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United States General Accounting Office  
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July 26, 2002

Congressional Requesters

Subject: Review of the Estimates for the Impact of the September 11, 2001, Terrorist Attacks on New York Tax Revenues

As a follow-up to our May 2002 report,<sup>1</sup> reviewing the estimates of the economic impact of the September 11, 2001, terrorist attacks on New York, you requested additional information on New York tax revenues. Specifically, you asked us to review the estimates of tax revenue losses that the New York City Office of Management and Budget and the New York State Division of Budget attribute to the terrorist attacks. Both these budget offices estimated that the terrorist attacks would reduce anticipated tax revenues to the city and state in both fiscal years 2002 and 2003.<sup>2</sup> The purpose of this report is to present our review of these estimates.

To respond to your request, we reviewed the budget offices' estimates and supporting analyses, using standard economic analysis principles. These include establishing a baseline of New York tax revenues absent the terrorist attacks, measuring the incremental effect of the attacks, and using economic models or sound professional judgment. We discussed the estimates and the supporting analyses with officials from the New York budget offices, as well as the Federal Reserve Bank of New York, the New York City Office of the Comptroller, the New York City Independent Budget Office, the New York State Financial Control Board, the Office of the New York State Comptroller, the Office of the State Deputy Comptroller for New York City, the Fiscal Policy Institute,<sup>3</sup> and DRI-WEFA.<sup>4</sup> We did not validate the budget offices' data or models. We carried out our work from May through July 2002 in accordance with generally accepted government auditing standards.

## Summary

The budget offices' estimates of the tax revenue losses have limitations, such as including some of the economic slowdown that was under way at the time of the

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<sup>1</sup> U.S. General Accounting Office, *Review of Studies of the Economic Impact of the September 11, 2001, Terrorist Attacks on the World Trade Center*, GAO-02-700R (Washington, D.C.: May 29, 2002).

<sup>2</sup> New York City's fiscal year is from July through June, and New York State's fiscal year is from April through March.

<sup>3</sup> The Fiscal Policy Institute is a nonprofit research and education organization that focuses on New York tax, budget, and economic issues.

<sup>4</sup> DRI-WEFA is a consulting firm that analyzes and forecasts economic activity in the U.S. and world markets.

attacks. Nevertheless, the tax revenue loss estimates for the 2002 fiscal year—about \$1.6 billion for New York City and \$1.6 billion for New York State—appear to reasonably approximate the impact of the terrorist attacks on tax revenues. The tax revenue loss estimates for the 2003 fiscal year—about \$1.4 billion for New York City and \$4.2 billion for New York State—are more uncertain because they depend on some factors that are yet to be determined, such as the degree to which the attacks have made New York City a less attractive location for businesses.

Precisely measuring the effect of the terrorist attacks on economic activity and related tax revenues is inherently difficult. Such measuring requires disentangling the effect of the attacks from the effects of other events. The budget offices assumed that the entire difference in estimated tax revenues between a pre-September 11 revenue forecast and a revised post-September 11 revenue forecast was a result of the terrorist attacks. But other factors may also have contributed to the decline in revenues. For example, the slowdown in the economy that was under way at the time of the attacks contributed to lower-than-anticipated tax revenues in many states, including New York. In addition, any effect of events that occurred after the attacks—such as the economic fallout from the collapse of Enron and accounting firm improprieties—would also be included in the budget offices' estimates of tax revenue losses. In commenting on a draft of this report, the New York City Office of Management and Budget said that the city's pre-September 11 revenue forecast adequately accounted for the general economic slowdown under way at the time of the attacks, and, therefore, the estimates of tax losses do not materially overstate the effect of the terrorist attacks. In addition, the New York State Division of Budget agreed that the estimated tax revenue losses for fiscal year 2003 are uncertain, but that nearly half of the estimated loss already occurred, at the start of the fiscal year in April, and the loss was related to the terrorist attacks but not other events.

As of June 2002, the federal government has authorized funds of about \$10.4 billion to New York to partly compensate for the economic losses attributable to the attacks,<sup>5</sup> including up to \$6.4 billion for debris removal and temporary housing assistance. Nonetheless, the specific amount of funding obligated solely to New York City has not yet been compiled. In addition, under the federally administered Community Disaster Loan program, loans can be issued to local governments to help them replace lost tax revenues. However, the program has a maximum loan amount of \$5 million and states are not eligible for assistance from this program.

## **Background**

Last year's slowdown in the national economy and the economic fallout from the terrorist attacks reduced the tax revenues that many states had anticipated at the start of the fiscal year. For example, at least 40 states had insufficient revenues to meet planned expenditures for fiscal year 2002, according to a recent report by the

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<sup>5</sup> In addition to these authorized funds, the Liberty Zone economic stimulus package was passed in March 2002, providing \$5 billion in business tax credits. In late July, the House and Senate passed an emergency supplemental appropriations for fiscal year 2002 that includes an additional \$5.5 billion for assistance to New York.

governors and state budget officers associations.<sup>6</sup> New York City was especially hard hit in 2001, losing about 124,000 private sector jobs—including about 83,000 from September through the end of the year—and the tax revenues that the jobs would have generated.<sup>7</sup> In addition, visits by business travelers and tourists decreased after September 11, 2001, lowering sales and related tax revenues. Moreover, buildings that were destroyed or damaged by the terrorist attacks will yield lower property-related tax revenues in 2003 and beyond.

As we indicated in our May 2002 report,<sup>8</sup> some of the economic costs of the attacks would be covered by emergency federal relief funds.<sup>9</sup> As of June 2002, the federal government has authorized funds of about \$10.4 billion to New York to compensate, in part, for the losses attributable to the attacks.<sup>10</sup> For example, up to \$6.4 billion was authorized for New York, through the Federal Emergency Management Agency (FEMA), for debris removal, temporary housing assistance, and related activities. However, the specific amount of funding obligated solely to New York City has not yet been compiled. In addition to the direct federal assistance, under the Community Disaster Loan program administered by FEMA, loans can be issued to local governments to help them replace tax revenue losses. However, the program has a maximum loan amount of \$5 million and states are not eligible for assistance from this program.

### **New York Budget Offices Attribute Estimates of Revenue Losses through 2003 to Terrorist Attacks**

Both the New York City Office of Management and Budget and the New York State Division of Budget estimated that the September 11 terrorist attacks would reduce anticipated tax revenues for fiscal years 2002 and 2003. For example, as of July 2002, the city budget office estimated that the terrorist attacks would reduce tax revenues by about \$1.6 billion in 2002 and \$1.4 billion in 2003, for a total revenue loss of \$3 billion.<sup>11</sup> Of the total estimated loss for both fiscal years combined, about \$915 million was from reduced personal income tax revenues, \$901 million from reduced business tax revenues, and \$700 million from reduced sales tax revenues. Similarly, as of June 2002, the state budget office estimated that the terrorist attacks would reduce the state's tax revenues by about \$1.6 billion in 2002 and \$4.2 billion in 2003, for a total loss of \$5.8 billion.<sup>12</sup> Of the total estimated loss for both fiscal years

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<sup>6</sup> National Governors Association and National Association of State Budget Officers, *The Fiscal Survey of States* (Washington, D.C.: May 2002).

<sup>7</sup> Seasonally adjusted data. New York City Office of the Comptroller, *Economic Notes*, (New York: May 2002).

<sup>8</sup> GAO-02-700R.

<sup>9</sup> As we indicated in our May 2002 report, several studies of the economic costs of the terrorist attacks measured costs in terms of *gross* income losses. Consequently, these cost estimates also include income-related tax revenue losses.

<sup>10</sup> See footnote 5.

<sup>11</sup> In a May 23, 2002, letter to the Federal Emergency Management Agency, the New York City Deputy Mayor stated \$650 million of the total revenue loss estimate was needed to compensate for immediate needs, including \$220 million for lost property and related tax revenues, \$281 million for lost business income tax revenues, and \$149 million for lost tax revenues associated with reduced hotel occupancies.

<sup>12</sup> According to a state official, depending on factors such as the pace of the national economic recovery, the total loss estimate could be as low as \$4.6 billion or as high as \$9 billion.

combined, about \$4.9 billion is a result of lower-than-anticipated revenues from personal income taxes.

In developing estimates of revenue losses, the city and state budget offices used standard methods for forecasting tax revenues. For example, the budget offices used econometric models to forecast employment and wages in important sectors in the New York economy (for example, in finance, real estate, and insurance).<sup>13</sup> For these models, the key inputs include a forecast of economic activity at the national level (for example, U.S. gross domestic product). The forecasts of employment and wages are then used with other data, including tax rates, to develop forecasts of anticipated tax revenues.

For tax revenues, both budget offices compared a pre-September 11 baseline revenue forecast with one revised post-September 11 in order to disentangle the effects of the terrorist attacks from other possible factors. The revision was updated to reflect changes in the economy and tax revenues collected since the terrorist attacks. For example, the New York City budget office compared a baseline revenue forecast for August 2001, reflecting economic conditions and anticipated tax revenues, with a revised forecast for June 2002, updating changes in the economy since the attacks. According to city budget officials, the baseline forecast reflected the economic slowdown that was already under way at the time of the attacks. For instance, the August baseline assumed that local private-sector employment would remain unchanged in 2001 compared with the fiscal year 2002 budget (adopted June 2001) that assumed a 1 percent increase. Based on these and other assumptions, the budget office estimated that but for the terrorist attacks, tax revenues would have been about \$23.4 billion in fiscal year 2002 and \$24.5 billion in fiscal year 2003.<sup>14</sup> By contrast, according to the revised June 2002 budget forecast, tax revenues would fall to about \$21.8 billion in fiscal year 2002 and \$23.1 billion in fiscal year 2003 because of the worsening economy since the terrorist attacks. Based on a comparison of the baseline and revised revenue forecasts, the city budget office concluded that the reduction in tax revenues was due to the terrorist attacks.

Similarly, the New York State budget office compared a baseline revenue forecast, reflecting an outlook of the economy for September 10, 2001, with a revised forecast for May 2002, reflecting changes in both economic conditions and tax revenues collected since the attacks. According to state budget office officials, the baseline used conservative assumptions to reflect an economy that was already weakening at the time of the terrorist attacks. For example, the baseline forecast assumed that the national economy would grow by only 0.7 percent in 2001 and 2.1 percent in 2002. In addition, the budget office incorporated into the baseline forecast the personal income taxes that had been collected (that is, from withholdings) since the start of the fiscal year in April 2001. Based on these and other assumptions, the baseline

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<sup>13</sup> An econometric model uses historical data and statistical analysis to quantify the relationship between economic variables, such as the demand for employment and gross domestic product. This model serves as the basis for forecasting future changes in employment.

<sup>14</sup> The city budget office's estimates of tax revenue losses include some adjustments for changes in tax policy that occurred after the terrorist attacks. We included the adjustments in the city's baseline revenue estimates.

forecast projected that but for the terrorist attacks, the state's tax revenues would be about \$38.7 billion in fiscal year 2002 and \$40.5 billion in fiscal year 2003. By contrast, actual tax collections through the end of the state's 2002 fiscal year (March 31, 2002) were about \$37.1 billion. In addition, the state budget office's revised forecast estimated that tax revenues would fall to about \$36.3 billion for fiscal year 2003. Based on a comparison of the revenues anticipated in the baseline with actual revenues received in 2002 and those expected for 2003, the state budget office concluded that the fall in tax revenues was a result of the terrorist attacks.

### **New York Budget Offices' Estimates May Include Revenue Losses Unrelated to Terrorist Attacks**

Even though the budget offices used standard forecasting methods to develop their estimates, the estimates have some limitations. Specifically, the budget offices assumed that for the estimated tax revenue, the entire difference between the pre-attack baseline and the revised revenue forecasts was a result of the terrorist attacks. However, precisely measuring the effect of the terrorist attacks on economic activity and tax revenues is inherently difficult because the effect of the terrorist attacks must be disentangled from the effect of other events. This task is made especially difficult because both the national and New York economies were slowing at the time of the terrorist attacks. Consequently, other factors may also have contributed to the post-September 11 decline in New York's tax revenues. For example, as mentioned earlier, the city budget office used a baseline forecast that represented an outlook of the economy in August 2001. Nonetheless, the economic outlook in September, developed before the attacks, indicated several important measures of economic activity had weakened since August.<sup>15</sup> For instance, the September forecast assumed that U.S. gross domestic product would increase by 2.4 percent in 2002 instead of the 2.6 percent projected in August. Similarly, the September forecast projected that U.S. employment would grow by only 0.4 percent in 2002, compared with the 1.1 percent increase in August, and that the S&P 500 Stock Index (a measure of financial activity) would decline by about 2 additional percentage points in 2001, compared with the projection in August.

In addition, the Securities Industry Association reported, some of the estimated 15,500 securities jobs lost in the month following the terrorist attacks were a result of downsizing that had taken place before the attacks.<sup>16</sup> According to an official with the Securities Industry Association, although a large number of the job losses were the result of previous downsizing, it is not possible to separate out the number of jobs lost through the terrorist attacks from the jobs lost through downsizing. But both budget offices' estimates of revenue losses are based on changes in the economy, including employment, which occurred between the baseline and the revised tax revenue forecasts. The estimated tax revenues losses would therefore include the effects of other employment losses, even though these losses may have been unrelated to the attacks. Among the federal, state, and local government officials

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<sup>15</sup> Based on DRI-WEFA's monthly *U.S. Economic Outlook* for August and September 2001.

<sup>16</sup> Securities Industry Association, *Research Reports* (New York: April 10, 2002). Although the jobs were lost before the attacks, the former employees remained on company payrolls until severance payments expired.

with whom we spoke, some said that the tax revenue losses of the amounts suggested by the city and state may be reasonable, even though the estimates may also include the effects of other factors, such as the economic slowdown.

Moreover, because the baseline forecasts are projections based on a point in time (August and September 10, 2001), they do not net out other events that occurred after the terrorist attacks, which may also have affected economic activity. For example, the economic fallout from the collapse of Enron and subsequent accounting firm improprieties may have dampened financial market activity and gains in personal and business incomes. However, since these events occurred after the attacks and before the budget offices revised their revenue forecasts, any effect on economic activity would be included in the revenue losses that were attributed to the terrorist attacks.

Furthermore, the effects of the attacks on tax revenues for fiscal year 2003 are more uncertain than those for 2002. This uncertainty is a result of factors yet to be determined, such as the degree to which the attacks have made New York City a less attractive location for businesses and the extent to which those jobs that have been lost to date are permanently lost. For example, TenantWise recently projected that of the roughly 138,000 jobs estimated to have been displaced by the destruction of the World Trade Center and damage to surrounding buildings, about 18,000 are expected to be relocated to New Jersey over the next year.<sup>17</sup> Since some of the relocations have not yet occurred, there is some uncertainty about the impact on New York's tax revenues. And additional relocations may occur if businesses that are currently based in New York City decide to further decentralize their operations, moving to other areas of New York or the region, to minimize the potential impact of a possible future attack. Nevertheless, although business and job relocations to other states would reduce New York's economic activity, increases in activity in other states and communities would help to offset New York's losses in the national economy.

Finally, the estimate of tax revenue losses for fiscal year 2003 also depend on the ability of the econometric models to accurately project the effect of the terrorist attacks on the New York economy. However, since the terrorist attacks were unprecedented and historical data are used in the models as the basis for forecasting changes in the economy, the extent to which the models have accurately measured the effect of the terrorist attacks is unclear.<sup>18</sup>

According to an official with the city's budget office, the August baseline forecast adequately accounted for the economic slowdown at the time of the attacks. In particular, the official said, the economic outlook for September 2001 did not show any major deterioration in the economy compared with the economic outlook in August and some measures of the economy (such as consumption and investment) had been revised upward. In addition, as to the possible effect of the Enron collapse

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<sup>17</sup> TenantWise is a commercial real estate business in New York. See TenantWise, *Special Report: Overview of Current Situation* (New York: July 2002) and this Web site: <http://www.tenantwise.com> (downloaded July 7, 2002).

<sup>18</sup> Because the terrorist attacks were unprecedented, the accuracy of the budget offices' past forecasts may be less useful as a guide in assessing the potential performance of the forecast of the revenue impacts of the attacks.

and subsequent accounting firm improprieties on estimated tax revenues, the official said, the August forecast adequately accounted for the decline in Wall Street profits for 2001; the major cumulative impact of accounting firm improprieties and corporate earnings restatements had only recently occurred and therefore had only a minor effect on the city's tax collections for fiscal year 2002.

Nonetheless, as discussed earlier, the economic outlook in September did indicate that several important economic measures declined since August, suggesting the city's estimate of reduced tax revenues includes some effect of a slowing economy. In addition, because the August forecast could not have taken into account events that occurred subsequently, such as the collapse of Enron and accounting firm improprieties, any effect these events had on economic activity would be reflected in the city's estimate of reduced tax revenues.

According to an official with the state's budget office, since the baseline forecast was developed 5 months into the 2002 fiscal year, it incorporates several months of tax revenue collections (for example, personal income tax withholdings), which enhances the accuracy of the forecast for the remainder of the fiscal year. In addition, the baseline forecast included an estimate of the job losses that were a result of downsizing in the securities industry. Moreover, the official said, although the state econometric models may be less likely to accurately measure the effects of an unprecedented event like the terrorist attacks, the models were supplemented with the views of industry experts; this enabled the budget office to better understand the potential effect of the attacks.

Nevertheless, distinguishing between the economic effects of the terrorist attacks versus those of a slowing economy is inherently difficult. For example, as mentioned above, there is no possible way to separate out the number of jobs lost as a result of the terrorist attacks from the jobs lost as a result of downsizing. In addition, although supplementing the models with expert opinion is an important component of forecasting economic activity, it does not eliminate the uncertainty associated with the estimates of the economic effects of the terrorist attacks on New York's tax revenues.

### **Agency Comments**

We obtained comments via electronic mail on a draft of this report from the two budget offices. The Deputy Director of the New York City Office of Management and Budget said the pre-September 11 revenue forecast adequately accounted for the general economic slowdown under way at the time of the attacks and, therefore, the estimates of tax losses do not materially overstate the effect of the terrorist attacks. The Chief Budget Examiner for the New York State Division of Budget agreed that the estimated tax revenue losses for fiscal year 2003 are uncertain, but nearly half of the estimated loss for 2003 had already occurred in April, at the start of the fiscal year; the loss was related to the terrorist attacks, but not other events.

In addition to these comments, the budget offices provided a number of technical comments. We incorporated these comments where appropriate.

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As agreed with your offices, unless you publicly announce this report's contents earlier, we plan no further distribution until 7 days from the report date. At that time, we will send copies to interested congressional committees. This report is also available at no cost on the GAO Web site at <http://www.gao.gov>.

If you have any questions or would like to discuss this report further, I can be reached at (202) 512-2700. Major contributors to this report include Scott Farrow, Tim Guinane, Laurel Rabin, Kathleen Scholl, and Mark Stover.

A handwritten signature in black ink that reads "Nancy R. Kingsbury". The signature is written in a cursive, flowing style.

Nancy R. Kingsbury  
Managing Director, Applied Research  
and Methods



List of Congressional Requesters

The Honorable Maurice Hinchey  
House of Representatives

The Honorable Steve Israel  
House of Representatives

The Honorable John LaFalce  
House of Representatives

The Honorable Nita Lowey  
House of Representatives

The Honorable Carolyn Maloney  
House of Representatives

The Honorable Jerrold Nadler  
House of Representatives

The Honorable Charles Rangel  
House of Representatives

The Honorable Jose Serrano  
House of Representatives

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