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I would like to talk about several matters this morning and share with you some thoughts and ideas, some data about the World Bank and in particular how we go about our business. Some of my more astute colleagues, reflecting their perception of the demands and expectations of an audience predominantly schooled in the art--perhaps science is the better word--of trading and marketing, suggested that I talk about the pitfalls of position-taking and the dangers of a negative yield curve. My more academic colleagues have urged that I should address you in the language of mathematics or finance and talk to you about debt/equity ratios, sensitivity analyses, risk theory, currency risks, arbitrage models, the relationship between interest rates and capital flows, and the latest nuances of decision-making theory. I should talk to you, they suggest, of "beta" theory and "Delphi" techniques. My more insecure friends suggested I seek to impress you with the magnitude and scope of the World Bank operation: we will lend or grant credits this year to developing countries in excess of 11 billion US dollars. The Bank, since its inception, has appraised and supervised the direct lending of over \$60 billion. Its staff consists of 2300 professionals and includes over 900 financial analysts and economists from over 100 different countries. The Bank is currently supervising 1200 development projects in over 90 countries. We expect to

earn profits of 550-600 million dollars this year. We have never suffered a loss on any of the 1600 loans made to developing countries since the formation of the Bank in 1946. My politically-preoccupied colleagues have suggested that I talk to you about regulation of the Euro-markets or the effect of the OPEC current account surpluses on the role of universal banks. My more hostile colleagues suggested that I talk about the nature of competition in the Euro-bond markets and who are the interlopers, who have customers and who do not and which ones can be relied on to misprice an issue.

I may, incidentally, touch on some of these matters. But, basically, what I would like to do is explain first, what is important to us as a borrower and, second, how do we act as an investor in the markets with our liquid cash resources. In short, I would like to talk about a wide range of financial and management policies of one institution--the World Bank--in international financial markets.

BORROWING PROGRAM

The World Bank's borrowing program has one function: to support its lending program. It borrows and lends those resources to developing countries. The Bank's retained earnings, its loan repayments, its paid-in capital are such that, over time, it will borrow about 70% of what it lends.

The World Bank's cash flow is not what I want to talk to you about. I want to talk more directly about how we go about actually financing that lending program and how we decide where to borrow, what currencies to borrow, how much to borrow and when to borrow. If we cannot borrow or do not borrow,

we cannot lend. The function of the World Bank is to lend to developing countries. The financial markets are the vehicles to finance those loans.

Let me give you, by way of background, some basic data. The World Bank's outstanding debt currently stands at almost \$30 billion equivalent, at a cost of 7.2%. During the last three years, we borrowed almost \$14 billion at an average, all-inclusive cost of 7.31%. The cost of all of the World Bank's outstanding debt at 7.2% is not significantly higher than it was in 1975 when we had about \$12 billion outstanding.

The Bank has borrowed in dollars, both Canadian and US; in francs, both Belgian and French; in Deutsche Mark; lire; yen; dinars, both in Kuwait and Libya; pounds, both Lebanese and UK; Dutch guilders; Saudi Arabian riyals; Abu Dhabi dirhams; Swedish kronor; Austrian schillings; and Venezuelan bolivares. Of the \$30 billion, about \$10 billion is held by governments or central banks. The largest amounts of outstanding debt have been raised in the United States, Germany, Switzerland and Japan in their respective domestic currencies. OPEC as a group holds over \$4 billion of World Bank debt purchased directly from the Bank over and above what they have purchased in the open market. The average life of the Bank's public debt is about eight years. We have no floating rate notes or short-term paper. The cost of debt, therefore, is set for the entire life of our borrowings.

The following tables provide you with some further detail.

Table 1

BREAKDOWN OF BANK DEBT OWNERS
(As of June 30 in \$ Millions)

	U.S. Dollar	%	Other Currencies	%	Total	%
1979						
Central Banks or Government Accounts	\$3,678.0	37.8%	\$ 4,077.6	24.6%	\$ 7,755.6	29.5%
Other Holders	<u>6,055.1</u>	<u>62.2</u>	<u>12,469.9</u>	<u>75.4</u>	<u>18,525.0</u>	<u>70.5</u>
Total Outstanding Debt	\$9,733.1	100.0%	\$16,547.5	100.0%	\$26,280.6	100.0%
1978						
Central Banks or Government Accounts	\$3,676.1	37.3%	\$ 3,678.2	28.8%	\$ 7,354.3	32.5%
Other Holders	<u>6,171.7</u>	<u>62.7</u>	<u>9,076.5</u>	<u>71.2</u>	<u>15,248.2</u>	<u>67.5</u>
Total Outstanding Debt	\$9,847.8	100.0%	\$12,754.7	100.0%	\$22,602.5	100.0%
1977						
Central Banks or Government Accounts	\$3,659.0	39.9%	\$ 2,784.5	29.9%	\$ 6,443.5	34.9%
Other Holders	<u>5,513.9</u>	<u>60.1</u>	<u>6,520.2</u>	<u>70.1</u>	<u>12,034.1</u>	<u>65.1</u>
Total Outstanding Debt	\$9,172.9	100.0%	\$ 9,304.7	100.0%	\$18,477.6	100.0%

Table 2

OUTSTANDING BORROWINGS
BY CURRENCY OF BORROWING

Amount Expressed in Millions of U.S. Dollar Equivalents

Currency	1975	1976	1977	1978	1979
United States dollars	\$ 5,692.5	\$ 7,151.1	\$ 9,172.9	\$ 9,847.8	\$ 9,733.0
Belgian francs	80.8	70.9	75.4	80.0	85.3
Canadian dollars	145.3	153.8	129.4	110.2	93.9
Deutsche mark	2,858.7	3,198.8	4,493.5	5,687.8	7,061.1
French francs	37.1	30.6	28.8	28.5	29.5
Italian lire	95.2	71.4	50.9	52.6	51.6
Japanese yen	1,500.9	1,495.0	1,652.9	2,919.1	3,515.7
Kuwait dinars	422.7	390.6	373.2	352.6	310.5
Lebanese pounds	33.7	30.5	24.4	-	-
Libyan dinars	135.1	101.3	101.3	101.3	101.3
Netherlands guilders	195.9	313.3	335.2	403.1	426.0
Pounds sterling	34.9	27.6	8.9	9.0	9.8
Saudi Arabian riyals	143.3	141.6	141.6	145.1	148.2
Swedish kronor	38.1	33.7	33.5	31.7	31.5
Swiss francs	673.1	1,237.0	1,655.1	2,635.2	4,485.3
United Arab Emirates dirhams	76.0	76.0	77.0	77.4	79.0
Venezuelan bolivares	<u>123.7</u>	<u>123.5</u>	<u>123.5</u>	<u>121.1</u>	<u>118.8</u>
Totals	\$12,287.0	\$14,646.7	\$18,477.5	\$22,602.5	\$26,280.5
Weighted Average Effective Interest Rates	7.24%	7.41%	7.40%	7.24%	7.06%

Table 3

**SUMMARY CLASSIFICATION OF OUTSTANDING
BORROWINGS BY PRINCIPAL SOURCE
(As of June 30 in \$ billions)**

	<u>% of Total</u>			<u>Total</u>			<u>Member's % of Subscribed Capital</u>		
	<u>1979</u>	<u>1978</u>	<u>1977</u>	<u>1979</u>	<u>1978</u>	<u>1977</u>	<u>1979</u>	<u>1978</u>	<u>1977</u>
United States	21.68%	25.72%	27.92%	\$ 5.7	\$ 5.8	\$ 5.2	23.9%	23.7%	25.0%
Germany	25.41	24.33	23.51	6.7	5.5	4.3	6.1	6.5	5.3
Switzerland*	15.53	10.60	7.99	4.1	2.4	1.5	•	•	•
Japan	13.49	13.03	9.06	3.6	2.9	1.7	4.7	4.7	4.0
OPEC**	15.38	16.65	19.74	4.0	3.8	3.6	5.9	6.2	4.7
Other	8.51	9.67	11.78	2.2	2.2	2.2	59.4	58.9	61.0
Total	100.00%	100.00%	100.00%	\$26.3	\$22.6	\$18.5	100.00%	100.00%	100.00%

Notes:

*Switzerland is not a member country.

**Includes OPEC Countries, Bahrain, Qatar, Oman, and Trinidad and Tobago of which:

Saudi Arabia	5.81%	6.39%	7.56%	\$ 1.5	\$ 1.4	\$ 1.4	1.7%	1.7%	0.4%
Kuwait	2.04	2.50	3.11	0.5	0.6	0.6	0.2	0.2	0.3
Venezuela	2.05	2.41	2.98	0.5	0.5	0.5	0.7	0.7	0.8

Table 4

**MATURITY STRUCTURE OF BORROWINGS OUTSTANDING
(As of June 30, in \$ billions)**

	<u>1975</u>	<u>% Total</u>	<u>1976</u>	<u>% Total</u>	<u>1977</u>	<u>% Total</u>	<u>1978</u>	<u>% Total</u>	<u>1979</u>	<u>% Total</u>
1 year	\$ 1.3	10.6%	\$ 1.4	9.5%	\$ 1.4	7.6%	\$ 1.7	7.5%	\$ 2.5	9.5%
2-5 years	4.0	32.5	5.2	35.4	6.8	36.8	9.3	41.2	10.2	38.8
6-10 years	4.2	34.1	5.5	37.4	7.3	39.5	7.8	34.5	9.3	35.4
11 or more years	2.8	22.8	2.6	17.7	3.0	16.2	3.8	16.8	4.3	16.3
Total	\$12.3	100.0%	\$14.7	100.0%	\$18.5	100.0%	\$22.6	100.0%	\$26.3	100.0%

Table 5

Historical Borrowing Costs

Average Cost of:	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Borrowing drawn down in period	8.16%	8.17%	7.46%	6.73%	6.22%
Borrowings outstanding during period	7.06%	7.32%	7.53%	7.45%	7.21%
Total borrowings and other funds available during period	4.96%	5.43%	5.96%	6.09%	5.98%

Given the diversity of currencies and sources of funding for the Bank, I thought it might be useful to talk about what we look at in deciding where, when, what and how much to borrow. We do not borrow at random. We aim to have an average life at fixed interest rates of 8 to 10 years for our debt. And we seek to achieve that after taking into account our direct placements (which use no financial intermediaries) of 2- to 5-year bonds with central banks. These are continually refinanced, but because of their rather short-term nominal maturity, it is necessary for us to offset these borrowings with 10- to 15- or even 20-year resources.

How flexible are we with respect to other aspects of our borrowing program?:

- 1) We are prepared to give long-term call protection with respect to our public issues;
- 2) We will adjust sinking funds and amortization to fully meet the requirements of the buyer;
- 3) In substantial amounts, we are prepared to accept delayed delivery for funds for as long as one or possibly two years;
- 4) We have no particular desire to favor public issues over the private placements. For example, of approximately 30 to 40 different issues a year, perhaps half a dozen are listed or traded. The remainder are done with governments or central banks or through private placements with the investment banking community;
- 5) The Bank does not take a currency risk on its borrowings: Pending disbursement, the Bank holds as part of its liquidity the currencies it has borrowed. When it lends these funds, the Bank disburses to its borrowers

the currencies borrowed. Our borrowers, in turn, repay their loans and pay interest in the same currencies as those which were originally disbursed by the Bank. Until borrowed funds are disbursed, they are invested in the same currency, about which I will say more later.

6) However, we act as if we took the currency risk. That is, we calculate the implicit revaluation potential of a currency borrowed against the interest rate differential of other major currencies. Thus, if Swiss francs cost 5% for 10 years and US dollars cost 12% several months ago, a rather simple formula tells us that the implicit revaluation of the Swiss franc over 10 years, which would offset the favorable nominal interest rate differential, is 91%. Thus, if we think that the dollar will not devalue more than 91% over the succeeding 10 years, we borrow Swiss francs; if on the contrary, we believe that the dollar would likely devalue more than 91%, we will borrow dollars. It is not a random choice. We may be wrong, but it is not random. In the last 3 years, the World Bank has borrowed almost exclusively in Deutsche Mark, yen and Swiss francs at costs which I referred to earlier, that is, at about 7.2% for \$14 billion. We did so because it was our belief that the dollar, given the interest rate differentials vis-a-vis Deutsche Mark, yen and Swiss francs, was undervalued. This does not mean that we believed that the dollar would not devalue at all; simply we did not believe it would devalue by as much as the interest rate differential implied. For our borrowers, the gain has been considerable--in the hundreds of millions of dollars--since they have had the advantage in the last two years of both a low nominal interest rate and a revaluation gain in terms of dollars;

7) If resources were not available to the Bank, either because of disarray in financial markets or simply because costs were too high, we would delay borrowing as we have done in the past and draw down our liquidity. That liquidity, which stands over \$9 billion as compared to about \$1.3 billion 12 years ago, was deliberately built up by what one might call "excess" borrowing. It was built up so that the Bank would have the flexibility to decide when to borrow, where it borrows and how much it borrows. We do not want to be in the position of having to borrow when we would prefer to wait 6 months. The liquidity policy serves that function.

Thus, the Bank systematically has increased its liquidity position by borrowing substantially in excess of its current requirements at times when funds were obtainable at what we considered reasonable costs and terms of maturity. We do not wait until we need resources to meet our requirements. Rather, we anticipate those requirements and hold liquidity.

Finally, with respect to our liquidity, if it appeared that because of an expectation of prolonged instability in world capital markets, our liquidity might decline to an unacceptable level, the Bank could reduce its lending program. While we would regard such action as inconsistent with our role as a development institution, the interests and protection of holders of our obligations would be of overriding importance. So far, no such measures have been required, nor do we expect that they will be needed in the future. Our first line of prudence, however, is to have more liquid resources than we currently need, which can be drawn down when market conditions are unstable.

You may ask now what turns us off. What aren't we interested in, in deciding what, where, when and how much to borrow--

- 1) First, we are not interested in tombstone advertisements;
- 2) We are interested in talking to institutions who can place our bonds;
- 3) We don't want our banker-underwriters to hold our securities; if we did, we would have made a bank loan or a private placement with them;
- 4) We are not comfortable with underwriters who do not feel an obligation to their customers, that is, their institutional clients;
- 5) We do not like bond issues in which the customer is not satisfied with the price;
- 6) We are not comfortable with firms that either do not know the market or seek to be excessively competitive to attract our attention or favor;
- 7) We do not look upon our underwriters as adversaries;
- 8) We do not bargain or negotiate. If the price is wrong for us or the public, we simply do not do the business;
- 9) If what we are offered is unfair or wrong or inappropriate, we simply will advise the governments of the world who are our stockholders that the investment banker has made an inappropriate or uninformed offer and that no deal is possible;
- 10) We do not threaten our managers with price competition from other firms. In turn, our managers have good reasons to simply offer us terms which are fair to us and to their customers;
- 11) We are not at ease pricing issues in which there are variable discounts given to some customers and not to others. Indeed, as you know,

we are not at ease pricing issues in which there are substantial deviations from the secondary market yields in other markets in the same currency. For example, the World Bank's secondary market trading several years ago in the United States for dollar-denominated bond issues was over \$4 billion. Therefore, we must be very cautious were we ever to price a Euro-dollar issue that a mispricing could seriously affect an extraordinarily deep and vital secondary market in the United States.

I have been asked why we have not done a Euro-bond issue. The fact is we are in the Euro-bond market. We just use domestic syndicates to sell the bonds all over the world. Its just that we use a rather old-fashioned way to do it. But I suggest that that may change in the future. After all, in a market in which similar quality issues can be priced as much as 150 basis points apart from each other on the same day, there must be some rather aggressive salesmen. This whole mix of factors that I have talked about is what our borrowing program is all about. Five or six of us are involved in the borrowing program I have just described.

Why do institutions buy our bonds? Why is the Bank a premier AAA borrower? That is rather straightforward. I can't go into it in much detail here except to note that we have over \$9 billion in cash. Our earnings will be between \$550 and \$600 million this year as compared to \$407 million last year and \$238 million the year before. We have never had a default or suffered a loss on a loan. We do not reschedule loans. Our debt is long term. The total cost of all our funds, debt plus equity, is less than 6%. The Bank's callable capital from member governments, which in effect provides a guarantee for bondholders, and can never be used for any other purpose, is currently about \$35 billion, and the Bank's member governments have authorized an additional increase of another \$40 billion of capital. We will be a \$100 billion institution by the middle 80's.

LIQUIDITY MANAGEMENT

I want to take the opportunity to talk for a few moments about that \$9 billion in liquidity; for indeed, we are not only a large borrower in the market, we are a rather significant investor in the marketplace. Since we do not take a currency risk when we borrow dollars, Deutsche Mark, Swiss francs or yen, or any other currency, we invest them in a wide variety of instruments---ranging from 1-day money to 5-year bonds pending disbursement on loans. The portfolio of our liquid resources is actively managed. It has traded up to \$120 billion a year. Our goal is rather simple. Since we have the liquidity which is designed to give us flexibility as to when we borrow, we want to manage that liquidity (even when there is a positive yield curve) so that the short-term investments will produce a rate of return higher than the cost of borrowing long-term funds. That means the funds must be managed. In short, we do not want the holding of our liquidity to be costly. That involves some management procedures, techniques, policies and philosophy which I would like to share with you. You may find it relevant to your own operations.

The rules of the game are straightforward.

- 1) A security, once purchased, is always available for sale;
- 2) The portfolio is managed with a view toward obtaining the highest potential future financial rate of return;
- 3) The staff is to pay no attention to the book cost of a security after it is purchased in determining whether or not to sell it. Book cost is a past event; it tells us nothing about whether we should hold a security or sell it;

4) We pay no attention to the accounting consequences of our sales; indeed, we do not normally know whether we have a gain or loss when we decide to sell a particular security. We ask ourselves only one question--is the potential future rate of return greater if we hold that security to some specific date in the future or is it better that we sell the security and use the cash for an alternative, potentially better investment?;

5) If a security is trading to yield 10% and another one of identical quality and maturity is trading to yield 10.25%, we will sell the former and purchase the latter, irrespective of the consequences of such action on our accounting statements, i.e., whether we have a gain or loss--if we believe that the aberration in yields is, in fact, an aberration and is not likely to get worse. If we expect it to get worse, we will wait;

6) We predict interest rates for five different maturities and for six different instruments ranging from 1 day out to 5 years; we do so at probabilities of 1 in 2; 1 in 4; and 1 in 10. We seek to hold that security which has the highest probability in giving us the highest rate of return with the least amount of risk. Conversely, we sell everything which has the lowest potential return and highest risk. By risk I mean the highest degree of uncertainty in probability terms;

7) Everything we own is available for sale all the time;

8) Everything we own, we would purchase if we did not already own it today. We will move the entire portfolio from an average life of 4 years down to an average life of 2 weeks if we think that interest rates are likely to rise, and we will do the reverse if we think that rates are likely to decline--subject to liquidity constraints in the secondary market, a not insignificant factor in the Yankee or Euro-bond markets;

9) There are no rewards or punishments for superb or disastrous decision making. We believe that such rewards and punishments simply inhibit rational analysis of what will happen to interest rates and are not productive incentives to correctly predict rates; our egos, our fears, our concern about jobs, our capital have nothing to do with predicting interest rates. Therefore, to the extent possible, my job is to relieve the staff from these external constraints--inhibitions--and let them concentrate on the things that go into the political and economic decisions which affect interest rates;

10) All of the predictions of all of the staff predicting rates are circulated throughout the office. Thereafter, all predictions and probabilities are compared to what actually happened, and these, too, are circulated;

11) We measure ourselves against perfection. That is, what would have been the rate of return if we had moved the portfolio, weekly, in hindsight, to maximize return and minimize loss;

12) Our job is simply to correctly reflect our own anxieties or insecurities about particular maturities over particular time periods in the future. We carefully measure whether or not, in the past, we correctly have assessed our own uncertainty when we ascribe particular probabilities to future interest rates. Therefore, if someone predicts that there is a 3-in-4 chance that a three-month US Treasury Bill one month from today will trade between 9% and 9.5%, we go back and ask, with respect to the predictor of interest rates, whether in fact in 3 chances out of 4 his short-term, i.e., one month, predictions of short-term paper was or was not borne out

by subsequent events. That helps us make our decisions. I do not seek to extract a prediction of interest rates which is more precise or more exact than what the staff feels. The trick is to measure and reliably quantify unsuredness and uncertainty;

13) One final point. The staff is trained to admit to error and to admit to making mistakes. We measure ourselves in terms of opportunities lost, not what our books show. If we buy a note at par and it trades at 105, and we sell it and it later trades at 110, we made a mistake. We should have waited. We admit to error and measure ourselves, in hindsight, against what would have happened if we had made optimal decisions. There is a certain subtle correlation between being comfortable with admitting to fallibility and error with being able to say what you really think. It is on the bases I have just described that we seek to manage our liquid portfolio. You probably want to know how well we perform as measured against traditional indices. All I can say is we did OK--this month.

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Let me conclude by thanking you for your courtesy and attentiveness. I have tried to talk about things which are relevant to you and which explain, perhaps only at the surface, something about the World Bank as a borrower and investor in international financial markets. I cannot, however, leave you with just that. We are a development institution. Our job is to lend for high priority, productive projects to improve the standard of living of a great number of people in many countries. That is why we are at the Bank. Our financial activities are designed to support that function.

Thank you very much.