

Niso Abudal

Good

action

actual demand may manifest if over

Backstop Fund S.A.

Pricing Mechanism for Rollover Commitments

if exists if not x

C

(Cp)

float us-time

Salomon Brothers



origing sheet

credit risk of option writer

June 7, 1995

(A) payoff

(B) payoff

(C) payoff A

(D) payoff

Agenda

The Economic Landscape	1
Technical Objectives and Problems	3
Theoretical Option Pricing Model	15
Appendix: Select Yield Spreads and Volatilities	22

The Economic Landscape

Republic of Argentina

The World Bank's Perspective

[Handwritten signature]

The World Bank's Commitment. The World Bank and the Republic of Argentina have committed \$500mm to be used as a backstop for the US dollar funding of 15 eligible Argentine banks with local credit ratings of at least A.

The World Bank's Objective. To develop a well functioning Argentine bank credit market wherein Argentine banks can fund themselves along the short-end of the yield curve and lend for long maturities to Argentine corporations, mortgagors, et al., without bearing a disproportionately large amount of liquidity risk.

Wishy willy to yield curve?

Outstanding and Future Issuance. These backstop commitments can be used for either outstanding bonds or for bonds to be issued in the future.

Eligibility Requirements. In addition to a local credit rating hurdle, the banks have to meet other requirements such as capital ratios, a \$50mm commitment limit per bank, etc.

Time Frame. The World Bank would like to allocate the first \$50mm commitment by July 1995. Another \$150mm would be available for allocation before July 1996, and the remaining \$300 mm available thereafter.

Technical Objectives and Problems

• minimize the risk of failure
more feedback

Auctions and Standardized Contracts

Fair Pricing and Auctions. To maintain fairness and objectivity in allocating efficiently the \$500mm backstop facility, the World Bank / BICE would like to design a market structure fostering competitive demand for the backstop facility. Salomon Brothers and the World Bank think that an auction is the best means of achieving fair pricing.

Heterogeneity of Rollover Commitments. In most auctions only one homogenous good or security is priced. In this case, however, the participating banks may have bonds maturing anytime within the next year and a half. Further, these bonds may be rolled over for maturities ranging from ~~three~~ months to five years. Consequently, here, unlike in a typical auction, we have multiple "goods" to be auctioned off.

The Need for a Numeraire. To achieve market depth, however, we need to pool these multiple "goods" and let the bidding proceed as if there were only one good. In academic parlance, this one good would be called the numeraire. All the other goods would trade at established relative prices to the numeraire.

Defining the Numeraire. For lack of a better alternative, we establish that the numeraire will be the at-the-money rollover option of a AAA-rated bank exercisable on September 30, 1995 with a maturity of one year.

Establishing Conversion Factors. To establish the relative pricings, Salomon Brothers will prepare separate theoretical pricing matrices for AAA-, AA-, and A-rated banks.

Establishing the Rollover Yields. Each matrix will have three rows indicating the floating backstop interest rate (the option strike prices). These option strike prices will be set as a spread to LIBOR (L). To assure that these options are not too expensive, the strike prices will

Local
Yields

Local
ratings

Choose AA

Auctions and Standardized Contracts (continued)

be set at-the-money, and progressively out-of-the-money, moving in 100 basis point increments. For example, for a AAA bank, the strike prices may be set at L+350, L+450, and at L+550.

The Problem with High Rollover Yields. Given current market conditions, the participating banks may view these rollover yields (strike prices) as very costly funding. As a result, participating banks may not be willing to participate in an auction with such high strike prices.

The Problem with Low Rollover Yields. Alternatively, we may set the strike prices well in-the-money so that the participating banks find the rollover yields attractive. If so, the theoretical option premiums will be relatively expensive.

The Fund's World Bank's Policy Decision. Where the strike prices are set is an important policy decision which will have significant market consequences and may determine whether the auction fails or succeeds.

Standardized Pricing. Each matrix will have six columns indicating the time on which the rollover commitment can be exercised. For standardization purposes, and following the example of the Chicago Eurodollar futures market, these dates will be:

30 Sep 95	31 Dec 95	31 Mar 96	30 Jun 96	30 Sep 96	31 Dec 96
-----------	-----------	-----------	-----------	-----------	-----------

J
Clyde
Johnston
mkt

Auctions and Standardized Contracts *(continued)*

The Need for Formulas to Adjust to Reality. Because these standard dates may not satisfy the needs of the participating banks, Salomon Brothers will also report a formula (possibly based on linear interpolation) which will allow the users to convert the prices for the standard dates to prices for dates corresponding to bond maturity dates.

Rollover Maturities. Participating Banks will have the option to rollover their bonds for maturities corresponding to the maturities of their existing or future issuance bonds. As a result, Salomon Brothers will provide pricing matrices for periods of:

three months six months one year two years three years five years

Interim Maturities. Prices for interim maturities will be determined by a specified formula.

Auction Procedures (continued)

Auction Agent. An appointed agent, probably an established accounting firm, will collect all the bids and determine the market clearing price as explained below. This single price will apply to all the winning bidders.

Demand Curve. The total quantities bid at every price will be summed up to produce a market demand curve.

Possible Auction Scenarios and the Clearing Price.

- a) *"Well-behaved" Auction.* The price at which total quantity demanded equals the auction amount on the demand curve is the market clearing price. Amounts shall be allocated as bid.
- b) *"Discontinuous" Demand Auction.* If there is discontinuous demand, i.e., there is no price at which the quantity demanded equals the auction amount, then the clearing price shall be the price corresponding to the next highest amount on the demand curve. Allocations will be prorated among the winning bidders by: (1) moving up a notch from the clearing price and allocating the corresponding quantities, and (2) prorating the remaining amount at the clearing price according to excess demand. Alternatively, in the interest of simplicity, amounts can be prorated according to quantities bid at the clearing price.
- c) *Excess Demand Auction.* If the minimum amount on the demand curve exceeds the auction amount, the clearing price shall be the highest price corresponding to this minimum amount. This will be the highest price bid in the auction. Allocations will be prorated among the winning bidders by quantity bid.
- d) *Excess Supply Auction.* If the maximum amount on the demand curve is less than the allocation amount, there will be an auction shortfall. The clearing price will be the maximum price on the demand curve that corresponds to the maximum amount bid. Allocations will not need to be prorated.

Auction Example -- A "Well-Behaved" Auction

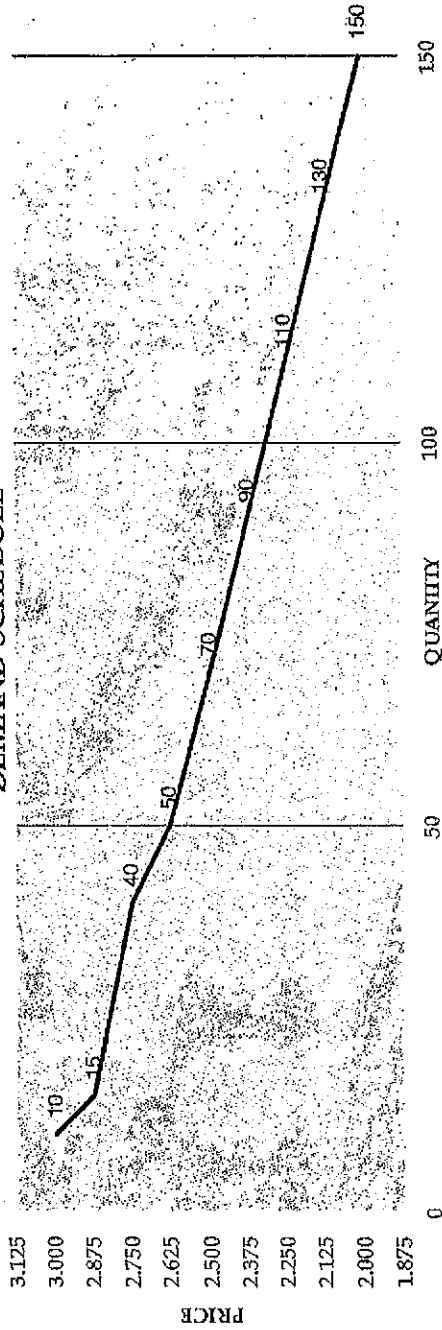
Auction Total 50
 Market Clearing Price 2.625

Demand at Price 50
 Prorate? No

Bank A	Bank B	Bank C	Total Demand
Quantity	Quantity	Quantity	Quantity
10	-	-	10
15	-	-	15
20	-	20	40
25	-	25	50
30	10	30	70
35	20	35	90
40	30	40	110
45	40	45	130
50	50	50	150

Price	Quantity
3.000	10
2.875	15
2.750	20
2.625	25
2.500	30
2.375	35
2.250	40
2.125	45
2.000	50

DEMAND SCHEDULE



Source: Salomon Brothers Inc

- provide incentives.

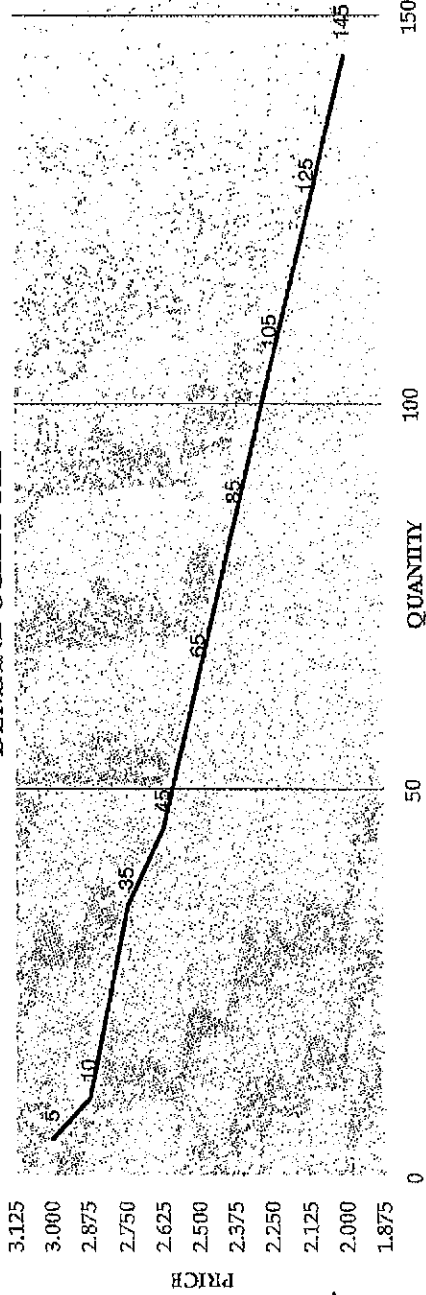
Auction Example -- The "Discontinuous" Case

Auction Total 50
 Market Clearing Price 2.500

Demand at Price 65
 Prorate? Yes

Bank A		Bank B		Bank C		Total Demand	
Quantity	Price	Quantity	Price	Quantity	Price	Price	Quantity
5	3.000	-	3.000	-	3.000	3.000	5
10	2.875	-	2.875	-	2.875	2.875	10
15	2.750	-	2.750	20	2.750	2.750	35
20	2.625	-	2.625	25	2.625	2.625	45
25	2.500	10	2.500	30	2.500	2.500	65
30	2.375	20	2.375	35	2.375	2.375	85
35	2.250	30	2.250	40	2.250	2.250	105
40	2.125	40	2.125	45	2.125	2.125	125
45	2.000	50	2.000	50	2.000	2.000	145

DEMAND SCHEDULE



Source: Salomon Brothers Inc

*A group of bidders
 → all bidders bid
 consumers purchase
 others
 others
 \$1000
 1000*

Auction Example -- A Case of Excess Demand

Auction Total 50
 Market Clearing Price 3,000

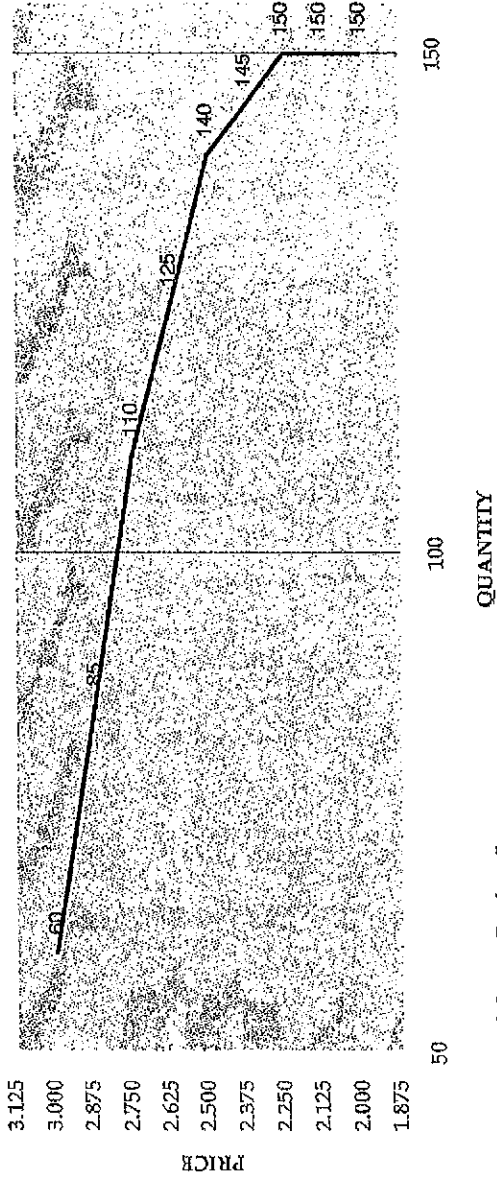
Bank A		Bank B		Bank C		Total Demand	
Quantity	Price	Quantity	Price	Quantity	Price	Price	Quantity
10	3,000	30	3,000	20	3,000	3,000	60
20	2,875	40	2,875	25	2,875	2,875	85
30	2,750	50	2,750	30	2,750	2,750	110
40	2,625	50	2,625	35	2,625	2,625	125
50	2,500	50	2,500	40	2,500	2,500	140
50	2,375	50	2,375	45	2,375	2,375	145
50	2,250	50	2,250	50	2,250	2,250	150
50	2,125	50	2,125	50	2,125	2,125	150
50	2,000	50	2,000	50	2,000	2,000	150

Handwritten: Bank A's bid is not market clearing price

Handwritten: Green shoe
 Max green shoe 22%

Handwritten: table use of residual problem.

DEMAND SCHEDULE



Source: Salomon Brothers Inc

Auction Example -- A Case of Excess Supply

Auction Total 50
 Market Clearing Price 2.250

Demand at Price 45
 Prorate? No

Bank A	Bank B	Bank C	Total Demand
Quantity	Quantity	Quantity	Quantity
10	-	-	10
10	-	-	10
10	-	-	10
10	-	-	10
10	20	-	30
10	20	-	30
10	20	15	45
10	20	15	45
10	20	15	45

Price	Price	Price	Price
3.000	3.000	3.000	3.000
2.875	2.875	2.875	2.875
2.750	2.750	2.750	2.750
2.625	2.625	2.625	2.625
2.500	2.500	2.500	2.500
2.375	2.375	2.375	2.375
2.250	2.250	2.250	2.250
2.125	2.125	2.125	2.125
2.000	2.000	2.000	2.000

DEMAND SCHEDULE

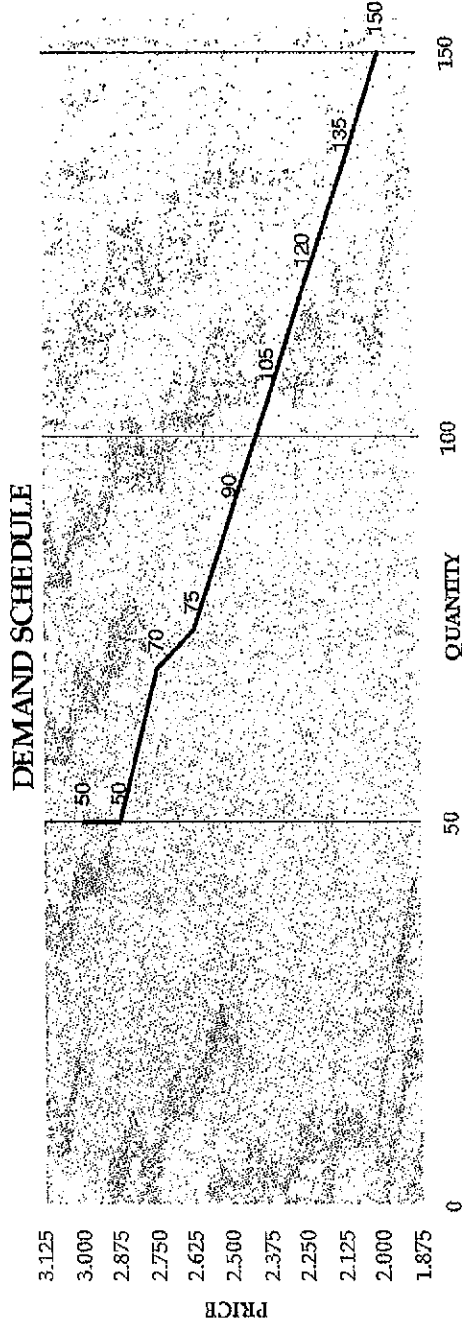


Source: Salomon Brothers Inc

Auction Example -- A "Partially Inelastic" Auction

Auction Total 50 Demand at Price 50
 Market Clearing Price 3.000 Prorate? No

Bank A		Bank B		Bank C		Total Demand	
Quantity	Price	Quantity	Price	Quantity	Price	Price	Quantity
50	3.000	-	3.000	-	3.000	3.000	50
50	2.875	-	2.875	-	2.875	2.875	50
50	2.750	-	2.750	20	2.750	2.750	70
50	2.625	-	2.625	25	2.625	2.625	75
50	2.500	10	2.500	30	2.500	2.500	90
50	2.375	20	2.375	35	2.375	2.375	105
50	2.250	30	2.250	40	2.250	2.250	120
50	2.125	40	2.125	45	2.125	2.125	135
50	2.000	50	2.000	50	2.000	2.000	150



Source: Salomon Brothers Inc

↳ important to say we are a participant in this program

- the right to cancel

Auction Procedures (continued)

Announcing the Winner(s). Once the market clearing price is established, this price and the winning bidders will be publicly announced.

Finalizing the Purchase of Rollover Commitments. Subsequently, using the conversion factors available in the matrices supplied by Salomon Brothers, the winning bidders will inform ~~the~~ as to which rollover options they will buy. Each rollover optionality will be tied to a specific bond issue.

Secondary Market Trading. Secondary market trading of rollover commitments will not be allowed.

Continual Learning Process. We expect that as a result of the first auction, we will learn about certain aspects of these markets, which will eventually lead us to change some of the above features.

hedgers vs speculators

the fund

→ payment of option (how)

Amortize and cancel for 3yr rollover

- Cancellation option.

straight put

- in the future option to put it to the Fund -

Theoretical Option Pricing Model

Non-tradability
hurdle for

Model Assumptions

We price the rollover commitments as if we were pricing a European option on a floating-rate note with a fixed spread to LIBOR.

Effectively, this can also be modeled as a call option on a participating bank's credit spread.

We use a spread-based, modified Black model which is similar to a yield-based, modified Black model, commonly discussed in the academic and applied literature.

We assume that forward spreads are lognormally distributed.

We assume a spread volatility of 30%. This spread volatility approximates the observed implied volatilities or traded options on Argentine Brady Bonds. This figure, however, is significantly lower than the recent historical volatility estimates.

If clearing prices fall below theoretical prices, participating banks should be prevented from possible arbitrage scenarios.

The modified Black model is a robust and easily understandable model. Yet, it is not perfect and may have various shortcomings. However, the uncertainties associated with estimating the model parameters, such as volatility and credit spreads, outweigh any model uncertainties.

Consequently, we feel confident that the modified Black model will produce sufficiently robust results given the data and market constraints we face.

Gary Pelin
Director of
Financial Sector
Development
World Bank

David Babel

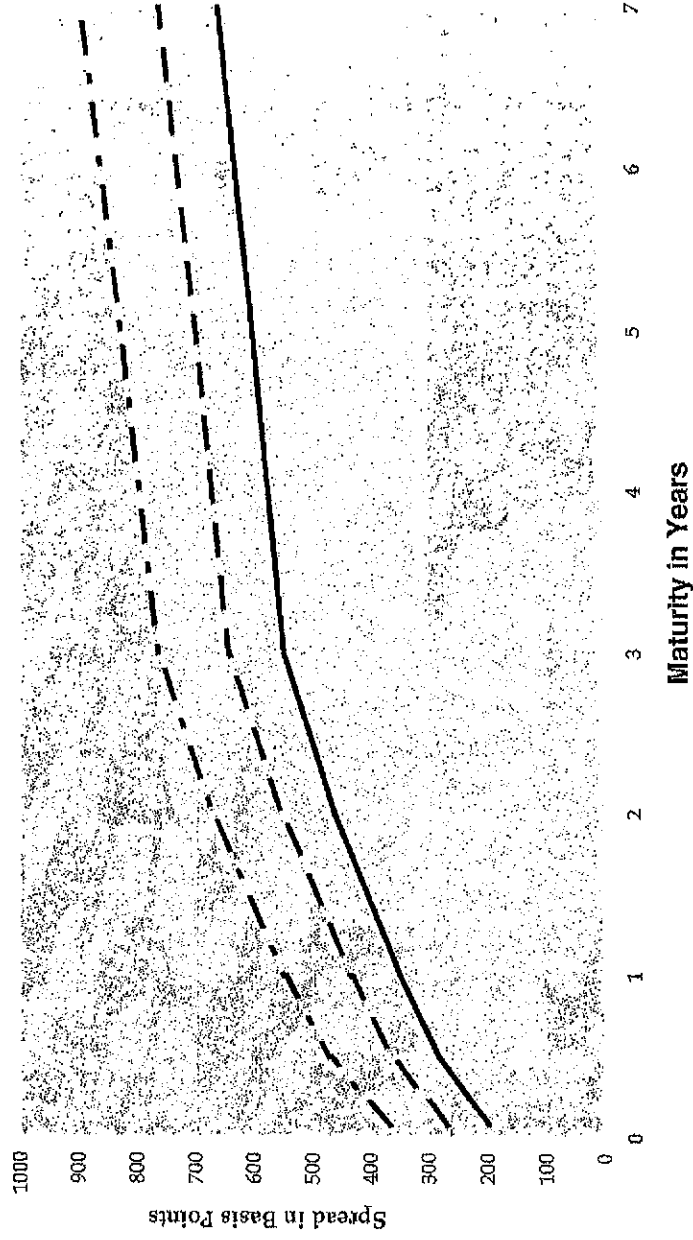
Model Assumptions *(continued)*

Participating Banks' Credit Spreads to LIBOR

Maturity	Spot - June 2, 1995				Forward - March 31, 1996			
	AAA	AA	AA	A	AAA	AA	AA	A
1 Month	198bp	267bp	267bp	366bp	421bp	509bp	509bp	631bp
3 Months	233	307	307	411	443	530	530	654
6 Months	284	363	363	471	471	561	561	684
1 Year	349	432	432	546	526	620	620	743
2 Year	461	550	550	668	626	723	723	854
3 Year	547	641	641	764	662	764	764	900
5 Year	600	698	698	827	686	792	792	929
7 Year	658	762	762	895	NA	NA	NA	NA

NA Not available

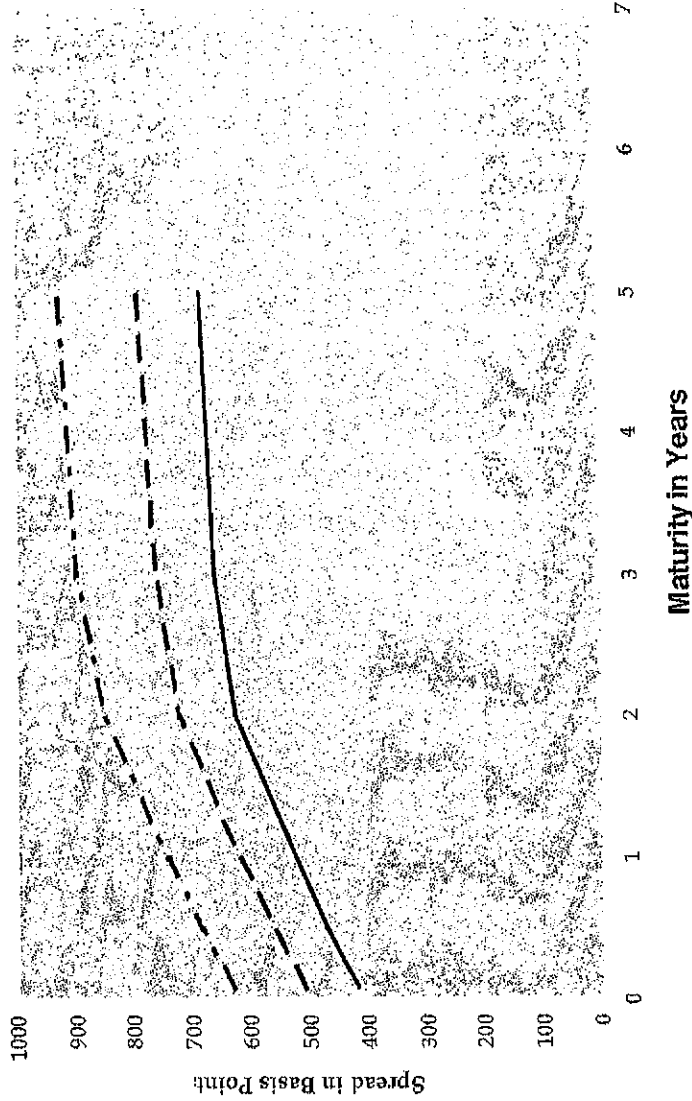
Argentine Bank Credit Spreads (Spot - June 2, 1995)



— AAA — AA - - A

Source: Salomon Brothers Inc

Argentine Bank Credit Spreads (Forward - March 31, 1996)



— AAA — AA - - A

Source: Salomon Brothers Inc

Theoretical Option Pricing Model

Commitment Fees - Premiums (1 Year Rollover)

Strike	Expiration								Rating
	30-Sep-95	30-Dec-95	31-Mar-96	30-Jun-96	30-Sep-96	31-Dec-96	31-Dec-96	31-Dec-96	
350bp	0.64%	1.10%	1.55%	1.99%	2.40%	2.75%	2.75%	2.75%	AAA
450	0.13	0.46	0.85	1.28	1.69	2.04	2.04	2.04	AAA
550	0.01	0.14	0.40	0.74	1.11	1.45	1.45	1.45	AAA
450	0.59	1.06	1.51	1.97	2.38	2.73	2.73	2.73	AA
550	0.14	0.48	0.88	1.31	1.72	2.07	2.07	2.07	AA
650	0.02	0.18	0.46	0.81	1.18	1.52	1.52	1.52	AA
550	0.76	1.25	1.70	2.16	2.58	2.94	2.94	2.94	A
650	0.26	0.66	1.08	1.52	1.94	2.32	2.32	2.32	A
750	0.06	0.30	0.63	1.02	1.41	1.78	1.78	1.78	A

Handwritten scribbles and numbers, possibly "100" or "1000".

Handwritten scribbles and numbers, possibly "100" or "1000".

Theoretical Option Pricing Model

d, 3.1
 4.55
 rollover

Commitment Fees - Relative Pricing (1 Year Rollover)

Strike	Expiration							Rating
	30-Sep-95	30-Dec-95	31-Mar-96	30-Jun-96	30-Sep-96	31-Dec-96		
350bp	1.00x	1.72x	2.40x	3.10x	3.74x	4.28x	AAA	
450	0.20	0.72	1.32	1.98	2.62	3.18	AAA	
550	0.02	0.22	0.62	1.15	1.72	2.25	AAA	
450	0.91	1.65	2.35	3.07	3.71	4.24	AA	
550	0.23	0.75	1.37	2.04	2.67	3.22	AA	
650	0.03	0.28	0.71	1.26	1.84	2.36	AA	
550	1.18	1.94	2.65	3.35	4.01	4.58	A	
650	0.40	1.03	1.68	2.36	3.02	3.60	A	
750	0.10	0.47	0.99	1.58	2.19	2.76	A	

Appendix: Select Yield Spreads and Volatilities

Price/Yield Report

REP OF ARGENTINA ARGR 8.375 12/20/2003

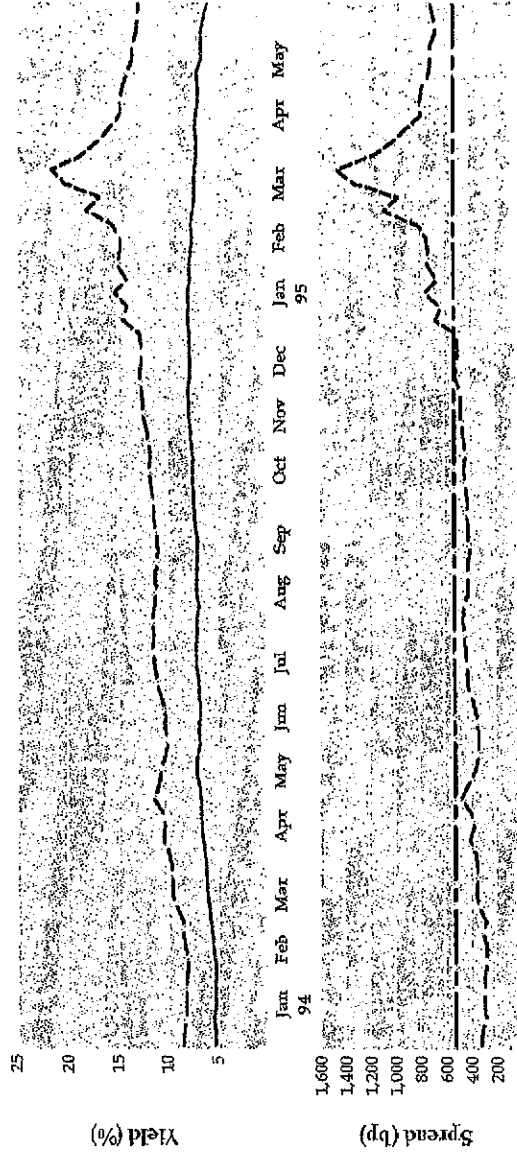
----- Indicative -----	----- Pricing -----	----- Put -----
Cusip : 040114AH	Settlement : 06/12/1995	Yield : :
S&P : BB-	Flat Price : 77.000	Duration : :
Moody : B1	Accrued : 4.001	DV01 : :
Industry : N/A	Full Price : 81.001	
Issued Amount (MM) : 1000		----- Sinking Fund -----
Outstanding Amount (MM) : 1000		WAM : :
		Yield : :
Dated Date : 12/20/1993	----- Maturity -----	Earliest WAL : :
First Coupon : 06/20/1994	Yield : 12.901	Yield : :
	Duration : 5.267	Latest WAL : :
	DV01 : 0.0427	Yield : :
	Nom Spread : 691 bp	Yield : :
	Convexity : 0.3897	
	CD Equivalent Yield : 12.712	
	----- Call -----	
Current Cash Call Date : N/A	Cash : :	
Current Cash Call Price : N/A	Refund : :	
Current Refund Date : N/A		
Current Refund Price : N/A		
Next Put Date : N/A		
Next Extend Date : N/A		
Final Maturity : 12/20/2003		
Next Sinking Fund Date : N/A		
Next Sinking Fund : N/A		
Acceleration Factor : N/A		
Security Type : EURO		
Source : SALOMON		

** -- Option Model at 13.0 % Volatility --
 Option Adj Spread (bp) : 694
 Effective Yield : 12.820
 Effective Duration : 5.292
 Effective DV01 : 0.0429
 Option Value : -0.000
 Convexity : 0.3931
 **Assuming Refundable

	----- Par Yield Curve -----
Years	0.25 0.50 1.00 2.00 3.00 4.00 5.00 7.00 10.00 20.00 30.00
Yield	5.67 5.60 5.53 5.54 5.54 5.63 5.72 5.80 5.91 6.07 6.30 6.52

Yield & Spread Profile

Weekly Data - 12/17/93 through 6/2/95



Benchmark: U.S. Government 7-Year Maturities

ARCF 8.375% due 12/20/2008

Spread

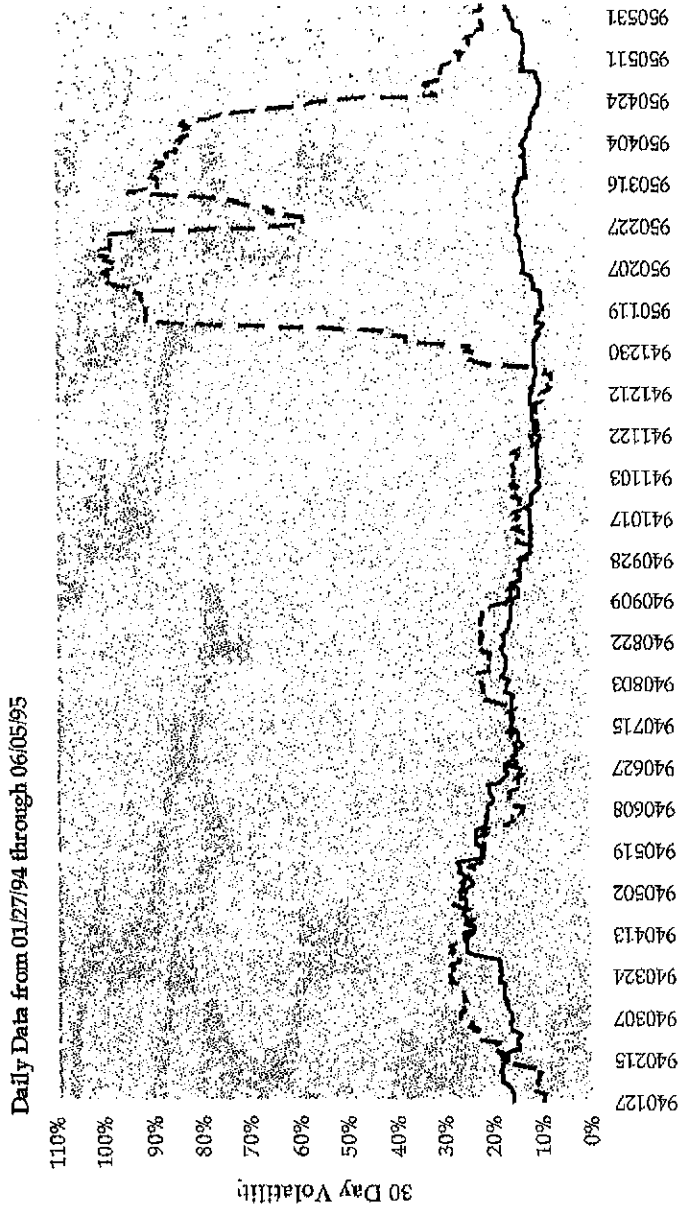
Average Spread

Spreads off of Benchmark Issue			
High	Low	Average	Latest
+1442	+263	+518	+691

21

Source: Salomon Brothers Inc. Is1823.wmf 06/06/95

30-Day Historical Yield Volatility



— 7-Year Treasury
 - - - ARGR 8.375% due 12/20/2003

Source: Salomon Brothers Inc

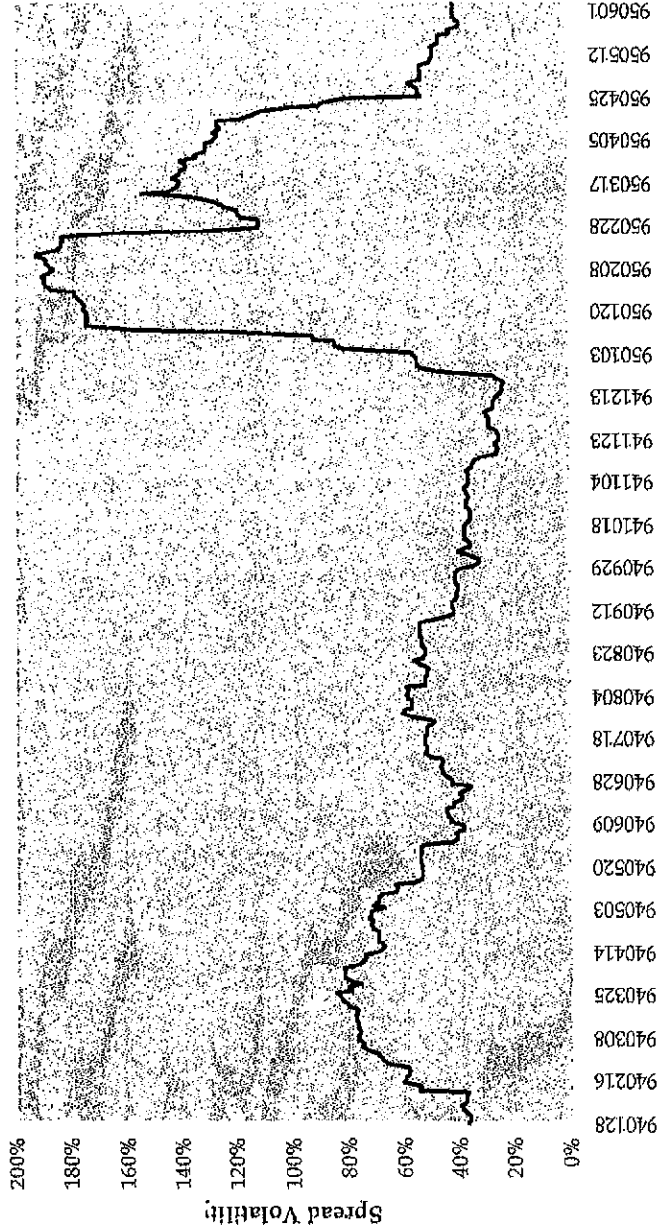
10

Shaffler
10/27

8267 X

30-Day Historical Spread Volatility

Daily Data from 01/27/94 through 06/05/95



— Spread

Source: Salomon Brothers Inc

Price/Yield Report

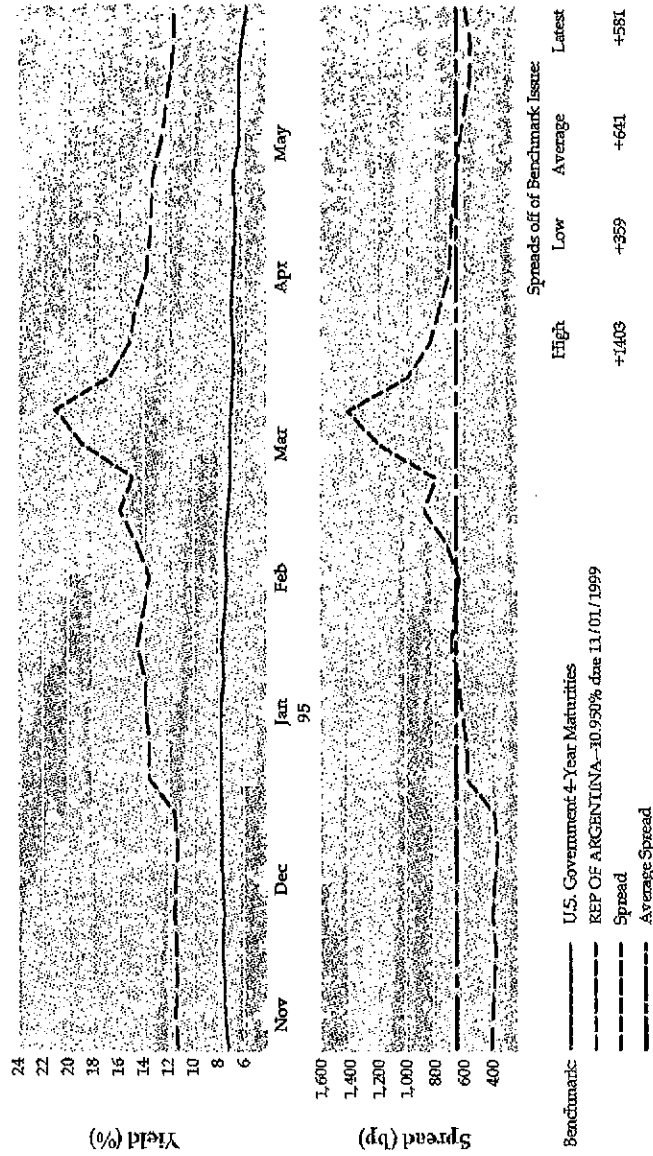
ARGENTINA REP ARGR 10.950 11/01/1999

----- Indicative -----	----- Pricing -----	----- Put -----
Cusip : 040114AJ	Settlement : 06/12/1995	Yield : : : :
S&P : BB-	Flat Price : 98.250	Duration : : : :
Moody : B1	Accrued : 1.247	DV01 : : : :
Industry : N/A	Full Price : 99.497	----- Sinking Fund -----
Issued Amount (MM) : 500		WAM
Outstanding Amount (MM) : 500	----- Maturity -----	Yield : : : :
Dated Date : 11/01/1994	Yield : 11.461	Earliest WAL
First Coupon : 05/01/1995	Duration : 3.356	Yield : : : :
Current Cash Call Date : N/A	DV01 : 0.0334	Latest WAL
Current Cash Call Price : N/A	Nom Spread : 571 bp	Yield : : : :
Current Refund Date : N/A	Convexity : 0.1442	
Current Refund Price : N/A	CD Equivalent Yield : 11.280	
Next Put Date : N/A	----- Call -----	** -- Option Model at 13.0 % Volatility --
Next Extend Date : N/A	Cash	Option Adj Spread (bp) : 573
Final Maturity : 11/01/1999	Refund	Effective Yield : 11.424
Next Sinking Fund Date : N/A		Effective Duration : 3.360
Next Sinking Fund : N/A		Effective DV01 : 0.0334
Acceleration Factor : N/A		Option Value : -0.000
Security Type : EURO		Convexity : 0.1450
Source : SALOMON		** Assuming Refundable

	----- Par Yield Curve -----										
Years	0.25	0.50	1.00	2.00	3.00	4.00	5.00	7.00	10.00	20.00	30.00
Yield	5.67	5.60	5.53	5.54	5.63	5.72	5.80	5.91	6.07	6.30	6.52

Yield & Spread Profile

Weekly Data - 10/28/94 through 6/2/95

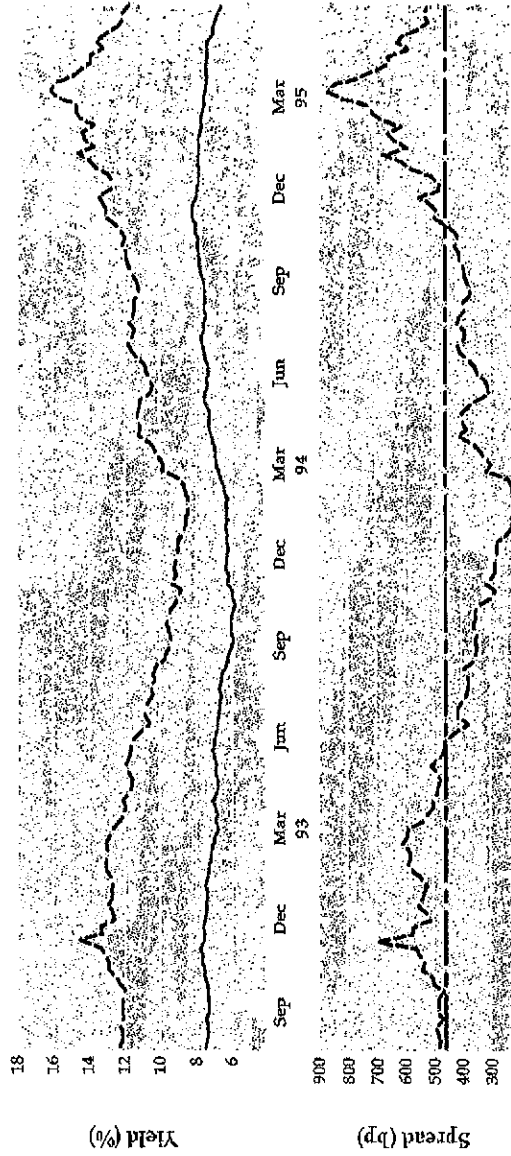


Source: Salomon Brothers Inc. fs1332.wmf 06/06/95

Yield & Spread Profile

I

Weekly Data -- 7/31/92 through 6/2/95



Benchmarks:		Spreads off of Benchmark Issue			
		High	Low	Average	Latest
U.S. Government 30-Year Mahurities	-----				
Argentina Par Bond-5,000% Brady due 03/31/2023	-----				
Spread	+862	+214	+455	+517
Average Spread	-.-.-.-				

Source: Salomon Brothers Inc. fs1336.wmf 06/06/95

Price/Yield Report

BANCO DE GALICIA ARBA 9.000 11/01/2003

----- Indicative -----	----- Pricing -----	----- Put -----
Cusip : 059538AC	Settlement : 06/12/1995	Yield :
S&P : BB-	Flat Price : 74.000	Duration :
Moody : B1	Accrued : 1.025	DV01 :
Industry : N/A	Full Price : 75.025	
Issued Amount (MM) : 200		
Outstanding Amount (MM) : 200		
	----- Maturity -----	----- Sinking Fund -----
Dated Date : 11/01/1993	Yield : 14.440	WAM :
First Coupon : 05/01/1994	Duration : 5.188	Yield :
	DV01 : 0.0389	Earliest WAL :
	Nom Spread : 845 bp	Yield :
	Convexity : 0.3709	Latest WAL :
	CD Equivalent Yield : 14.219	Yield :
	----- Call -----	
Current Cash Call Date : 11/01/1998	Cash Refund	
Current Cash Call Price : 103.375	: 11/01/1998 11/01/1998	
Current Refund Date : 11/01/1998	: 103.375 103.375	
Current Refund Price : 103.375		
Next Put Date : N/A	Next Call Date	
Next Extend Date : N/A	: 11/01/1998 11/01/1998	
Final Maturity : 11/01/2003	Next Call Price	
Next Sinking Fund Date : N/A	: 20.793 20.793	
Next Sinking Fund : N/A	Yield	
Acceleration Factor : N/A	: 2.614 2.614	
Security Type : EURO	Duration	
Source : SALOMON	DV01	
	: 0.0196 0.0196	

** -- Option Model at 13.0 % Volatility --

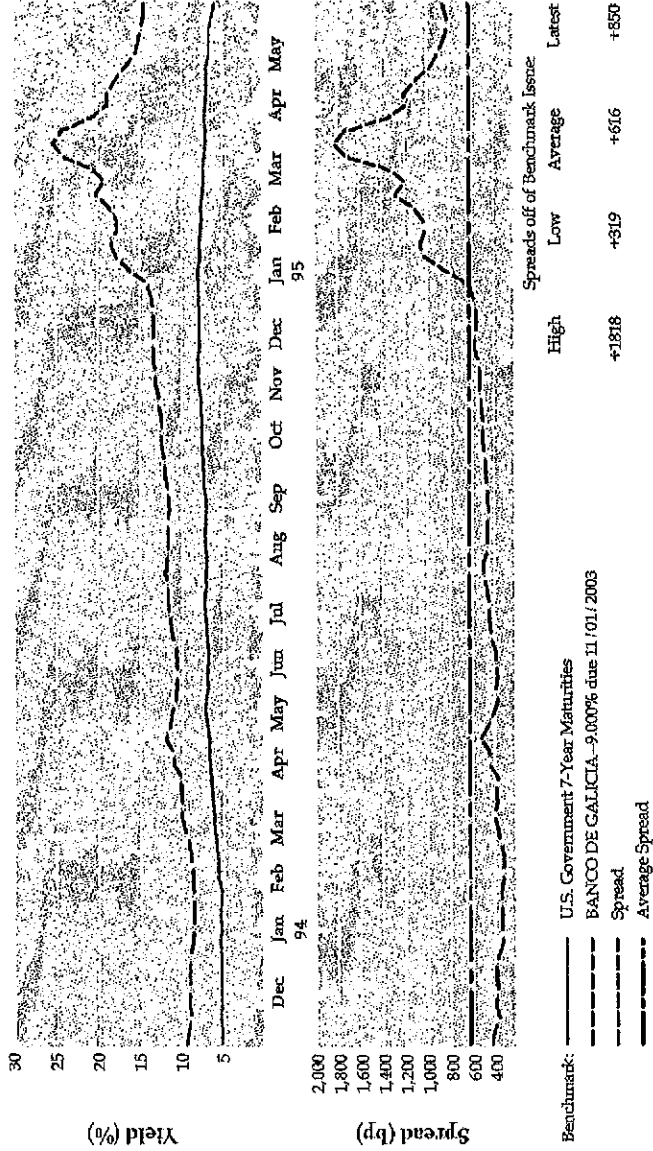
Option Adj Spread (bp)	: 849
Effective Yield	: 14.366
Effective Duration	: 5.213
Effective DV01	: 0.0391
Option Value	: 0.010
Convexity	: 0.3740

** Assuming Refundable

	----- Par Yield Curve -----										
Years	0.25	0.50	1.00	2.00	3.00	4.00	5.00	7.00	10.00	20.00	30.00
Yield	5.67	5.60	5.53	5.54	5.63	5.72	5.80	5.91	6.07	6.30	6.52

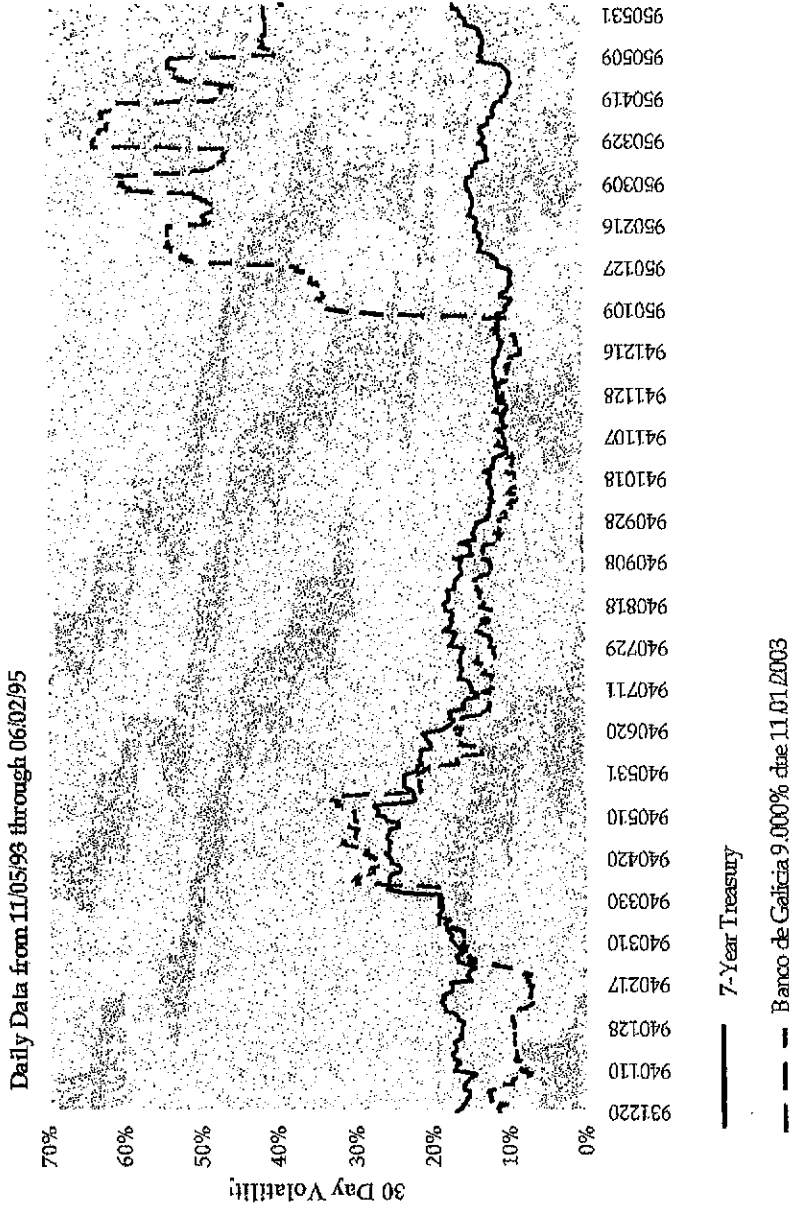
Yield & Spread Profile

Weekly Data -- 11/5/93 through 6/2/95



Source: Salomon Brothers Inc. 6/13/95.wmf 06/06/95

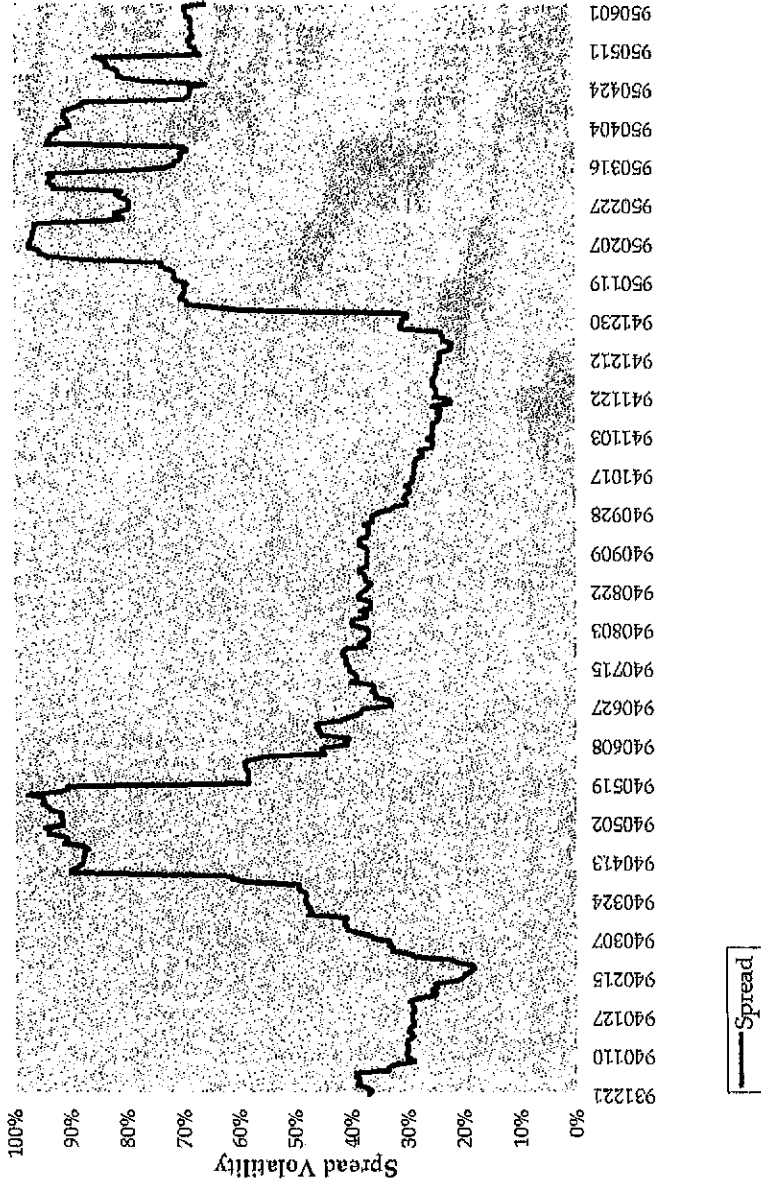
30-day Historical Yield Volatility



Source: Salomon Brothers Inc

30-day Historical Spread Volatility

Daily Data 11/05/93 through 06/02/95



Source: Salomon Brothers Inc

Price/Yield Report

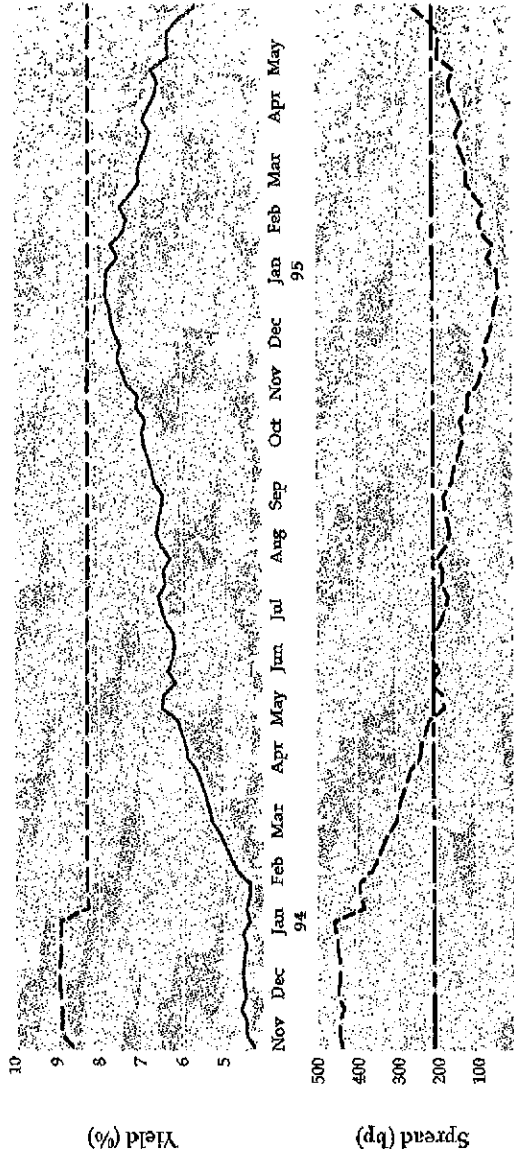
BANCO DE CREDITO BANC 8.500 10/29/1998

----- Indicative -----	----- Pricing -----	----- Put -----
Cusip : 0599979G	Settlement : 06/12/1995	Yield :
S&P : N/A	Fiat Price : 100.875	Duration :
Moody : N/A	Accrued : 1.015	DV01 :
Industry : N/A	Full Price : 101.890	
Issued Amount (MM) : 135		----- Sinking Fund -----
Outstanding Amount (MM) : 135	----- Maturity -----	WAM :
Dated Date : 10/29/1993	Yield : 8.193	Yield :
First Coupon : 04/29/1994	Duration : 2.865	Earliest WAL :
	DV01 : 0.0292	Yield :
Current Cash Call Date : N/A	Nom Spread : 253 bp	Latest WAL :
Current Cash Call Price : N/A	Convexity : 0.1025	Yield :
Current Refund Date : N/A	CD Equivalent Yield : 8.068	
Current Refund Price : N/A	----- Call -----	** -- Option Model at 13.0 % Volatility --
Next Put Date : N/A	Cash :	Option Adj Spread (bp) : 254
Next Extend Date : N/A	Refund :	Effective Yield : 8.181
Final Maturity : 10/29/1998		Effective Duration : 2.866
Next Sinking Fund Date : N/A		Effective DV01 : 0.0292
Next Sinking Fund : N/A		Option Value : -0.000
Acceleration Factor : EURO		Convexity : 0.1030
Security Type : SALOMON		** Assuming Refundable
Source :		

	----- Par Yield Curve -----										
Years	0.25	0.50	1.00	2.00	3.00	4.00	5.00	7.00	10.00	20.00	30.00
Yield	5.67	5.60	5.53	5.54	5.63	5.72	5.80	5.91	6.07	6.30	6.52

Yield & Spread Profile

Weekly Data -- 10/29/93 through 6/2/95



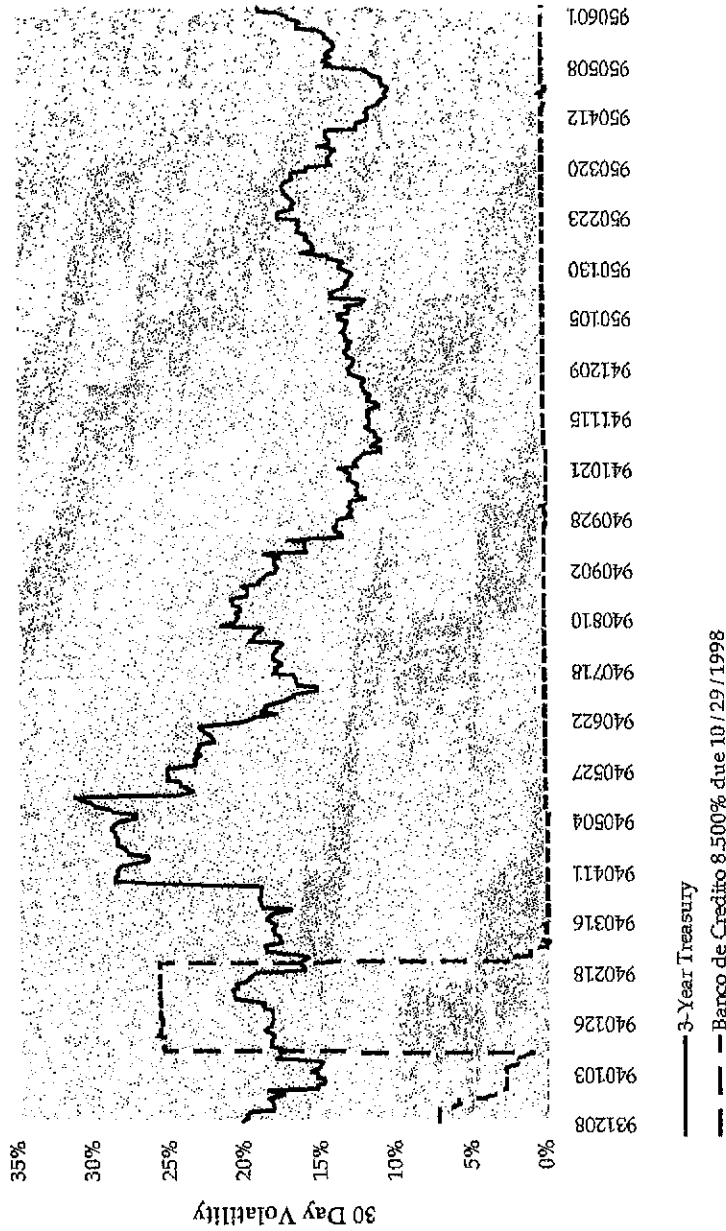
Spreads off of Benchmark Issue:

	High	Low	Average	Latest
Spread	+455	+41	+208	+257

Source: Salomon Brothers Inc. IS1324.wmf 06/06/95

30-day Historical Yield Volatility

Daily Data from 12/08/1993 through 06/05/1995

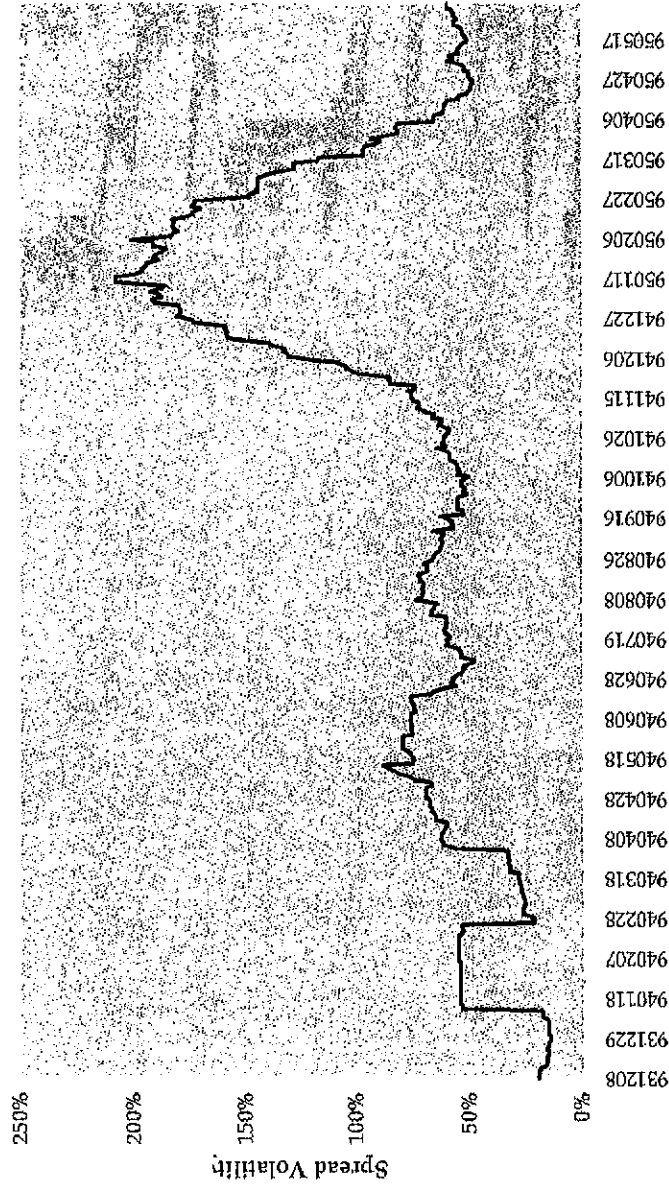


Source: Salomon Brothers Inc

Salomon Brothers

30-day Historical Spread Volatility

Daily Data 12/08/93 through 06/05/95



— Spread

Source: Salomon Brothers Inc

Salomon Brothers

Price/Yield Report

BANCO RIO DE LA PLATA BPLA 8.500 07/15/1998

----- Indicative -----	----- Pricing -----	----- Put -----
Cusip : 06799B9K	Settlement : 06/12/1995	Yield :
S&P : BB-	Flat Price : 72.500	Duration :
Moody : B1	Accrued : 3.471	DV01 :
Industry : N/A	Full Price : 75.971	
Issued Amount (MM) : 150		----- Sinking Fund -----
Outstanding Amount (MM) : 150		WAM :
	----- Maturity -----	Yield :
Dated Date : 07/15/1993	Yield : 21.027	Earliest WAL :
First Coupon : 01/15/1994	Duration : 2.351	Yield :
	DV01 : 0.0179	Latest WAL :
Current Cash Call Date : N/A	Nom Spread : 1539 bp	Yield :
Current Cash Call Price : N/A	Convexity : 0.0731	
Current Refund Date : N/A	CD Equivalent Yield : 20.695	
Current Refund Price : N/A	----- Call -----	
Next Put Date : N/A	Cash :	** -- Option Model at 13.0 % Volatility --
Next Extend Date : N/A	Refund :	Option Adj Spread (bp) : 1540
Final Maturity : 07/15/1998		Effective Yield : 20.987
Next Sinking Fund Date : N/A		Effective Duration : 2.351
Next Sinking Fund : N/A		Effective DV01 : 0.0179
Acceleration Factor : N/A		Option Value : -0.000
Security Type : EURO		Convexity : 0.0734
Source : SALOMON		** Assuming Refundable

	----- Par Yield Curve -----										
Years	0.25	0.50	1.00	2.00	3.00	4.00	5.00	7.00	10.00	20.00	30.00
Yield	5.67	5.60	5.53	5.54	5.63	5.72	5.80	5.91	6.07	6.30	6.52

BACKSTOP FUND S.A. / JUNE 07, 1995

Handwritten scribbles and the number "1012" inside a box.

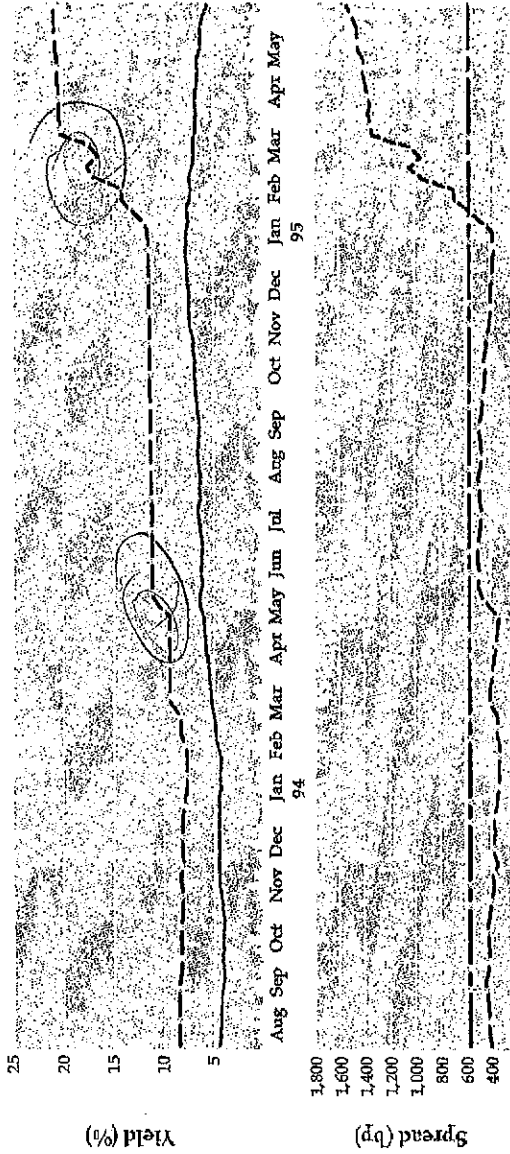
AAA

AA

A

Yield & Spread Profile

Weekly Data -- 7/23/93 through 6/2/95

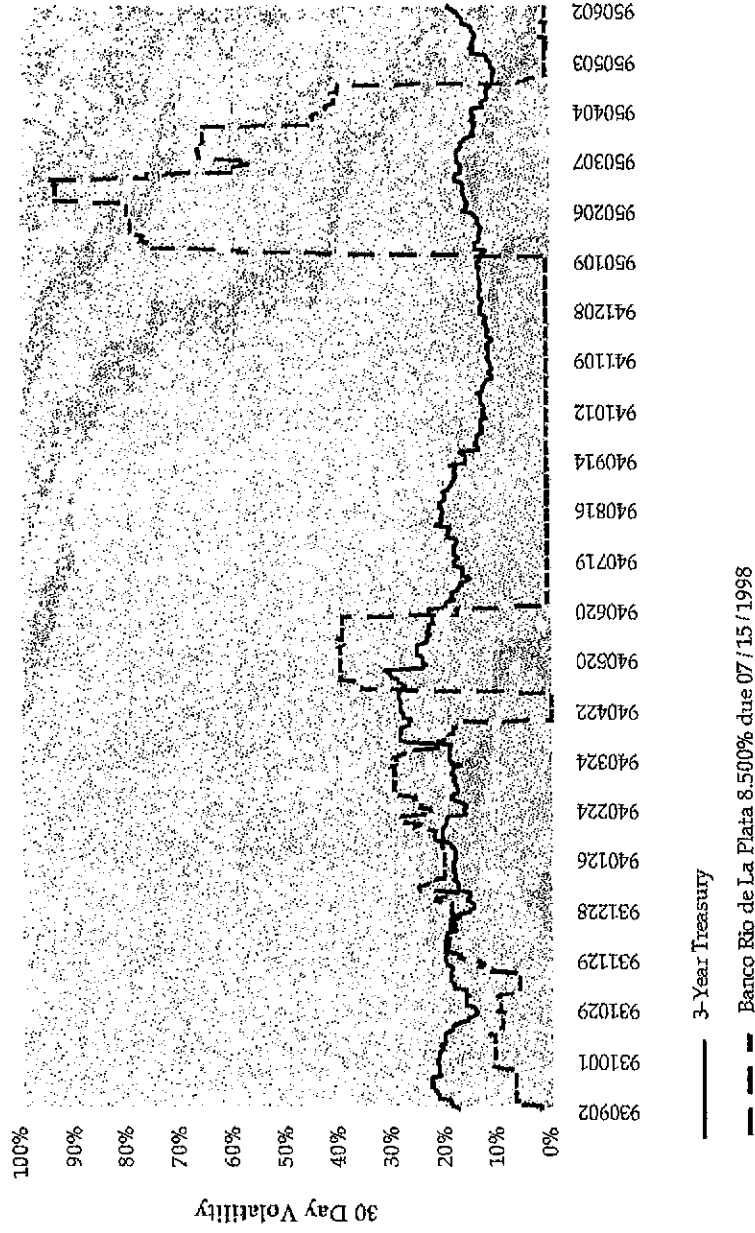


Benchmark:
 - - - U.S. Government 3-Year Maturities
 - - - BANCO RIO DE LA PLATA - 8.500% due 07/15/1998
 - - - Spread
 - - - Average Spread

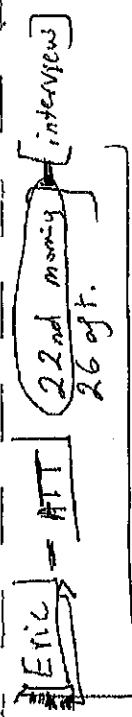
Source: Salomon Brothers Inc. sl3225.vmf.06/06/95

30-day Historical Yield Volatility

Daily Data from 09/01/93 through 06/05/95



Source: Salomon Brothers Inc



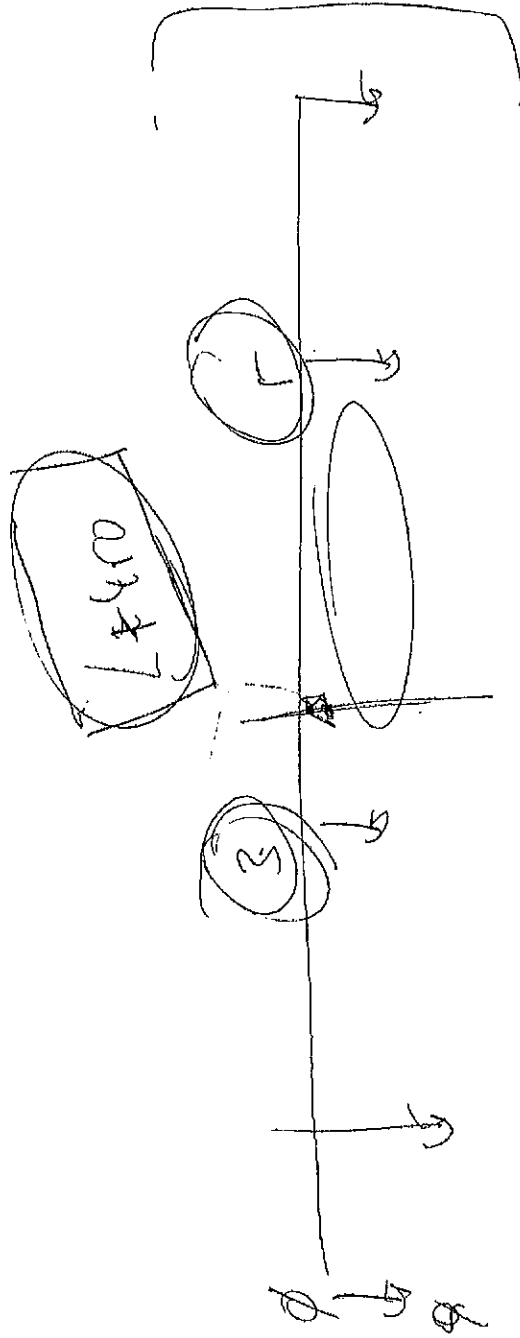
Bob Haber fax number

lunch 312-702-7401

Agenda

- Objectives
- Results of Auctions in Argentina
- Suggestions for Improvement
- Education Process of Market Participants
- Salomon Brothers' Continual Commitment

- 1
- 4
- 9
- 13
- 15



Objectives

Objectives

The creation of the Backstop Fund S.A. has accelerated the development of the capital markets in Argentina by achieving four primary objectives:

1. Provide eligible Argentine banks access to more stable financing, reducing financing cost associated to volatility in the capital markets.
2. Provide the Argentine banking system longer term financing to the private sector.
3. Facilitate Argentine banks in issuing medium- to long-term bonds.
4. Increase liquidity in the secondary market of Notes issued by financial institutions in Argentina.

Objectives *(continued)*

The Argentine Government, BICE, The World Bank and Salomon Brothers have worked together to develop an operational structure for the Fund, which is based on the following principles:

- *Market Oriented.* The Fund encourages competitive demand for the Commitments by providing a market-base price.
- *Transparency in the Process.* Maintain fairness and objectivity in allocating Commitments by an auction-determined market clearing price.
- *Market Liquidity.* Strengthen confidence in the Argentine capital markets by providing liquidity to the system.
- *Market Interest.* Develop capital market knowledge and skills of the Argentine banks.

Results of Auctions in Argentina

Results of Auctions

The Backstop Fund has passed the market test in Argentina: market demand for Backstop Commitments is strong. So far, three auctions have been held, in which 6 banks have participated purchasing US\$150 MM in Commitments.

Participant Banks	Total Supply (US MM)	Allocation (US MM)	Credit Rating	Strike of Rate	Maturity of Option	Maturity of FONs	Price BPS
Auction 1: \$50 MM							
Banco del Sud	45	45	AA	L+650	Dec '96	1 yr	23
Auction 2: \$50 MM							
Banco Quilmes	40	40	AA	L+650	Aug '96	3 yrs	88
Banco de Crédito	15	15	AA	L+450	Apr '96	1 yr	21
Auction 3: \$60 MM							
Banco del Suquia	20	20	A	L+750	Mar '97	1 yr	44
BANSUD	5	5	AA	L+650	Dec '96	1 yr	29
Banco República	25	25	A	L+650	Mar '97	1 yr	72
TOTAL	\$160 MM	150					

*Green Shoe of US\$5mm

Results of Auctions *(continued)*

PRICING ANALYSIS

	Price of Reference Contract	Theoretical Price of Reference Contract	Market Clearing Price
Auction 1	50	85	50
Auction 2	25	52	26
Auction 3	50	121	50

Results of Auctions *(continued)*

BIDDING STRATEGY ANALYSIS

Participant Banks	Auction 1	Auction 2	Auction 3
Banco del Sud	50		
Banco Quilmes		26	
Banco de Crédito		27	
Banco del Suquia			50
BANSUD			51
Banco República			50
Banco Río			35*

*Below minimum price

Have a reserve price but not tell them.

Results of Auctions *(continued)*

Report Card

	Excellent	Good	Fair	Poor
Fairness		X		
Transparency			X	
Price Dispersion				X
Liquidity			X	
Market Interest		X		

↳ Create credibility of cat. of agencies

Suggestions for Improvement

Suggestions for Improvement

1) Qualification of Participating Banks

The qualification requirements should be simplified without lessening standards, but taking into consideration the following problems:

- *Too many hurdles to jump*
- *Persistent updates of qualifications creates too arduous a process*
- *Dual qualification: BICE / Backstop*

Recommendation:

Simple Rules. Participating banks must provide documentation only prior to the purchase and exercise of commitments evidencing that (i) they meet all the regulatory requirements of the Central Bank and the Bank Superintendency and (ii) have a rating of at least an A (BBB at time of exercise) from two Argentine rating agencies. Before exercising commitments, a participant bank will also have to show that it has increased its level of lending to the private sector.

Suggestions for Improvement *(continued)*

2) Legal Documentation

In Argentina, banks have demonstrated a good level of understanding of the auction process and the technicalities involved in it, such as the pricing process; however, participating banks have been confused with the legal procedures.

- *Too much legal documentation requirements*
- *Constant delivery of legal documentation is time consuming and costly*
- *Option to require additional legal documentation creates confusion*

Recommendation:

Minimize the Legal Requirements. Participating banks should submit the required legal documentation only when purchasing the Commitments and exercising them. However, they shouldn't have so many legal requirements for the qualification process. In addition, the possibility that the Fund could ask for additional legal documentation, other than those required in the Master Facility Agreement should be discarded as many banks have expressed concern in open-ended legal requirements.

After the completion of the three auctions, only 6 banks out of the 18 eligible banks have been qualified to participate in the auctions.

Suggestions for Improvement *(continued)*

Simple Put Options

Straight Options. The Backstop options are linked either to outstanding bonds or to bonds to be issued in the future. We suggest that the Backstop Fund offers options with no links. It seems that some banks might have been prevented to participate in the auctions because they did not have an outstanding bond and they might not be in a position to commit themselves to issue a bond in the near future.

American Put Options. If the options are not linked to any bond, then the participating banks would have additional flexibility.

Secondary Market Trading of Put Options. To have more liquidity in the auctions, the Backstop Fund should allow the participating banks to sell their options at a market price to any other eligible bank or otherwise back to the Backstop Fund.

Education Process of Market Participants

Education Process of Market Participants

The on-going education process will continue to focus on:

- *Maintaining a Close Relationship with the Market Participants*
- *Explaining the relative costs of commitments compared to other financing vehicles*
- *Receiving Feedback from the Participating Banks*
- *Providing in depth information on the Argentine financial situation*

Salomon Brothers' Continual Commitment

Salomon Brothers' Continual Commitment

Salomon Brothers' Role

- Monitor the Overall Performance of Participating Banks
To Assure that Banks' Performance are in Line with the Objectives of the Fund

- Fair Pricing (Auction Procedures)

Establishing Roll-over Yields

Establishing Theoretical Prices

Updating Auction Procedures

- Education of Participating Banks

- Recommend Timing for Auctions

Assessment of Potential Demand for Commitments

- Project Coordination and Supervision

- Updating Capital Market Conditions

- Asset Management Services