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United States Government Accountability Office  
Washington, DC 20548

February 15, 2007

The Honorable Richard G. Lugar  
Ranking Minority Member  
Committee on Foreign Relations  
United States Senate

Subject: Update on the United Nations' Capital Master Plan

Dear Senator Lugar:

Since 2000, the United Nations (UN) has been developing a Capital Master Plan (CMP) to renovate its headquarters complex in New York City to bring it into compliance with current life safety and building codes. The planned renovation will also enable the UN to address technology and security needs. Since 2001, we have reported on the UN's efforts to develop the CMP.<sup>1</sup> As we finalized our most recent report in November 2006, the UN Secretary-General released the latest progress report on the CMP and recommended that the UN General Assembly approve a scope, schedule, budget, and funding mechanism for the CMP. The Secretary-General's report also included an updated cost estimate of \$1.88 billion for the project.<sup>2</sup> This estimate for the CMP is about \$128 million higher than the previous estimate, which was released in 2005.

As the host country and largest contributor to the UN, the United States continues to have a significant interest in the success of the renovation. In this report, we (1) analyze the changes in the latest cost estimate and (2) describe the latest decisions the UN General Assembly made in regard to the CMP and the resulting cost to the United States to fund the project.

To analyze the changes in the latest cost estimate, we reviewed pertinent UN documents, including the Secretary-General's third and fourth annual progress reports for the CMP.<sup>3</sup> We also examined construction cost inflation projections from the Department of Defense, Global Insight, and Means Construction Cost Indexes to assess the inflation assumptions used in the

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<sup>1</sup>GAO, *United Nations: Planning for Headquarters Renovation Is Reasonable: United States Needs to Decide whether to Support Work*, [GAO-01-788](#) (Washington, D.C.: June 15, 2001); *United Nations: Early Renovation Planning Reasonable, but Additional Management Controls and Oversight Will Be Needed*, [GAO-03-566](#) (Washington, D.C.: May 30, 2003); *United Nations: Weaknesses in Internal Oversight and Procurement Could Affect the Effective Implementation of the Planned Renovation*, [GAO-06-877T](#) (Washington, D.C.: June 20, 2006); and *United Nations: Renovation Planning Follows Industry Practices, but Procurement and Oversight Could Present Challenges*, [GAO-07-31](#) (Washington, D.C.: Nov. 16, 2006).

<sup>2</sup>The Secretary-General reported the estimated total project cost for the CMP to be \$1,876.7 million. For this report, we have rounded the estimate to \$1.88 billion.

<sup>3</sup>United Nations Secretary-General, *Third Annual Progress Report on the Implementation of the Capital Master Plan*, A/60/550 (New York, 2005), and *Fourth Annual Progress Report on the Implementation of the Capital Master Plan*, A/61/549 (New York, 2006).

CMP cost estimate and interviewed UN officials and the CMP office's program management consultant, who developed the estimate. To report on the latest General Assembly decisions regarding the CMP and the resulting cost to the United States, we interviewed Department of State (State) and UN officials and reviewed pertinent UN documents, including General Assembly resolutions, U.S. budget submission documents, and applicable laws.<sup>4</sup> We conducted our work at the UN in New York City and at the Department of State in Washington, D.C., from December 2006 to January 2007 in accordance with generally accepted government auditing standards.

## Results in Brief

A total of \$214 million in cost increases and \$86 million in cost decreases were identified in the latest cost estimate, for a net cost increase of \$128 million. Most of the cost categories in the 2006 CMP cost estimate increased, but others decreased from the previous estimate. The increase in the cost categories largely resulted from higher rates of projected future inflation, further definition of the scope of work to be done, and a delay in the start of the project. Reductions were made to some cost categories because the design had progressed (reducing the uncertainty in the project), and areas were identified where the construction costs could be cut without affecting the quality or functionality of the project.

In December 2006, the General Assembly approved a budget for the CMP of \$1.88 billion, the final project scope, and a project schedule with a completion date of 2014. To fund the CMP, the General Assembly decided to allow member states the option of either making a onetime payment or equal payments over 5 years. Assessments are based upon each member state's regular budget rate of assessment. In addition, the General Assembly approved a \$45 million working capital reserve to cover temporary project cash flow deficits that might occur. Payment for the single or first assessment and the working capital reserve is due around May 1, 2007. According to a State official, the United States is expected to pay its assessment of \$377.7 million over 5 years, for a total of \$75.5 million per year. Also, the United States has been assessed about \$9.9 million for its share of the working capital reserve. The President's Fiscal Year 2008 Budget request includes about \$85 million to pay the U.S. assessments.

## Background

Although the original UN headquarters complex in New York City was considered among the most modern facilities when construction was completed in 1952, it does not conform to current life safety and building codes and does not meet UN technology or security requirements. The UN Secretary-General first proposed a comprehensive renovation of the complex, known as the CMP, in June 2000. Under the CMP, the UN intends to renovate the complex to make it conform to current codes and meet technology and security requirements. This process will involve upgrading or replacing all major building systems, including the electrical, plumbing, fire suppression, and heating and air conditioning systems, as well as reinforcing the complex's structural integrity and removing all asbestos.

With approval from the General Assembly, the CMP office has worked on planning and designing the renovation, including work considered to be optional. The CMP has continued to evolve and the Secretary-General has reported on its progress—including updating the estimated cost of the project—in 2002, 2005, and 2006. In 2005, the CMP office's cost estimate for the project was

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<sup>4</sup>United Nations General Assembly, *Resolution Adopted by the General Assembly, A/RES/61/251* (New York, Dec. 22, 2006).

approximately \$1.75 billion, including the optional work. Between 2000 and 2006, the UN appropriated \$160 million to plan and design the CMP and to obtain space to temporarily relocate UN staff and activities during the renovation.

We have previously reviewed UN efforts to develop the CMP and prepare cost estimates. In June 2001 and May 2003, we reported that UN renovation planning efforts had been reasonable and conformed to leading industry practices. In our most recent report, in November 2006, we noted that UN officials continued to use leading industry practices to develop the UN headquarters renovation project, but since the CMP office relies on existing UN procurement practices, implementation of the renovation in the future could become vulnerable to the numerous UN procurement weaknesses that GAO has previously reported.<sup>5</sup> In our reports, we also noted that the cost estimates have been preliminary and should be expected to change and that without decisions from the UN General Assembly on the budget and funding for the CMP, costs could increase as a result of delays in the project schedule.

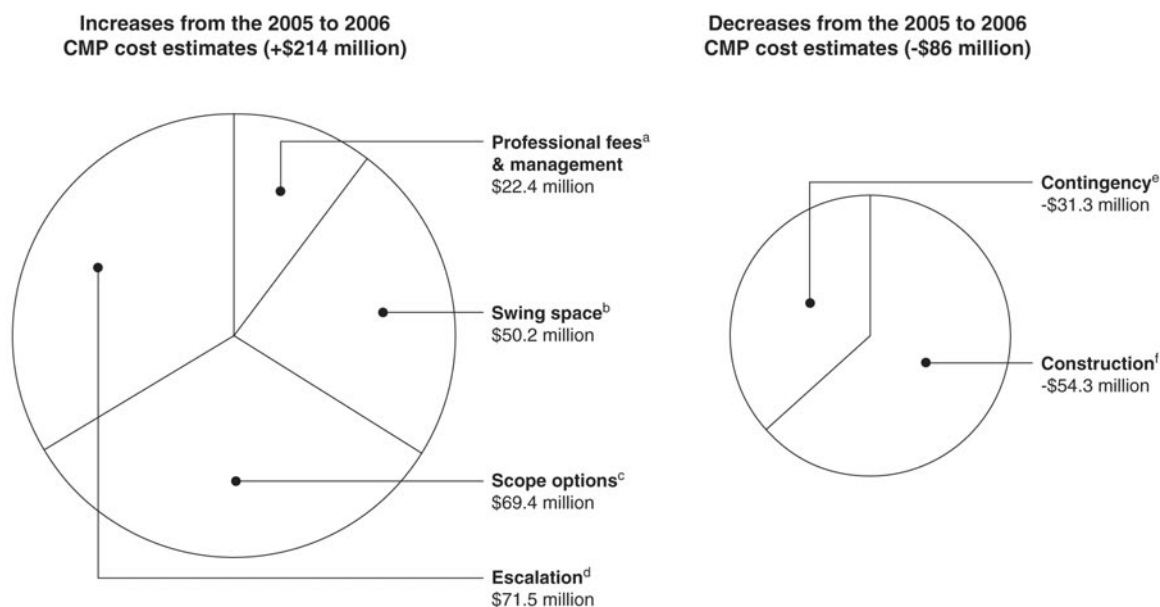
### **Some Elements of CMP Cost Estimate Increased, while Others Decreased, Resulting in a \$128 Million Increase in Total Project Cost**

Some of the cost categories in the 2006 CMP cost estimate increased, while others decreased, resulting in an increase of \$128 million for a total project cost of \$1.88 billion. Most of the cost categories in the estimate increased, largely as a result of higher rates of projected future inflation and changes in the definition of the work to be done. Reductions were made to some cost categories because the design had progressed (reducing the uncertainty in the project), and areas were identified where the construction costs could be cut without affecting the quality or functionality of the project. A total of \$214 million in cost increases and \$86 million in cost decreases were identified for a net cost increase of \$128 million (see fig. 1). The CMP is still being designed and the CMP office will update the project cost estimate annually. While the cost estimate can be expected to change, the UN General Assembly has clearly set the expectation for the Secretary-General to make every effort to maintain the current overall estimate of \$1.88 billion.

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<sup>5</sup>GAO-07-31.

**Figure 1: Cost Increases and Decreases in the CMP Estimate from 2005 to 2006**



Source: GAO analysis of UN documents.

Note: The CMP cost estimates are reported in dollars as of January in the year the estimate was released and thus do not include the effect of inflation for the year.

<sup>a</sup>*Professional fees and management*—costs for CMP office staff and overhead, including leasing of office space; all UN staff support including procurement and legal services; project management consultant services that enhance the CMP office capabilities; planning and design services; and project management fees.

<sup>b</sup>*Swing space*—cost of relocating staff and operational functions displaced by the renovation into temporary space, including the cost of leases and construction of a temporary building. This line item includes contingencies, professional fees, management costs, and escalation specific to the swing space.

<sup>c</sup>*Scope options*—cost of work originally considered to be optional by the UN for inclusion in the renovation. This line item includes contingencies, professional fees, management costs, and escalation specific to the scope options. Scope options contain recommended work in three areas: (1) security, (2) redundancy to improve the reliability of building systems, and (3) sustainability to mitigate the environmental impact of the buildings.

<sup>d</sup>*Escalation*—reserve to account for the effect of inflation over the remaining life of the project on the price of materials and labor. Escalation in the 2006 estimate covers the period 2006 to 2014 for the construction, some professional fees and management, and contingency line items.

<sup>e</sup>*Contingency*—reserve to account for unforeseen conditions and other changes that might arise during the renovation project.

<sup>f</sup>*Construction*—cost of the labor and materials for the specific renovation work.

- **Escalation increased by \$71.5 million.** Escalation increased because the assumptions for inflation changed and the start of the project was delayed. The CMP office’s cost estimator revised the assumptions for inflation used in the 2006 estimate upward by 1 percent in 2006 and 0.5 percent in 2007 to reflect changes in the New York City construction market. Many factors affect future inflation rates so they are difficult to estimate. Our review of projected inflation rates for the construction industry showed the rates used in the CMP estimate to be in line with these projections. The increase in escalation also reflects the effect of inflation on the project because of a later starting date. The start of the project was delayed by about a

year when the General Assembly did not provide final approval for the project and its financing in 2005.

Escalation may increase in future estimates if the assumptions for inflation prove to be too low or the project schedule is delayed.

- **Scope options cost increased by \$69.4 million.** The initial concept for the scope options was developed in 2002 and contained recommended work in three areas: (1) security, (2) redundancy to improve the reliability of systems, and (3) sustainability to mitigate the environmental impact of the buildings. The 2006 cost estimate includes the same areas of work for the scope options, but the work recommended under each area is different than the work previously anticipated and resulted in cost increases. In the 2006 estimate, the costs for enhancing security increased over the cost in the 2005 estimate by \$132.5 million, while the cost for both redundancy and sustainability decreased by \$47.5 million and \$15.6 million, respectively. The enhanced security work would provide additional blast protection for the structures in the UN complex. The estimate for scope options also increased because of higher projected rates of inflation and delays in the project schedule.
- **Swing space costs increased by \$50.2 million.** Swing space includes three components: (1) temporary lease of office space for displaced staff, (2) temporary lease of library space, and (3) a temporary conference building to be constructed on the north lawn of the UN complex. The cost for each of these components increased in the 2006 estimate. The CMP office has been working with a real estate broker to identify suitable office space in midtown Manhattan. The midtown Manhattan office building vacancy rate has decreased over the last year, and the rental rates and estimated costs for preparing the space to meet the UN's needs have increased. Costs have also increased for the space available to relocate much of the library during the renovation, and all of the sites identified would require the UN to install a new ventilation and cooling system to protect the library materials. The cost for the temporary building increased as a result of concerns identified with subsurface water that may affect the cost of constructing the building. The cost of the temporary building also increased because of higher projected rates of inflation and delays in the project schedule.

While the estimate for swing space is based on identified sites for office and library space, the UN is vulnerable to further changes in the market until it signs contracts for the leases.

- **Professional fees and management costs increased by \$22.4 million.** The estimated cost of professional fees and management increased for several reasons. First, the CMP program manager determined that the cost for a construction manager would likely be higher because of changes in market conditions. Second, the CMP budget now includes costs for temporarily relocating some UN staff within the UN complex that had previously been expected to be paid from the UN's regular budget. Last, the estimate was increased to cover potential additional expert consultant services, testing costs, and legal and other project expenses.
- **Contingency reserve decreased by \$31.3 million.** During the design and implementation of a project, it is expected that conditions or issues will arise that could not be anticipated. It is industry practice to add contingency, as a percentage of the design and construction costs, to a project to account for these unforeseen conditions. As the project moves through the design process, there are fewer opportunities for unforeseen conditions to arise and, thus, the contingency may be reduced. Given the progression of the project design, the

contingency was reduced because there is now less uncertainty about conditions that may affect the design.

The CMP office plans to develop a risk assessment for the CMP starting in February 2007. This process should help it better identify risks to the project and develop plans to minimize these risks. It may also help the CMP office determine if the project's contingency reserve needs further adjustments.

- **Construction costs decreased by \$54.3 million.** The current construction estimate is based on revised design development documents and has undergone a detailed scope review and value engineering to identify opportunities for reducing the construction cost.<sup>6</sup> Changes made as a result of value engineering are intended to save money without changing the functionality of the space. Some of the larger dollar saving changes that were made include:
  - deleting a large number of private offices and moving to a more open floor plan (\$11.5 million),
  - using a wireless local area network (LAN) in conference rooms instead of hard-wiring them (\$2.9 million),
  - reducing the audiovisual allowance for the Secretariat building because some of the equipment already exists and is reusable (\$2.8 million),
  - reducing the scope of the basement renovation (\$2.3 million), and
  - eliminating the dedicated electrical receptacles from each delegate's desk and providing power strips instead (\$1.9 million).

If it is later determined that these changes cannot be made without changing the functionality of the space, we would expect the cost to be added back into the estimate. CMP officials noted that value engineering is an ongoing process and they will continue to look for opportunities to reduce project costs.

In addition to being updated to reflect changes in the specific cost categories as discussed above, the 2006 estimate reflects the impact of inflation on the cost categories through 2005. Since escalation is a reserve used to account for inflation over the life of the project, each year the cost estimate will be updated and the cost of inflation over the year will be moved from escalation to the appropriate cost categories. Transfers from escalation will not have a net effect on the overall cost estimate, but they will result in changes to individual cost categories, as shown in table 1.

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<sup>6</sup>Value engineering is the process of identifying opportunities to reduce costs while ensuring the quality, reliability, and performance of the project.

**Table 1: Comparison of 2005 and 2006 Estimated Total CMP Cost by Cost Category**

Dollars in millions

Cost category	2005 estimate	Transfers/changes to 2005 estimate		Net changes	2006 estimate
		Transfers from escalation <sup>a</sup>	Changes		
Construction	\$ 734.6	\$ 58.8	-\$ 54.3	\$ 4.5	\$ 739.1
		2005 inflation	Value engineering -32.2 Design refinement -22.1		
Professional fees and management	144.3	40.2	22.4	62.6	206.9
		2005 inflation 11.5 Future inflation 28.7	Additional money for construction manager 6.4 Additional experts/studies 9.0 Additional cost for on-site relocation 7.0		
Contingency	184.4	14.8	-31.3	-16.5	167.9
		2005 inflation	Reduced risk as design has progressed		
Escalation	360.2	-113.8	71.5	-42.3	317.9
		2005 inflation	Changes in projected inflation/schedule		
Swing space	164.3		50.2	50.2	214.5
			Office space rental rates 23.5 Office space fit-out 9.1 Library space rental rates 2.5 Library space fit-out 3.7 Temporary building fit-out and water issues 11.4		
Scope options	161.0		69.4	69.4	230.4
Security	33.5	.....	.....	.....	... 166.0
Redundancy	84.0	.....	.....	.....	.... 36.5
Sustainability	43.5	.....	.....	.....	..... 27.9
			Project escalation 24.5 Scope development 44.9		
<b>Total</b>	<b>\$1,748.8</b>	<b>0</b>		<b>\$127.9</b>	<b>\$1,876.7</b>

Source: GAO analysis of UN documents.

<sup>a</sup>Amounts were moved from the escalation line item to account for actual inflation experienced in 2005 and for future inflation rates written into contracts awarded for professional fees and management.

### General Assembly Approves Project Scope, Budget, Schedule, and Funding

In December 2006, the UN General Assembly approved the scope, schedule, and budget for the renovation. In addition, the General Assembly decided to fund the project through either a single or 5-year assessment on member states and to establish a working capital reserve and a letter of credit for the CMP. In approving the project, the General Assembly also agreed to the recommended scope options, which were previously discussed, and a total revised budget for the renovation at a cost not to exceed \$1.88 billion. The General Assembly approved the renovation schedule as shown in table 2 with a projected completion date of 2014.

**Table 2: Anticipated Schedule for the CMP**

<b>Activity</b>	<b>Start date</b>	<b>Completion date</b>
<b>Swing space</b>	<b>Early 2007</b>	<b>Late 2008</b>
• Prepare leased office space for occupancy	Early 2007 <sup>a</sup>	Late 2007
• Prepare leased library space for occupancy	Mid-2007 <sup>a</sup>	Late 2007
• Early-action work (renovate existing North Lawn building, add centralized technology center)	Early 2008 <sup>b</sup>	Late 2008
• Construction of temporary conference building	Mid-2007	Mid-2008
<b>Renovation of United Nations headquarters</b>	<b>Early 2008</b>	<b>Mid-2014</b>
• Basements/infrastructure	Mid-2008	Early 2011
• General Assembly building	Mid-2008 <sup>c</sup>	Early 2011
• Conference building	Early 2011	Late 2013
• Secretariat building	Early 2008 <sup>d</sup>	Late 2013
• South Annex building	Late 2013	Early 2014
• Library building	Late 2012	Late 2013
• Site/landscaping	Late 2012	Early 2014
• Disassembly of temporary conference building	Late 2013	Late 2013

Source: UN.

<sup>a</sup>Depends on lease negotiation.

<sup>b</sup>If authorized as early work.

<sup>c</sup>Depends on completion of temporary conference building.

<sup>d</sup>Depends on completion of preparation of leased office space.

In January 2007, the UN assessed each member state, on the basis of each member state's regular budget rate of assessment, the remaining cost of the renovation, which totaled about \$1.72 billion.<sup>7</sup> To fund the CMP, the General Assembly resolved that each member state has the option of making either a onetime payment in 2007 or equal multiyear payments over 5 years from 2007 through 2011.<sup>8</sup> In December 2006, the General Assembly approved the scale of assessments for the regular budget for all member states for 2007 through 2009, and the United States' assessment remained at 22 percent. According to a State official, the United States plans to exercise the option to pay its assessment of \$377.7 million in five payments of \$75.5 million per year (see table 2).

The General Assembly also approved a \$45 million working capital reserve to cover temporary cash flow deficits. Accordingly, each member state is expected to make advances to the working capital reserve based on its regular budget rate of assessment. The United States has been assessed \$9.9 million (22 percent) for its share of the working capital reserve.<sup>9</sup> The President's

<sup>7</sup>In 2000, the General Assembly appropriated \$8 million for the CMP, which was funded through an allotment from the regular UN budget. In 2003 to 2006, the General Assembly appropriated another \$152 million for the CMP, which was funded through cash assessments on member states. The remaining cost of the CMP is \$1.716 billion. For this report, we round this to \$1.72 billion.

<sup>8</sup>The General Assembly also decided that in the unlikely event of cost escalations beyond the approved budget of \$1.8767 billion, all member states will be subject to further assessment to meet the revised financial requirements approved by the General Assembly.

<sup>9</sup>According to the Secretary-General's fourth annual report on the CMP, the working capital reserve would be phased out at the end of construction and the related contributions credited back to member states.



fiscal year 2008 budget request includes \$85 million to pay the U.S. CMP and working capital reserve assessments.<sup>10</sup>

**Table 3: Annual Assessments to the United States Related to the CMP**

Dollars in millions

<b>U.S. assessment</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Total</b>
CMP	\$75.5	\$75.5	\$75.5	\$75.5	\$75.5	<b>\$377.7</b>
Working capital reserve	\$9.9					<b>\$9.9</b>
<b>Total</b>	<b>\$85.4</b>	<b>\$75.5</b>	<b>\$75.5</b>	<b>\$75.5</b>	<b>\$75.5</b>	<b>\$387.6</b>

Source: UN.

Note: Numbers may not add to total because of rounding.

Payments for the single or first multiyear assessment and working capital reserve are due 120 days from the first week in January, or around May 1, 2007. With the mix of single and multiyear assessments, the UN may not have the financial resources by May 1, 2007, to demonstrate that it has the full capability to fund the project. As a result, the General Assembly has approved the establishment of a letter of credit for this purpose.<sup>11</sup>

### Agency Comments

We provided a draft of this report to the Department of State and the United Nations for their review and comment. Both State and the UN provided oral comments stating that they agreed with the information as presented in the report. Both also provided technical suggestions and clarifications, which have been incorporated into the draft as appropriate.

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As agreed with your office, we are making copies of this report to available to interested members of Congress, the Secretary of State, and the U.S. Permanent Representative to the United Nations. We will also make copies available to others on request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

<sup>10</sup>The UN resolution also provides that member states that pay their assessments late and cause the project to experience cash flow shortfalls are subject to charges of interest to cover short-term borrowing expenses incurred by the UN to cover the shortage. Under U.S. law, none of the funds appropriated to the Department of State are available to the UN to pay the U.S. share of interest costs arising from external borrowings by the United Nations. However, the President's fiscal year 2008 budget includes a provision that requests Congress to exempt the CMP from U.S. law that prohibits the United States from paying such interest charges to the UN.

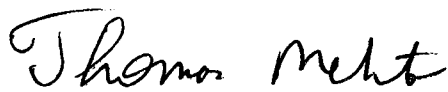
<sup>11</sup>The total cost of the fee for the letter of credit could range between \$3 million and \$21 million. The letter of credit facility would be for the total amount of construction less paid assessments and the working capital reserve. The fee for this letter of credit has not yet been determined, but member states will be assessed their pro rata shares.

If you or your staff have any questions about this report, please contact Terrell Dorn at (202) 512-6923 or [dornt@gao.gov](mailto:dornt@gao.gov) or Thomas Melito at (202) 512-9601 or [melitot@gao.gov](mailto:melitot@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are Phyllis Anderson, Maria Edelstein, and Bruce Kutnick.

Sincerely yours,

Handwritten signature of Terrell Dorn in black ink.

Terrell Dorn  
Director, Physical Infrastructure Issues

Handwritten signature of Thomas Melito in black ink.

Thomas Melito  
Director, International Affairs and Trade

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