

The currency swap: in the beginning

By Eugene H Rotberg

The World Bank transaction with IBM in August 1981 was not the first currency swap. A few had been done before, most notably those arranged by Orion Bank in 1979 and 1980.

The World Bank transaction, however, may have been the first with borrowers negotiating with each other through the intermediary of their investment bankers. But far more significant was the publicity attendant to the transaction; the focus for the first time by central banks and finance ministries on the implications of the product for the conduct of monetary and capital market policy; and the immediate allocation of substantial resources by the World Bank to incorporate currency swaps into its ongoing financial operations.

Some background will help put the transaction into perspective. The World Bank at the time was borrowing about \$8bn a year through about 50 bond issues in 20 currencies. Each of those transactions, under the Bank's charter, required the approval of governments whose currency or market was being used for any borrowing operation. Governments, therefore, controlled how much the World Bank could borrow in their currency, when the Bank could borrow, and the procedures for converting borrowed currencies for disbursement on loans. Each government carefully allocated what percentage, if any, of the World Bank borrowing requirements its capital markets would supply.

At the time, interest rates were quite high. Costs for dollars were approaching 17%; Deutsche marks 12%, and Swiss francs 8%. Governments had restricted access to their markets, particularly for non-resident borrowers, in order to reduce competition for domestic financing. None the less, the Bank was beginning to saturate the Swiss franc and, to a lesser extent, the Deutsche mark markets. It borrowed hardly at all in US dollars and, if anything, had a comparative advantage in that market because of the scarcity of its dollar-denominated paper.

The World Bank lending rate to its borrowers was linked explicitly to its cost of borrowing. Further, all exchange rate risk was passed on to its borrowers because the Bank was not permitted under its charter to take on currency risk. The Bank staff felt that for the intermediate term it was better at the

time for its borrowers to be saddled with Swiss francs at 8% rather than US dollars at 17%.

Our investment bankers knew the World Bank's requirements and concerns, our appetite for Swiss francs and Deutsche marks, and our reluctance to pass on 17% borrowings in dollars at a fixed rate to some of the poorest countries in the world. Salomon Brothers, through John Rosenstreich and Peter Gottsegen, approached the Bank with a proposal from IBM to swap its Swiss franc and Deutsche mark borrowings for dollars.

What was IBM's incentive? It turned out that IBM had, sometime before, borrowed both Deutsche marks and Swiss francs. Because of the devaluation of those currencies, IBM could show a substantial profit if it could remove from its books its Deutsche mark and Swiss franc obligations. The swap provided a vehicle to meet IBM's needs. Moreover, the Deutsche mark was beginning to strengthen, and some of the profits might quickly erode. IBM was willing to take on, given its very large cash position, an obligation to service dollars at 17%, probably because its liquidity could earn even higher rates of return, at least in the short run, given the slope of the yield curve at that time.

From the World Bank perspective, the transaction met three requirements which exist to this day. First, there would be no currency risk. The spot conversion which would occur simultaneously with the Bank borrowing US dollars would supply the Bank with the Swiss franc and Deutsche mark needed to service IBM's debt. IBM on its part would schedule its payment of interest and principal precisely to match the debt service on the Bank's dollar bond issue.

Second, the costs to the World Bank would not be higher than the cost of doing a direct transaction in Deutsche marks or in Swiss francs. Indeed, there was the possibility that the World Bank costs in Swiss francs and Deutsche marks might even be somewhat lower since we believed our comparative advantage in borrowing dollars, as compared to IBM's, was somewhat greater than IBM's comparative advantage over us in Germany and Switzerland.

IBM, understandably, took the view that it had a comparative advantage in both markets, and such was the basis for the negotiations. A major concern, though, was that irrespective of the bottom line cost to the World Bank, it could not come to market at too high a spread over US Treasuries for that, even though the Bank in the end would not owe dollars, could affect its financial standing. After all, you are what you say you are. In any event, that attitude was helpful to IBM.

Third, the Bank had to assure itself that it minimised credit risk on the transaction. It had enough credit risk on its books with its borrowers. Indeed, up to that point the Bank had never had a contract of this sort (or anything like it) with a private industrial company, certainly not over a seven-year term. The Bank's board ultimately passed resolutions permitting it to take the counterparty risk with commercial banks and AAA industrial corporations.

It is useful to observe that both IBM and the World Bank were to be subject to major intervening events during the 1980s: IBM was on the threshold of a positive information and technology explosion and the World Bank a debt crisis which would adversely affect the credit standing of its borrowers. IBM lost its AAA rating in the face of the information explosion; the World Bank, if anything, became stronger and had its rating affirmed during and as an aftermath of the debt crisis. But the reasons for the anomaly are another story.

There were, of course, other considerations underpinning the transaction. The Bank wanted to avoid saturating the Swiss franc and Deutsche mark markets. The Bank also envisioned that it could, through the use of swaps, put some subtle pressure on its underwriters as an alternative vehicle for accessing a market rather than doing a direct borrowing.

The transaction, in short, made sense. It took over a month to execute, not because of the negotiations or its technical aspects, but because of the wide range of issues and questions which would be asked and answered before our board of executive directors would approve the transaction. We knew it would be heavily publicised. We needed the specific approval of the governments whose currency was being used in the transaction.

The Bank's directors, understandably, wanted to know exactly what we were

doing, why we were doing it, and most important, what would be the implications for the world's capital markets and the conduct of member country monetary policy. We did not have the answers. But management and the executive directors of the Bank representing its shareholder governments sensed it would complicate, in some unforeseen ways, government regulation and control over both capital markets and exchange rates. Their instincts were correct.

The problems

The first issues related to the effect of the swap on the World Bank's lending rate to its borrowers. After all, its lending rate, as contracted with developing countries, was to reflect only Bank borrowing costs. Since we were not borrowing Swiss francs or Deutsche marks, but were borrowing dollars (which we would not owe, post-swap), that matter was resolved by a legal opinion which charged the borrowers the after-swap cost of the currency received, not the cost of the Bank borrowing.

Second, since each country allocated how much the Bank could borrow in its currency, would the United States, Germany, and Switzerland each claim that we were borrowing their respective currencies? Third, with whom would the spot conversion be done? Would it be done in the open market, which could have a significant market effect, given its size (how times have changed) if done in one day, or would it be done quietly with a central bank?

Fourth, would the World Bank embark on a policy of swapping only its new borrowings into the desired currency, or did the staff also intend to restructure the liability side of its balance sheet by swapping out of debt already on its books — such as IBM was doing? And if that were the case, would that not liquefy the liability side of the balance sheet and, in effect, permit Bank staff to do with the liability side of the balance sheet what it was already doing with respect to its liquid cash assets — actively manage them? And, would that not lead to an unpredictable and volatile lending rate depending on the changing currency composition of the Bank's debt?

The issues went well beyond the effect on the World Bank and its borrowers. Governments were concerned that they would lose control over the limited and rationed access to their markets should they allow currency swaps. They were

concerned about a potential increase in the volumes of forex transactions not related to trade. They were concerned about the effect of swaps on the spot market. They simply did not know where all of it would lead. Governments were concerned also that, while in this case IBM was not a borrower, in the future whenever one party borrowed, another party would have to borrow, thereby increasing pressure on capital markets.

Bank staff argued that the immediate conversion of dollars into Deutsche marks and Swiss francs would increase the strength of those two currencies — which is what those governments wanted at that time. Indeed, the German government's approval ultimately was conditioned on the spot transaction being done in the market, not with the Bundesbank. We also made the point that "this type of transaction does not involve either the World Bank or the other side borrowing Deutsche marks in the capital markets". There would be no effect on the German or Swiss markets since "... those funds have already for the most part been lent. The Bank essentially is simply taking that currency from a previous borrower and agreeing to repay that currency so that the original borrower might meet its obligations to existing bondholders."

Bank staff observed that the same amount of conversions would occur had it not done the swap because of the needs of our counterparty (IBM) over time to convert dollars into Deutsche marks or Swiss francs to service their debt — albeit over a five-year period.

While these matters were being discussed, the dollar was deteriorating, having gone from DM2.57 to DM2.34. The exchange markets were volatile and if we did not lock up the transaction rather quickly, there could be little advantage left to IBM.

The discussions with governments continued. The board finally approved the transaction in which the World Bank borrowed US\$210m with a five-year maturity, another US\$80m with a seven-year maturity and converted the proceeds into Deutsche marks and Swiss francs. I think it fair to say there was some reluctance on the part of the Bank's shareholders but, after all, perhaps it was only a one-off transaction. After it was all done, we had a nice lunch at the World Bank with some good guys from IBM — Al Shapero, Arthur Northrup, and David Finley.

Government reactions

The United States counted the dollars we borrowed against the Bank borrowing programme, even though it ended up with no dollars. The Swiss limited swaps into Swiss francs to not more than 25% of the Bank's annual Swiss franc borrowing programme. They were particularly concerned that swaps should not be used as a hedging operation for any borrowing or holding of Swiss francs which they had not previously approved. They simply wanted holders of Swiss francs to know there was a risk involved if they had positions derived from speculative activities, and it would not be easy to avoid that risk.

The German government, even through 1984, did not authorise more than DM400m in swaps a year — though it was a renewable limit. They were concerned about currency speculation and the loss of control. We needed prior approval for each transaction from the Ministry of Finance as well as the Bundesbank. The Dutch and Canadians for some time required prior notice and specific approval on any swap transaction involving their currency. The Austrians at first said no swaps at all involving the Austrian schilling. The Japanese would not permit swaps into or out of the yen out of concern that they would lose control over exchange rates and interest rates. It was not until 1984 that they gave approval for a modest Y25bn yen-denominated swaps per year.

The initial reluctance of Japan in the early 1980s to approve swap transactions was a mixed blessing. As an alternative, they permitted us to borrow more yen in their markets. Their later more accommodating posture toward swaps was clearly affected by the pressures from the Japanese insurance companies, which had liabilities in yen and were converting their yen premiums into US dollars. The cost of cover from the Japanese banks was quite expensive since the yields on Japanese government bonds were low and the yen bonds scarce. Sometimes (often, it turned out) the Japanese banks wrote long-dated protection — uncovered. They should have been given access to the swap market early on. I wrote in September 1981 to one of my colleagues:

"This is because the foreign exchange market is a free market, the forward markets are free markets, the interest rates in US dollars are set in a free market, but

the interest rates in Japanese yen are not. This probably has created some real problems for the Japanese banks. Therefore, I would urge that we encourage the Finance Ministry to talk to their own banks. We also understand that in October, the Ministry of Finance might liberalise this whole matter and might permit the banks or a bank to make a direct loan to us in yen and thereby avoid all this rigmarole."

They did, later. All the countries subsequently opened up and became less controlling. But I am getting ahead of myself.

The Morgan Guaranty/Paribas transaction

The issues came to a head again a few weeks later. This time Morgan Guaranty Bank and Paribas suggested we borrow dollars, but this time swap into Deutsche marks and Swiss francs without a known counterparty borrower. Indeed, since these were commercial banks on the other side, it was likely that they were taking the exchange risk, or perhaps using the projected flow of Deutsche marks and Swiss francs to hedge some other banking transaction in which they needed to create a contractual stream of those currencies.

I think that was a mostly unnoticed but momentous event, for it provided commercial banks a date-specific long-term cash flow of Deutsche marks and Swiss francs — an account receivable asset which could be used as a hedge against long-term protection which they might provide to clients. Heretofore, only the short-term forex market provided such a hedging facility — or, if longer term, only at a high cost.

The swap market, as structured in the Morgan Guaranty transaction, provided a far more efficient product for commercial banks to service their clients. Once that product was created, it could be used by commercial banks to offer products and services to facilitate long-term transactions involving exchange rate risk derived from either trade requirements or speculative decisions by those clients. That would have significant implications for exporters, importers, money managers and exchange rate speculators. For both Morgan Guaranty and Paribas these were, perhaps, far-off implications.

Indeed, though I would like to pretend otherwise, I cannot claim to have been

aware of many of these implications. We were focusing on risk: credit risk, interest rate risk, and exchange rate risk on both the asset and liability sides of the balance sheet. My sense is that governments, too, though raising the right questions, did not recognise how the product might later be used, and to the extent governments recognised its implications, official institutions seemed confident they could handle and control private sector cross-border trading.

Moreover, despite all these nagging doubts about control, access, regulation, speculation, etc. by this time, though only a few weeks had elapsed, the publicity attendant to the IBM transaction resulted in state entities, which were themselves major borrowers, pressuring their own central banks and finance ministries for approval to do swaps. The World Bank's board approved the second transaction. Within a month or two, state entities themselves were doing swaps, either to hedge risk, capture profit, or simply because they had changed their minds on the currency composition of their liabilities. The liability side of the balance sheet was being liquefied.

For the immediate, though, there was a mandate to be had and a client to service. Roberto Mendoza was, as always, on target; Dennis Weatherstone particularly helpful in discussions with the Swiss National Bank. In any event, there was a last minute hitch. The transaction was to be priced at 3am New York time, in time for the opening of the London Eurodollar market. In those days, there was no such thing as a hand-held computer programmed to do swaps. We were sending the alternative costs of a Eurodollar issue from New York to Washington for processing by our mainframe computer. In the middle of the night, the basement at the World Bank flooded, knocking out its computers. Phillip Spray ultimately figured out all the cash flows, I think "by hand", in time for a mid-morning Eurodollar bond issue.

All's well that ends well?

The two transactions were done during a period of considerable stress in capital and exchange markets. It all took six weeks. I assumed, incorrectly as it turned out, that simultaneously with the development of instruments to liquefy the liability side of the balance sheet, the accounting regulations would mark to market the debt on balance sheets. For what would be the justification for hold-

ing debt at par when the instruments and the techniques existed to move it off the balance sheet at market rates? I believed, mistakenly, that corporate treasurers would no longer be able to hide their mistakes by not marking to market their debt.

But we knew risk and opportunity when we saw it. Cyrus Ardalan, now at Paribas, was soon given the responsibility to develop a staff and procedures for executing swaps on a day-to-day basis. Jessica Einhorn, currently the Bank's vice-president and treasurer, had the responsibility for developing the overall policy strategy and continuing negotiations with governments.

A scheme was developed by Lester Seigel for having private insurance companies insure corporate counterparty risk, and monitoring, day-by-day, the risk position of the Bank in the event of a counterparty default.

Within a year we had done over US\$1bn in swaps, with a staff solely dedicated to that operation. We began to do interest rate swaps as well. Later, the Bank began to do transactions out of its existing stock of debt not related to a particular bond issue. As swaps became more routine, governments made a virtue of necessity and issued pronouncements about free and open markets.

For our part, my colleagues and I soon were focusing on new matters: floating-rate notes indexed to Treasury bills; currency-linked bond issues; bonds whose debt service payments might be linked to the performance of equity markets, and that elusive perpetual bond carrying a zero coupon. After all, anything for our borrowers.

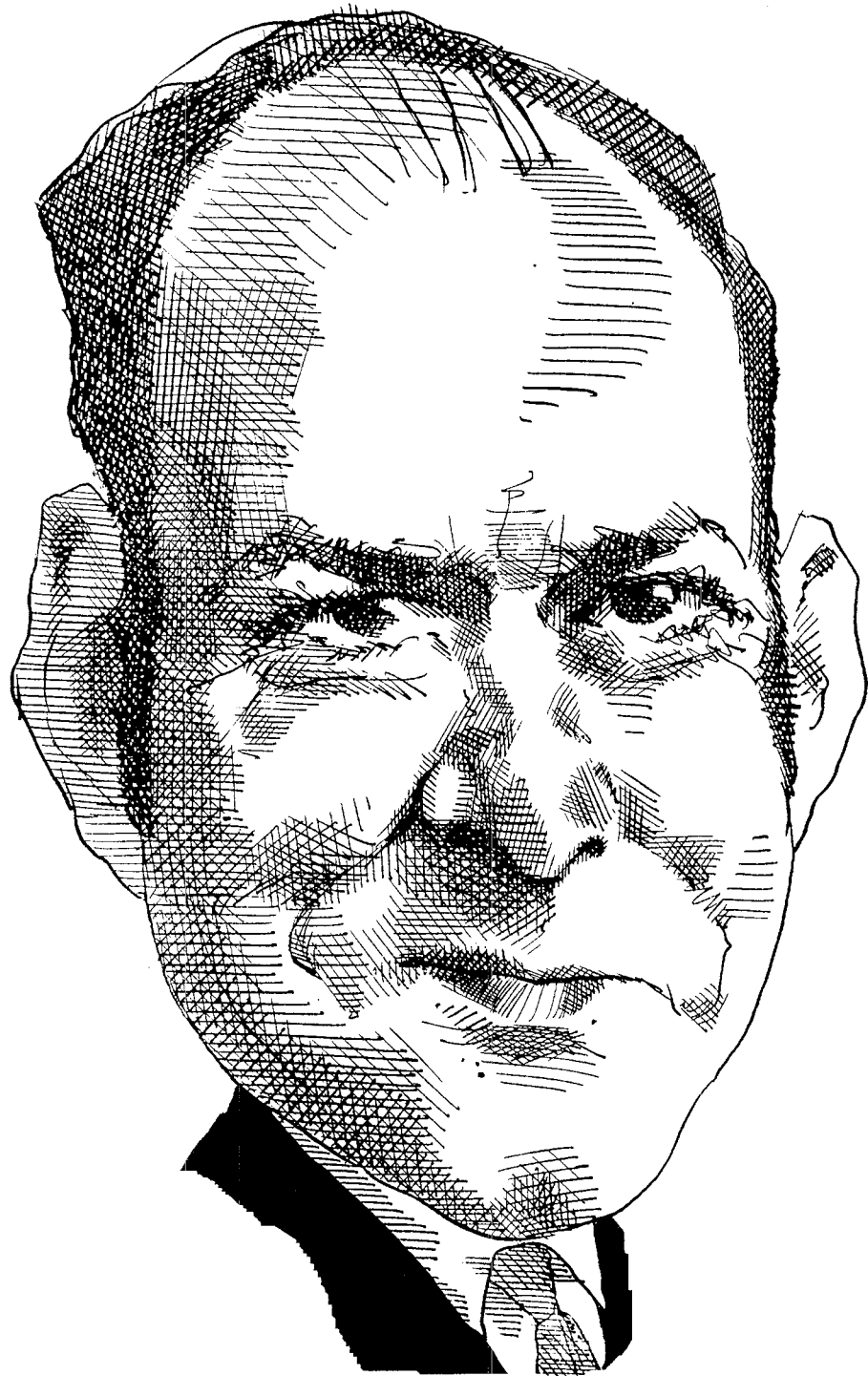
The swap markets over the decade following ultimately developed into a commodity and secondary market far different from the transactions described here. It led, I believe, along with other events, to a plethora of derivative products, off balance sheet transactions, and a significant increase in foreign exchange trading for hedging, speculative, and money management purposes.

My sense is that the issues raised by governments and the concerns they expressed in connection with these first swaps were well-founded. Governments could not, however, sustain the status quo for, indeed, the status quo had been breached earlier in the 70s with the demise of fixed exchange rates and national controls and of course, the information and technology explosion.

Unfortunately, governments were not then (nor are they now) able to assess the implications of new and complex products and processes on the conduct of monetary and exchange rate policy. For it turned out that with each advance in official expertise, the private sector became more opaque — and even

adversarial. It had the resources and now the products to make life difficult.

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