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Aviation Finance: Observations on the Effects of Budget Uncertainty on FAA

Information for Congressional Staff

Committee on Transportation and Infrastructure

Subcommittee on Aviation

House of Representatives

Updated

Introduction

- Since 2007, the Federal Aviation Administration (FAA) has operated and overseen the nation's aviation system amid ongoing budget uncertainty due to a protracted reauthorization process and, as with other federal agencies, timing issues associated with the budget and appropriations process.
- FAA has indicated that budget uncertainty has made it difficult for the agency to make long-term plans for operating and managing the National Airspace System (NAS).
- GAO has previously reported (GAO-14-770) that aviation stakeholders are concerned that budget uncertainty makes it difficult for FAA to operate the aviation system and implement NextGen simultaneously. Some aviation stakeholders cite budget uncertainty as a justification for the restructuring of FAA's Air Traffic Organization (ATO).

Research Questions

You requested that we examine the effects of budget uncertainty on FAA. Budget uncertainty, as used in this briefing, pertains to the timing of authorizations and appropriations. This briefing provides information on the following:

1. What is known about how past budget uncertainty has affected FAA's operations?
2. How has past budget uncertainty affected NextGen implementation?
3. How has FAA addressed budget uncertainty?
4. What lessons could be learned from efforts by other federal agencies to mitigate the effects of budget uncertainty?
5. What are some potential alternative funding options for FAA, and the advantages and disadvantages of those options?

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Methodology

- To address these questions, we have reviewed and analyzed:
  - FAA's budget requests and enacted amounts, continuing resolutions, and authorizing legislation for fiscal years (FY) 2007-2015;
  - FAA documentation on the impacts of budget uncertainty;
  - Publicly available reports and testimonies issued by GAO, FAA, and aviation industry stakeholders;
  - Potential alternative funding options for FAA that we identified through a literature review of aviation stakeholder reports and prior GAO reports;
  - Relevant federal laws, regulations, and agency guidance.
- In addition, we interviewed officials from FAA and the Office of Management and Budget (OMB).

Methodology (continued)

- We corroborated information that FAA provided regarding the impact of budget uncertainty by analyzing FAA data and documentation, whenever available.
- To assess the reliability of FAA's data, we reviewed existing information about the data and the systems that produced them. We determined that the data are sufficiently reliable for the purposes of this briefing.
- To ensure that the information in this briefing is accurate and complete, we requested that FAA review it and incorporated FAA's technical comments, as appropriate.

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Background

- FAA must be periodically reauthorized by Congress to both collect taxes in the Airport and Airways Trust Fund (Trust Fund) and expend those funds once they become available through appropriations. FAA also receives annual appropriations from the General Fund of the U.S. Treasury.
- FAA has four main budget accounts, which receive separate appropriations:
  - Operations;
  - Facilities and Equipment (F&E);
  - Research, Engineering, and Development (RE&D); and
  - Grants-in-Aid for Airports (Grants).
- Congress sometimes appropriates funds to specific budget activities in an account.

Background (continued)

- FAA can move appropriated funds through *reprogrammings and transfers*.
  - A *reprogramming* is the shifting of funds from one program activity to another within an appropriation. For example, reprogramming actions within FAA's RE&D appropriations account may be taken to augment or reduce funds for existing programs, projects, and activities.
  - A *transfer* is the shifting of funds between appropriations accounts and requires specific statutory authority. For example, shifting funds between FAA's F&E and RE&D appropriations accounts is a transfer. Similarly, the movement of funds between certain budget line items within FAA's Operations account is also a transfer because those budget activities receive separate appropriations.[1]

[1]FAA does not consider these budget activities to be separate appropriations with the Operations account, but instead describes them as purpose limitations within a lump sum appropriation. Therefore, FAA has indicated that it considers movement of funds between budget activities within the Operations account to be a reprogramming. However, the movement of funds between these budget activities would constitute a transfer. The fact that an appropriation for a specific purpose is included as an earmark in a general appropriation does not deprive it of its character as an appropriation for the particular purpose designated. *See e.g.*, B-287121, Nov. 7, 1997. Congress has granted FAA limited authority to transfer funds between these budget activities.

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Background (continued)

- FAA has experienced delays and a lapse in authorizing legislation, and delays in receiving regular appropriations, including:
  - 23 authorizing extensions lasting from 1 week to 6 months from the expiration of FAA's authorization in 2007 to the enactment of the most recent reauthorization (FAA Modernization and Reform Act of 2012);
  - An authorization lapse in 2011 prevented FAA from collecting $400 million in excise taxes for the Trust Fund; and
  - Continuing Resolutions (CR) each fiscal year since 2008 extending previous spending levels, which lasted anywhere from 3 days to about 11 months.
- The March 2013 sequestration, which reduced funding to federal agencies, and a partial government shutdown in October 2013 also caused budget uncertainty for FAA and all other federal agencies.

Question 1: According to FAA, Past Budget Uncertainty Has Affected FAA Operations in Various Ways

- According to FAA, past budget uncertainty resulting from the sequestration, federal government shutdown, FAA's 2011 authorization lapse, repeated continuing resolutions, and multiple short-term reauthorizations has affected FAA's ability to perform its mission.
- Based on our review of FAA data and documentation, we were able to identify quantifiable effects on FAA operations. FAA provided us examples of other effects, such as delays in aircraft registration and pilot licensing, but was not able to quantify them.
- The following examples illustrate some of the significant quantifiable effects of budget uncertainty on FAA's operations.

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Question 1: According to FAA, Past Budget Uncertainty Has Affected FAA Operations in Various Ways (continued)

1. During the week of April 21-27, 2013, sequester-related air traffic controller furloughs delayed 7,099 flights. FAA reported that five airports experienced the most capacity reductions that week due to staffing delays caused by the furloughs: Los Angeles International, George Bush Intercontinental/Houston, Fort Lauderdale-Hollywood International, LaGuardia, and Dallas/Fort Worth International.
   - On May 1, 2013, Public Law 113-9, Reducing Flight Delays Act of 2013, authorized the transfer of $253 million from the Grants account to the Operations account ($247.2 million) to end employee furloughs and the F&E account ($5.8 million) to keep 149 low-activity contract towers open for the remainder of FY 2013.

Question 1: According to FAA, Past Budget Uncertainty Has Affected FAA Operations in Various Ways (continued)

2. According to FAA documentation, FAA implemented a hiring freeze at its air traffic controller training academy in Oklahoma City in response to the 2013 sequestration.
   - Actual new hires in FY 2013 totaled 554, a deficit of 761 when compared to the agency's planned 1,315 new hires for that year as stated in the FY 2013 Controller Workforce plan.
   - According to the agency, this deficit continues, and FAA has 820 fewer controllers at the time of our review than stated in the FY 2013 workforce plan. Other factors, such as FAA recruitment and hiring practices, may also affect controller staffing.

Question 1: According to FAA, Past Budget Uncertainty Has Affected FAA Operations in Various Ways (continued)

3. According to FAA documentation, furloughs due to the 2013 sequestration delayed the deployment of new capabilities for high-priority air traffic modernization efforts.
   - According to FAA documentation, sequestration cuts resulted in a 7-month training delay at 4 of the 20 En Route Automation Modernization (ERAM) sites. ERAM is the backbone of NextGen and is designed to increase capacity and improve efficiency by substantially increasing the number of en-route flights controllers track.

Question 1: According to FAA, Past Budget Uncertainty Has Affected FAA Operations in Various Ways (continued)

4. The 2013 federal government shutdown affected pilot inspections.
   - For example, according to FAA documentation, FAA's aviation industry drug and alcohol testing program canceled approximately 200 inspections that would have been conducted in the absence of a shutdown. As a result, according to FAA officials, some pilots were not inspected and tested on a timely basis.
5. Without a long-term authorization from 2007 through 2012, FAA officials stated that the agency delayed new investment decisions for FAA-sponsored airport projects.

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Question 1: According to FAA, Past Budget Uncertainty Has Affected FAA Operations in Various Ways (continued)

6. The 2011 lapse in authorization also had broad consequences for airport infrastructure, according to FAA officials. For example, work stopped on more than $10 billion in national airspace and support projects until the authorization was extended. About $2.5 billion in grants for new airport projects was withheld, affecting more than 70,000 construction workers, according to the Association of General Contractors.

7. FAA was unable to quantify all the effects on operations that officials said FAA experienced. For example, FAA acknowledged but could not quantify the extent to which technical support staff to air traffic control operations were affected by the sequestration and government shutdown in 2013. In another example, FAA could not quantify what effect the furlough of FAA support staff had on equipment maintenance.

Question 1: According to FAA, Past Budget Uncertainty Has Affected FAA Operations in Various Ways (continued)

8. We previously concluded (GAO-09-879) that operating under CRs limited management options and resulted in inefficiencies, although agencies' experiences varied. In general, CRs can:
    - cause hiring delays and lower staffing levels;
    - require additional work, including issuing multiple contracts for a single transaction;
    - require smaller, more frequent purchases of regularly needed items, which can increase costs;
    - delay program enhancements;
    - during prolonged CRs, limit options for operations, making budget and schedule trade-offs more difficult; and,
    - limit time in the fiscal year to implement changes in appropriations, whether they are funding increases or decreases.

- FAA reported experiencing many of these effects due to various budget uncertainty events. As we have previously concluded, quantifying these types of effects is difficult, and FAA did not quantify all of them.

Question 2: Past Budget Uncertainty Has Affected NextGen Implementation

- According to FAA, past budget uncertainty has led to NextGen delays, although current segments of NextGen programs are generally on schedule.
- The following examples illustrate some of the significant quantifiable effects of budget uncertainty on NextGen implementation.
  1. FAA officials stated that the final decision to implement Segment 1 Phase 2 of Data Communications (Data Comm)—a program designed to modernize controller-to-flight crew communication—has been delayed until late 2015 as a result of the 2013 government shutdown.
  2. Sequestration delayed NextGen improvements scheduled for 2013 at two of five metroplex sites (geographic areas that include several commercial and general aviation airports in close proximity serving a large metropolitan area). FAA has identified 21 metroplexes to implement satellite-assisted Performance Based Navigation (PBN) flight procedures in order to optimize the use of airspace.

Question 2: Past Budget Uncertainty Has Affected NextGen Implementation (continued)

3. A final investment decision on System Wide Information Management (SWIM) Segment 2b, a key component of FAA's efforts to modernize the flow of information among NextGen systems in the NAS, has been delayed from April 2015 until potentially the end of the calendar year due to budget uncertainty. SWIM provides the environment in which the NextGen foundational programs will function.

4. FAA officials cited continued budget instability as the reason they postponed final decisions and contract awards for the Common Support System-Weather (CSS-Wx) and the NextGen Weather Processer (NWP) programs, which are expected to provide weather data and imagery within the NAS to improve the quality of air traffic management. FAA projects that these delays could cost millions of dollars more than anticipated because future labor and other costs could be much greater.

Question 2: Past Budget Uncertainty Has Affected NextGen Implementation (continued)

5. According to FAA officials, delays to early segments of NextGen programs resulting from budget uncertainty may affect the implementation schedule thereby increasing overall NextGen costs, although the additional incremental costs associated with budget uncertainty are difficult to determine. In addition, past budget uncertainty has delayed the benefits of key NextGen programs, creating a lack of confidence among industry partners.
   - For example, FAA has divided capital investments for Data Comm into increasingly smaller pieces in response to uncertain budgets. According to FAA officials, the primary benefits of Data Comm are in the en-route environment, but FAA has split that investment into two packages, raising questions from industry partners about when FAA will fully implement Data Comm.

Question 2: Past Budget Uncertainty Has Affected NextGen Implementation (continued)

- Similarly, FAA has divided investments in the suite of air traffic controller tools that support PBN into smaller pieces, effectively limiting some PBN capabilities at selected sites. PBN is intended to deliver new routes and procedures that primarily use satellite-based navigation and on-board aircraft equipment to navigate with greater precision and accuracy through all phases of flight. As a result, the full benefits of PBN and other NextGen programs have not yet been realized.

- Even though early segments of foundational NextGen programs, such as Data Comm and SWIM, are generally on schedule, NextGen implementation in future years is dependent on the timing and amount of future appropriations, according to FAA officials.

Question 3: FAA Addresses Budget Uncertainty Using a Variety of Mechanisms

Use of budgeting priorities

- According to FAA, the agency follows three general budgeting priorities when dealing with budget uncertainty:
  - maintain high levels of safety in the NAS;
  - minimize effects on the NAS, such as operational delays; and
  - ensure resources to respond to contingencies that affect safety and efficiency.
- FAA officials stated that they followed these priorities during the 2013 sequestration by proposing to reduce staff hours at air traffic control (ATC) contract towers with low activity to affect the least number of air travelers while maintaining the highest levels of safety for the overall system. FAA later implemented reduced staff hours across the NAS at FAA-controlled towers in order to achieve the required budget reductions.

Question 3: FAA Addresses Budget Uncertainty Using a Variety of Mechanisms (continued)

Contingency planning

- According to FAA officials, they conduct informal budget modeling for various funding scenarios to respond to contingency planning requests from the Office of the Secretary of Transportation, OMB, and congressional staff. The different scenarios provide information on the potential effects of various policy decisions on the budget.
- FAA does not formally prepare contingency plans for possible higher or lower budget scenarios, instead discussing modeling outcomes with OMB before making decisions.
- OMB encourages analysis of budget uncertainty situations as they occur to best address current needs. OMB officials said they work with FAA to prioritize funding activities when budget uncertainty occurs but do not formally approve the agency's plans.
- Internal stakeholders also use modeling to support decisions. For example, FAA officials said that financial services and lines-of-business staffs work closely together using such tools to assess the impacts of varying funding levels and align funding with changing priorities.

Question 3: FAA Addresses Budget Uncertainty Using a Variety of Mechanisms (continued)

Program segmentation

- According to FAA officials, FAA has segmented programs for some time. This is consistent with OMB's guidance for capital investments. Breaking large investments into segments can make complex programs more affordable by spreading costs over several fiscal years and more manageable, thereby reducing risk and delivering benefits sooner.
- FAA officials said that since sequestration, affordability has become a more significant driver for program segmentation because of the constrained funding environment.
- FAA officials said they review the status and interrelationships of various programs' segments to prioritize which should be first scheduled and implemented to move NextGen forward as a whole.
  - For example, certain SWIM segments must be completed before the other programs can fully function.

Question 3: FAA Addresses Budget Uncertainty Using a Variety of Mechanisms (continued)

Budget flexibilities

- FAA does not have flexibility to transfer appropriated funds among its four main accounts, but it can transfer funds between appropriated budget activities within the Operations account, with the exception of the Aviation Safety budget activity. However, transfers between Operations account activities cannot increase or decrease any budget activity by more than 2 percent. Funds in the Operations account are available on a 1-year basis.
  - For example, in FY 2014, FAA used this authority to transfer $320,000 to the Office of Commercial Space Transportation from NextGen and Staff Offices to support movement of personnel among those organizations.
- When a transfer of these funds would increase or decrease any budget activity amounts in the Operations account by more than 2 percent, FAA must consult with Congress.[2]

[2]Consultation procedures are set forth in Section 405 of Public Law 113-235.

Question 3: FAA Addresses Budget Uncertainty Using a Variety of Mechanisms (continued)

Budget flexibilities (continued)

- FAA can also reprogram up to $5 million or 10 percent, whichever is less, within an appropriations account without congressional consultation. According to FAA officials, the agency executes reprogramming in these accounts below this threshold on a continual basis in response to contract cost fluctuations and to maximize use of resources. Any reprogrammings above the threshold require consultation with Congress.[3]
  - For example, in FY 2013, FAA consulted with Congress to reprogram $3.9 billion to consolidate and reorganize major services in the Air Traffic Organization. About 20,000 staff were realigned in this above-threshold reprogramming.
- FAA also automatically carries over and may continue to obligate and spend unobligated balances from the prior year in its F&E and RE&D account. Most funds in these accounts may be used over 3 years.

[3]Consultation procedures are set forth in Section 405 of Public Law 113-235.

Question 4: Some Federal Agencies Have Flexibilities That Have Helped Mitigate Budget Uncertainty

- Budget flexibility authorities held by some other agencies may provide lessons for FAA management of budget uncertainty.
  - Some agencies have authorities that are broader than FAA's authority[4]
    - For example, we found (GAO-15-470) that the Department of Defense (DOD) has broad authority to transfer among appropriations accounts and to reprogram funds within an appropriations account, subject to law and DOD regulations. We concluded that DOD relied on these flexibilities to mitigate effects of sequestration in FY 2013.
    - U.S. Department of Agriculture, U.S. Department of State, and NASA also have broad transfer authority.
- FAA's FY 2016 budget request included for the first time a proposal to provide the agency with new, broad transfer authority.

[4]A number of other federal agencies do not have broad transfer authority, including the U.S. Department of the Interior and the Environmental Protection Agency.

Question 5: Alternative Funding and Budgeting Options Present Advantages and Disadvantages

- GAO identified these options through a review of reports by aviation stakeholders and policy think tanks, as well as through prior GAO reports.
  - ***Direct user charges*:** In our prior work, we concluded that user charges for FAA services could be implemented in the current FAA structure or in a restructured Air Traffic Organization (ATO) (GAO-06-973).
    - User charges, like current excise taxes, are tied to economic activity (i.e., the demand for air travel), and thus, revenues fluctuate.
    - **Advantages** are that user charges would encourage more efficient use of the air traffic control system.
    - **Disadvantages** are that in times of economic downturns or unforeseen events (such as SARS and 9/11), revenues will fall.

Question 5: Alternative Funding and Budgeting Options Present Advantages and Disadvantages (continued)

- ***Bonding*:** This option, which GAO identified through a review of reports by aviation stakeholders and policy think tanks, as well as prior GAO reports, involves potentially authorizing FAA or a restructured Air Traffic Organization to issue bonds to raise money in the capital market for infrastructure-related projects.
  - **Advantages** include the potential for more stable revenues for capital projects, as well as the ability to 1) spread costs over the project's lifetime, and 2) collect fees from users over the life of the system to pay scheduled bond payments.
  - **Disadvantages** include increased financing costs due to interest payments over time, concern about fiscal oversight, and liability concerns. This option includes potentially less congressional control and oversight of FAA's use of funds.

Question 5: Alternative Funding and Budgeting Options Present Advantages and Disadvantages (continued)

- ***Restructuring FAA's Air Traffic Organization***: Some aviation stakeholders have proposed this option. The new organization would charge user fees to cover the costs of providing air traffic services.
  - According to two policy think tanks, an **advantage** of this option is that a restructured entity may have more flexibility to fund air traffic system operations from various user fees and may be less subject to the uncertainties of the budget process if its budget does not comprise appropriations.
  - However, a possible **disadvantage** of this option is that it would potentially lessen congressional control and oversight of ATC operations.

Question 5: Alternative Funding and Budgeting Options Present Advantages and Disadvantages (continued)

- ***Additional transfer flexibility:*** In its FY 2016 budget request, FAA is seeking authority to transfer up to 10 percent of any of its four main budget accounts among the four accounts, provided that no account is increased by more than 10 percent and in consultation with both congressional Appropriations Committees.
  - **Advantages** include the flexibility for FAA to transfer funds to meet its funding priorities.
  - **Disadvantages** include potentially less congressional control and oversight of FAA's use of funds.

Summary of Observations

1. According to FAA, past uncertainty in the timing of authorizations and appropriations has affected FAA operations.
2. Past budget uncertainty has led to some NextGen program segment delays, yet the NextGen foundational programs are generally on schedule. However, FAA projects that budget uncertainty could have a more detrimental effect in the future.
3. FAA has taken steps to address budget uncertainty, including using existing budget authority flexibilities.
4. FAA cannot transfer funds between its four budget appropriations accounts and has requested the authority to do so.
5. Alternative funding options, such as imposing direct user charges, issuing bonds, or restructuring the ATO exist and may address some aspects of budget uncertainty, but they may lessen congressional oversight of ATC operations.

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