

▶▶▶ RISKS TO THE FORECAST

The FAA is “cautiously optimistic” that its current outlook for aviation demand and activity can be achieved. However, this year’s forecast is driven, at least in the short-term, by a number of factors including security and pandemic illnesses, as well as the strength of the economic recovery and the weakened financial health of the commercial aviation industry. As the attempted bombing of a Northwest airliner on Christmas Day 2009 reminds us, terrorism remains among the greatest risks to achieving the forecast. Because of aviation’s high visibility and global reach, concerns remain about international terrorism. Any terrorist incident aimed at aviation would have an immediate and significant impact on the demand for aviation services.

During 2009 there was much discussion about the possible impacts of the H1N1 or swine flu virus. As of January 2010 there had not been a widespread serious outbreak of the virus in the U.S. However, events in Mexico during the spring of 2009 provide some evidence of the damaging impacts that such an event could inflict. When a severe outbreak of the H1N1 virus broke out in Mexico, authorities quickly moved to place severe limits on aviation. Airlines responded by slashing capacity in the face of falling demand, and not until well after the restrictions and warnings on travel were lifted did carriers begin to cautiously restore service to the region.

Although oil prices were considerably lower in 2009 than they were for much of 2008, there is still considerable uncertainty as to the level of oil prices once economic growth resumes. FAA’s baseline forecast (based on Global Insight’s Oct 2009 forecast) calls for steady increases in oil prices after 2009. The increases are relatively modest, with the price of oil only exceeding \$100/barrel after 2025. Some forecasters are calling for a much sharper increase in the price of oil. The U.S. Energy Information Administration (EIA) in its 2010 Annual Energy Outlook is projecting oil prices to exceed \$100/barrel by 2015-2016. While lower oil prices give consumers an impetus for additional spending, including air travel, and increases the chances for industry profitability, higher oil prices could lead to further shifts in consumer expenditures away from aviation, dampening a recovery in air transport demand. Furthermore, higher oil prices, especially in the near term, could wipe out any chance of industry profitability, continue to pressure airline costs, delay balance sheet improvement and discourage expansion plans or new orders for aircraft as carriers focus on maintaining and increasing cash balances.

Recent data suggests that the global economy has begun to grow again, but the data also indicate that the growth is concentrated in a relatively few countries. As a result, the ensuing economic recovery may not be a balanced one and there is considerable doubt about the strength and sustainability of the expansion. The baseline forecast assumes that growth in the U.S. and China will be significantly higher than in the other large economies – Japan and the European Union. Doubts remain over the strength of demand in both Japan and in the European Union as these areas continue to be constrained by structural economic problems, institutional constraints, and the authorities’ reluctance to take decisive action. Furthermore the steps that were taken to turn the global economy around may prove to be excessive, since the resulting surge in liquidity growth seems to be inflating asset bubbles and exacerbate existing global imbalances. Once the global economy recovers from the current downturn, there could be an increasing risk from asset bubbles and macroeconomic imbalances, which could end up in a deeper, more prolonged, and less manageable recession and financial crisis. The current forecasts assume strong passenger growth for travel between the United States and other world regions. Any slowing of global economic activity could seriously inhibit the growth in world passenger demand.

The outlook for further consolidation via mergers and acquisition (M&A) appears to be rather limited. Although there is still talk in the industry about the benefits of consolidation, aside from Delta/Northwest merger and the Continental/United alliance there appears to be little scope for further mergers in the US airline industry. Continued tightness in the credit markets has reduced the ability of the industry to finance additional mergers. However, US airlines are exploring other options including global alliances. Many of the major carriers in the US are members of global alliances that operate with some measure of anti-trust immunity from the US DOT. While anti-trust immunity may provide flexibility to airline operators across borders, it may create an anti-competitive environment in the marketplace. These market consolidating vehicles, particularly the anti-trust immunity provisions, may invite increased regulatory scrutiny. If such oversights are launched in the future, this will complicate the evolving structure of the airline industry and may impact demand via new regulations.

The forecast assumes the addition of sizable numbers of regional jets into the fleet of regional carriers. However, the regional carriers' future is closely linked to those of the larger network carriers. As demand continues to slowly recover, increased financial pressures on regional operators have appeared. Furthermore, if a large network carrier should cease to exist (because of financial difficulties or merger), certain regional carriers could find themselves either saddled with excess capacity or lack of sufficient capacity, or lack of feed traffic. The experience of the Delta and Northwest bankruptcies saw opportunities for regional flying substantially reduced.

Business and corporate aviation witnessed a significant downturn in 2009. The length of the slow down and the terms of a recovery are largely based upon the future prospects of economic growth and corporate profits. Future uncertainty in these leading indicators could pose a risk to the forecast, but the risk is not limited to these factors. Public perception of business and corporate aviation, potential environmental regulations and taxes, along with increased security measures placed on business jets, will place downward pressure on the forecast.

Other factors, such as new and more efficient product offerings and increased competition from new entrant manufacturers, serve to broaden the potential of the industry. Estimates show that a record number of new business jet deliveries are overseas and, with the potential of loosening regulations on the use of airspace in foreign countries, the scenario for business jet manufacturers looks all the more promising. Raising the amount of security restrictions, and subsequent travel hassles placed on airline passengers, could make corporate jet travel increasingly appealing. A combination of some of these favorable factors may reach a tipping point, leading to a large on-demand air taxi industry. Although acknowledging the possibility of such an outcome, given recent trends and the large amount uncertainty, the FAA takes a more conservative view on the future prospects of such an industry.

The mix of aircraft operating at most large hubs is also expected to become increasingly complex over the forecast period. The expected increases in the numbers of regional jets and business jets will increase the complexities of the national airspace system and make the FAA's job more challenging. The increased complexity of the mix of aircraft serves to compound the increases in workload strictly due to the increasing demand for aviation services projected over the forecast period.

Although activity at most U.S. airports fell in 2009, delays remained at historically high levels at many U.S. airports and at four airports (ATL, CLT, DEN, and PHL) delays reached record levels. As demand recovers and workload increases, congestion and delays could become a critical limit to growth over the forecast period. FAA's forecasts of both demand and workload are unconstrained in that they assume that there will be sufficient infrastructure to handle the projected levels of activity. Should the infrastructure be

inadequate and result in even more congestion and delays, it is likely that the forecasts of both demand and workload would not be achieved. The Department of Transportation and the FAA are examining a number of options to manage congestion, but the specific measures to be implemented and therefore their impact are unknown at this time.

There are concerns that aviation's impact on the environment could potentially restrict the ability of the aviation sector to grow to meet national economic and mobility needs. Airport expansion or new construction is often a contentious issue because of noise, air quality, and water quality concerns. Concerns about the climate impacts of aviation emissions are also growing. Although aviation currently accounts for 2 to 3 percent of climate change impacts, greenhouse emissions from the sector are expected to grow unless aggressively mitigated with new technology, renewable fuels, operational improvements and market measures. Market measures intended to control emissions, e.g., various emissions trading systems and charges being discussed, would add significant costs to the aviation sector that could effectively reduce available funds for needed investments in new technology. Energy concerns are also rising, driven by spikes in fuel prices, supply and security issues, and the concerns about fossil fuel contributions to global climate change. Lack of progress on improving the environmental and energy outlook for the future fleet can drive more restrictions via standards or operating limitations on the fleet in service, which in turn can depress growth. By contrast, breakthroughs in quieter, cleaner aircraft technologies and renewable fuels could reduce environmental and energy constraints on the forecast.