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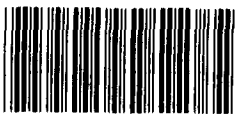

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Treasury's Sale of Zero-Coupon Bonds to Mexico

Statement of
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Before the
Committee on Banking, Finance and Urban Affairs
House of Representatives

Mr. Chairman and Members of the Committee:

We are happy to be here this morning to discuss our review of Treasury's pricing of zero coupon bonds that were sold to Mexico in March 1990. In addition, we are also commenting on proposals to extend GAO's audit authority to the Exchange Stabilization Fund (ESF).

This Treasury sale of zero coupon bonds (commonly referred to as "zeros") to Mexico was part of the restructuring of Mexico's commercial bank debt under the "Brady Plan." The sale was a private placement to Mexico (i.e., the bonds were sold directly to Mexico at a negotiated price). A zero pays all interest and principal together in one payment at maturity, and thus is sold at a deep discount from its face value. To date, Treasury has issued zeros only five times. In contrast, a coupon bond has multiple semiannual interest payments in addition to the principal payment. The sale of coupon bonds at auction is the usual way in which Treasury borrows medium and long-term. Dealers who trade Treasury securities have created an essentially equivalent instrument to a zero, called "STRIPS." They create STRIPS by separating a coupon bond's interest payments from each other and from the bond's principal and then selling the rights to these payments separately.

The United States encouraged the negotiations between Mexico and its commercial bank creditors that culminated in the recent rescheduling. The United States also encouraged the World Bank, the International Monetary Fund and Japan to lend Mexico funds. Mexico received assistance in the following ways.

-- Most of the commercial banks exchanged their Mexican loans for two types of new Mexican government bonds. One type had a face value that was 35 percent lower than the principal of the loans they replaced. The other type replaced the original loan's variable interest rate with a lower fixed interest rate of 6.25 percent.

-- A few commercial banks provided new loans to Mexico equal to 25 percent of their outstanding medium and long term Mexican loans.

The U.S. Treasury zeros discussed above are being used as collateral to secure the principal of the new Mexican government bonds. Mexico exchanged these new bonds for about 93 percent of the debt owed foreign commercial banks.

The restructuring agreement also called for 18 months of bond interest to be guaranteed by funds placed in an escrow account by Mexico. However, Mexico was to have received the interest earned

on this account. When the agreement-in-principle was made on July 23, 1989, the parties to the negotiations expected that the principal and interest guarantees would cost Mexico $7 billion.

During the 5 weeks preceding the pricing decision, the U.S. Department of the Treasury had an intense internal debate over the proper pricing of the zeros that would be sold to Mexico. Central to the debate was the disagreement over whether to base the price of the zeros on the STRIPS rate or the Treasury coupon bond rate. The price of a zero is determined by its interest rate; the lower the interest rate, the higher its price. During this time period the yield on STRIPS was about 25 basis points lower than the yield on coupon bonds.

One side of the debate called for selling the bonds at a price that was based on the yield on STRIPS, similar bonds traded on U.S. markets, arguing, in part, that this was the closest to a market price for the private placement. The other side called for selling the zeros at a lower price based on the yield on 30-year coupon bonds, arguing, in part, that pricing in this way represented Treasury's cost of borrowing. In addition, this side argued that pricing the zeros based on the yield on STRIPS would endanger the restructuring agreement. At a Treasury meeting on January 4, 1990, proponents of coupon based pricing argued that a price with a yield under 7.90 percent would cause the whole

transaction to fall apart. At a lower yield, Mexico would not have the resources to complete the restructuring.

On January 5, 1990, the Secretary decided to price the zeros based on the 30-year coupon bond yield. Treasury used the interest rate prevailing in the market on January 3 to 5, 1990, less a 0.125 percent accommodation fee, which equaled 7.925 percent. We have no official documents from the Secretary explaining the rationale for his decision. On March 28, 1990 the Treasury sold Mexico $30.2 billion in zeros (at face value, the amount paid at maturity) for $2.990 billion.

A Treasury official told us that, even after the zeros were priced to yield 7.925 percent, Mexico needed approximately $311 million more than had been expected when the agreement-in-principle was reached in July 1989. This shortfall arose because interest rates had declined (thus increasing the price of the zeros), and the banks chose a different mix of options than had been expected. Mexico covered this shortfall by contributing slightly less than $100 million in additional reserves and by funding the escrow account somewhat differently than originally called for in the agreement-in-principle.

Considerable controversy has developed concerning the pricing of these zero-coupon bonds. As you requested, we reviewed the issue and concluded that Treasury set a price for the bonds that

involved an effective subsidy of approximately $192 million. In our view, the interest rate used to set the price of the zeros was higher than that indicated by comparable market rates of interest (i.e., those for STRIPS), which lowered the price of the private placement.

We believe that the Secretary of the Treasury had the legal authority to set this price for the transaction under review. The Secretary has broad discretion to set the price and other terms of Treasury bonds in order to fund the national debt.

While it was within the Secretary's legal authority, we think that the pricing decision was neither appropriate nor good public policy. The Secretary's decision to price the zeros based on the coupon bond rate resulted in an effective subsidy for Mexico of about $192 million as compared to a price for the zeros based on the yield on STRIPS. There may be credible arguments that can be made to support a U.S. government financial contribution to the solution of the less developed countries' debt crisis, and it is not clear whether the Mexican restructuring would have succeeded without some such contribution. Nevertheless, we believe that if Treasury wished to help Mexico, the correct way would have been to obtain congressional approval through the authorization and appropriations process, rather than with an effective subsidy provided through the under pricing of the zeros.

In the long run, this decision could set a precedent that will cost the United States many times more than $192 million. The Mexico deal was the first of many agreements anticipated under the Brady Plan. Foreign governments and commercial banks may well expect the U.S. government to contribute resources so that their own concessions can be reduced. Again, such contributions may be in our national interest, but they ought to be funded through explicit congressional authorization.

BACKGROUND

The sale of zero-coupon bonds to Mexico was one element of the restructuring of Mexico's international debt under the Brady Plan, the administration's approach to dealing with the less developed country debt crisis. Under the terms of the restructuring agreement between Mexico and its international bank creditors, much of Mexico's outstanding commercial bank debt was exchanged for newly issued, dollar-denominated, Mexican government bonds with principal secured by the zeros.

Mexico also purchased a small amount of zeros from Japan, Canada, France, and the United Kingdom for use in a similar manner for loans denominated in currencies other than dollar. We have not examined the pricing of these bonds in detail, although representatives of one nation noted that they relied on the U.S. decision as a basis for their pricing decision.

GAO'S ANALYSIS

On March 29, 1990, Mexico paid $2.990 billion for U.S. zeros, promising $30.2 billion at maturity on December 31, 2019, for a yield of 7.925 percent. Treasury priced these zeros by subtracting its usual one-eighth percent (0.125 percent) accommodation fee from its estimate of average closing rates on 30-year coupon bonds (8.05 percent) for January 3 to 5, 1990.[1]

Using the 30-year coupon bond rate to set the price of the zeros was not appropriate. Coupon bonds and zeros are fundamentally different instruments. In the case of 30-year bonds with the same face value, a zero has 1 payment 30 years after the bond is issued, while a coupon bond has 61 payments--60 semiannual interest payments and 1 principal payment. Because of this difference in payments, these bonds are fundamentally different instruments and generally have different yields. Another way to view this difference is that a zero pays its rate of return on principal and accumulated interest for the full term of the bond, while a coupon bond pays its rate of return on only the principal because the interest is paid semiannually rather than accumulated.

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[1]Treasury sold zero-coupon bonds four other times in addition to this sale to Mexico -- to the Resolution Funding Corporation (Refcorp) in October 1989, January 1990, and April 1990, and to Mexico in March 1988 as collateral for then new Mexican bonds in a smaller exchange of old loans for bonds, commonly referred to as the "Mexico-Morgan deal." Treasury charged Refcorp an administrative fee of 0.125 percent interest, while in the previous sale to Mexico Treasury charged a fee of 0.25 percent interest.

The rate of interest on a zero when issued determines its price. The issue price of the bond varies inversely with the rate of interest. If the rate of interest rises, the issue price of the bond falls, and if the rate of interest falls, the issue price of the bond rises.

For this zero sale to Mexico and for three of the four other zero-coupon bond sales by Treasury, the market's yield for long-term STRIPS was lower than for a coupon bond with the same maturity. In the other zero sale, however, the yield on STRIPS was higher than the corresponding coupon bond yield. (These sales are described in the Appendix I.)

The United States would have received about $192 million more for this sale of zeros to Mexico if Treasury had based the zero price on the 30-year STRIPS yield rather than the 30-year coupon bond yield, assuming Treasury continued to charge its usual 0.125 percent accommodation fee. [2] Had Treasury used STRIPS for pricing, it would have priced the zeros based on the market yield of an essentially identical instrument rather than one which has very different characteristics than the zeros. Had this been

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[2]Our estimate and Treasury's method are both modestly extrapolated to 30 years because on January 3 to 5 1990, the longest maturities of the securities on which these estimates were based was 29.61 years.

done, Treasury would have priced the zeros with a yield of 7.708 percent compared to the 7.925 percent rate that was used.

STRIPS

While the Treasury does not ordinarily issue zero-coupon bonds, and those few that it has issued are not traded in the secondary market, the STRIPS yield is an appropriate measure of the market's yield for a single future Treasury payment like the zero. [3]

Dealers who trade Treasury bonds create STRIPS by separating the principal payment of a coupon bond from the semiannual interest payments. Consequently, when this process is applied to 30-year Treasury coupon bonds, it creates 30-year STRIPs that are equivalent to a 30-year zero-coupon bonds. A 30-year STRIP provides only one payment from Treasury to the bond holder in 30 years, and is, therefore, an appropriate vehicle for pricing 30-year Treasury zeros.

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[3] An alternative way of measuring the market yield on a Treasury payment in thirty years is by calculating the 30-year "theoretical spot yield," also called the "hypothetical spot yield." However, measurement of this yield appears to be subject to more variation because it is based on groups of Treasury coupon bonds and different groups will generate different estimates. Bonds in each group have similar characteristics such as common dates for interest payments, but generally have different maturities. The theoretical spot rate assumes that payments at the same date receive the same yield regardless of which bond in the group they originated from. Consequently, a 30-year theoretical spot rate for a group of Treasury coupon bonds measures the yield on a payment in 30 years for the bonds in that group.

Since 1985, Treasury has encouraged these STRIPS by issuing coupon bonds in book entry form through the Federal Reserve System in a way that helps private dealers separate interest and principal payments.

On January 3 to 5, 1990, the yield on 30-year Strips averaged 7.708 percent compared to the then 7.925 percent yield on 30-year coupon bonds, both rates are computed after deducting the usual one-eighth of a percent accommodation fee charged by Treasury.[4]

TERMS OF TREASURY'S OTHER SALES OF ZERO-COUPON BONDS

Treasury sold zeros twice before and twice after pricing the zero we are concerned about today. In each of these four other sales, Treasury made use of the STRIPS yield or the spot yield to price the initial sale or to set the conditions for calling or redeeming the zero coupon bonds.

More importantly, the two earlier agreements contain clauses that lessen the burden on Treasury resources. In the deal to

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[4] We estimate that the theoretical spot yield (after deducting a 0.125 percent fee) was about 7.716 percent on January 3 to 5, 1990. We obtained this estimate by averaging the 7.816 percent estimate by a major investment bank with the 7.616 percent estimate by a major commercial bank. If the Treasury had priced the zeros sold to Mexico based upon this spot yield estimate and continued to charge its usual 0.125 percent accommodation fee, the United States would have received $184 million more for the zeroes than it actually received.

restructure some Mexican debt that was organized by Morgan Guaranty Bank, Treasury avoided costs by (1) pricing for sale based on a benchmark rate (8.66 percent) that was then less than both the coupon rate (8.90 percent) and the STRIP rate (9.13 percent), (2) charging a larger fee (0.25 percent) at sale, and (3) requiring additional fees due Treasury for exercising the call and redemption options.

In the October 1989 sale to Resolution Funding Corporation (Refcorp), Treasury based the sales price on the STRIPS rate that was at 7.71 percent, about 25 basis points (0.25 percent) lower than the coupon bond rate.

It is not possible to determine a strictly comparable market price for the two zero sales to Refcorp which followed the pricing decision we reviewed because these zeros mature in 40 years and the longest maturing STRIPS and coupon bonds were then slightly less than 30 years. We can point out however that these zeros sold to Refcorp had substantially lower yields at sale than the longest STRIPS and coupon bonds.

These examples raise the fundamental issue of our review as to why Treasury priced the March 29, 1990, zero-coupon bond sale to Mexico in a way that was so unfavorable to the United States?

THE TREASURY PRICING DECISION

A vigorous internal debate preceded the pricing decision of January 5, 1990, particularly during the preceding 5 weeks. Based on our review of what Treasury informed us were all documents concerned with this issue, we conclude the following.

-- There were two opposing groups in this debate. Discussion centered on choice of the benchmark on which to base the price and what fees, if any, to charge.

-- The group that argued for no or low fees, also argued for pricing based on the 30-year coupon rate rather than the 30-year STRIPS rate. During this time, the coupon rate exceeded the STRIP rate by about 25 basis points (0.25 percent).

-- A major consideration in the debate was the effect of the pricing decision on the size of the shortfall in Mexican resources to complete this deal, and whether this concern should affect the pricing decision. In order to complete the agreement between Mexico and the banks, Mexico needed enough hard currency to put 18 months of

interest into escrow and to purchase the zero-coupon bonds.

-- Both groups were concerned about how the pricing decision would be viewed.

The arguments made in favor of coupon pricing included the following.

-- If Treasury used an interest rate to price the zero-coupon bonds that was less than 7.90 percent, Mexico's shortfall would be large enough to risk the success of the Mexican restructuring agreement and even the Brady Plan.

-- There was precedent established in the Mexico-Morgan zero-coupon bond sale of January 1988 in which the zero coupon bonds were priced based on the coupon rate combined with a fee of 0.25 of a percent interest.

-- The coupon rate was the same rate at which Treasury itself borrowed through its 30-year coupon bonds. Therefore, the transaction would not cost the Treasury anything.

-- The STRIPS market was not deep when compared to the much larger 30-year coupon bond market. This sale was large compared to the STRIPS market. If Treasury borrowed on the STRIPS market, this would cause the STRIPS rate to rise and lessen the difference between it and the coupon rate.

The arguments made in favor of STRIPS pricing included:

-- Pricing should not be influenced by Treasury concerns about the size of anticipated shortfall in Mexican resources. The shortfall developed because interest rates had fallen since the agreement-in-principle between the banks and Mexico, and the banks had chosen options in a different mix than had been expected.

-- All the other bonds that Treasury sold in private placements had been based on market rates for that security type, except for the Mexico-Morgan deal. In that case, Treasury borrowed at a rate that was even more favorable to the United States than the prevailing STRIPS rate. In addition, a precedent had been set by Treasury's most recent zero-coupon bond sale in which Treasury had priced the bonds at the STRIPS rate (and charged a 0.125 percent fee).

-- Treasury should price its bond sales in the same way as financial markets. Treasury should charge a zero-coupon price for a zero-coupon sale; not a coupon price for a zero-coupon sale. If coupon rates are used, it would be clear to everyone that Mexico received a subsidy.

-- Treasury should not sell bonds to Mexico on more favorable terms than it sells similar bonds to domestic purchasers.

-- The price should not be significantly more favorable than that which Mexico would pay if it purchased zero-coupon bonds directly from the STRIPS market. It was estimated that if Mexico went into the STRIPS market to buy the required bonds, the price of the bonds would be driven up so that the interest rate on them could fall as much as 100 basis points (1 percent) lower than the STRIPS rate.

There were arguments over the fee that Treasury would include in the pricing. The arguments made for charging no fees or small fees included:

-- At Treasury's urging, international financial institutions and other governments were making

substantial contributions to the Mexican deal. Under these circumstances, it would be unseemly for the United States to charge large fees and make money at their expense.

-- The customary 0.125 percent fees for state and local governments should not have any bearing on Mexico's fees because it is charged as a condition for the tax benefits of the bonds issued by state and local governments.

-- If a fee must be charged for the zero-coupon bonds, Treasury should charge a fee that translates to the same up-front amount on a zero as the 0.125 percent fee comprises for coupon bonds sold state and local governments. Since these coupon sales are charged a fee that equals 1.4 percent of the principal, a fee equal to 1.4 percent of the principal should also be charged Mexico for these zeros which translates into 4 to 5 basis points of interest not the proposed 12.5 basis points of interest .

The arguments made for charging larger fees included:

-- Fees should be charged similar to Treasury's other private placements such as the 0.25 percent interest

fee in the Mexico-Morgan transaction and the 0.125 percent interest fee charged in all other private placements.

-- How can Treasury charge Mexico a lower fee than it had recently charged domestic entities? In the then most recent private placement of a zero to Refcorp in October 1989, Treasury charged a 0.125 percent fee, as it did for coupon bond sales to state and local governments.

-- The fee should reflect the potential impact on the market. If Mexico purchased STRIPS from the financial markets instead of zeros from Treasury, the price of STRIPS would be even higher (and the yield lower) than it was.

THE EXCHANGE STABILIZATION FUND

On February 6, 1990, Mr. Chairman, you and the Honorable Lee Hamilton, Chairman of the Joint Economic Committee, requested that we review administration policies on the granting of bridge loan support from the Exchange Stabilization Fund for developing country financial restructuring packages. In particular you asked

if the administration had recently changed the policy for Poland, and if it had, the reasons for the change.

As we recently advised you, we are not able to answer the questions posed in your letter. On April 23, 1990, in response to GAO's notification to Treasury about this review, Under Secretary Mulford stated:

> "I would like to call your attention to paragraph (a)(2) of 31 U.S.C. 5302, which provides that decisions of the Secretary as to the use of the ESF are final and may not be reviewed by another officer or employee of the Government. Subject to that provision, Treasury would be prepared to consider written questions concerning these matters."

Under these constraints, we are unable to perform an objective review of the policies of ESF or do a financial audit of this fund. However, we do support the principal of giving us the authority to do such reviews and audits.

In letters to you dated June 25 and 26, 1990, Treasury Secretary Brady and Federal Reserve Board Chairman Alan Greenspan each expressed strong opposition to your recent proposal to amend section 5302 of title 31 of the U.S. Code to permit these audits. In their letters, the Secretary and Chairman stated that the

proposal created risks to sensitive working relationships and communications with foreign governments and central banks that are central to the operation of ESF.

We recognize that Secretary Brady and Chairman Greenspan have legitimate concerns regarding the need for confidentiality in the operations of the fund. We appreciate the sensitive nature of the operations and agree that it would be inappropriate for the details of fund transactions to become public, particularly the details of foreign exchange interventions. Congress itself has expressed such concerns in legislative materials associated with the enactment and subsequent amendment of section 5302.

Nonetheless, we also share your concern, expressed in your June 26, 1990, statement introducing the proposal to amend section 5302, that

> "...Congress and the U.S. taxpayer ... have the right to know if foreign currency intervention is effective and if the taxpayers' money is being properly protected against the risks of such activities..."

We believe that our authority to audit ESF would be consistent with our mission and appropriate to support legislative branch oversight of the fund. Congress needs to be fully informed about the nature, magnitude, and effectiveness of ESF transaction.

We believe legislation can be drafted that would enable us to assist congressional oversight of this fund in a way that recognizes the validity and legitimacy of the concerns of Secretary Brady and Chairman Greenspan. We do not believe that the need for confidentiality is inconsistent with our audit authority. We frequently audits classified defense and intelligence programs and other executive branch programs that require strict information security. We have in place strict and rigorous policies to maintain the security and confidentiality of information consistent with the requirements of originating agencies. Classified, proprietary, or other sensitive data is safeguarded by the procedures for gaining access, handling, and enforcing regulations against unauthorized use or disclosure. Access is limited on a need-to-know basis.

For example, we have access to Internal Revenue Service tax data, including, when appropriate, files that show taxpayer names and social security numbers, under strict controls and for specific purposes. Similarly, we have limited authority to audit the operations of the Federal Reserve and other federal entities responsible for bank regulation. In carrying out our responsibilities under this authority, we have access to the regulators' reports on bank examinations. Again, strict controls govern this access.

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Mr. Chairman, this concludes my statement. I will be happy to respond to any questions you may have.

TREASURY'S SALES OF ZERO-COUPON BONDS

Purchaser	Issue date	Maturity (years)	Price ($Million)	Yield[a]	Terms	Coupon Rate[d]	Strip Rate[d]
Mexico	3/28/90	29.76	$2990.4	7.925%	Par yield[b]-0.125%	8.04%	7.71%
Earlier sales:							
Mexico	3/30/88	20	$492.1	8.41%	Par yield[b]-0.25%	8.90%	9.13%
Refcorp	10/27/89	29.97	$485.1	7.59%	STRIPS-0.125%	7.91%	7.65%
Later sales:							
Refcorp	1/29/90	39.97	$262.8	7.51%	Calc.[c]-0.125%	8.47%	8.06%
Refcorp	4/16/90	40	$171.8	7.68%	Calc.[c]-0.125%	8.57%	8.17%

[a]After a fee has been charged

[b]Treasury's estimate of coupon bond yields from its par yield curve eliminates a peak in coupon bond yields that tends to occur at a maturity of 20 years.

[c]"Calc." is a complex calculation based on the yields of seven bonds: two Treasury STRIPS, two Refcorp STRIPS, one Treasury coupon bond and two Refcorp coupon bonds.

[d]Yields of instruments whose maturity is closest to 30 years, except for (1) the 3/30/88 Mexico transaction yields are for instruments with maturities closest to 20 years, and (2) the 3/28/90 sale to Mexico the yield was extrapolated less than a year in order to have a maturity of 30 years.