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New York Liberty Zone Tax Provisions
Job Creation and Workers Assistance Act of 2002

Revenue Estimates and Tax Benefit Analysis

Prepared for
New York City Economic Development Corporation

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National Economic Consulting NEC

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Summary

This report is provided by PricewaterhouseCoopers LLP (PwC) to the New York City Economic Development Corporation (EDC). It analyzes the official revenue estimates and presents alternative analyses of the seven New York Liberty Zone provisions in *The Job Creation and Worker Assistance Act of 2002* (Act). The Liberty Zone provisions provide tax benefits for the area of New York City damaged in the terrorist attacks on September 11, 2001:[1]

1. Special depreciation allowance for certain property.
2. Increase in expensing treatment for business property used in New York Liberty Zone.
3. Extension of replacement period for certain property involuntarily converted in New York Liberty Zone.
4. Special treatment of qualified leasehold improvements.
5. Authorize issuance of tax-exempt private activity bonds for rebuilding the portion of New York City damaged in the September 11, 2001, terrorist attack.
6. Allow one additional refunding for certain previously refunded bonds for facilities located in New York City.
7. Expansion of work opportunity tax credit targeted categories to include certain employees in New York City.

The Joint Committee on Taxation (JCT) is responsible for developing official revenue estimates of tax provisions considered by the U.S. Congress. The JCT estimated that for 2002 through 2012 fiscal year receipts would be reduced by $5,029 million for all seven Liberty Zone provisions[2] and by $2,233 million for provisions 1 through 4.[3] Our analysis shows the tax benefit for provisions 1 through 4 to be only about $1,000 million, or less than 45 percent of the JCT's revenue estimate. The tax benefit for these provisions is considerably less than the JCT revenue estimate primarily because the tax reductions in the first few years are offset by tax increases in later years.

Each of the official JCT revenue estimates are: (1) measured relative to prior law, (2) based on a cash-flow concept over the projected budget period, fiscal years 2002-2012, and (3) based on a methodology, sources of data, assumptions, and estimating conventions selected by the JCT.

Our alternative analyses of provisions 1 through 4 (concerning depreciation, expensing, and treatment of income on involuntarily converted property) and selected comments on the JCT methodology and results for provisions 5 through 7 (concerning tax exempt

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[1] The seven Liberty Zone provisions constitute Title III of the Act. The other titles (I, II, and IV through IX), consisting of provisions not specifically targeted to either New York City or the New York Liberty Zone, are referred to in this analysis as "general" provisions.

[2] Source: Joint Committee on Taxation publication, *JCX-13-02*.

[3] Calculated by PwC as the addition of the JCT estimates for provisions 1 through 4 and the interaction item. (See footnote 9).

bonds and the WOTC) are described in this report. The alternative analysis of provisions 1 through 4 estimates the tax benefit to taxpayers rather than the effect on fiscal year receipts to the U.S. Treasury, as provided by the JCT. The alternative analysis differs from the JCT analysis in three major ways: (1) it is measured relative to the general provisions, (2) it is based on a net present value calculation (for all years affected by the provision) discounted to 2002, and (3) in selected cases, it employs alternative assumptions. For provisions 5 and 6, concerning tax-exempt bonds, we conclude the JCT probably assumed that virtually all of the authorized bonds would be issued, and that most of the issuance would occur in 2003 and 2004 for provision 5 and in 2002 for provision 6. For provision 7 we estimate the net present value of tax benefits to be approximately $0.6 billion.

Table 1 (page 3) and Table 2 (page 15) provide the JCT estimates and the alternative tax benefit analysis for the seven provisions. Table 1 provides the JCT estimates aggregated for all years, and Table 2 provides the JCT estimates on a year-by-year basis.

The remainder of this report consists of a brief description of the seven Liberty Zone provisions, an analysis of the JCT revenue estimates of the provisions, our alternative tax benefit analysis of the provisions, and conclusions.

Table 1— New York City Liberty Zone Tax Provisions
Job Creation and Workers Assistance Act of 2002
Estimated Revenue Effects By Joint Committee on Taxation and
Alternative Tax Benefit Analysis by PwC
JCT Estimates Aggregated for All Years, 2002-2012
($ millions)

Provision	Revenue Estimate (JCT)	Tax Benefit Analysis # (PwC)
1. Special Depreciation Allowance for Certain Property		
a. Equipment……………………………………………………….	-542	200
b. Structures……………………………………………………...	-1,026	500
2. Increase in Expensing Treatment for Business Property Used in New York Liberty Zone…………………………………………………………...	-37	*
3. Extension of Replacement Period for Certain Property Involuntary Converted in New York Liberty Zone…………………………………...	-318	200
4. Special Treatment of Qualified Leasehold Improvements………………….	-595	*
5. Authorized Issuance of Tax Exempt Private Activity Bonds for Rebuilding the Portion of New York City Damaged in the September 11, 2001 Terrorist Attack……………………………………………………………..	-1,228	N/A
6. Allow One Additional Refunding for Certain Previously Refunded Bonds for Facilities Located in New York City……………………………………	-937	N/A
7. Expansion of Work Opportunity Tax Credit Targeted Categories to Include Certain Employees in New York City…………………………….	-631	600
Interaction…………………….…………………………………………….	285	--
Total………………………………….…………………………………...	-5,029	N/A
Memo: Provisions 1, 2, 3, 4………………………………………………...	-2,233	1,000

Sources: The revenue estimates for each provision (including "Interaction") on a provision-by-provision basis, and for the "Total" are from the Joint Committee on Taxation publication, *JCX-13-02*. The revenue estimate in aggregate for provisions 1 through 4, "Provisions 1, 2, 3, 4," and the alternative analysis net present value estimates are from PricewaterhouseCoopers, LLP.

Notes:
* = Net present value of less than $50 million.
# = The alternative tax benefit analysis is: (1) measured relative to the general provisions of the Act, (2) based on a net present value calculation, and (3) in selected cases, employs alternative assumptions. See the *Alternative Tax Benefit Analysis* section of this report for a full description of the methodology employed for the analysis.
N/A= Not available.

Details may not add to totals because of rounding.

Description of Provisions

The Job Creation and Worker Assistance Act of 2002 (the "Act") includes seven Liberty Zone provisions concerning the tax benefits for the area of New York City damaged in the terrorist attacks on September 11, 2001.[4] Below is a brief description of each provision.[5]

1. **Special Depreciation Allowance for Certain Property.** The provision allows a first-year depreciation deduction, which is allowed for both regular and alternative minimum tax purposes, equal to 30 percent of the adjusted basis of qualified New York Liberty Zone property. The basis in the property and the depreciation allowances are adjusted to reflect the additional first year depreciation. Property eligible for the additional allowance, among other requirements, must be property to which the general rules of MACRS apply with a recovery period of 20 years or less, and the use of which is within the Liberty Zone. The property must commence with the taxpayer on or after September 11, 2001 and placed in service on or before December 31, 2006 (for qualifying residential property, on or before December 31, 2009).

2. **Increase in Expensing Treatment for Business Property Used in New York Liberty Zone.** The provision increases the maximum dollar amount that may be deducted under section 179 by the lesser of $35,000 or the cost of qualifying property. Qualifying property means section 179 property purchased and placed in service by the taxpayer after September 11, 2001, and before January 1, 2007 where substantially all of its use is in the New York Liberty Zone in the active trade or business of the taxpayer, and the original use in the Zone commences with the taxpayer after September 10, 2001.

3. **Extension of Replacement Period for Certain Property Involuntarily Converted in New York Liberty Zone.** The provision extends the replacement period to five years to replace property that was involuntarily converted within the New York Liberty Zone as a result of the September 11, 2001, terrorist attacks if substantially all of the use of the replacement property is within New York City. The provision is effective for involuntary conversions on or after September 11, 2001.

4. **Special treatment of Qualified Leasehold Improvements.** The provision provides for the purpose of depreciation that section 168 include qualified New

[4] The seven Liberty Zone provisions constitute Title III of the Act. The other titles (I, II, and IV through IX) consist of provisions not specifically targeted to either New York City or the New York Liberty Zone, referred to in this analysis as "general" provisions.

[5] The brief descriptions are not intended to be complete. For a more complete explanation and for a specific geographic description of the "New York Liberty Zone", see the Joint Committee on Taxation publication, *JCX-12-02*, upon which the brief account included here is based.

York Liberty Zone 5-year property placed in service after September 10, 2001 and before January 1, 2007. The straight-line method is required to be used with respect to qualified property.

5. **Authorize Issuance of Tax-Exempt Private Activity Bonds for Rebuilding the Portion of New York City Damaged in the September 11, 2001, Terrorist Attack.** The provision authorizes the issuance of $8 billion of tax-exempt private activity bonds to finance the construction and rehabilitation of real property in New York City. The provision is effective for bonds issued after the date of enactment and before January 1, 2005.

6. **Allow One Additional Refunding for Certain Previously Refunded Bonds for Facilities Located in New York City.** The provision permits certain bonds for facilities located in New York City to be advance refunded one additional time. Eligible bonds include only those for which all prior law advance refunding authority was exhausted before September 12, 2001 and which were outstanding on September 11, 2001. Among other restrictions, the bonds must be either governmental general obligation bonds of New York City, governmental bonds issued by the Metropolitan Transportation Authority of the State of New York, governmental bonds issued by the New York Municipal Water Finance Authority, or qualified 501(c)(3) bonds issued to finance hospital facilities. The maximum amount of advance refunding bonds is $9 billion. The provision is effective on the date of enactment and before January 1, 2005.

7. **Expansion of Work Opportunity Tax Credit Targeted Categories to Include Certain Employees in New York City.** The provision creates a new targeted group for the work opportunity tax credit (WOTC) and extends the WOTC only for this purpose. Generally the new targeted group includes individuals who perform substantially all their services in the New York Liberty Zone. Qualified wages generally are defined as those paid or incurred for work performed in the New York Liberty Zone after December 31, 2001 and before January 1, 2004 by such qualified individuals.

Joint Committee on Taxation Revenue Estimates

The Joint Committee on Taxation (JCT) is responsible for developing official revenue estimates of tax provisions under consideration by the U.S. Congress. Revenue estimates measure the effect that a tax provision will have on future receipts to the U.S. Treasury. Under existing budget rules, the JCT provides year-by-year estimates over a specified period, which, in the case of the Liberty Zone provisions, is for 2002 through 2012.

The JCT estimates that the seven Liberty Zone provisions would reduce fiscal year receipts by $4,768 million for 2002 through 2007 and by $5,029 million for 2002 through 2012.[6] The estimated revenue cost for provisions 1 through 4 is $2,895 million for 2002 through 2007 and $2,233 million for 2002 through 2012.[7] Table 2 provides year-by-year JCT estimates for the Liberty Zone provisions.

This section of the report provides a description of the methodology and assumptions used by the JCT in their estimates. Because the JCT is not required to release complete details concerning the methodology, assumptions, data sources, *etc.* used in their revenue estimates, the information upon which we base our analysis is necessarily limited to that which the JCT has provided to us.

The JCT estimates of the seven provisions are: (1) measured relative to prior law,[8] (2) based on a cash-flow concept over the projected budget period, fiscal years 2002 through 2012, and (3) based on a methodology employing sources of data, assumptions, and conventions, as described below.

- **Measured relative to prior law.** In general, the Liberty Zone provisions are measured relative to prior law. That is, the JCT estimates provide the effect that each provision would have, assuming implicitly that each were enacted in isolation from the other provisions of the Act. To account for the effect that provisions have on each other, that is, if enacted after the general provisions of the Act were enacted, the JCT includes an eighth item, "Interaction". This item is not available on a provision-by-provision basis for each of the seven Liberty Zone provisions, but instead is provided in aggregate for all seven provisions.[9] Adding the effects for each of the seven Liberty Zone provisions with the effects of the interaction item yields the total revenue effect of the seven Liberty Zone provisions.

- **Cash flow value for 2002-2012.** The JCT analysis of each of the seven Liberty Zone provisions utilizes a "cash flow" concept over the 2002 to 2012 fiscal year

[6] Source: Joint Committee on Taxation publication, *JCX-13-02*.
[7] Calculated by PwC as the addition of the JCT estimates for provisions 1 through 4 and the interaction item. (See footnote 9).
[8] "Prior law" is defined for the purpose of this analysis as federal law prior to enactment of the Act.
[9] Based on information made available to us by the JCT, we conclude the JCT interaction item relates only to provisions 1, 2, and 4: that is, there is no interaction of provisions 3, 5, 6, or 7 with other provisions of the Act.

period. This approach values tax reductions or tax increases the same regardless of when the effect is realized over the 2002-2012 period. Effects in years after 2012 are not included in the JCT estimates.

- **Methodology.** The JCT uses a variety of sources, assumptions, and conventions for its estimates of the seven Liberty Zone provisions. Because the JCT is not required to completely divulge this information to us, our analysis is by necessity based only on the partial information provided to PwC.

Specific information on the JCT methodology and assumptions used in the estimates of each of the seven Liberty Zone provisions is provided below.

1. **Special Depreciation Allowance for Certain Property.** For this provision, the JCT conducted separate analyses for equipment and structures:
   a. **Equipment.** We understand the JCT calculates the revenue effect using seven major inputs:

      (1) Approximately $61 billion in total investment is affected by the provision, with approximately 19 to 20 percent of the total placed in service in each year 2002 through 2006. (Approximately 5 percent of the investment is assumed to occur in calendar year 2001.)

      (2) Total investment affected by the provision is distributed across six classes of property:
      - 3-year property: 4 percent
      - 5-year property: 55 percent
      - 7-year property: 25 percent
      - 10-year property: 4 percent
      - 15-year property: 7 percent
      - 20-year property: 5 percent

      (3) Under prior law, affected property is depreciated using a 200 percent or 150 percent declining balance method switching to straight line with a half-year convention.

      (4) Under the provision, affected property is depreciated the same as under prior law except with 30 percent bonus depreciation in the first year.

      (5) Net operating losses will result in 71 percent of deductions affecting tax in the current year and 29 percent of deductions affecting tax in a future year.

      (6) Taxpayers affected by the provision have an average marginal tax rate of approximately 30 percent.

(7) The fiscal year split[10] is 65 percent (same year) and 35 percent (next year).

Using these assumptions, the JCT calculated the provision would result in a reduction of fiscal year receipts of $2,155 million over the 2002-2007 period and of $542 million over the 2002-2012 period (See Table 2).

b. **Structures.** We understand the JCT calculates the revenue effect using six major inputs:

(1) Approximately $14 billion in total investment is affected by the provision, in roughly equal amounts (10 percent to 14 percent) in each year 2002 through 2009. (Approximately 2 percent of the investment is assumed to occur in 2001.

(2) Total investment affected by the provision is distributed between two classes of property:
- Residential (depreciated over 27.5 years): 10 percent
- Non-residential (depreciated over 39 years): 90 percent

(3) Under prior law affected property is depreciated using the straight line method, assuming the property is placed in service in the sixth month with a mid-month convention.

(4) Under the provision, affected property is depreciated the same as under prior law except with a 30 percent bonus depreciation in the first year.

(5) Taxpayers affected by the provision have an average marginal tax rate of approximately 30 percent.

(6) The fiscal year split is 75 percent (same year) and 25 percent (next year).

Using these assumptions, the JCT calculates the provision would result in a reduction of fiscal year receipts of $793 million over the 2002-2007 period and of $1,026 million over the 2002-2012 period (See Table 2).

2. **Increase in Expensing Treatment for Business Property Used in New York Liberty Zone.** The JCT did not provide significant information regarding the revenue estimate for this provision. The JCT estimates the provision would result in a reduction of fiscal year receipts of $162 million over the 2002-2007 period and of $37 million over the 2002-2012 period (See Table 2).

[10] The "fiscal year split" used by the JCT allocates the estimated change in tax liability for a calendar year to the fiscal years in which tax receipts will be affected.

3. **Extension of Replacement Period for Certain Property Involuntarily Converted in New York Liberty Zone.** We understand the JCT calculates the revenue effect using three major assumptions:

   a. Approximately $30 billion of property is potentially affected by the provision.

   b. The fiscal year split is 75 percent (same year) and 25 percent (next year).

   c. The revenue effect results from certain taxpayers who under prior law would have recognized gain, but under the provision would replace property that was involuntarily converted.

   Using these assumptions, the JCT calculates the provision would result in a reduction of fiscal year receipts of $355 million over the 2002-2007 period and of $318 million over the 2002-2012 period (See Table 2).

4. **Special treatment of Qualified Leasehold Improvements.** We understand the JCT calculates the revenue effect using six major inputs:

   a. Approximately $1.6 billion in total investment is affected by the provision, in roughly equal amounts (19 percent to 20 percent) in each year 2002 through 2006. (Approximately 2 percent of the investment is assumed to occur in 2001.)

   b. Total investment affected by the provision is assumed to consist of non-residential property depreciated over 39 years.

   c. Under prior law, affected property is depreciated using a straight line method assuming the property is placed in service in the sixth month with a mid-month convention.

   d. Under the provision, affected property is depreciated straight line over five years assuming the property is placed in service in the sixth month with a mid-month convention.

   e. Taxpayers affected by the provision have an average marginal tax rate of approximately 30 percent.

   f. The fiscal year split is 75 percent (same year) and 25 percent (next year).

   Using these assumptions, the JCT calculates the provision would result in a reduction of fiscal year receipts of $368 million over the 2002-2007 period and of $596 million over the 2002-2012 period (See Table 2).

5. **Authorize Issuance of Tax-Exempt Private Activity Bonds for Rebuilding the Portion of New York City Damaged in the September 11, 2001, Terrorist Attack.** The JCT did not provide detailed information regarding the revenue estimates for this provision. The JCT calculates the provision would result in a reduction of fiscal year receipts of $544 million over the 2002-2007 period and of $1,228 million over the 2002-2012 period, as shown in Table 2.

6. **Allow One Additional Refunding for Certain Previously Refunded Bonds for Facilities Located in New York City.** The JCT did not provide detailed information regarding the revenue estimates for this provision. The JCT calculates the provision would result in a reduction of fiscal year receipts of $698 million over the 2002-2007 period and of $937 million over the 2002-2012 period, as shown in Table 2.

7. **Expansion of Work Opportunity Tax Credit Targeted Categories to Include Certain Employees in New York City.** The JCT did not provide detailed information regarding the revenue estimates for this provision. The JCT calculates the provision would result in a reduction of fiscal year receipts of $631 million over both the 2002-2007 period and the 2002-2012 period, as shown in Table 2.

Alternative Tax Benefit Analysis

PwC's alternative analysis of the Liberty Zone provisions focuses on provisions 1 through 4, concerning depreciation, expensing, and treatment of income on involuntarily converted property. For these four provisions, we provide the net tax benefit to taxpayers rather than the effect on fiscal year receipts to the U.S. Treasury, as calculated by JCT. We also provide selected comments on the JCT methodology and results for provisions 5 through 7, concerning tax exempt bonds and the WOTC.

The alternative tax benefit analysis differs from the published JCT revenue estimates in three major ways. The tax benefit analysis is: (1) measured relative to the Act's general provisions, (2) based on the net present value for all years, and (3) based on alternative assumptions, as described below.[11]

- **Measured relative to Act's general provisions.** The alternative analysis measures the incremental tax benefit due to the Liberty Zone provisions after accounting for the general provisions[12] of the Act. This requires provisions 1, 2, and 4 to be scored against the general provision of the Act concerning the first-year depreciation deduction for property placed in service after September 10, 2001 and until September 11, 2004. In addition, we account for interaction between Liberty Zone provisions by scoring provision 4 (concerning special treatment of qualified leasehold improvements), against provision 1a (concerning the special depreciation deduction allowance for equipment).[13]

- **Net present value for all years.** The alternative analysis measures the net present tax benefit for each of the four Liberty Zone provisions over all years affected (unlike the analysis by the JCT, which measures the cash flow effects for 2002 through 2012). That is, we discount the year-by-year effect for all years during which the provision is estimated to affect taxpayers to the year of enactment, 2002. In every case (except for provision 7) the period over which the provisions are effective extends beyond 2012 (the last year used by the JCT in their projections), in some cases as far as the year 2045. Accordingly, the alternative analysis is based on projected tax benefits through 2045. For this analysis, we use a discount rate of 5 percent, which approximates the current high-grade municipal bond yield.[14]

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[11] Because the limited information made available to PwC by JCT reduces the precision of the net present value analysis, we express our estimates in tenths of billions of dollars rather than in millions of dollars (as provided by the JCT in their estimates).

[12] The "general" provisions of the Act include all provisions except for the New York Liberty Zone provisions.

[13] The interaction between the two Liberty Zone provisions concerns property placed in service between September 11, 2004 and December 31, 2006.

[14] Source: *Survey of Current Business*, September 2002: Yield on municipal bonds, 20 bond average for January 2002 through July 2002, reported by the Federal Reserve Board.

- **Alternative assumptions.** As described below, in selected cases, we employ different assumptions than the JCT to calculate the effects of the Liberty Zone provisions.

We estimate that together provisions 1 through 4 would result in a tax benefit of approximately $1.0 billion (See Table 2). The alternative analysis for provisions 1 through 4 and JCT comments for provisions 5 through 7 are set forth below.

1. **Special Depreciation Allowance for Certain Property.** In accord with the JCT approach, we develop separate analyses for equipment and structures:

    a. **Equipment.** We use the same methodology and assumptions we understand are used by the JCT, expect that: (1) we score the provision relative to the Act's general provision concerning the special deduction allowance for certain equipment, and (2) to calculate the net present value, we develop an estimate of the provision for 2002 through 2045 that is consistent with the assumptions made by the JCT for their 2002-2012 estimate.[15] Under the alternative analysis, we estimate the provision results in a net present value tax benefit of approximately $0.2 billion.

    b. **Structures.** We use the same methodology and assumptions we understand are used by the JCT, except to calculate the net present value of the provision, we develop an estimate for 2002 through 2045 that is consistent with the assumptions made by the JCT for their 2002-2012 estimate. Under the alternative analysis, we estimate the provision results in a net present value tax benefit of approximately $0.5 billion.

2. **Increase in Expensing Treatment for Business Property Used in New York Liberty Zone.** We use the same methodology and assumptions we understand are used by the JCT, except that: (a) we score the provision relative to the special depreciation allowance for certain property (provision 1), and (b) to calculate the net present value, we develop an estimate for 2002 through 2045 that is consistent with the assumptions made by the JCT for their 2002-2012 estimate. Using the alternative analysis, we estimate the provision results in a net present tax value benefit of less than $50 million.

[15] The JCT uses a "net operating loss (NOL) effect" to measure the extent to which the tax liability effects of the provision are spread to years other than the one in which deductions are affected by the provision. (For taxpayers with negative taxable income, the change in deductions resulting from the provision does not change tax liability in that year, but rather changes the NOL, which can then be carried backward or forward to years with positive taxable income.) Because the JCT's NOL effect appears to be relatively small and because specific information concerning this parameter was not provided by the JCT, we do not directly include this effect in our analysis. Instead, we slightly alter the yearly level of investment affected by the provision over the 2002 to 2006 period, which we understand roughly simulates the NOL effect.

3. **Extension of Replacement Period for Certain Property Involuntarily Converted in New York Liberty Zone.** Although some information was made available by the JCT related to this provision, it was not sufficient for us to be able to reconstruct the JCT revenue estimate with precision. However, using the published JCT revenue estimate and a range of assumptions we believe are reasonable with regard to depreciation deductions claimed under the provision and under prior law on converted and replacement property, we estimate the net present value tax benefit to be approximately $0.2 billion.

4. **Special treatment of Qualified Leasehold Improvements.** We use the same methodology and assumptions we understand are used by the JCT, except that we: (a) score the provision relative to the special depreciation allowance for certain property (provision 1), (b) make an adjustment for lease terminations,[16] and (c) develop an estimate for 2002 through 2045 that is consistent with the assumptions made by the JCT for their 2002-2012 estimate in order to calculate the net present value of the provision. Using the alternative analysis, we estimate the provision results in a net present value tax benefit of less than $50 million.

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5. **Authorize Issuance of Tax-Exempt Private Activity Bonds for Rebuilding the Portion of New York City Damaged in the September 11, 2001, Terrorist Attack.** Because virtually no significant information was provided by the JCT for this provision, we reconstructed the JCT estimate using what we understand to be JCT estimating conventions, most importantly: (a) tax-exempt debt authorized under the provision replaces taxable debt with a similar risk and maturity structure, (b) the resulting increase in the supply of tax exempt debt and the reduction in taxable debt results in a reduction in the spread between taxable and tax exempt rates, (c) the average marginal tax rate of the marginal investors induced to purchase tax exempt securities in lieu of taxable debt is 25 percent, (d) the rate on taxable debt replaced by tax exempt debt is equal to the rate on ten-year bonds projected for 2002 through 2012[17] adjusted by the historical average relationship between Baa corporate bonds and ten-year U.S. securities.[18] Based on this approach, it appears the JCT assumed that virtually all of the $8 billion in authorized bonds would be utilized, the majority would be issued in calendar years 2003 and 2004, and there would be virtually no retirement of debt prior to the end of the 2002-2012 projection period.

6. **Allow One Additional Refunding for Certain Previously Refunded Bonds for Facilities Located in New York City.** Because virtually no significant information was provided by the JCT for this provision, we reconstructed the JCT

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[16] We understand that although the JCT does not use an adjustment for lease termination for their revenue estimate, for other official estimates, it makes these types of adjustments based on the data we use here. We conclude that approximately 15 percent of leases (on a dollar weighted basis) are terminated within 5 years, 39 percent within 10 years, 63 percent within 15 years, and 70 percent within 20 years.

[17] Source: Congressional Budget Office *The Budget and Economic Outlook*, March 2002.

[18] For this analysis we use the 1992-2001 average relationship between the rate for Baa corporate bonds and the rate for ten-year U.S. Treasury securities (Source *Economic Report of the President*, February 2002).

estimate using what we understand to be JCT estimating conventions, as described above for provision 5. Based on these conventions, it appears the JCT assumed that virtually all of the $9 billion in authorized refunding bonds would be utilized, the majority would be issued in calendar year 2002, and there would be retirement of between approximately 5 percent and 8 percent of the originally issued bonds each year through the 2002-2012 projection period.

7. **Expansion of Work Opportunity Tax Credit Targeted Categories to Include Certain Employees in New York City.** Because virtually no significant information was provided by the JCT for this provision, for the purpose of calculating a net present value, we use the JCT estimates. Using the alternative analysis, we estimate the provision results in a net present value tax benefit of approximately $0.6 billion.

Table 2— New York City Liberty Zone Tax Provisions, Job Creation and Workers Assistance Act of 2002
Estimated Revenue Effects By Joint Committee on Taxation and Alternative Tax Benefit Analysis By PwC
JCT Estimates By Year, 2002-2012
($ millions)

Provision	Revenue Estimates (JCT)													Tax Benefit
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2002-07	2002-12	(PwC)#
1. Special Depreciation Allowance for Certain Property														
c. Equipment…………………	-535	-490	-464	-445	-411	192	481	403	323	240	166	-2,155	-542	200
d. Structures………………….	-87	-114	-136	-152	-154	-150	-146	-142	-11	33	33	-793	-1,026	500
2. Increase in Expensing Treatment for Business Property Used in New York Liberty Zone………………………….	-36	-56	-37	-29	-23	20	49	31	21	14	9	-162	-37	*
3. Extension of Replacement Period for Certain Property Involuntary Converted in New York Liberty Zone………………………………..	-145	-199	-18	1	2	3	6	7	7	8	9	-355	-318	200
4. Special Treatment of Qualified Leasehold Improvements……………………….…..	-11	-26	-45	-70	-102	-115	-101	-79	-50	-12	14	-368	-595	*
5. Authorized Issuance of Tax Exempt Private Activity Bonds for Rebuilding the Portion of New York City Damaged in the September 11, 2001 Terrorist Attack……………………..	-11	-41	-90	-127	-137	-137	-137	-137	-137	-137	-137	-544	-1,228	N/A
6. Allow One Additional Refunding for Certain Previously Refunded Bonds for Facilities Located in New York City…………………….……………..	-103	-124	-133	-125	-115	-98	-80	-64	-49	-30	-15	-698	-937	N/A
7. Expansion of Work Opportunity Tax Credit Targeted Categories to Include Certain Employees in New York City………………………………...	-119	-259	-176	-52	-19	-6	---	---	---	---	---	-631	-631	600
Interaction…………………….….………	563	520	470	-42	-303	-270	-228	-173	-120	-80	-52	938	285	--
Total…………………………………....	-484	-789	-629	-1,041	-1,262	-561	-156	-154	-16	36	27	-4,768	-5,029	N/A
Memo: Provisions 1, 2, 3, 4……………..	-251	-365	-230	-737	-991	-320	61	47	170	203	179	-2,895	-2,233	1,000

See next page for sources and notes.

Sources and notes to Table 2 on previous page

Sources: The revenue estimates for each provision (including "Interaction") on a provision-by-provision basis, and for the "Total" are from the Joint Committee on Taxation publication, *JCX-13-02*. The revenue estimate in aggregate for provisions 1 through 4, "Provisions 1, 2, 3, 4," and the alternative analysis net present value estimates are from PricewaterhouseCoopers, LLP.

Notes:
* = Net present value of less than $50 million.
# = The alternative tax benefit analysis is: (1) measured relative to the general provisions of the Act, (2) based on a net present value calculation, and (3) in selected cases, employs alternative assumptions. See the *Alternative Tax Benefit Analysis* section of this report for a full description of the methodology employed for the analysis.
N/A= Not available.

Details may not add to totals because of rounding.

Conclusions

We conclude that the revenue estimates provided by the JCT for provisions 1 through 4 (concerning depreciation, expensing, and treatment of income for involuntarily converted property), are significantly higher than those based on an alternative analysis. The official revenue estimates are: (1) measured relative to prior law, (2) based on a cash-flow concept over the projected budget period, fiscal years 2002-2012, and (3) based on a methodology, sources, assumptions, and conventions selected by the JCT. The JCT estimates that provisions 1 through 4 would reduce fiscal year receipts by $2,895 million for 2002 through 2007 and by $2,233 million for 2002 through 2012.

The alternative analysis of the four provisions is based on the net present value tax benefit to taxpayers rather than the effect on fiscal year receipts to the U.S. Treasury, as calculated by the JCT. The alternative analysis differs from the analysis used for the published JCT revenue estimates in three major respects: (1) it is measured relative to general provisions, (2) it is based on the net present value for all years, and (3) in selected cases, it employs alternative assumptions. We estimate that the Liberty Zone provisions 1 through 4 would result in a net present value tax benefit of approximately $1.0 billion.

We also conclude the JCT probably assumed in their estimate of provisions 5 and 6, concerning tax-exempt bonds, that virtually all of the bonds authorized under the legislation would be issued, and that most of the issuance would occur in 2003 and 2004 for provision 5 and in 2002 for provision 6. For provision 7, concerning the WOTC, we estimate the tax benefits to be approximately $0.6 billion.