



International air passenger fares shrug off the recession

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Passenger fares for flights to and from the United States recently experienced a strong recovery after recording large decreases during the recent global recession. For the United States, the recent recession began in December 2007 and ended in June 2009.¹ After a decade of steady increases, the Bureau of Labor Statistics (BLS) Import and Export Air Passenger Fares Indexes declined sharply between the recession years 2008 and 2009. Following the recession, the industry has shown signs of recovery, with ticket prices increasing in the past 2 years. An analysis of the BLS international airfare indexes helps to shed some light on the factors that led to this rebound.²

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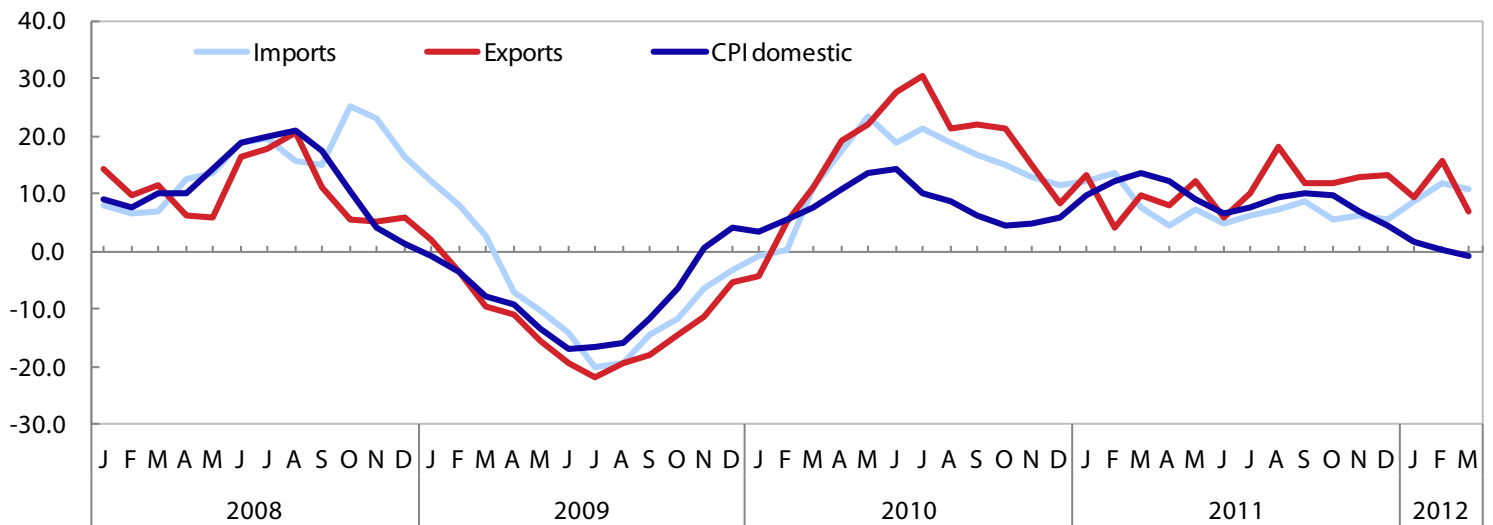
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- "How BLS Measures Price Change for Airline Fares in the Consumer Price Index," <http://www.bls.gov/cpi/cpifacaf.htm>.
- "Takeoff and descent of airline employment," *Monthly Labor Review*, October 2008, <http://www.bls.gov/opub/mlr/2008/10/art1full.pdf>.

Chart 1

Twelve-month percent changes in air passenger fares, January 2008–March 2012

Percent change



SOURCE: U.S. Bureau of Labor Statistics.

Import Air Passenger Fares Index tracks changes in the fares paid to foreign air carriers by U.S. residents, and the Export Air Passenger Fares Index tracks changes in the fares paid to U.S. carriers by foreign residents. These indexes were first published on a quarterly basis in the late 1980s; since March 2001, BLS has published the air passenger fares indexes on a monthly basis. The indexes also track airfares by region, such as Europe, Latin America, and Asia.

Price decline, 2008 through mid-2009

In early 2008, the United States was at the beginning of an 18-month recession that led to declining economic growth rates on a global level. As seen in chart 1, over this period, the BLS international airfares indexes recorded the steepest decline in prices that the industry had seen since the indexes were first published. Between July 2008 and July 2009, import and export airfares declined 20.1 percent and 21.8 percent, respectively. During this same period, there was similar movement in the Consumer Price Index (CPI) for airline fares, which measures domestic fares.³ The main drivers of the price decrease were fuel prices and slackening demand.

Air travel demand declined from mid-2008 to mid-2009 as a result of the widespread repercussions of the global economic recession. During the recession fewer

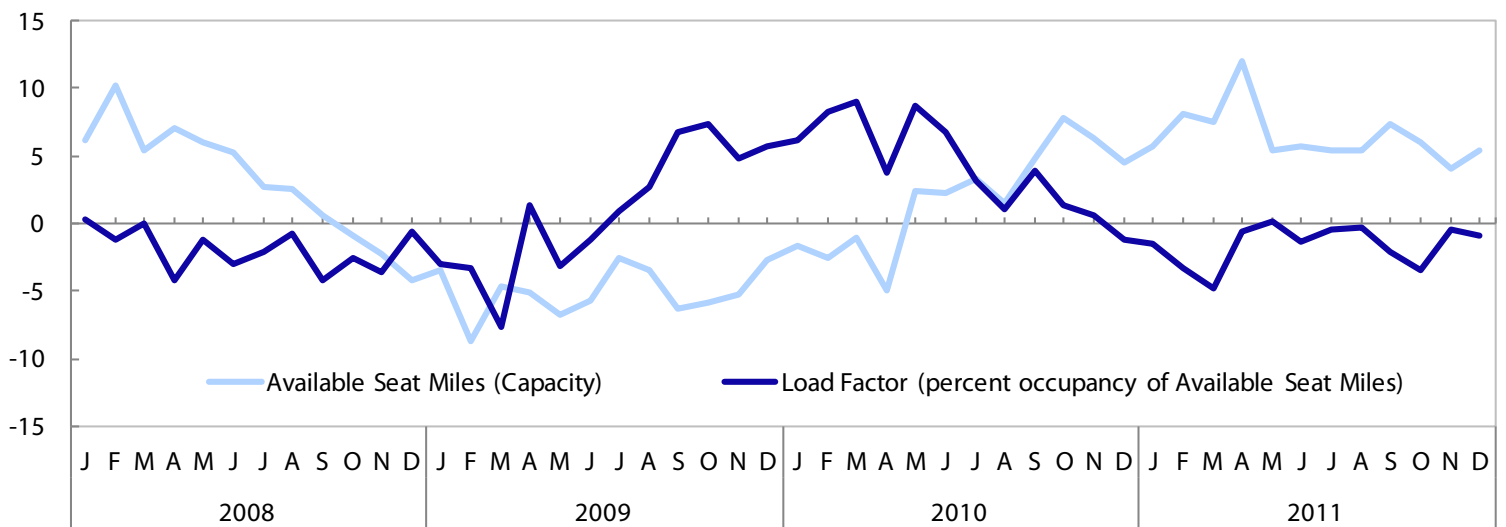
U.S. citizens purchased plane tickets for travel abroad; annualized U.S. citizen international departures started declining in June 2008.⁴ The broader world economy subsequently went into a recession soon after June, which led to a decrease in the number of international citizens flying into the United States.⁵ According to the International Air Transportation Association (IATA), global demand decreased 3.5 percent in 2009, the largest yearly global demand decline since World War II.⁶ In an effort to remain competitive, air carriers were forced to cut prices.

In addition to the decreased demand, airlines found that an imbalance had developed between air travel demand and capacity. Capacity could not be reduced as fast as demand declined. In fact, capacity was still increasing at the start of the recession. New planes that were ordered months before were just coming into service as the recession deepened. Chart 2 illustrates this concept with two measures of air passenger carrying capacity called Available Seat Miles and Load Factor. Available Seat Miles is a measure of the number of seats available multiplied by the number of miles flown. The Load Factor is the percentage of the available seats that are occupied. Over the first 6 months of 2008, the 12-month change in the monthly Available Seat Miles increased an average of 6.7

Chart 2

Capacity and percent occupancy, January 2008–December 2011

12-month percent change



SOURCE: U.S. Department of Transportation.

percent, while the 12-month change in the monthly Load Factor decreased an average of 1.5 percent. This indicates that while the number of seats available was still growing, the occupancy of those seats was declining.

In response to the surplus capacity, Available Seat Miles in the international air passenger market decreased 5.1 percent on average in 2009.⁷ The delayed response following the recession was a result of the slow nature of capacity reduction, a time-consuming process which is often done by means of reducing the number of scheduled flights, grounding older planes, and delaying orders of new planes.

Another factor responsible for the falling fares was lower fuel prices, which resulted in decreasing operating costs. Jet fuel is a volatile but significant cost for the air industry. At the start of the decade, fuel made up roughly 20 percent of operating expenses, but by mid-2008, fuel accounted for up to 40 percent of operating expenses.⁸ However, the contraction of the global economy in late 2008 led to a significant drop in fuel prices. The spot price of jet fuel decreased 60 percent between May 2008 and May 2009.⁹ As a result, air carriers were able to lower airfare prices in an effort to counteract the simultaneous dropoff in travel demand.

Price recovery, late 2009 through 2010

Following the recent recession, airfare prices began to rebound in late 2009. From May 2009 to May 2010, import air fares increased 23.3 percent, while export air fares rose 22.0 percent. Along with the economic recovery came a rebound in demand for air travel while capacity was still declining. IATA demand statistics reported that international air passenger traffic increased 8.2 percent in 2010. By December 2010, air travel volumes were higher than the prerecession highs.¹⁰ However, airlines were slow to increase the capacity needed to balance the demand growth. May 2010 was the first month with a year-over-year monthly capacity increase since September 2008. After the losses airlines had suffered during the global economic downturn, some carriers were more cautious in expanding fleet capacity. In addition, plane orders often take months to negotiate and fill, which further delayed capacity expansion. The year-over-year monthly Load Factor started growing as early as July 2009, signaling relatively more travel demand for the diminishing number of available seats.

In addition to demand and capacity imbalances, jet fuel prices increased substantially with the economic recovery and the cost increases contributed to higher air passenger fares. The average price of jet fuel in 2010 was 29 percent

higher than the average price in 2009. Some months saw changes that were even more extreme; jet fuel in March 2010 was 66 percent more expensive than jet fuel in March 2009.¹¹ The growth in demand, lagging capacity, and higher fuel prices combined to drive fares up.

Price stabilization, 2011 through first quarter 2012

Over the past 15 months, airfare price increases have been less extreme than during the recovery. Air passenger fares rose 5.2 percent for imports and 9.2 percent for exports between December 2010 and March 2012. In 2011, air travel demand continued to rise, increasing at a rate of 5.9 percent over the year.¹² However, European debt restructuring and fiscal austerity measures dimmed the outlook on the global economy in the latter half of the year, and tempered some of the demand growth.

In trying to address the capacity and demand imbalances described earlier between the Available Seat Miles and Load Factor, some airlines have increasingly turned to operating leases in which planes are rented on an as-needed basis.¹³ This renting strategy allows an airline to transfer some of the risk of an extended downturn to a leasing company, and it allows the airline to quickly expand capacity when the Load Factor increases. The industry hopes this approach to the Available Seat Miles and Load Factor imbalance will lead to more sustainable profits and less volatile airfares, breaking the boom-and-bust cycles of the past. However, short-term capacity growth still appeared to outpace demand in 2011, as International Available Seat Miles increased more than 6 percent and the international Load Factor had small declines. This combination likely dampened what would have been stronger price increases.¹⁴

Fuel prices were again a main cost factor that contributed to the upward trend in airfares in 2011. The average price in 2011 was 39 percent higher than in 2010. As 2011 came to a close, jet fuel prices were only about 26 percent lower than the record high reached in July 2008.

Summary

The past 4 years were extremely volatile for the airline industry. Demand, capacity dynamics, and fuel costs

played an important role in creating this volatility. The BLS Import and Export Air Passenger Fares Indexes have returned to higher levels since the steep fall in prices during the recession. Prices seem to have leveled off to a more stable growth trend in 2011. Past losses and the uncertain economic outlook have prompted air carriers to take a more cautious approach to capacity growth, while higher fuel costs and rising demand were two principal factors that forced air travel prices up with the economic recovery.

First Quarter 2012 Highlights

Import Prices

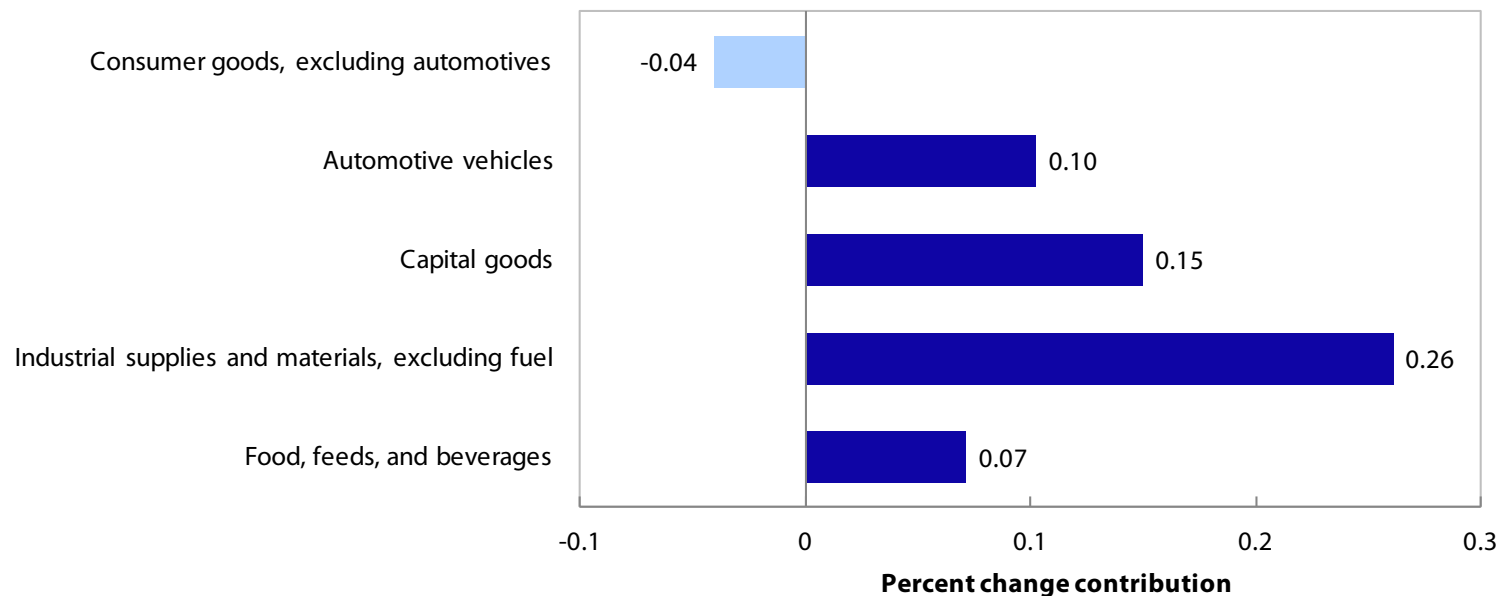
The price index for overall imports increased 1.3 percent in the first quarter of 2012, following a 0.4-percent advance in the fourth quarter of 2011. The increase in import prices was driven by a 3.6-percent rise in the index for imports of fuels and lubricants. Nonfuel imports also increased for the quarter, rising 0.6 percent. The movements of the indexes for overall imports, fuels and lubricants, and nonfuel imports were largely confined to March. During the first 2 months of the quarter there was little activity in any of the indexes.

Fuel Import Prices. The index for imports of fuels and lubricants increased 3.6 percent in the first quarter of 2012, after rising 2.3 percent during the fourth quarter of 2011. The quarterly increase was brought about by a 3.8-percent advance in fuel import prices during the month of March. The preceding 2 months were relatively uneventful; a minor decrease of 0.2 percent took place in January and the index remained unchanged in February.

The 4.7-percent advance in petroleum prices during the first quarter was the major contributor to the overall increase in the price index for fuels and lubricants. Prices remained unchanged in January then ticked up 0.4 percent in February. One factor driving the increase was positive economic news from the United States. In February, the government reported that the U.S. economy added 243,000 jobs in January, the largest monthly increase since April 2011, and the unemployment rate fell to 8.3 percent,

Chart 3

Major contributors to the 0.6-percent increase in import prices, excluding fuel



NOTE: Due to rounding, figures do not add to total.
SOURCE: U.S. Bureau of Labor Statistics.

the lowest rate in 3 years.¹⁵ The positive jobs data were seen as an indication that the United States, the world's largest consumer of petroleum, was starting to emerge from the economic slowdown of the previous 3 years. Petroleum prices rose 4.3 percent in March because of a number of factors. Continued positive economic news from the United States as well as an unexpected drop in U.S. oil inventories helped drive up prices. The U.S. Energy Information Administration reported that crude stockpiles fell 1.2 million barrels during the second week of March.¹⁶ The drop in inventory was taken as a sign of continued improvement in the U.S. economy. Escalating tension over Iran's nuclear program also contributed to the rise of petroleum prices. Western sanctions put in place to hinder Iran's nuclear program brought about a decline in Iranian oil exports of nearly 300,000 barrels per day, according to Geneva-based industry consultant Petrologistics.¹⁷

Natural gas prices moved in a markedly different direction than petroleum prices. Starting in January, the price index for natural gas declined each month of the quarter, falling 6.6 percent in January, 10.8 percent in February, and 14.2 percent in March, with a 28.5-percent overall decrease for the 3 months. Throughout the quarter, the major

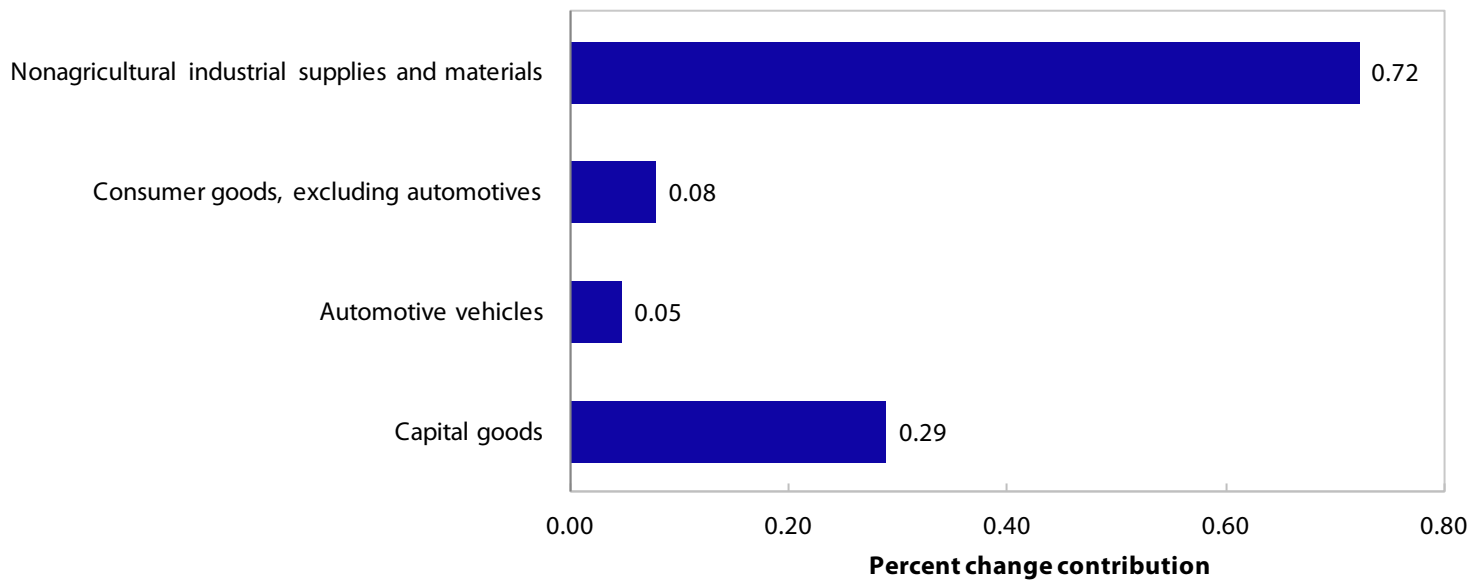
contributor to the declining price was an overabundance of supply. Prices fell to a 10-year low in March after domestic supply expanded 57 billion cubic feet.¹⁸ The U.S. Energy Information Administration reported that working natural gas in storage totaled 2,479 billion cubic feet at the end of March, which was 816 billion cubic feet greater than the 5 year maximum for the date.¹⁹

Nonfuel Import Prices. The price index for imports, excluding fuel, increased 0.6 percent over the first quarter of 2012, with the majority of the increase the result of a 0.5-percent advance in March. As seen in chart 3, rising prices for industrial supplies and materials, excluding fuel, drove the overall increase in nonfuel prices. The prices indexes for capital goods; automotive vehicles; and foods, feeds, and beverages also contributed, though to a much smaller extent.

The price index for industrial supplies and materials, excluding fuel, rose 1.5 percent during the quarter, falling 1.0 percent in January before advancing 0.9 percent and 1.7 percent, respectively, in February and March. Driving the index each month were price movements for gold and other precious metals. The January declines in gold and precious metals prices were brought about by the

Chart 4

Major contributors to the 1.1-percent increase in export prices, excluding agriculture



NOTE: Due to rounding, figures do not add to total.

SOURCE: U.S. Bureau of Labor Statistics.

strengthening of the U.S. dollar.²⁰ In February and March, prices rose as concerns over Europe's financial problems, a weakening U.S. dollar, and tension in the Middle East all made gold an attractive investment.

The other import price indexes had much less impact on the overall movement of imports excluding fuel. Capital goods prices increased 0.5 percent; automotive vehicles advanced 0.6 percent; and foods, feeds, and beverages prices rose 1.1 percent.

Export Prices

In the first quarter of 2012 the price index for overall exports increased 1.4 percent, following a 2.4-percent decrease in the final quarter of 2011. Prices for agricultural commodities increased 3.1 percent in the first quarter, after falling 7.2 percent the previous quarter, while nonagricultural exports advanced 1.1 percent between December and March, after falling 1.7 percent during the final quarter of 2011.

Agricultural Export Prices. The price index for agricultural exports increased 3.1 percent during the first quarter of 2012, due to a 2.7-percent advance in March and

an increase of 1.0 percent in January. Rising prices for soybeans and corn were responsible for the increases; concerns over the availability of both crops drove up prices in January. Soybean prices rose 6.3 percent and corn prices advanced 6.1 percent. Argentina, which accounts for almost 20 percent of the world's soybean exports, was affected by lack of rain in January, which left many areas in the country's corn and soybean belt parched by the sun and in a state of severe drought.²¹ In March the prices of soybeans and corn continued to rise. While drought in Argentina and Paraguay still had an effect on the market, soybean prices were driven higher by new concerns regarding domestic supply. Soybeans increased 8.3 percent and corn advanced 2.6 percent. A very mild spring in much of the Midwestern United States raised expectations that many farmers would sow corn instead of soybeans, as corn crops tend to be more productive than soybeans but require a longer growing season.²²

Nonagricultural Export Prices. The price index for nonagricultural exports increased 2.0 percent in the first quarter of 2012, following a 1.7-percent decrease in the previous quarter. As seen in chart 4, nonagricultural industrial supplies and materials was the primary

contributor to the index's movement. Consumer goods also contributed to the increase of nonagricultural exports, though to a lesser extent.

Nonagricultural industrial supplies and materials prices increased 1.1 percent during the first quarter. As was the case with imports, higher gold prices were a major contributor to the overall increase, although rising prices for steelmaking materials, other precious metals, chemicals, and plastic materials also were contributing factors.

The price index for capital goods increased 0.8 percent for the December–March period, the largest quarterly increase since an identical 0.8-percent increase for the second quarter of 2009. Consumer goods and automotive vehicles both rose 0.5 percent in the first quarter of 2012. ■

This **BEYOND THE NUMBERS** report was prepared by Edwin Bennion and Jon Ruder, economists in the Office of Prices and Living Conditions. Email: MXPinfo@bls.gov. Telephone: 202-691-7101.

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Notes

1. The start and end dates for the recessions are determined by the National Bureau of Economic Research, which is generally recognized as the arbiter of recessions in the United States.
2. BLS International Air Passenger Fare indexes are not seasonally adjusted.
3. The CPI air passenger fares index excludes business travel.
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