Table 9a. U.S. Macroeconomic Indicators and CO2 Emissions

U.S. Energy Information Administration | Short-Term Energy Outlook - October 2022

	2021				2022				2023				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2012 dollars - SAAR)	**19,056**	**19,368**	**19,479**	**19,806**	**19,728**	**19,699**	**19,757**	*19,832*	*19,900*	*19,974*	*20,058*	*20,142*	**19,427**	*19,754*	*20,019*
Real Personal Consumption Expend.															
(billion chained 2012 dollars - SAAR)	**13,283**	**13,666**	**13,732**	**13,818**	**13,881**	**13,932**	**13,986**	*14,072*	*14,120*	*14,182*	*14,241*	*14,299*	**13,625**	*13,968*	*14,211*
Real Private Fixed Investment															
(billion chained 2012 dollars - SAAR)	**3,564**	**3,593**	**3,585**	**3,609**	**3,674**	**3,632**	**3,568**	*3,546*	*3,541*	*3,549*	*3,562*	*3,576*	**3,588**	*3,605*	*3,557*
Business Inventory Change															
(billion chained 2012 dollars - SAAR)	**-94**	**-174**	**-60**	**249**	**238**	**131**	**68**	*83*	*93*	*64*	*58*	*57*	**-20**	*130*	*68*
Real Government Expenditures															
(billion chained 2012 dollars - SAAR)	**3,391**	**3,374**	**3,382**	**3,359**	**3,334**	**3,319**	**3,313**	*3,327*	*3,354*	*3,367*	*3,379*	*3,392*	**3,376**	*3,323*	*3,373*
Real Exports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**2,262**	**2,304**	**2,273**	**2,391**	**2,361**	**2,459**	**2,526**	*2,539*	*2,551*	*2,560*	*2,576*	*2,601*	**2,308**	*2,471*	*2,572*
Real Imports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**3,488**	**3,549**	**3,590**	**3,741**	**3,906**	**3,933**	**3,885**	*3,914*	*3,937*	*3,928*	*3,940*	*3,965*	**3,592**	*3,909*	*3,943*
Real Disposable Personal Income															
(billion chained 2012 dollars - SAAR)	**17,219**	**15,807**	**15,641**	**15,462**	**15,152**	**15,130**	**15,156**	*15,252*	*15,655*	*15,698*	*15,837*	*15,994*	**16,032**	*15,173*	*15,796*
Non-Farm Employment															
(millions)	**143.7**	**145.2**	**146.9**	**148.6**	**150.4**	**151.6**	**152.7**	*153.4*	*153.6*	*153.7*	*153.7*	*153.6*	**146.1**	*152.0*	*153.6*
Civilian Unemployment Rate															
(percent)	**6.2**	**5.9**	**5.1**	**4.2**	**3.8**	**3.6**	**3.6**	*3.6*	*3.5*	*3.6*	*3.7*	*3.8*	**5.4**	*3.6*	*3.7*
Housing Starts															
(millions - SAAR)	**1.58**	**1.59**	**1.57**	**1.68**	**1.72**	**1.65**	**1.47**	*1.44*	*1.39*	*1.37*	*1.36*	*1.36*	**1.61**	*1.57*	*1.37*
Industrial Production Indices (Index, 2017=100)															
Total Industrial Production	**98.1**	**99.7**	**100.5**	**101.7**	**102.9**	**104.2**	**104.7**	*105.1*	*105.3*	*105.5*	*105.9*	*106.2*	**100.0**	*104.2*	*105.7*
Manufacturing	**96.9**	**98.3**	**99.2**	**100.6**	**101.5**	**102.5**	**102.6**	*102.8*	*102.9*	*103.2*	*103.6*	*103.9*	**98.8**	*102.4*	*103.4*
Food	**104.5**	**103.3**	**102.0**	**103.5**	**105.5**	**105.1**	**103.9**	*104.5*	*104.6*	*105.0*	*105.4*	*105.7*	**103.3**	*104.7*	*105.2*
Paper	**95.0**	**96.0**	**96.0**	**95.2**	**96.4**	**97.4**	**96.2**	*95.2*	*95.0*	*95.0*	*95.1*	*95.2*	**95.5**	*96.3*	*95.1*
Petroleum and Coal Products	**86.0**	**92.3**	**93.5**	**96.0**	**94.2**	**94.0**	**93.4**	*92.2*	*92.1*	*91.9*	*92.0*	*92.0*	**92.0**	*93.5*	*92.0*
Chemicals	**94.3**	**101.1**	**101.2**	**102.6**	**102.4**	**103.4**	**104.3**	*104.2*	*104.5*	*105.0*	*105.6*	*105.9*	**99.8**	*103.6*	*105.2*
Nonmetallic Mineral Products	**97.8**	**96.0**	**97.3**	**99.1**	**102.9**	**103.4**	**104.3**	*103.6*	*102.7*	*102.5*	*102.4*	*102.7*	**97.5**	*103.5*	*102.6*
Primary Metals	**93.0**	**96.6**	**98.3**	**98.7**	**95.6**	**97.5**	**96.9**	*96.5*	*97.2*	*97.9*	*98.9*	*99.5*	**96.6**	*96.6*	*98.4*
Coal-weighted Manufacturing (a)	**91.1**	**94.9**	**95.5**	**96.6**	**96.2**	**96.9**	**96.7**	*96.1*	*96.2*	*96.5*	*96.8*	*97.1*	**94.5**	*96.5*	*96.6*
Distillate-weighted Manufacturing (a)	**100.9**	**102.2**	**102.7**	**104.2**	**105.7**	**106.1**	**106.0**	*105.6*	*105.2*	*105.1*	*105.2*	*105.4*	**102.5**	*105.9*	*105.2*
Electricity-weighted Manufacturing (a)	**93.1**	**96.4**	**96.5**	**97.6**	**98.0**	**98.8**	**98.7**	*98.6*	*98.8*	*99.1*	*99.6*	*99.9*	**95.9**	*98.5*	*99.4*
Natural Gas-weighted Manufacturing (a)	**88.8**	**94.6**	**94.1**	**95.2**	**95.2**	**95.7**	**95.4**	*95.2*	*95.3*	*95.7*	*96.1*	*96.3*	**93.1**	*95.4*	*95.9*
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	**2.64**	**2.69**	**2.73**	**2.78**	**2.85**	**2.92**	**2.96**	*2.99*	*3.01*	*3.02*	*3.04*	*3.07*	**2.71**	*2.93*	*3.04*
Producer Price Index: All Commodities															
(index, 1982=1.00)	**2.10**	**2.24**	**2.33**	**2.42**	**2.53**	**2.73**	**2.71**	*2.68*	*2.63*	*2.55*	*2.54*	*2.53*	**2.27**	*2.66*	*2.56*
Producer Price Index: Petroleum															
(index, 1982=1.00)	**2.00**	**2.36**	**2.55**	**2.72**	**3.16**	**4.20**	**3.55**	*3.05*	*2.90*	*2.85*	*2.83*	*2.82*	**2.41**	*3.49*	*2.85*
GDP Implicit Price Deflator															
(index, 2012=100)	**115.8**	**117.5**	**119.3**	**121.3**	**123.7**	**126.4**	**127.5**	*129.2*	*130.2*	*131.0*	*131.8*	*132.7*	**118.5**	*126.7*	*131.4*
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	**7,928**	**9,125**	**9,367**	**8,934**	**8,373**	**9,162**	**9,239**	*8,982*	*8,450*	*9,294*	*9,481*	*9,140*	**8,843**	*8,942*	*9,094*
Air Travel Capacity															
(Available ton-miles/day, thousands)	**537**	**597**	**658**	**667**	**656**	**686**	**733**	*699*	*680*	*700*	*733*	*722*	**615**	*694*	*709*
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	**245**	**340**	**372**	**376**	**356**	**419**	**406**	*376*	*364*	*408*	*411*	*386*	**334**	*389*	*392*
Airline Ticket Price Index															
(index, 1982-1984=100)	**198.4**	**243.3**	**218.5**	**210.0**	**225.6**	**328.7**	**287.8**	*277.4*	*242.6*	*298.2*	*280.6*	*265.7*	**217.5**	*279.8*	*271.8*
Raw Steel Production															
(million short tons per day)	**0.246**	**0.258**	**0.267**	**0.260**	**0.253**	**0.253**	**0.263**	*0.289*	*0.302*	*0.302*	*0.320*	*0.338*	**0.258**	*0.265*	*0.315*
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	**521**	**562**	**571**	**580**	**562**	**564**	**573**	*579*	*553*	*568*	*575*	*579*	**2,234**	*2,278*	*2,274*
Natural Gas	**485**	**353**	**373**	**426**	**508**	**372**	**390**	*444*	*498*	*356*	*372*	*441*	**1,637**	*1,714*	*1,667*
Coal	**256**	**229**	**307**	**210**	**245**	**216**	**278**	*217*	*222*	*198*	*270*	*204*	**1,002**	*956*	*894*
Total Energy (c)	**1,264**	**1,147**	**1,255**	**1,218**	**1,318**	**1,155**	**1,244**	*1,242*	*1,275*	*1,124*	*1,219*	*1,227*	**4,884**	*4,960*	*4,846*

(a) Fuel share weights of individual sector indices based on EIA *Manufacturing Energy Consumption Survey* .

(b) Total highway travel includes gasoline and diesel fuel vehicles.

(c) Includes electric power sector use of geothermal energy and non-biomass waste.

- = no data available

SAAR = Seasonally-adjusted annual rate

Notes: EIA completed modeling and analysis for this report on October 6, 2022.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal

Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System. U.S. macroeconomic forecasts are based on the S&P Global model of the U.S. Economy.