YPF S.A.: Valuation of a cross border future flow receivables securitization

E-285 (International Finance)
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OVERVIEW

In this paper we describe a new financial instrument called a *cross-border future flow receivables securitization*, and how this was used by YPF Soceidad Anonima, an Argentine oil company, to finance its operations. We explain the seeming anomaly that the rating of structured export notes issued by YPF is higher than the sovereign rating of the Republic of Argentina, and justify the current market value of the notes.

We first briefly explain the structure and risks of this instrument. We then describe and analyze the issuance of the structured export notes issued by YPF. Next, we enumerate the risks faced by the investors, and justify the returns they would expect to carry this risk. Finally we compare this instrument to other similar instruments and justify its market value.

CROSS BORDER FUTURE FLOW RECEIVABLES SECURITIZATION

The debt crisis in several emerging countries most notably in Latin America, reached a climax in 1994 with the Peso devaluation in Mexico. Exhibit 1 shows how this led to capital flight from these countries, and led to their sovereign rating being lowered below investment grade. Since a sovereign risk ceiling is generally imposed on the debt of all issuers[1], investors have been shying away from bonds (particularly local currency

denominated issues) in these countries (see Exhibit 2). This has made it increasingly difficult for firms in these countries to raise capital in international financial markets. In response, cross-border future flow receivables securitizations have emerged as a new financial instrument that allows certain firms in emerging countries to issue investment grade debt with future cash flows as collateral. This instrument provides investors with an acceptable way to diversify their portfolios.

Basic Structure of a Cross-Border Future Flow Receivables Securitization

The basic structure of a cross-border securitization consists of the following (see Figure 1):

1. An issuer with a good reputation selling a product that is either a commodity with an official spot price, or a non-commodity with a fixed price.
2. The issuer should be located in a country that is politically stable and has a market mechanism in place or a program in place to achieve this.
3. One or more foreign buyers of the product. These buyer must have good international credit and a good reputation.
4. A contract between the issuer and the buyer(s) that is long term, binding and enforceable. The terms of the contract should be such that the buyer(s) will take and/or pay for the product.

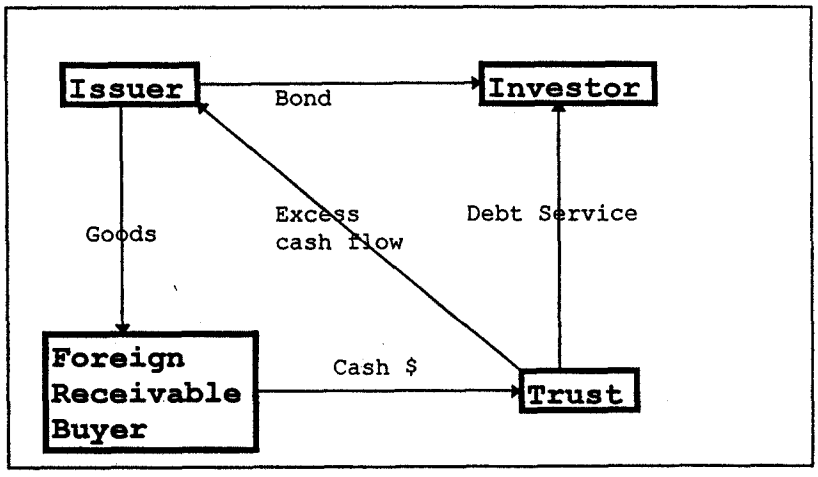

Figure 1: Basic cross-border securitization

According to the deal, the issuer floats the notes in the market and collects the proceeds. The issuer continues the production of the good and exports it to the foreign buyer. The buyer, under binding and irrevocable instructions from the issuer, makes the payments to the trustee (usually a respected offshore financial institution) in US$[1]. The trustee makes the principal and interests payments to the investors. Any excess cash flow is returned to the issuer.

Risks in cross-border securitizations

The main areas of risk in this transaction are the following:

- Supply side risk in generation of receivable. These include the risk that the issuer will run into production or operational problems that reduce or stop the flow of goods, or the risk that the international spot price of the commodity will fall, or the issuer will seek bankruptcy protection. Another area of risk is that of sovereign interference in the issuer's operations.
- Demand side risk in the collection of receivable. These risks include the risk that the agreement might not be enforceable, and the foreign buyers credit risk including risk of bankruptcy.
- Sovereign risk including political and legal risks in both the issuer and buyers home country. In addition this includes the convertibility risk in cash flow from buyer to trustee and the risk in capital outflow regulation changes in buyers home country.
- Market risk including the volatility in the value of the underlying asset that produces the receivable.

YPF S.A. STRUCTURED EXPORT NOTES

On June 2, 1995 YPF S.A issued $400 million in structured export notes (SENs) backed by future oil export receivables. These notes are due on Oct 26, 2002 and have a coupon rate of 7.5% per month. Exhibit 3 shows the transaction in a summary table. In this section we will describe the structure and components of the issue.

[1] So far all issues of this instrument have been US$ denominated.

Structure of the contract

The SEN issue is structured similar to the basic structure described above (see Figure 2).

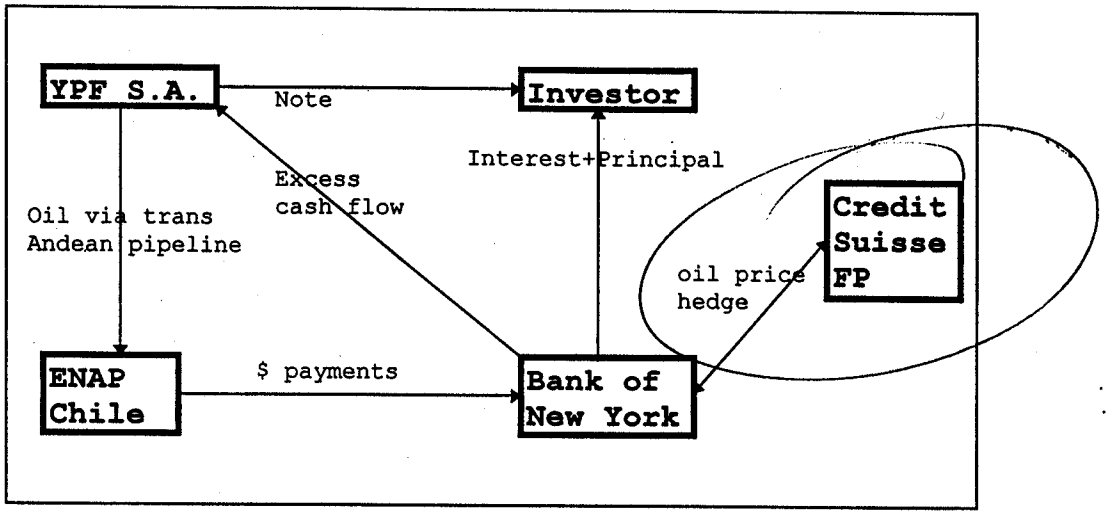

Figure 2: The YPF cross-border future flow receivables securitization

ENAP, a state owned Chilean oil company makes direct payments in US$ to the bank of New York. This bank then makes payments to service the SENs, as well as to the oil price hedge provider (Credit Suisse Financial Products). Any excess cash flow is kept by the Bank as a three month debt service reserve. Once this reserve requirement is satisfied, any excess cash flow is repatriated to YPF.

Components of the deal

Exhibit 4. shows a map that highlights the geography of the region where the production and distribution of the oil and gas occurs.

YPF S.A.

YPF, Argentina's largest company, is an integrated oil and gas company engaged in exploration, development, and production of oil and natural gas and in the refining, marketing, transportation and distribution of oil and a wide range of petroleum products. YPF's proven reserves as of Jan 1, 1995, were approximately 1 billion barrels of crude oil and 8,524 Bcf of gas. Exhibits 5 and 6 provide details of YPF's reserves and production. Exhibit 7 provides a financial summary of YPF. YPF's operations are a

critical source of revenue for the Argentine economy and there is very little chance of the government terminating the production of crude by YPF.

Transandean pipeline

The Transandean pipeline was built to link the oil field of Argentina with the markets in Chile. It is a 265 mile pipe originating in Argentina's Neuquen province and terminating in Concepcion, Chile (shown in Exhibit 3). It has a capacity of 106,000 barrels of oil per day, and currently carries 60,000 barrels a day. The pipeline is jointly owned by YPF, ENAP and Inter-Rio Holdings. Exhibit 8 describes the ownership and equity investment of each partner. The pipeline partnership has taken several steps to ensure minimal disruptions to service. These include a route over a zone with low probability of seismic or volcanic activity, using multi-layer plastic to prevent corrosion, state of art operational controls and multiple redundancies in case of pump, transformer breakdowns. Additionally, there are multiple pumping and receiving stations to ensure that capacity is not a problem; further the pipeline is insured in an amount of US $250 million against business interruption.

ENAP (Empressa Nacional del Petroleo-Chile)

ENAP is a major supplier of refined petroleum products in Chile. It is the only company with refineries in Italy supplying 93% of refined petroleum products in Chile. Exhibit 9 provides a financial summary of ENAP. This company and the Chilean government both have a long-term non peso debt rating of A-.

Legal Agreements

The oil purchase agreement between YPF and ENAP is in place until 2009 and cannot terminate prior to the scheduled maturity of the notes. This agreement obligates YPF to ~~deliver, and~~ ENAP to purchase 40,000 barrels of crude oil a day. The price payable by ENAP is determined by a formula that in general reflects the price that ENAP would have to pay in the spot markets delivered to ENAP's marine facility near Concepcion, Chile.

The assigned receivables trust between YPF and the Bank of New York assigns in trust the right to receive ~~43.943%~~ of all amounts paid by ENAP in each calendar month for as long as any amounts are outstanding under the SENs. In addition the trustee is to hold

ANY CONCERN OVER ENFORCEABILITY OF SUCH LONG TERM AGREEMENT

WHICH COMPANY CAME UP WITH THIS?

three months of debt service in a reserve account to cover risk of interruption in flows through the pipeline.

The hedge agreement between YPF and Credit Suisse financial products, obligates the counterparty to make shortfall payments to the trustee, should the price of West Texas Intermediate (WTI) crude falls below $14 per barrel.

There is an additional covenant in place that restricts YPF's ability to create liens and to effect certain mergers, consolidations or sales of assets that would undermine its ability to produce and transport the 40,000 barrels of daily crude to ENAP.

RISK ANALYSIS

One of the most unusual features of this issue is that it has received a debt rating from the agencies (BBB) that is higher than the sovereign debt rating of Argentina (BB). This section will seek to explain this by analyzing how this particular security is structured to mitigate risk to the investor. This analysis will also provide the framework for the next section which will consider the appropriate spread investors should expect from this security.

Generation and Collection Risk.

Future flow receivable securitizations are not asset backed securities. They are securitizations of future receivables that have yet to be generated (although the company has already received the proceeds of the issue). Thus, they are not protected by any actual assets in existence today. Therefore, a primary concern for investors is the generation and collections of the receivables. We believe the Oil Purchase Agreement (which generate the receivables) will continue to be honored for several reasons. First, the oil production required by YPF in this contract represents only 17% of its current proven reserves in the Neuquen Basin and only 9% of its total crude reserve base. On top of this, YPF operates an enormous number of wells in the region (2,043) which produce an average of 200,000 barrels a day. Should one of these wells shut down, it would have only a minimal impact on total production capability. Thus, barring unforeseen circumstances, there is currently no reason to believe that YPF cannot meet its production requirements. In addition, the Transandean pipeline is one of the principal means of transporting the oil from the basin, which itself represents 60% of YPF's crude

oil production. YPF must continue to honor its agreement if it is to continue profiting from the basin reserves.

We believe that even in the worst case, bankruptcy, there is still a good chance that YPF will continue operations. The financial health of the company is crucial for the stability of the Argentine economy. Representing over 1.5% of GDP, over half the countries oil operations (upstream and downstream), and accounting for 25% of the stock market's capitalization, it is unlikely the company would be liquidated during bankruptcy proceedings. Of course, YPF's central role in the Argentine economy also implies that it is very susceptible to political and economic shifts. This will be discussed further under sovereign risks below.

In addition, it is also in the best interest for both parties to continue to honor the agreement since the contract price results in better pricing than both parties would receive in the spot market. In other words, the price YPF would get on its oil exports in the spot market is lower than the price under the oil purchase agreement. At the same time, the cost to import oil for ENAP in the spot market is higher than the contract price. Since the contract splits the spread between the two prices the parties would otherwise receive, both parties benefit financially by reaping 50% of the difference (after a transportation tariff).

Finally, in addition to the favorable price structure for ENAP, the agreement is crucial for ENAP's ongoing operations. Today, Chile's domestic oil production meets only 10% of its internal requirements. ENAP, which is the largest oil refiner and transporter in Chile, has a 90% share of the market. While Argentina supplies 40% of Chile's crude oil, YPF alone supplies 65% of this. Thus, continuation of the agreement is of paramount importance to the financial health of ENAP as well as the entire Chilean economy.

Credit Risk

The credit risk of the issue is mitigated by the oil price hedge agreement, the debt service reserve accounts, the existence of protective covenants as well as the financial strength of both parties. In the event that the WTI price falls below $14/barrel, the hedge provider will make payments equal to 91% of the shortfall between $14 and the average WTI price (the 91% figure has been determined to be the average price of Rincon crude from the Neuquen basin to WTI crude). The risk, is that if WTI falls below $14, and the

→ NOT CLEAR WHY GAP: TRANSPORT COSTS? IMPORTANT.

ratio of the current Rincon crude price to the WTI price falls below its 91% historical average then there would be a cash shortfall. We believe the risk of this is small since, in the last 12 years, this has only occurred once, for a five month period during the 1986 oil price crash[ii]. Investors should closely watch the spread between North Sea Brent (NSB) prices and WTI since Rincon crude has generally tracked NSB prices very closely.

A three month debt service reserve requirement provides additional collateral in the event of oil production or transportation disruptions. YPF is required to maintain a reserve equal to three months projected debt service (both interest and principal). At the payment date, the Bank of NY (Trustee) is instructed to withdraw from this account any shortfall in the Export Proceeds Collection Account to meet the scheduled payments on the notes to investors. If the reserve account falls below required levels at any point, the Trustee would fund this account from proceeds in excess of the amount payable to investors (normally these excess proceeds would flow back to YPF).

Protective covenants also exist to provide additional support. Specifically, YPF has pledged exclusive assignment of these receivables to the trust and has agreed not to merge or consolidate if it would result in default or cancellation, and not to allow any liens against the collateral. While these covenants can always be challenged in court, they are valid under Argentine Trust Law which designates the exclusive assignment of the receivables as legal and removed from the bankruptcy estate of YPF, and requires continuation of the agreement during insolvency.

And finally, the financial strength of YPF reduces some of this issue's risk. The company's current operating cash flow is very strong: cash flow interest coverage stands at about 8x as of Q3 96. Looking at the balance sheet, while debt/capital has increased recently due to acquisition activity, it remains below 30% (Exhibit 7), suggesting that the company is not currently overleveraged. Operating margins have also improved from 12% in 1992 to 19% today. We consider the strength of the receivables originator to be one of the most attractive elements of the issue.

Sovereign Risks: Convertibility and Transfer Risk

Dollar denominated future flow receivable securitizations were created precisely to reduce convertible and transfer risks. One of the biggest concerns for investors in the

emerging debt markets is the risk that a local government will decide, either because of severe financial distress or due to political upheaval, to restrict access to foreign exchange and require that all trade related revenues be flowed through the central bank. In the case of the YPF structured notes, no cash flows take place within the sovereign borders of Argentina. Dollar payments are made directly to the trust by ENAP in Chile. The dollar denominated notes also reduce foreign exchange risk.

On top of this, the Argentina "Convertibility Law" of 1991 requires the central bank to maintain a reserve in foreign currencies equal to the amount of outstanding Argentine currency, which gives at least some assurance that the central bank can back the Argentine currency (although the law can always be rescinded in the event of a deep devaluation). Of course, the Argentine government does have regulatory and legal control over YPF. However, we believe that the central importance of YPF's exports to the Argentine economy provides a strong incentive to honor the notes. Moreover, given the government's need to refinance approximately $13-14 billion of debt in the next two years, it will be important for Argentina to maintain adequate access to lower cost capital. For this reason, it is not likely the government will jeopardize the transaction.

Thus, the real sovereign risk to this deal is unforeseen political risk. This is something that cannot be hedged, and, therefore, will be a key component in the spread between these notes and US treasuries.

VALUATION

Although the market for future flow receivables has grown tremendously since the "Tequila Crisis" of 1994, there does not yet exist a developed public market for these issues; all but one or two to date have been private placements. As a result, not only is there a lack of historical returns data, but most of these issues are not publicly priced. The YPF notes are no exception.

Thus, in order to determine an appropriate spread over Treasuries, we had to consider other debt instruments as a proxy. The only publicly available information that could serve as a proxy were spreads on Argentine Brady Bonds and other YPF corporate debt. It should be noted that in our data collection we received spreads

SOME ARE THOUGH? NO DIRECT MEASURES OF YIELD

quoted both on a $ LIBOR basis and a $ Treasury basis. For the purpose of this paper, we have converted all spreads to a Treasury basis.

First, we considered the current spreads of Argentine Brady Bonds, which were quoted off LIBOR. Since this issue has six years to maturity, we considered both the five and seven year bonds, although the sinking fund provision[1] in the YPF issue brings its average life closer to five years. Today, five year dollar-denominated Argentine debt trades at L+320[iii], which is equivalent to T+343; seven year debt trades at L+375, or T+402.

	5 YR	7YR	10 YR
LIBOR	L + 320	L + 375	L + 420
US Treasury Equivalent*	T + 343	T + 402	T + 448

** Based on the following Treasury Quotes:*

Coupon	Mat	Price	Yield
5.875	11/01	99 - 22/23	5.93
6.5	10/06	102 - 26/27	6.13
6.5	11/26	100 - 27/28	6.43

Table 1: LIBOR Spreads for Argentine Brady Bonds

We compared this to public YPF corporate debt. An 8% coupon 2/15/04 issue currently trades at 232 basis points over seven year Treasuries, or 9.08% (Exhibit 10,11). This 232 basis point spread is comparable to the when-issued data we received on other Latin American future flow receivable private placements, which usually have spreads of 165-300 basis points over Treasuries[iv]. However, in each of those private placements, the rating of the notes did not exceed the sovereign debt rating of the originating country.

We concluded that the Brady Bond spreads were not directly comparable for this issue given the rating differential, the difference in the debt structures, covenants, sinking fund provisions and collateral. Thus, we based our determination on a comparison of YPF's corporate debt to the export notes.

1 The SEN pays the investor both principal and interest monthly, unlike most regular bonds where only interest payments are made periodically and the principal is paid off at the end.

We assigned an appropriate spread for the export notes of 120 basis points. While this may seem expensive for an emerging market debt security collateralized by receivables that do not exist even on paper, we would cite five major factors to support a premium over YPF corporate debt (in addition to the positive risk characteristics discussed in the previous section):

1. The notes were not issued for general corporate capital expenditure purposes, but were tied to a specific contract that is crucial to the financial strength of both YPF and ENAP, and involves a commodity that is not easily replaceable and is critical to both country's economic health.

2. Default or suspension on the export notes due to interruption of oil delivery would not only create domestic credit problems for Argentina, but would likely strain trade relations with Chile. We felt this provided an added incentive for YPF to generate the receivables.

3. Chile's nonpeso obligations are currently rated single A (investment grade), while Argentina's long term nonpeso debt is BB. We believe this deserved a premium.

4. The corporate debt has a longer duration.

5. This is the first issue to receive a rating in excess of the sovereign rating. We believe, therefore, that it should command a premium over other future flow securitizations. This is further supported by the positive risk characteristics of the YPF notes versus other Latin American future flow receivables. For example, Banamex issued two such securitizations in the last year which opened with spreads of 275 and 300 bp. We believe the wider spreads are appropriate in this case since the deal originates in Mexico and is tied to local consumer credit card receivables. The YPF notes, however, are tied to receivables whose collectibility is more certain.

CONCLUSION

Based on our analysis, we believe that cross border future flows securitization will grow in popularity as a new asset class. Today, the market for these instruments is inefficient, mainly due to the fact that investors who desire to diversify their portfolio with these instruments do not have adequate access to information about returns and spreads, and there is no historical data to indicate appropriate trading ranges. This makes these instruments more illiquid than traditional emerging market equities and bonds. As

demand grows for emerging market investment opportunities, we expect investors to recognize the value of these issues as a less risky means to participate in emerging markets.

We based our conclusions largely on the fundamental characteristics of the deal and the participating parties, and analyzed that information in the context of other similar debt issues. We would expect that, over time as more deals are structured (and these issues are completed), a track record will emerge that would make valuation much easier.

EXHIBIT 1: NON-BANK PRIVATE SECTOR EMERGING MARKETS CAPITAL INFLOWS INTO LATIN AMERICA

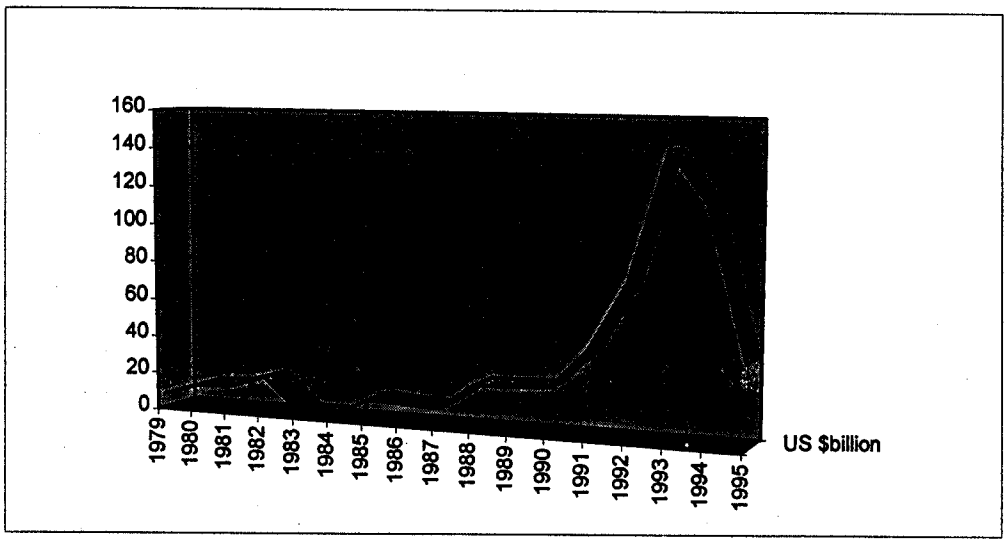

EXHIBIT 2: INVESTOR BASE FOR EMERGING MARKETS DEBT[v]

Pre-Brady before 1989	Brady Era 1990-1992	Investor expansion 1983-1994	Contraction 1995
Hedge Funds	Hedge Funds	Hedge Funds	Hedge Funds
Distressed loan buyers			
	High Yield		High Yield
Equity Funds			
	Dedicated mutual funds	Dedicated mutual funds	Dedicated mutual funds
		International bond funds	
		US Corporate bond funds	
		Insurance companies	Insurance Companies

EXHIBIT 3[vi]:

TRANSACTION SUMMARY

Sale Date:June2, 1995.

Securities Offered:$400 million strucutured export notes.

Maturity Date: Oct 26, 2002 (four year average life).

Collateral: Oil Export receivables generated from the sale of Argentine oil transported by pipeline to the state-owned Chilean oil company.

Legal Structure: Notes directly issued by YPF. There is no intervening special purpose entity.

Interest: 7.5% fixed, payable monthly.

Credit enhancement: Three month debt service reserve. overcollateralization, and an oil price hedge.

Purchaser: Empresa Nacional del Petroleo S.A.(ENAP; "BBB+" foreign currency rating).

Supporting ratings: Republic of Argentina ("BB-" long-term foreign currency debt, "BBB-" long-term local currency debt). Republic of Chile ("BBB+" long-term foreign currency debt,"AA" long-term local currency debt). YPF("BB-" foreign currency rating). ENAP("BBB+" foreign currency rating), Credit Suisse Financial Products - the oil price hedge provider ("AAA" rating).

Collateral trustee: Bank of New York.

Placement Agent: CS First Boston.

EXHIBIT 4: MAP OF THE REGION

EXHIBIT 5: YPF S.A. OIL AND GAS RESERVES

Summary Information Regarding Reserves and Production

Domestic Reserves

The following table sets forth YPF's crude oil and natural gas proved developed and undeveloped reserves and proved developed reserves by basin as of January 1, 1995. This table does not include any reserves attributable to Maxus since Maxus was acquired after January 1, 1995.

	Crude Oil (millions of barrels)	Gas (Bcf)	Combined(1) (BOE, in millions)
Proved Developed and Undeveloped Reserves			
Neuquén	538	7,299	1,755
Golfo San Jorge	339	115	359
Cuyana(2)	121	26	125
Noroeste	20	572	115
Austral	27	512	112
Total	1,045	8,524	2,466
Proved Developed Reserves			
Neuquén	389	6,128	1,410
Golfo San Jorge	186	73	198
Cuyana(2)	93	22	97
Noroeste	18	514	104
Austral	19	427	90
Total	705	7,164	1,899

(1) Volumes of natural gas shown in the table above and elsewhere in this Prospectus Supplement have been converted to BOE at 6 Mcf per barrel.

(2) Reserves attributable to the Malargüe area, located at the northern tip of the Neuquén Basin, are included in the reserves shown for the Cuyana basin.

International Reserves

The following table sets forth Maxus' crude oil and natural gas proved developed and undeveloped reserves and proved developed reserves by geographic area as of December 31, 1994.

	Crude Oil (millions of barrels)	Gas (Bcf)	Combined (BOE, in millions)
Net Proved Developed and Undeveloped Reserves			
United States	40	492	122
Indonesia	168	304	219
South America	67	—	67
Total	275	796	408
Net Proved Developed Reserves			
United States	33	384	97
Indonesia	145	107	163
South America	15	—	15
Total	193	493	275

EXHIBIT 6: YPF S.A. HISTORICAL OIL AND GAS PRODUCTION

Production

The following table sets forth YPF's historical average net daily crude oil and natural gas production by basin and average sales prices and production costs for total production for the years ended December 31, 1994, 1993 and 1992, as well as total average daily crude oil and natural gas production attributable to the properties of YPF held at January 1, 1995 (the "Remaining Properties"). This table does not include any production attributable to properties of Maxus since Maxus was acquired after January 1, 1995.

	For the Year Ended December 31,		
	1994	1993	1992
	(thousands of barrels per day)		
Crude oil production(1)			
Neuquén	201	167	144
Golfo San Jorge	102	87	82
Noroeste	5	5	13
Austral	6	8	7
Cuyana (2)	31	32	31
Total oil production	345	299	277
Total oil production from Remaining Properties	329	277	246
	(millions of cubic feet per day)		
Natural gas production(1)			
Neuquén	944	1,062	1,038
Golfo San Jorge	24	41	77
Noroeste	4	29	102
Austral	60	87	123
Cuyana (2)	6	6	11
Total gas production	1,038	1,225	1,351
Total gas production from Remaining Properties	1,000	1,022	1,077
Average sales price			
Oil (US$ per barrel)(3)	12.90	14.51	16.80
Gas (US$ per MMBtu)	1.09	.97	.97
Average lifting cost (US$ per BOE)(4)	3.00	3.68	4.18

(1) Crude oil and gas production amounts are stated before making any deductions in respect of royalties. Royalties are accounted for as a cost of production and are not deducted in determining net sales. See Note 3.g of Notes to Consolidated Financial Statements for the years ended December 31, 1994, 1993 and 1992.

(2) Production attributable to the Malargüe area, located at the northern tip of the Neuquén Basin, is included in the production reflected for the Cuyana basin.

(3) The average sales price per barrel of oil represents the transfer price established by YPF, which reflects the Argentine market price.

(4) Includes the cost of crude oil and gas purchased under certain contracts at prices above the Company's own production costs.

EXHIBIT 7: FINANCIAL SUMMARY OF YPF S.A.

	1H 95	1H 94	1994	1993	1992
Sales (US $M)	2,335	2,055	4,201	4,190	4,094
EBDIT (US$M)	822	582	1,303	1,211	1,175
% of Sales	35	28	31	29	29
Operating Income	440	237	597	640	510
% of Sales	19	12	14	15	12
Key Ratios					
EBDIT/Interest	14.7	10.6	12.9	10.1	14.9
Total Debt/EBDIT	1.37	0.99	0.96	0.66	0.72
Total Debt/Total Cap	0.281	0.196	0.195	0.132	0.177
Net Debt/Net Cap	0.272	0.19	0.188	0.12	0.163

EXHIBIT 8: TRANS-ANDEAN PIPELINE PARTNERSHIP

Partner	Ownership(%)	Equity inevstment(US$M)
YPF S.A	57.75	52
ENAP	12.25	11
Inter-Rio	30	27
Total	100	90

EXHIBIT 9: FINANCIAL SUMMARY OF ENAP

	1994	1993
Sales (US $M)	1,386	1,201
EBDIT (US$M)	143	97
% of Sales	10	8
Operating Income	88	38
% of Sales	6	3
Key Ratios		
EBDIT/Interest	34	11
Total Debt/EBDIT	0.68	1.05
Total Debt/Total Cap	0.12	0.15
Net Debt/Net Cap	0.11	0.15

EXHIBIT 10: COMPARABLE YPF CORPORATE DEBT ISSUE

Backpage DG04 Corp D E S
HIT PAGE FOR ID # INFORMATION
S E C U R I T Y D I S P L A Y PAGE 1 OF
YPF SA YPF 8 02/15/04 93.6876/ 94.1876 (9.21 /11) BGN MATRIX

SECURITY INFORMATION	
CPN FREQ	SEMI-AN
CPN TYPE	FIXED
MTY/REFUND TYP	NORMAL
CALC TYP(1)	STREET CONVENTION
DAY COUNT(5)	30/360
MARKET ISS	YANKEE
COUNTRY/CURR	ARG /DOL
COLLATERAL TYP	NOTES
AMT ISSUED	350,000(M)
AMT OUTSTAND	350,000(M)
MIN PC/INC	10,000/ 1,000
PAR AMT	1,000.00
LEADMGR/UWRTR	CS FIRST BOSTON
EXCHANGE	UNKNOWN

ISSUER INFORMATION	
NAME	YPF SOCIEDAD ANONIMA
TYPE	INDUSTRIAL

IDENTIFICATION #'S	
CUSIP	984245AA8
MLNUM	E8130
COMMON	004989147

REDEMPTION INFO	
MATURITY DT	2/15/ 4
REFUNDING DT	2/15/ 4
NEXT CALL DT	
WORKOUT DT	2/15/ 4
RISK FACTOR	5.0240

ISSUANCE INFO		
ANNOUNCE DT	1/25/94	
1ST SETTLE DT	2/ 2/94	
1ST CPN DT	8/15/94	
INT ACCRUE DT	2/ 2/94	
PRICE @ ISSUE	99.77	
SPREAD	232	BP VS
T	5 3/4	8/15/ 3

RATINGS	
MOODY	B1
S & P	BB-
COMP	B1
DCR	BBB
FITCH	NA
IBCA	NA

NOTES: HAVE PROSPECTUS, DTC, TAX CHANGES CALL
NEGOTIABLE OBLIGATIONS. TRUSTEE: BK OF NY. EMINENT DOMAIN CLAUSE.

EXHIBIT 11: YIELD GRAPH FOR YPF CORPORATE DEBT

22 DG04 **Message**

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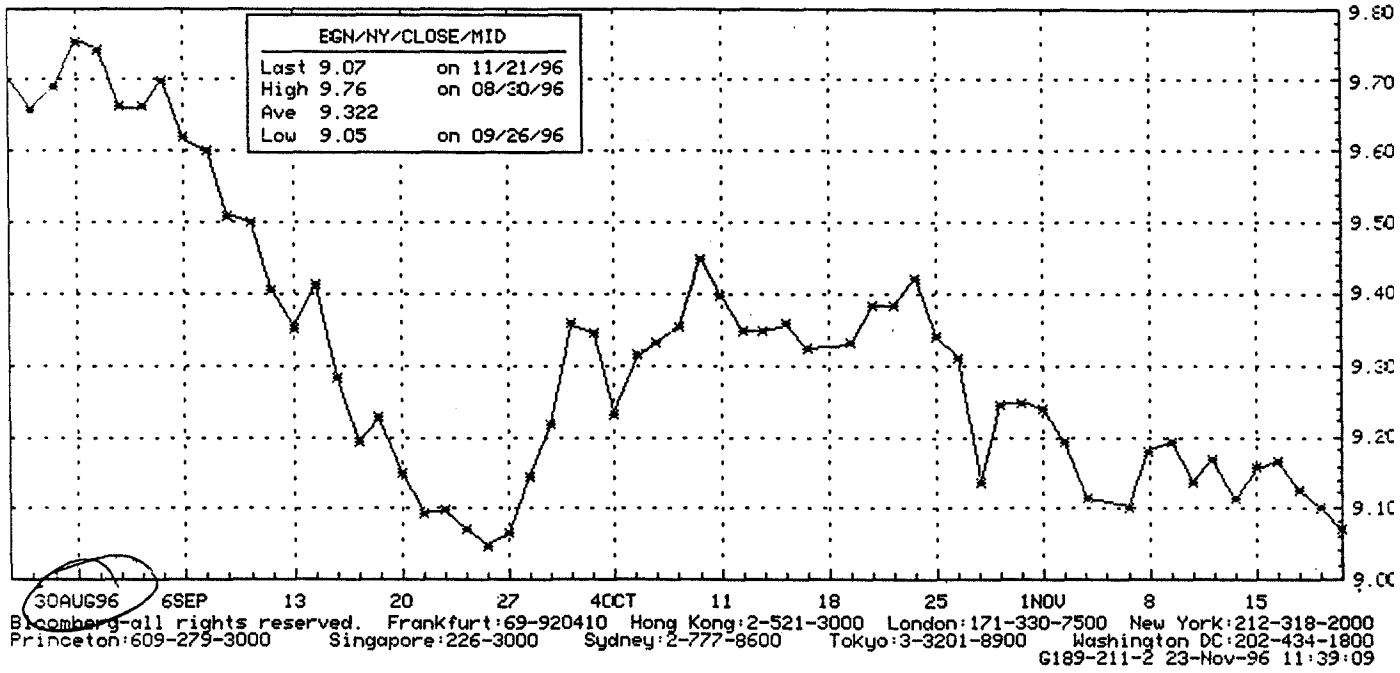
YIELD GRAPH for YPF 8 02/15/04

RANGE 8/27/96 TO 11/21/96 PERIOD D (D-W-M-Q-Y)

Y (P=Prc,M=YTM) MKT M (B=BID,A=ASK,M=MID)



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Princeton:609-279-3000 Singapore:226-3000 Sydney:2-777-8600 Tokyo:3-3201-8900 Washington DC:202-434-1800
G189-211-2 23-Nov-96 11:39:09

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50/70

DEBORAH & DAAMAN -

AN EXCELLENT PAPER. NICE WORK. THIS WAS A FINE CHOICE FOR A TOPIC. SOME SPECIFIC COMMENTS:

1) A LACK OF SECONDARY MARKET TRADING MAKES THIS INSTRUMENT A DIFFICULT CHOICE FOR MANY INVESTORS, AT LEAST IN THE NEAR TERM. HOW LARGE IS THE "LIQUIDITY PREMIUM" REQUIRED FOR MAKING THIS CHOICE? THIS IS A FUNDAMENTAL VALUATION DIMENSION THAT YOU MIGHT HAVE ADDRESSED MORE DIRECTLY.

2) WOULD THE OIL-PRICE HEDGE HAVE BEEN PURCHASED ANY WAY? HOW ABOUT THE LONG TERM PURCHASE CONTRACT? ONE WANTS TO KNOW THE INCREMENTAL IMPLICATIONS OF A DEAL STRUCTURE LIKE THIS.

WELL DONE

RICK