016 sales, that decline reflected a positive boost of 0.45% from the inconsistent, shifting adjustment patterns. In like manner, of the initial gain of 0.18% in January 2016 sales, 0.17% was set up in that month's seasonal-adjustment revisions. Of the initial 0.16% gain in December 2015, 0.32% was set up in the seasonal adjustment revisions. Of the 0.32% gain in November 2015, 0.18% was set up in the seasonal adjustment revisions.

In the March 2016 headline detail, the year-ago revisions simply were junk reporting, due solely to shifts in their seasonal adjustments that resulted from the unique calculations of the seasonal factors generated with the new headline detail. These revisions were not due to the availability of any new historical data back in February or March 2015, but rather due to just the inconsistent shifts in the published versus unpublished seasonal adjustments. Discussed earlier, shifting patterns of relative quarterly growth in just the first- and second-quarter 2015 also were seen due solely to the "inconsistent" revisions to the adjusted February and March 2015 numbers.

Given Census Bureau reporting procedures, the headline detail is not comparable with most earlier reporting. As a result, current data can reflect growth shifts from earlier periods, without those specifics being published. The adjustment issues here are the same as with the employment and unemployment series. The principles and issues with the way the government reports economic series adjusted by concurrent seasonal factors were explored, in-depth, in *Commentary No. 695* and discussed in prior *Supplemental Commentary No. 784-A*. The reporting fraud is not in the use of concurrent seasonal-factor adjustments *per se*, but rather in not publishing fully-consistent, historical data each month.

In today's headline detail, reflective of shifting seasonal adjustments that are published only selectively, March 2015 detail was revised higher by 0.15%, while the February 2015 detail was revised lower by 0.34% (-0.34%), indicative of a relative shift in seasonality for the headline month-to-month March 2016 detail of a positive 0.48% (rounding differential).

Seen broadly in reporting of the prior year, and again in today's headline detail, the year-ago number most commonly is revised higher each month relative to the month before, with the effect—desired or otherwise—of boosting the seasonal adjustments for the current headline month, minimizing the reporting of headline monthly contractions or maximizing the headline gains. All this happens without the specifics as to where headline activity has been shifted month-to-month. Full detail is available internally to the Census Bureau, but the Bureau chooses not to publish the detail.

Beyond inconsistencies in the published, adjusted historical data, the stability of the seasonal-adjustment process (particularly the concurrent-seasonal-adjustment process) and sampling methods have been disrupted severely by the unprecedented depth and length of the current economic downturn in the post-World War II era, the period of modern economic reporting.

In theory, some of the longer-term issues should be addressed, at least partially, in the pending annual benchmark revision of April 29th. The benchmarking should put all the historical data on a one-time consistent basis, but only briefly. That consistency will hold for all of two weeks, until the headline reporting of April 2016 retail sales on May 13th. That headline number will be comparable only with March and February 2016, and April and March 2015, but none of those months will be consistent or comparable with any other of the just-revised, seasonally-adjusted, historical retail sales detail.

PRODUCER PRICE INDEX—PPI (March 2016)

March 2016 PPI Goods Inflation Increased by 0.19%; Profit Margins in the Dominant Services Sector Declined by 0.18% (-0.18%); Aggregate PPI Fell by 0.09% (-0.09%). On the goods side, where headline wholesale inflation rose by 0.19% in the month of March 2016, the dominant effect was from rising energy prices, with a minimal boost from "core" inflation (net of food and energy) and a partial negative from food.

The offset to the gain in goods inflation was a decline of 0.18% (-0.18%) in the more-heavily-weighted and counter-intuitive services sector. While the downside in services profit margins was spread broadly among different categories, it included perverse negative price movements attributed to rising costs for oil and oil–related products, within the context of declining services profit margins. Where gasoline prices rose by 7.1% in the month on the product side, a decline of 4.9% (4.9%) in the margins of fuel retailers who had not yet quite caught up with raising their prices was used as a deflationary offset in the trade component of the services sector.

Discussed below, the conceptual differences between goods inflation and services profit margins do not blend well and are not merged easily or meaningfully in the PPI. The dual measures are more meaningful viewed independently than as the hybrid measure of the headline Producer Price Index Final Demand.

Inflation that Is More Theoretical than Real World? *[This background text is as published previously.]* Effective with January 2014 reporting, a new Producer Price Index (PPI) replaced what had been the traditional headline monthly measure of wholesale inflation in Finished Goods (see *Commentary No. 591*). In the new headline monthly measure of wholesale Final Demand, Final Demand Goods basically is the old Finished Goods series, albeit expanded.

The new and otherwise dominant Final Demand Services sector largely reflects problematic and questionable surveying of intermediate or quasi-wholesale profit margins in the services area. To the extent that profit margins shrink in the services sector, one could argue that the resulting lowered estimation of inflation actually is a precursor to higher inflation, as firms subsequently would move to raise prices, in an effort to regain more-normal margins. In like manner, in the circumstance of "increased" margins—due to the lower cost of petroleum-related products not being passed along immediately to customers—competitive pressures to lower margins would tend to be reflected eventually in reduced retail prices (CPI). The oil-price versus margin gimmick works both way. In times of rapidly rising oil prices, it mutes the increase in Final Demand inflation, in times of rapidly declining oil prices; it tends to mute the decline in Final Demand inflation.

The current PPI series remains an interesting concept, but it appears limited as to its aggregate predictive ability versus general consumer inflation. Further, there is not enough history available on the new series (just six years of post-2008-panic data) to establish any meaningful relationship to general inflation or other economic or financial series.

March 2016 Headline PPI Detail. The Bureau of Labor Statistics (BLS) reported this morning, April 13th, that the seasonally-adjusted, month-to-month, headline Producer Price Index (PPI) Final Demand inflation for March 2016 was a decline of 0.09% (-0.09%), versus a decline of 0.18% (-0.18%) in February. The impact of seasonal adjustments on the headline PPI reporting was broadly negative in March, where the unadjusted monthly March measure gained 0.18%.

On a not-seasonally-adjusted basis—all annual growth rates are expressed unadjusted—year-to-year PPI Final Demand inflation in March 2016 was down by 0.09% (-0.09%), having been "unchanged" at 0.00% annual growth in February 2016.

For the three major subcategories of March 2016 Final Demand PPI, headline monthly Goods inflation rose by 0.19%, Services inflation fell by 0.18% (-0.18%), and Construction inflation rose by 0.09%.

<u>Final Demand Goods (Weighted at 33.60% of the Aggregate Index).</u> Running somewhat in parallel with the old Finished Goods PPI series, headline month-to-month Final Demand Goods inflation in March 2016 rose by 0.19%, having declined in February by 0.56% (-0.56%). There was negative impact on the aggregate headline March reading from underlying seasonal-factor adjustments. Not-seasonally-adjusted, March Final Demand Goods inflation rose by 0.38% for March.

Unadjusted, year-to-year goods inflation in March declined by 2.56% (-2.56%), versus a February 2016 annual contraction of 2.66% (-2.66%).

Headline seasonally-adjusted monthly changes by major components of the March 2016 Final Demand Goods:

- "Foods" inflation (weighted at 5.56% of the total index) fell month-to-month in March 2016 by 0.94% (-0.94%), having declined in February by 0.34% (-0.34%). Seasonal adjustments were a negative factor for the March monthly change, which was down by 0.52% (-0.52%) unadjusted. Unadjusted and year-to-year, annual March 2016 foods inflation declined by 2.46% (-2.46%), versus a February 2016 annual contraction of 2.53% (-2.53%).
- "Energy" inflation (weighted at 5.23% of the total index) rose by 1.78% in March 2016, having declined by 3.43% (-3.43%) in February, with the March reading hit by seasonal adjustments. Unadjusted, monthly energy inflation rose by 3.74% in March. Unadjusted and year-to-year, the March 2016 annual contraction in energy prices narrowed to 13.84% (-13.84%), versus a drop of 14.46% (-14.46%) in February.
- "Less foods and energy" ("Core" goods) monthly inflation (weighted at 22.81% of the total index) rose by 0.09% in March 2016, the same monthly gain as seen in February. Seasonal adjustments were positive for monthly core inflation, with an unadjusted monthly "unchanged" at 0.00% in March. Unadjusted and year-to-year, March 2016 was up by 0.27%, having increased in February 2016 by 0.18%.

<u>Final Demand Services (Weighted at 64.32% of the Aggregate Index).</u> Headline monthly Final Demand Services inflation declined by 0.18% (-0.18%) in March 2016, having been unchanged at 0.00% in February. The overall seasonal-adjustment impact on headline March services inflation was negative, with an unadjusted monthly March reading of "unchanged" at 0.00%. Year-to-year, unadjusted March 2016 services inflation slowed to 1.18%, from 1.46% in February 2016.

The headline monthly changes by major component for March 2016 Final Demand Services inflation:

- "Services less trade, transportation and warehousing" inflation, or the "Other" category (weighted at 38.97% of the total index), declined by 0.09% (-0.09%) in March 2016, having gained 0.27% in February. Seasonal-adjustment impact on the adjusted March detail was negative, where the unadjusted monthly reading had been "unchanged" at 0.00%. Unadjusted and year-to-year, March 2016 "other" services inflation was 1.66%, versus 1.76% in February 2016.
- "Transportation and warehousing" inflation (weighted at 4.99% of the total index) fell month-to-month in March 2016 by 0.26% (-0.26%), having declined in February by 0.70% (-0.70%). Seasonal adjustments had negative impact on the headline March number, where the unadjusted monthly reading had been a gain of 0.53%. Unadjusted and year-to-year, March 2016 transportation inflation fell by 2.32% (-2.32%), little changed from the annual decline of 2.33% (2.33%) in February 2016.
- "Trade" inflation (weighted at 20.36% of the total index) declined for the month of March 2016 by 0.53% (-0.53%), versus a decline of 0.35% (-0.35%) in February. Seasonal adjustments had a negative impact here, where unadjusted monthly inflation declined by 0.18% (-0.18%) in March. Unadjusted and year-to-year, March 2016 trade inflation rose by 1.17%, having gained 1.90% in February 2016.

<u>Final Demand Construction (Weighted at 2.08% of the Aggregate Index).</u> Although a fully self-contained subsection of the Final Demand PPI, Final Demand Construction inflation receives no formal headline coverage. Nonetheless, headline numbers are published, and month-to-month construction inflation rose by 0.09% in March 2016, having contracted by 0.09% (-0.09%) in February. The impact of seasonal factors on the March reading was neutral, where the unadjusted monthly change also was a gain of 0.09%.

On an unadjusted basis, year-to-year construction inflation rose by 1.07% in January 2016, versus an annual gain of 0.98% in February 2016.

- "Construction for private capital investment" headline monthly inflation (weighted at 1.40% of the total index) was "unchanged" at 0.00% in March 2016, having declined month-to-month by 0.09% (-0.09%) in February. As usual, seasonal adjustments had neutral impact here, where the unadjusted March monthly inflation also was "unchanged" at 0.00%. Unadjusted and year-to-year, March 2016 private construction inflation was up by 0.89%, unchanged from 0.89% in February 2016.
- "Construction for government" inflation (weighted at 0.68% of the total index) gained month-to-month by 0.09% in March 2016, having declined by 0.09% (-0.09%) in February. Seasonal adjustments had negative impact, where unadjusted monthly inflation showed a gain of 0.18%. Unadjusted and year-to-year, March 2016 government construction inflation was 1.43%, up from 1.25% in February 2016.

Discussed in *Commentary No. 790*, ShadowStats uses the Final Demand Construction index for deflating headline activity in the monthly construction-spending series. The May 2nd release of March 2016 U.S. Construction Spending will be covered in ShadowStats *Commentary No. 805* of May 4th.

PPI-Inflation Impact on Pending Reporting of New Orders for Durable Goods. As to the upcoming reporting of March 2016 new orders for durable goods, monthly inflation (reported only on a not-seasonally-adjusted basis) for new orders for manufactured durable goods was unchanged at 0.00% in March for the third straight month. The decline in annual inflation, however, continued to narrow slightly to a contraction of 1.14% in March 2016, versus annual declines of 1.25% (-1.25%) in February 2016, and 1.31% (-1.31%) in January 2016. March 2016 durable goods orders will be reported on April 26th and covered in ShadowStats *Commentary No. 802* of that date.

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WEEK AHEAD

Economic Reporting Generally Should Continue in Deterioration, Increasingly Pummeling the Dollar and Boosting Gold, Silver and Oil Prices. Market expectations for business activity should continue to deteriorate sharply, amidst intensifying, negative headline reporting in the weeks and months ahead. The broad trend in weakening expectations for business activity, and in movement towards looming recession recognition, continues, as discussed briefly in the *Opening Comments*, *Commentary No. 796-A*, *Commentary No. 795*, *Commentary No. 794*, *Commentary No. 789* and in *No. 777 Year-End Special Commentary*.

In response to perpetual non-recovery and a now intensifying down-trend in underlying economic activity, increasingly-negative market reactions have surfaced in trading of the U.S. dollar and in related financial markets, with upside price movements in gold, silver and oil. These reactions reflect, at least in part, a growing sense of Federal Reserve impotence. Any further tightening by the Fed before the election is unlikely, but renewed quantitative easing is a fair shot.

Weaker headline reporting of the regular monthly economic numbers increasingly should be accompanied by much worse-than-expected—negative—reporting for at least the next several quarters of GDP (and GDI and GNP). That includes a developing possible outright quarterly contraction for first-quarter 2016 GDP activity on April 28th, as well as pending downside revisions to GDP history (including first-quarter 2015 and fourth-quarter 2015) in the July 29th annual benchmark revisions.

In line with recent downside revisions to industrial production and pending negative benchmark revisions to retail sales, construction, durable goods orders and trade, expectations for the GDP benchmarking also should fall sharply. That GDP benchmarking now is the most-likely point at which the elements for a "formal" recession call will be in full play.

CPI-U consumer inflation—intermittently driven lower in 2015 and early-2016 by collapsing prices for gasoline and other oil-price related commodities—likely has seen its near-term, year-to-year low. Although headline monthly February inflation was negative, annual inflation remained positive. Monthly prices should turn positive in headline March 2016 detail, in tandem with rising gasoline prices (see *Pending Releases*). Inflation will rise more sharply, going forward, boosted by a weakening U.S. dollar environment, and a continued, related upturn in oil prices and other commodities. Fundamental reporting issues with the headline CPI also are discussed here: *Public Commentary on Inflation Measurement*.

Note on Reporting-Quality Issues and Systemic-Reporting Biases. Significant reporting-quality problems remain with most major economic series. Beyond the pre-announced gimmicked changes to reporting methodologies of the last several decades, which have tended to understate actual inflation and to overstate actual economic activity, ongoing headline reporting issues are tied largely to systemic distortions of monthly seasonal adjustments. Data instabilities—induced partially by the still-evolving economic turmoil of the last nine-to-eleven years—have been without precedent in the post-World War II era of modern-economic reporting. The severity and ongoing nature of the downturn provide particularly unstable headline economic results, when concurrent seasonal adjustments are used (as with retail sales, durable goods orders, employment and unemployment data). That has been discussed and explored in the labor-numbers related *Supplemental Commentary No. 784-A* and *Commentary No. 695*.

Further, discussed in *Commentary No. 778*, a heretofore unheard of spate of "processing errors" has surfaced in recent surveys of earnings (Bureau of Labor Statistics) and construction spending (Census Bureau). This is suggestive of deteriorating internal oversight and control of the U.S. government's headline economic reporting. At the same time, it indicates an openness of the involved statistical agencies in revealing the reporting-quality issues.

Combined with ongoing allegations in the last year or two of Census Bureau falsification of data in its monthly Current Population Survey (the source for the BLS Household Survey), these issues have thrown into question the statistical-significance of the headline month-to-month reporting for many popular economic series (see *Commentary No. 669*).

PENDING RELEASES:

Updated **- Consumer Price Index—CPI (March 2016).** The Bureau of Labor Statistics (BLS) will release the March 2016 CPI tomorrow, April 14th. The headline March CPI-U should be on the upside by roughly 0.2%, or so, reflecting rebounding gasoline prices plus higher non-energy inflation. Despite a likely monthly increase in the seasonally-adjusted March CPI-U, unadjusted headline annual inflation in March should hold around its February 2016 level of 1.0%.

Changing Gasoline Impact. Average gasoline prices rebounded in March 2016, up by 10.63% for the month on a not-seasonally-adjusted basis, per the Department of Energy (DOE). Where BLS seasonal adjustments to gasoline prices in March traditionally are sharply negative, they would reduce the unadjusted price gain, but not turn it negative. Adjusted gasoline prices should rise by enough to add a positive 0.07% to the headline CPI-U monthly change. Boosted as well by somewhat higher food and "core" (net of food and energy) inflation, a headline monthly CPI-U gain of 0.2%, plus-or-minus, is a reasonable expectation and appears to be the general consensus outlook.

Annual Inflation Rate. Noted in *Commentary No. 793*, year-to-year, CPI-U inflation would increase or decrease in the March 2016 reporting, dependent on the seasonally-adjusted monthly change, versus the adjusted, headline gain of 0.18% in March 2015 CPI-U. The adjusted change is used here, since that is how consensus expectations are expressed. To approximate the annual unadjusted inflation rate for March 2016, the difference in March's headline monthly change (or forecast of same), versus the year-ago monthly change, should be added to or subtracted directly from the February 2016 annual inflation rate of 1.02%. For example, a seasonally-adjusted, headline monthly gain of 0.2% in the March 2016

Real (Inflation-Adjusted) Retail Sales (March 2016). The nominal monthly decline of 0.30% (-0.30%) in March 2016 Retail Sales was before accounting for inflation (see *Opening Comments* and *Reporting Detail*). The monthly change in real retail sales for March awaits tomorrow's headline estimate of March 2016 CPI-U consumer inflation. With the headline CPI-U inflation likely to show a gain headline monthly gain of about 0.2%, the headline real retail sales would be reduced by a parallel amount versus the headline nominal decline.

Annual inflation should hold around 1.0%, reducing the headline nominal annual gain in March 2016 retail sales of 1.75% to below one-percent. Such would generate a continuing intense, low-level annual real sales growth signal of recession. Separately, a headline CPI-U monthly inflation reading more positive than a negative 0.08% (-0.08%) would show an inflation-adjusted real quarterly contraction in first-quarter 2016 real retail sales.

Constraining Retail Sales activity, the consumer remains in an extreme liquidity bind, as touched upon briefly in the *Opening Comments* and previously fully updated in *Commentary No. 796* and *No. 777 Year-End Special Commentary*. Without sustained growth in real income, and without the ability and/or willingness to take on meaningful new debt in order to make up for the income shortfall, the U.S. consumer is unable to sustain positive growth in domestic personal consumption, including retail sales, real or otherwise.

***Updated* - Index of Industrial Production (March 2016).** In the context of massive downside benchmark revisions through February 2016, just published on April 1st (see *Commentary No. 796-A*), the Federal Reserve Board will release its estimate of Industrial Production activity for March 2016 on Friday, April 15th, with coverage in *Commentary No. 800* of that date. Headline reporting likely will continue on the downside, both month-to-month and year-to-year, with further revisions to the last six months, despite the just-published benchmarking.

Full reporting for first-quarter 2016 production is likely to contract quarter-to-quarter for the second consecutive quarter (the fourth in the last five quarters), and it is virtually certain to be negative year-to-year, for the second consecutive quarter (the first time since the economic collapse). A monthly gain above 0.64%, net of prior-period revisions, would be needed to push quarterly production growth above zero. A monthly gain above 4.08% would be needed to push the quarter into positive year-to-year growth.

Expectations have come in on the downside of flat, but as has been the case here for some time, headline reporting and revisions remain a good bet to offer negative surprises versus the consensus outlook, even in the context of the recent downside historical revisions.

