ShadowStats Flash Commentary, Issue No. 1460a
Industrial Production Revisions and Implications for the U.S. Business Cycle

May 31, 2021

Benchmarked Industrial Production Revised Sharply Lower;
Both Manufacturing and Mining Were Hit Hard

New Numbers Indicate the Economy Was in a Deepening Recession,
Well Before the Pandemic Shutdown and Collapse

Old Numbers Showed Production Peaked in December 2018 and Flattened Out,
February 2020 Pre-Pandemic Peak Was 3.75% Higher Than the Pre-Great Recession Peak

New Numbers Show Production Peaked in August 2018 and Entered Protracted Decline,
February 2020 Pre-Pandemic Peak Was 1.11% (-1.11%) Below the Pre-Great Recession Peak

Manufacturing Sector Has Never Recovered Pre-Great Recession Peak Levels

April 2020 Pandemic/Economic Trough Revised Lower by 5.1% (-5.1%)

Economic Recovery Is Not as Close as Hyped by the Consensus Outlook

Negative Implications Here for the July 29th GDP Benchmarking

Chances Are Reduced for Moderating Extreme Monetary and Fiscal Policies

Evolving Circumstances Remain Extremely Strong for Gold and Silver, and Weak for the
U.S. Dollar and Stocks, Despite Central Bank or Other Systemic Machinations to the Contrary

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Note to Subscribers

2021 INDUSTRIAL PRODUCTION BENCHMARK REVISIONS

After Two Years of Missing or Incomplete Industrial Production Benchmarkings, ... Catch-Up Benchmarking Suddenly Showed a Meaningful U.S. Recession Began in August 2018
With the Economy Now Sinking Sharply Into the March 2020 Pandemic Shutdown,
... the April 2020 Pandemic/Economic Trough Deepened by a Further 5.1% (-5.1%) in Revision
Outlook for Any Near-Term “Recovery” in the “Pandemic Collapsed” GDP Should Falter Quickly,
... Along With Likely Downside Revisions in the July GDP Benchmarking
Extreme Monetary and Fiscal Policies Likely Will Be Expanded, Not Curtailed

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Politically, It Is Better for Government Statisticians to Err on the Positive Side

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Did Missing Federal Reserve Benchmarkings Distort Economic Perceptions?
2021 Industrial Production Benchmarking Was the First Normal Benchmarking Since 2018
Note to Subscribers

Today’s ShadowStats Flash Commentary, Issue No. 1460a reviews and graphs Friday’s (May 28th) meaningful Benchmark Revisions to the Industrial Production series. The new numbers have downside implications for the pending July 29, 2021 annual Gross Domestic Product (GDP) benchmark revisions, and they are part of an unfolding pattern of data releases confirming understated economic-and Pandemic-collapsed activity, and overhyped prospects for a full, near-term economic recovery. Consider that better-quality indicators than headline GDP are signaling levels of economic distress usually not seen outside of deep economic depressions. The review of the extensive Industrial Production data revisions and related issues has taken longer than expected; hence the split

Commentary. ShadowStats Economic Commentary, Issue No. 1460b also is in preparation this Memorial Day Weekend and should post within the week. I put out today’s No. 1460a separately, given the importance of the new numbers and potential implications for the markets and pending Fiscal and Monetary policies. The ShadowStats’ publication schedule remains fluid, but it is updated regularly in the DAILY UPDATE section, right-hand column of the www.ShadowStats.com home page, along with the ShadowStats’ assessments of the latest economic and financial-system information. Stories there often preview material in the Commentaries.

Your questions and comments always are welcomed. Please call or e-mail me any time. Leave a message if your call goes to Voicemail. I shall be back to you.

John Williams (707) 763-5786, johnwilliams@shadowstats.com
2021 INDUSTRIAL PRODUCTION BENCHMARK REVISIONS

After Two Years of Missing or Incomplete Industrial Production Benchmarkings, Catch-Up Benchmarking Suddenly Showed a Meaningful U.S. Recession Began in August 2018

With the Economy Now Sinking Sharply Into the March 2020 Pandemic Shutdown, the April 2020 Pandemic/Economic Trough Deepened by a Further 5.1% (-5.1%) in Revision

Outlook for Any Near-Term “Recovery” in the “Pandemic Collapsed” GDP Should Falter Quickly, Along With Likely Downside Revisions in the July GDP Benchmarking

Extreme Monetary and Fiscal Policies Likely Will Be Expanded, Not Curtailed

In context of today’s Opening Headlines and sharply negative Annual Benchmark Revisions to Industrial Production and other series, major downside Annual Benchmark Revisions likely loom for Gross Domestic Product (GDP) activity on July 29th. As we expected, the May 28th annual benchmarking of the Industrial Production series by the Federal Reserve Board (FRB) was strongly negative, with downside implications for the Gross Domestic Product (GDP) annual benchmarking on July 29th, as also discussed recently in the DAILY UPDATE on the www.shadowstats.com home page.

Business activity leading into the Pandemic Shutdown of the U.S. Economy was more greatly damaged in aggregate impact than previously reported. The FRB’s revisions showed the level of full annual 2020 Production activity to be lower by 4.8% (-4.8%) than previously reported, reflected in downside revisions of 4.3% (-4.3%) to the dominant Manufacturing sector, 7.7% (-7.7%) to the Mining sector (including Oil and Gas production) and 0.2% (-0.2%) to the randomly volatile Utilities sector on parallel bases. Comparative plots of the revised versus prior reporting are provided in accompanying Graphs 1 to 10.

Where most of the downside revisions to Production were pre-Pandemic, with headline economic activity turning into a recessionary downtrend in August 2018, they also deepen the Pandemic-driven economic trough and path to economic recovery. Previously (May 14th), the Census Bureau published major downside benchmark revisions to Manufacturers’ Shipments, Inventories and Orders (2013-2020), including nominal New Orders for Durable Goods (NODG), which were revised lower by 5.5% (-5.5%) for 2020 (see Graph 12). Sum and substance of these headline revisions, is that the Pandemic-Driven Collapse of the U.S. Economy was much worse than headlined, due particularly to a previously deepening Recession into the Pandemic Collapse, where the Recovery from same now is far shy of where it had been hyped in current GDP reporting (again which likely will revise lower, come July 29th). Underlying economic reality remains much closer to the ongoing Depression level of activity reflected in headline Payroll Employment.

The paradigm shift with the likely GDP benchmarking (the Pandemic economic shutdown was deeper than previously estimated, with the unfolding recovery weaker than previously estimated) was of enough
economic significance to get some details out to our readers ahead of the full coverage of the broad monthly economic and financial number, which follow in the full Economic Commentary No. 1460b.

**Benchmarking Impact on Near-Term Monthly and Annual Production Activity.** Here is how the near-term headline monthly Industrial Production measures came through with the May 14th initial headline and the May 28th annual benchmarking. In the context of the headline seasonally adjusted April 2021 and March 2021 Industrial Production levels revising lower respectively by 4.25% (-4.25%) and 4.13% (-4.13%), April Industrial Production gained a revised 0.55% [previously 0.67%] in the month, versus a revised 2.16% [previous 2.42%] in March. Year-to-year, April 2021 gained a revised 17.59% [previously 16.49%], versus a revised 1.05% [previously 0.67%] in March. Where those year-to-year April 2021 numbers were bloated against collapsing April 2020 activity, April 2021 change against the Pre-Pandemic high of February 2020 was a decline of 3.17% (-3.17%) [previously 2.73% (-2.73%)]. In like manner, March 2021 change against that same Pre-Pandemic high of February 2020 was a decline of 2.81% (-2.81%) [previously 3.37% (-3.37%)]. Again, monthly graphs and further detail follow in No 1460b.

The following Revision Tables and Graphs lay out what just happened to Industrial Production, and by implication, the GDP.
# REVISION TABLE AND GRAPHS

## Downside Implications for the July 29th GDP Benchmark Revisions

*Table - 2021 Industrial Production Benchmark Revisions and Business Cycle Implications* summarizes the headline annualized quarterly and annual growth rates for Industrial Production, both before and after the benchmark revisions, against the headline annualized quarterly and annual growth rates for pre-benchmarking, inflation-adjusted Real GDP.

Quarterly and annual contractions are highlighted in yellow. Periods of currently recognized Recession are highlighted in gray. Where there are new or extended periods of contraction on the Production side, such offers the potential of downside revisions or extended recession estimates on the GDP side that are not already in contraction.

*Graphs 1 to 10* reflect comparisons of the new headline, benchmarked and prior Industrial Production numbers (*FRB Industrial Production Revisions* of May 28, 2020), through April 2021 (with a headline Index Base of 2017 = 100, reset to 2007 = 100), with the pre-benchmarking numbers last published May 14th, through April 2021 (with an Index Base of 2012 =100, reset to 2007 = 100). These graphs reflect both sets of numbers reset by ShadowStats to be comparable, and, again, with an Index Base reset of December 2007 = 100, for comparison purposes. The first ten graphs show both longer- and shorter-term time scales for Industrial Production, Manufacturing, Mining, Utilities and Capacity Utilization. *Graph 11* plots the various historical benchmark revisions to Manufacturing, while *Graph 12* plots the recently benchmarked New Orders for Durable Goods, which went through a downside revisions parallel to and leading the release of downside Production revisions.

[The Revisions Table and Graphs 1 to 12 begin on the next page]
### Table I: 2021 Industrial Production Revisions and GDP/Business Cycle Implications

#### Annualized Real Quarter-to-Quarter Change

Quarter-to-Quarter Contractions Are Highlighted in Yellow, Formal Recessions in Gray

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Industrial Production</th>
<th>Gross Domestic Product</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2021</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benchmark</td>
<td>Prior</td>
</tr>
<tr>
<td>2018.3</td>
<td>3.39%</td>
<td>5.16%</td>
</tr>
<tr>
<td>2018.4</td>
<td>-0.10%</td>
<td>3.87%</td>
</tr>
<tr>
<td>2019.1</td>
<td>-3.64%</td>
<td>-1.93%</td>
</tr>
<tr>
<td>2019.2</td>
<td>-2.32%</td>
<td>-2.25%</td>
</tr>
<tr>
<td>2019.3</td>
<td>-0.04%</td>
<td>1.13%</td>
</tr>
<tr>
<td>2019.4</td>
<td>-2.57%</td>
<td>0.37%</td>
</tr>
<tr>
<td>2020.1</td>
<td>-6.65%</td>
<td>-6.78%</td>
</tr>
<tr>
<td>*2020.2</td>
<td>-42.42%</td>
<td>-42.62%</td>
</tr>
<tr>
<td>2020.3</td>
<td>44.49%</td>
<td>43.33%</td>
</tr>
<tr>
<td>2020.4</td>
<td>8.29%</td>
<td>9.48%</td>
</tr>
<tr>
<td>2021.1</td>
<td>2.83%</td>
<td>1.17%</td>
</tr>
</tbody>
</table>

*In context of earlier revisions, the level of the Second-Quarter 2020 (2020.2) trough revised lower by 4.47% (-4.47%), with the level of the April 2020 monthly trough revising lower by 5.14% (-5.14%).

#### Real Year-to-Year Change by Quarter

Year-to-Year Contractions Are Highlighted in Yellow, Formal Recessions in Gray

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Industrial Production</th>
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<tbody>
<tr>
<td></td>
<td>2021</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benchmark</td>
<td>Prior</td>
</tr>
<tr>
<td>2018.3</td>
<td>4.07%</td>
<td>4.87%</td>
</tr>
<tr>
<td>2018.4</td>
<td>2.68%</td>
<td>3.96%</td>
</tr>
<tr>
<td>2019.1</td>
<td>1.18%</td>
<td>2.87%</td>
</tr>
<tr>
<td>2019.2</td>
<td>-0.70%</td>
<td>1.15%</td>
</tr>
<tr>
<td>2019.3</td>
<td>-1.53%</td>
<td>0.17%</td>
</tr>
<tr>
<td>2019.4</td>
<td>-2.15%</td>
<td>-0.68%</td>
</tr>
<tr>
<td>2020.1</td>
<td>-2.92%</td>
<td>-1.93%</td>
</tr>
<tr>
<td>2020.2</td>
<td>-14.94%</td>
<td>-14.16%</td>
</tr>
<tr>
<td>2020.3</td>
<td>-6.73%</td>
<td>-6.34%</td>
</tr>
<tr>
<td>2020.4</td>
<td>-4.24%</td>
<td>-4.28%</td>
</tr>
<tr>
<td>2021.1</td>
<td>-1.89%</td>
<td>-2.30%</td>
</tr>
</tbody>
</table>

**2021.1 **-4.00% -3.57% **-0.86%

** Year-to-year change in 2021.1 was bloated against collapsing 2020.1. Accordingly, ShadowStats uses the 2019.4 Pre-Pandemic Peak (PPP) measure for comparison. Recovery of PPP Activity usually marks the timing for the onset of an economic recovery.
Graph 1: April 2021 Annual Benchmark Revisions to Industrial Production (January 2000 to Date)

U.S. Industrial Production
2021 Annual Benchmark Revisions (January 2000 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed

Graph 2: April 2021 Annual Benchmark Revisions to Industrial Production (January 2016 to Date)

U.S. Industrial Production
2021 Annual Benchmark Revisions (January 2016 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed
Graph 3: April 2021 Annual Benchmark Revisions to Manufacturing (January 2000 to Date)

Manufacturing Sector of U.S. Industrial Production
2021 Annual Benchmark Revision (January 2000 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed

Graph 4: April 2021 Annual Benchmark Revisions to Manufacturing (January 2016 to Date)

Manufacturing Sector of U.S. Industrial Production
2021 Annual Benchmark Revision (January 2016 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed
Graph 5: April 2021 Annual Benchmark Revisions to Mining (January 2000 to Date)

Mining Sector of U.S. Industrial Production
2021 Annual Benchmark Revision (January 2000 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed

Graph 6: April 2021 Annual Benchmark Revisions to Mining (January 2016 to Date)

Mining Sector of U.S. Industrial Production
2021 Annual Benchmark Revision (January 2014 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed
**Graph 7: April 2021 Annual Benchmark Revisions to Utilities (January 2000 to Date)**

Utilities Sector of U.S. Industrial Production
2021 Annual Benchmark Revision (January 2000 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed

**Graph 8: April 2021 Annual Benchmark Revisions to Utilities (January 2016 to Date)**

Utilities Sector of U.S. Industrial Production
2021 Annual Benchmark Revision (January 2016 to April 2021)
December 2007 = 100, Sources: ShadowStats, FRB, St Louis Fed
Graph 9: April 2021 Annual Benchmark Revisions to Capacity Utilization (January 2000 to Date)

Capacity Utilization—U.S. Industrial Production
2021 Annual Benchmark Revisions (January 2000 to April 2021)
Sources: ShadowStats, FRB, St Louis Fed

Graph 10: April 2021 Annual Benchmark Revisions to Capacity Utilization (January 2016 to Date)

Capacity Utilization—U.S. Industrial Production
2021 Annual Benchmark Revisions (January 2016 to April 2021)
Sources: ShadowStats, FRB, St Louis Fed
Annual Economic Revisions Usually Are Negative

Politically, It Is Better for Government Statisticians to Err on the Positive Side

For Job Stability in the Reporting of Politically Sensitive Economic Numbers, It Is Better to Overstate Than to Understate Economic Growth. A review of following Graph 11 of Historical Annual Revisions to Manufacturing will show that the FRB’s annual revisions invariably have been to the downside, except for 2019, when new Manufacturing data were not available. Most commonly, that pattern of downside benchmark revisions is seen in the causal benchmarkings of regularly published and politically sensitive economic numbers out of the Federal Government’s statistical agencies, numbers that also feed into the Federal Reserve’s Index of Industrial Production.

Graph 11: Historical Annual Benchmark Revisions to Manufacturing (2015 to 2021)

Some years back, I asked an individual handling the annual benchmarking process for a major, market moving and politically sensitive government economic series, as to why activity in those numbers invariably revised lower. The answer was that politically, it was safer, much better to revise lower, having overstated economic growth, rather than to revise higher, having understated economic growth. Political bosses needed any good, or exaggerated good news in the present, not once they had been voted out of office. Watch for some likely downside revisions in the July 29, 2021 Annual GDP Benchmarking, in context of the recent, major downside revisions to New Orders for Durable Goods (see Graph 12 on the next page) and to Industrial Production (see Graphs 1 to 10 beginning page 8), with expanded detail pending in Commentary No. 1460b. Also, see Special Commentary No. 885, entitled Numbers Games that Statistical Bureaus, Central Banks and Politicians Play.
Did Missing Federal Reserve Benchmarkings Distort Economic Perceptions?

2021 Industrial Production Benchmarking Was the First Normal Benchmarking Since 2018

Missing/Incomplete 2019/2020 Manufacturing Benchmark Revisions. The primary issue with the 2019 Benchmarking was the lack of availability of the scheduled Economic Census, which was delayed by Government Shutdown. As the Discussed in Bullet Edition No. 3 of March 15th [2019], and per the Federal Reserve statistical release of that date (with emphasis added), data for the dominant Manufacturing Sector was not updated:

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

There was no 2020 Industrial Production Benchmarking, although it was discussed as early as January 2020:

Revision of Industrial Production and Capacity Utilization

The Federal Reserve Board plans to issue its annual revision to the indexes of industrial production (IP) and the related measures of capacity utilization in the summer of 2020. New annual benchmark data for manufacturing for 2017 and 2018 will be incorporated, as well as other annual data, including information on the mining of metallic and nonmetallic minerals (except fuels). The weights for market-group splits of the industry-level indexes will be updated with information from the 2012 benchmark input-output.
accounts from the Bureau of Economic Analysis. The updated IP indexes will include revisions to the monthly indicator (either product data or input data) and to seasonal factors for each industry. In addition, the estimation methods for some series may be changed. Any modifications to the methods for estimating the output of an industry will affect the index from 1972 to the present.

Capacity and capacity utilization will be revised to incorporate data for manufacturing through the fourth quarter of 2019 from the Census Bureau's Quarterly Survey of Plant Capacity, along with new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.

The timing continued to be shifted, to second half of 2020, to early 2021, to first half of 2021 and was published May 27, 2021.

Would publication of the missed Federal Reserve Board Benchmark Revisions have led to a better understanding of recent and current Economic Circumstances? Looking at Graph 11, the drop in the plot of activity from the prior data to the 2021 benchmarking is unusually large, which suggests that the missing revisions might have been to the downside in more gradual increments. Nonetheless, other underlying indicators always have been available, and suggestions of a weaker, underlying economic reality have been evident all along, as suggested in the regular ShadowStats writings.

Annual Manufacturing Benchmarking Resumes. The Federal Reserve Board’s May 14, 2021 Announcement:

Revision of Industrial Capacity and Utilization

The Federal Reserve Board plans to issue its annual revision to the indexes of industrial production (IP) and the related measures of capacity utilization at noon (EDT) on May 28, 2021. The base year for the revised indexes will be 2017. New annual benchmark data for manufacturing for 2017 through 2019 will be incorporated, as well as other annual data, including information on the mining of metallic and nonmetallic minerals (except fuels). The weights for market-group splits of the industry-level indexes will be updated with information from the 2012 benchmark input-output accounts from the U.S. Bureau of Economic Analysis. The updated IP indexes will include revisions to the monthly production indicator (either product data or input data) and to seasonal factors for each industry. In addition, the estimation methods for some series may be changed. Any modifications to the methods for estimating the output of an industry will affect the index from 1972 to the present.

Capacity and capacity utilization will be revised to incorporate data for manufacturing through the fourth quarter of 2020 from the U.S. Census Bureau's Quarterly Survey of Plant Capacity Utilization, along with new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.

Note. The statistics in this release cover output, capacity, and capacity utilization in the U.S. industrial sector, which is defined by the Federal Reserve to comprise manufacturing, mining, and electric and gas utilities. Mining is defined as all industries in sector 21 of the North American Industry Classification System (NAICS); electric and gas utilities are those in NAICS sectors 2211 and 2212. Manufacturing comprises NAICS manufacturing industries (sector 31-33) plus the logging industry and the newspaper, periodical, book, and directory publishing industries. Logging and publishing are classified elsewhere in NAICS (under agriculture and information respectively), but historically they were considered to be manufacturing and were included in the industrial sector under the Standard Industrial Classification (SIC) system. In December 2002 the Federal Reserve reclassified all its industrial output data from the SIC system to NAICS.

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