

International Finance Discussion Papers

Number 297

December 1986

THE COST COMPETITIVENESS OF THE EUROPAPER MARKET

by

Rodney H. Mills

NOTE: International Finance Discussion Papers are preliminary materials circulated to stimulate discussion and critical comment. References in publications to International Finance Discussion Papers (other than an acknowledgment by a writer that he has had access to unpublished material) should be cleared with the author or authors.

ABSTRACT

Very little has been written about the cost competitiveness of the market for Europaper (Euronotes and Eurocommercial paper) despite the extraordinarily rapid growth of this market over the past three years. This paper tries to compare costs to the borrower on 3-month Europaper with similar costs in the U.S. commercial paper market. On the basis of weekly data in the period June-October, the conclusion is reached that the costs may have been lower in the Europaper market roughly one-third to one-half of the time. Rates paid to investors are, at most times and for most borrowers, lower in the U.S. market than in the Euromarket, but the higher remuneration to dealers in the U.S. market frequently means that all-in costs to the borrower are lower in the Euromarket. Because of the nature and limitations of the data, cost comparisons were limited to estimated rates paid in the two markets only by borrowers whose U.S. commercial paper is rated P-1 or A-1. U.S. market borrowing costs were estimated from published composite rates for double-A borrowers, with adjustments where the long-term debt rating of the borrower was not double-A, and from market reports about dealer fees. Europaper borrowing costs had to be inferred from secondary market quotations. Fluctuations in the relative rates suggest the frequent appearance and disappearance of "windows of opportunity" for borrowing in the market with the lower cost at the time.

The Cost Competitiveness of the Europaper Market

by

Rodney H. Mills*

The expansion of the market for short-term Europaper--a now widely used term comprising what are generally called "Euronotes" and "Eurocommercial paper"--has been of extraordinary rapidity. Although the rise in the dollar amount of new programs arranged to issue Eurcpaper has slowed considerably in 1986 from the pace set in 1984-85, the stock of paper outstanding continues to mount briskly. Much has been written about this relatively new market, but almost nothing has been said about how competitive it is, vis-à-vis the U.S. commercial paper market, in terms of the cost to the issuer. The two markets have different sets of investors, and in the United States dealer activity is more heavily concentrated in a small number of firms. The question arises whether present Euromarket borrowers pay a premium over U.S. market costs and use the Euromarket solely to widen their sources of funding, or if they use the Euromarket because, costwise, it is the most advantageous. The question of cost is one that will strongly influence the rate of growth of outstandings in the Europaper market in the future.

This paper concludes that, at recent issue volumes, the Europaper market is already very cost competitive with the U.S. market

* Senior Economist, International Banking Section, Division of International Finance, Board of Governors of the Federal Reserve System. The opinions expressed in this paper are those of the author and do not necessarily reflect those of the Board of Governors or other members of its staff. The author is grateful for helpful comments on drafts of this paper from Frederick Jensen, Robert Rewald, Allen Frankel, Robert Gemmill and Larry Promisel of the Federal Reserve Board staff, and Clifford Dammers of Merrill Lynch Europe, London.

in 3-month maturities. In the Euromarket these are the bulk of the total in contrast with the U.S. market where maturities average less than 30 days and are more tailored to individual needs. The conclusions about cost competitiveness do not rule out that some borrowers may well be "paying up" in the Euromarket in order to become better known and broaden their funding base.

There is, unfortunately, a paucity of quantified information on issuing costs in either the U.S. commercial paper market or the Europaper market. Conclusions reached at this time are thus tentative. An examination of the rates paid by issuers in the period June-October 1986, to the extent they can be estimated, suggests that on the basis purely of rates, i.e., excluding dealer fees or spreads, the Europaper market is more costly, most of the time, than the U.S. commercial paper market for issuers who have access to both markets. However, taking account of the much greater dealer remuneration in the U.S. market relative to the Euromarket, it appears that at recent issue volumes borrowers with access to both markets can now issue 3-month paper in the Euromarket more cheaply than, or as cheaply as, in the U.S. market for dealer-placed paper most of the time for some borrowers and part of the time for the others. Overall, the Euromarket may offer the lower cost close to one-half of the time. The relative rates in the two markets are constantly shifting, and thereby appear to create "windows of opportunity" for Euromarket borrowing that open and close with frequency. At present the Europaper market does not have the capacity to absorb as large a volume of paper as does the U.S. commercial paper market because of the newness of this instrument for Euromarket investors.

Market Growth

The amount of Europaper outstanding is not known with any precision. Estimates suggest that the current volume may be around \$30 billion. Whatever the true figure, it is small compared with \$311 billion in the U.S. commercial paper market (including directly placed as well as dealer-placed paper) as of July 1986. But the potential for further Europaper issues is large, not only because the volume of new programs is still increasing but also because the programs already put in place have been utilized only up to a small fraction of the full amount arranged for.

According to Bank of England compilations, a cumulative total of at least \$125 billion of Europaper programs were arranged in the years 1982-85 and the first nine months of 1986. A more precise, and higher, figure cannot be established because some Eurocommercial paper programs have been for unlimited or at least unspecified amounts. The Bank of England data cover NIFs (note issuance facilities),¹ which are wholly or (occasionally) partly underwritten by banks and provide for the issuance of "Euronotes" in the narrow sense of the term, and Eurocommercial paper programs, all of which are not underwritten.² From very low levels in 1982-83, the recorded volume of new paper programs arranged during the year rose to \$18.8 billion in 1984 and

¹NIF is a broad term that includes a number of variants, notably the RUF (revolving underwriting facility), a vehicle developed by Merrill Lynch and Co.

²There is not yet a fully standardized terminology. The Bank of England uses the term "Euronotes" to cover both "Euronotes" in the narrower sense employed here (i.e., paper issued under NIFs) and Eurocommercial paper as well.

\$49.4 billion in 1985; the January-September 1986 figure of \$50.9 billion indicates a slowing of growth but still an increase of almost 25 percent over the comparable period of 1985. The vast majority of facilities and programs arranged in the past are still in place. Underwritten NIFs totally dominated the Europaper totals until mid-1985, but by now have largely given way to Eurocommercial paper. The latter type has accounted for 70-85 percent of the 1986 quarterly totals. Most borrowers prefer the Eurocommercial paper program over the NIF in part because underwriting commitments from banks, hardly ever invoked, necessitate costly underwriting fees. In addition, distribution of paper through dealers is more efficient and flexible than through the tender panel normally employed for NIFs. Recent actions of bank supervisors to take account of underwritten NIFs in the formulation of banks' capital requirements may also have diminished the attractiveness of NIFs to underwriting banks. Borrowers in the Europaper market are located almost wholly in developed countries, notably the United States, Australia, France, the United Kingdom, and Sweden.

Problems in Comparing U.S. and Euromarket Rates

There are two major problems in trying to compare rates in the Europaper and U.S. commercial paper markets. One is the absence of data on new-issue rates in the Euromarket and the need to infer such rates from secondary-market data of only once-a-week frequency. The other problem is that, notwithstanding the great size and comparatively long history of the U.S. commercial paper market, the available data on rates in that market refer to borrowers with only one particular set of credit ratings, to the exclusion of all other borrowers. This means that, in

the attempt to compare only apples with apples, the only Euromarket rates that can be considered are those thought to be paid by borrowers whose characteristics conform to those of the borrowers used for the U.S. data. This drastically limits the comparison possibilities.

First and foremost, the U.S. data are composite figures that refer exclusively to rates on paper that is rated P-1 by Moody's or A-1 by Standard and Poor's, or both if rated by both agencies. These rates are averages of representative rates from five dealers; rates paid by individual borrowers are not disclosed by the dealers. In making rate comparisons between the Euro and U.S. markets, one should look only at Euromarket issuers who have received P-1 or A-1 ratings. And these are very much in the minority, because most Euromarket borrowers have not, at least not yet, sought a rating. Many Euromarket borrowers would, of course, receive a rating of P-1 or A-1 if it were sought, but precisely which ones fall in this category cannot be deduced in advance with certainty.

The other confining characteristic of the U.S. market rate data is that the data apply solely to issues of borrowers whose long-term debt is rated double-A by Moody's or Standard and Poor's, or both if rated by both agencies. No data are produced for paper of borrowers with a higher or lower long-term debt rating.

Because of the above constraints, the Europaper rates examined here will be restricted to those on issues of 18 Euromarket borrowers whose paper has received P-1 or A-1 ratings. These 18 are approximately the totality of all the Europaper issuers who had received such ratings at the time of writing and for whose paper rate quotations were published for all the weeks during the time period looked at in this

study. The long-term debt rating of these borrowers is double-A in only four cases, for which some kind of allowance must be made in comparing the rates with U.S. market rates.

III. Rate Comparisons

How the Europaper rates for the 18 borrowers compared, on average, with the U.S. market rate for dealer-placed paper over a recent 22-week period can be seen in Table 1. The data are for 3-month maturities. The U.S. rate is for new issues on Friday, converted from a discount rate basis as published to an investment yield basis here. (This is technically an offer rate, but there is no analogous bid rate.) The Europaper rates are secondary market bid and offer quotations, as of Friday morning, furnished by Merrill Lynch and Co.³ The Europaper rates are shown here in the form of differentials relative to the U.S. rate. The use of rates quoted by only one dealer is necessitated by the absence of any series based on quotations from more than one institution.

Ideally, we would like to compare rates paid by the borrower on new issues in the two markets, but published data on such rates do not exist. On the basis of conversations with market participants, the assumption made here is that the new-issue rates paid by the Euromarket borrowers were somewhere in the range between the secondary market bid and offer rates. Unfortunately, it does not seem possible to estimate

³As published, the Merrill Lynch rates are in terms of a base rate (LIBID, LIBOR, or 3-month U.S. Treasury bill) plus a margin over or under the base rate. In converting these quotations to actual percentage rates as shown here, the 3-month LIBID or LIBOR was used along with the 3-month U.S. bill rate.

Table 1. 3-Month Interest Rates for 22-Week Period

		Friday rates for period June 6 - October 31					
		Average		Highest		Lowest	
I.	U.S. commercial paper rate on new issues paid by P-1/A-1, double-A borrowers, on 360-day investment yield basis (in percent)	6.13		6.89		5.58	
II.	Europaper secondary market rates for P-1/A-1 borrowers, expressed as excess over (or shortfall from) U.S. rate ¹ (in basis points)						
		Bid	Offer	Bid ²	Offer ²	Bid ²	Offer ²
A.	Triple-A debt rating						
	Caisse Nationale des Telecommunications	4	-1	15	10	-14	-19
	Credit National	4	-1	15	10	-12	-17
	Electricite de France	4	-1	15	10	-12	-17
	Kingdom of Sweden	4	-1	15	10	-14	-19
	Unilever Capital Corp.	6	1	22	17	-9	-14
	Australian Industry Development Corp.	8	3	20	15	-12	-17
	Commonwealth Bank of Australia	8	3	21	16	-12	-17
B.	Double-A debt rating						
	Household Finance Corp.	11	6	28	23	-3	-8
	Merrill Lynch & Co.	16	11	33	28	0	-5
	Compagnie Bancaire	17	12	34	29	2	-3
	Australian Resources Development Bank ³	24	19	41	36	8	3
C.	Single-A debt rating						
	Australian Wheat Board	14	9	31	26	0	-5
	Statoil	14	9	29	24	-1	-6
	Renault Acceptance	17	12	34	29	2	-3
	CSR Finance Ltd.	25	20	42	37	7	2
	Fleet Financial Group	26	21	44	39	9	4
D.	No long-term debt rating						
	ICI Finance Ltd.	10	5	26	21	-5	-10
	EBS Finance Corp.	17	12	26	21	2	-3

¹A positive differential indicates that the Europaper rate exceeded the U.S. rate, and a negative differential that the Europaper rate was below the U.S. rate.

²The dates of the highest and lowest rate differentials vary from issue to issue. The highest and lowest differentials do not, of course, bear any relationship to the highest and lowest U.S. CP rates, which are shown here for the sake of completeness.

³Europaper rates for this borrower were not quoted on the final three dates, for which estimates were used here based on continuation of the same spread relative to LIBOR quoted on all the preceding 19 dates.

Source: U.S. rate from Federal Reserve Bulletin, where it is shown on a discount basis; Europaper rates as supplied by Merrill Lynch and published in IFR International Financing Review.

the new-issue rates more precisely than this. Regarding the U.S. rate, we treat it here as the rate cost to the borrower, and postpone the question of dealer remuneration until later.

On the basis of the 22-week average rate differentials considered by themselves, we would have to conclude that, at least most of the time, borrowers who can access both the U.S. commercial paper market and the Europaper market can borrow more cheaply in the former. The easiest direct comparison is for the borrowers with a double-A long-term debt rating, since the U.S. rate data refer specifically to such a category of borrowers. As Table 1 shows, for these borrowers even on the offer side the average secondary market rate exceeded the U.S. rate by amounts ranging from 6 to 19 basis points, and in consequence the average new-issue rates of these borrowers must have exceeded the U.S. rate by even more.

For the triple-A borrowers, on the face of it the rate comparisons seem less unfavorable to the Europaper market. However, the differentials shown here need to be considered in light of the fact that triple-A borrowers can borrow in the U.S. market more cheaply than can double-A borrowers, to whom the U.S. rate applies, even though the commercial paper itself is rated the same for both groups. Market experts use a rule of thumb and currently subtract 5 basis points from the published U.S. commercial paper rate to obtain an estimate of how much triple-A borrowers are paying on commercial paper issues in the United States. Use of this rule of thumb lowers the U.S. rate in Table 1 and thus increases the differentials by 5 basis points. On such an adjusted basis, even the Europaper offer rate exceeded the U.S. rate by

average amounts ranging from .05 to .08 percent depending on the borrower, and the gaps were of course greater between the Europaper new issue rate and the U.S. rate.

In the case of single-A borrowers, it must be kept in mind that they pay more on U.S. commercial paper than the published U.S. rate indicates, and therefore the true differentials for the single-A borrowers are overstated in the table; by a generally accepted current rule of thumb we should adjust them downward by about 3 basis points. However, considering that in the table even the smallest average differential on the offer side for these single-A borrowers was 9 basis points, it would seem that on the majority of occasions the single-A borrowers could obtain lower new issue rates in the United States than in the Euromarket.

Fluctuating Differentials and the Fee Factor

From the foregoing we conclude that at present all borrowers with a P-1/A-1 commercial paper rating, irrespective of their long-term debt rating, can obtain lower rates in the U.S. market most of the time. However, in assessing the relative advantages to borrowers of the two markets, it must be considered first that rate differentials vary over time and, second, that the cost of new issues in the U.S. market includes dealer fees as well as the rate of interest.⁴ Taking

⁴Directly placed paper in the United States is not considered here, because such paper is issued almost entirely by a small number of finance companies which, as a group, have very special characteristics that differentiate them from issuers of dealer-placed paper in the United States, as well as from the Euromarket borrowers. One of the U.S. direct placers, GMAC, has begun issuing in the Euromarket, reportedly at rates as good as those it receives in the United States.

account of both of these factors leads us to conclude that perhaps one-third to one-half the time the Euromarket was less costly than the U.S. market for the 18 borrowers, taken as a group, under examination here.

Rates on Europaper do not fluctuate in tandem with U.S. commercial paper rates. While spreads over LIBID or LIBOR in the Europaper market do sometimes change, in almost all cases those changes are infrequent and small over periods as short as 22 weeks. Almost all of the fluctuation in Europaper rates reflects changes in LIBID or LIBOR rather than in margins. In a broad sense, LIBID or LIBOR on the one hand and U.S. commercial paper rates on the other tend to move together, but from day to day or even week to week the differentials between them fluctuate considerably. In the 22 weeks under examination, the differentials in the Friday rates were often quite different from the averages for the period. This is suggested by the highest and lowest differentials for the period, as shown in Table 1. For almost all of the 18 borrowers, the difference between the average differential and the lowest differential (i.e., where the Europaper rate was lowest relative to the U.S. CP rate) was in the range of 14 to 18 basis points. The lowest differentials show that for the majority of these borrowers the Europaper rate was sometimes below the U.S. rate (as indicated by the negative sign before the differential), suggesting the existence of "windows of opportunity" when there was a rate advantage to borrowing in the Euromarket as opposed to the U.S. market.

Before proceeding further in trying to document such windows, the question of fees should be raised. It is generally believed that,

on most new dealer-placed commercial paper issues in the United States, the borrower pays fees of about 10 basis points at an annual rate. These fees may be one or two basis points lower than the typical 10 points for very highly rated borrowers, or one or two points higher for especially weak borrowers. (Since the fees are based on the price the dealer expects to receive rather than the price he actually ends up getting on his sales to investors, it could be said that the rates quoted in the market less the fees yield an implicit bid rate, and that the fees are to a degree similar to a dealer spread.) But in the Eurocommercial paper market explicit fees are said to be virtually nonexistent, with competition among dealers limiting them to profiting from the margin between the price of the paper paid to the issuer and the higher price at which it is sold to investors. The rates corresponding to this margin will tend to fall in the range of the secondary market bid and offer rates.

Only a relatively small fraction of all Europaper is still distributed, mostly through tender panels, under NIFs that are underwritten and thus carry a so-called facility, underwriting, or commitment fee based on the size of the facility; such a fee is usually 5 to 10 basis points per annum. In what follows, estimates of Europaper new issue costs will be considered as applying solely to Eurocommercial paper, to the exclusion of Euronotes issued under facilities giving rise to facility fees. This paper also does not consider the cost of bank back-up lines which are required for all corporate issues of commercial paper by rated borrowers. If the same line (or set of lines) applies to

borrowings in both the Euro and U.S. markets, the cost per dollar of borrowing is the same in the two markets. If a separate line is arranged for the Europaper issues, this may well now be cheaper to obtain outside the United States. Unrated borrowers in the Euromarket reportedly do not usually need back-up lines, a factor which favors the growth of that market.

Relative New Issue Costs

On the assumption that U.S. commercial paper issues carry a dealer fee of 10 basis points and Europaper issues no explicit fee at all--given that these seem to be the typical situations--the relative advantages of issuing in the one market or the other should be sought taking into account the fee factor as well as rates. Doing so modifies significantly the conclusions drawn from even the average differentials in Table 1.

The effects of incorporating U.S. market dealer fees in trying to estimate relative new issue costs in the Euromarket and the U.S. market can be seen in Table 2. In this table, the rate differentials in Table 1 have been adjusted for the U.S. dealer fees by reducing them by 10 basis points since, by adding to costs in the U.S. market, they reduce the excess of Europaper market new issue costs over U.S. market costs, or magnify any shortfall of the first from the second. In addition, in Table 2 the rate differentials have also been adjusted by the aforementioned rules of thumb employed when trying to estimate new issue costs in the United States for borrowers whose long-term debt rating differs from the double-A rating used for the published U.S.

Table 2. Estimated New Issue Costs for 3-Month Europaper Expressed as Differential Relative to U.S. Commercial Paper¹
(in basis points; positive differential indicates higher Europaper costs relative to U.S. CP, negative differential lower Europaper costs)

Borrower	Range indicated by secondary market bid and offer rates on 22 Friday dates					
	Average		Highest		Lowest	
	Bid	Offer	Bid	Offer	Bid	Offer
<u>Triple-A debt rating</u>						
Caisse Nationale des Telecommunications	-1	-6	10	5	-19	-24
Credit National	-1	-6	10	5	-17	-22
Electricite de France	-1	-6	10	5	-17	-22
Kingdom of Sweden	-1	-6	10	5	-19	-24
Unilever Capital Corp.	1	-4	17	12	-14	-19
Australian Industry Development Corp.	3	-2	15	10	-17	-22
Commonwealth Bank of Australia	3	2	15	11	-17	-22
<u>Double-A debt rating</u>						
Household Finance Corp.	1	-4	18	13	-13	-18
Merrill Lynch & Co.	6	1	23	18	-10	-15
Compagnie Bancaire	7	2	24	19	-8	-13
Australian Resources Development Bank ²	14	9	31	26	-2	-13
<u>Single-A debt rating</u>						
Australian Wheat Board	1	-4	18	13	-13	-18
Statoil	1	-4	16	11	-14	-19
Renault Acceptance	4	-1	21	16	-11	-16
CSR Finance Ltd.	12	7	29	24	-6	-11
Fleet Financial Group	13	8	31	26	-4	-9
<u>No long-term debt rating</u>						
ICI Finance Ltd.	0	-5	16	11	-15	-20
EBS Finance Corp.	7	2	16	11	-8	-13

¹ Estimates assume dealer fees of 0.10 percent in the U.S. market and no explicit fees in the Europaper market. Rate differentials in Table 1 have been increased 0.05 percent in the case of triple-A borrowers and reduced 0.03 percent in the case of single-A borrowers to reflect the ability of such borrowers and to borrow in the United States more cheaply or less cheaply, respectively, than double-A borrowers, to which the published U.S. commercial paper rates refer.

commercial paper rates. To make this second adjustment, the rate differentials have been increased 5 basis points for triple-A borrowers (since their U.S. issue rates are below those of double-A borrowers) and reduced 3 basis points for single-A borrowers. The net effect of the two adjustments, for both U.S. dealer fees and long-term debt rating, is to reduce the rate differentials in Table 1 by 5 basis points for triple-A borrowers, 10 basis points for double-A borrowers, and 13 basis points for single-A borrowers to obtain the cost differentials in Table 2.

The implication of the average cost differentials in Table 2 for triple-A borrowers is that, for four of the seven borrowers in that category, the Europaper market was the cheaper source of funds even if those borrowers' new issue rates were as high as the secondary market bid rates. This would also hold true if we assumed that the U.S. market dealer fees were only 8 or 9 basis points instead of 10. The other three borrowers in the triple-A group may on average have obtained as low, or lower, new issue rates in the Europaper market as in the U.S. market, unless their Europaper new issue rates were high enough to be at or near the secondary market bid rates for their paper. In the other long-term debt rating categories, it would appear that several borrowers on average have found it cheaper, as cheap, or nearly as cheap (i.e., by less than 5 basis points) to raise funds in the Euromarket as opposed to the U.S. commercial paper market.

It is also apparent that by taking dealer fees into account the windows of opportunity for cheaper borrowing in the Euromarket are wider and more numerous. This is suggested by the fact that the lowest differentials in Table 2 are algebraically much smaller than the

Table 3. Frequency of Occasions When Estimated Europaper
New Issue Cost Did Not Exceed U.S. CP Cost

Borrower	Number of occasions in total of 22		Percentage of total occasions	
	Indicated by sec. mkt.		Indicated by sec. mkt.	
	Bid rate	Offer rate	Bid rate	Offer rate
<u>Triple-A debt rating</u>				
Caisse Nationale des Telecommunications	14	18	64	82
Credit National	14	18	64	82
Electricite de France	14	18	64	82
Kingdom of Sweden	14	18	64	82
Unilever Capital Corp.	9	14	41	64
Australian Industry Development Corp.	6	13	27	59
Commonwealth Bank of Australia	6	12	27	55
<u>Double-A debt rating</u>				
Household Finance Corp.	8	12	36	55
Merrill Lynch & Co.	5	9	23	41
Compagnie Bancaire	4	7	18	32
Australian Resources Development Bank ²	2	3	9	14
<u>Single-A debt rating</u>				
Australian Wheat Board	9	13	41	59
Statoil	8	15	36	68
Renault Acceptance	6	10	27	30
CSR Finance Ltd.	2	5	9	23
Fleet Financial Group	2	3	9	14
<u>No long-term debt rating</u>				
ICI Finance Ltd.	12	16	55	73
EBS Finance Corp.	4	8	18	36
Total, 18 borrowers	<u>139</u>	<u>212</u>	<u>35</u>	<u>54</u>

corresponding lowest differentials in Table 1. But it is more informative to observe directly the frequency of the occasions, in the 22-week period under observation, when new issue costs in the Europaper market appear to have been lower, or at least no higher, than in the U.S. commercial paper market. These observations are shown in Table 3. The estimated Europaper cost did not exceed the U.S. commercial paper market cost on 35 percent of all occasions, even on the extreme assumption that the Europaper new issue rate was high enough to be equal to the secondary market bid rate, and on 54 percent of the occasions on the assumption (too extreme in the other direction) that the new issue rate was equal to the offer rate. We would expect that the new issue rates in fact lay somewhere between these extremes. In other words, the Euromarket was the cheaper, or no more expensive, market at least a third of the time and probably considerably more frequently than that. For example, we can estimate that if Europaper new issue rates were, on average, at the mid-point of the bid and offer range, they did not exceed the new issue rate in the U.S. market about 45 percent of the time. The advantages of using the Euromarket seem to have been greatest for the triple-A borrowers as a group (perhaps because of the importance that Europaper investors allegedly place on the "name" of the borrower) as well as for one or two borrowers from each of the double-A, single-A, and non-rated groups.

Conclusion

The results of this investigation are tentative and should be treated with caution. By necessity, we have used Europaper rates

supplied by only one dealer. We do not know the actual levels of rates paid on new issues in the Europaper market, and have had to rely on secondary market quotations. We have assumed that dealer fees were 10 basis points in the U.S. commercial paper market and zero in the Europaper market, whereas on individual issues the fees may have been somewhat different from these norms. A word of caution should also be said about the estimated cost differentials between the Euro and U.S. markets shown here for individual borrowers. The U.S. commercial paper rates used here are averages of rates supplied by a number of dealers, and at any one time these rates show variation between highest and lowest of usually two or three basis points and sometimes more. Hence, any individual borrower may be borrowing in the U.S. market at a rate higher or lower than the average rate used in calculating the differentials.

Despite these uncertainties, however, it does appear that in recent months borrowers in the Europaper market with a P-1/A-1 paper rating have been able to raise funds there more cheaply than in the U.S. commercial paper market on numerous occasions, perhaps up to one-half of the time, the relative cost advantage of the Euromarket seeming to be greatest for the group with a triple-A bond rating.

International Finance Discussion Papers

<u>IFDP NUMBER</u>	<u>TITLES</u>	<u>AUTHOR(s)</u>
	<u>1986</u>	
297	The Cost Competitiveness of the Europaper Market	Rodney H. Mills
296		
295	The United States International Asset and Liability Position: A Comparison of Flow of Funds and Commerce Department Presentation	Guido E. van der Ven John E. Wilson
294	An International Arbitrage Pricing Model with PPP Deviations	Ross Levine
293	The Structure and Properties of the FRB Multicountry Model	Hali J. Edison Jaime R. Marquez Ralph W. Tryon
292	Short-term and Long-term Expectations of the Yen/Dollar Exchange Rate: Evidence from Survey Data	Jeffrey A. Frankel Kenneth A. Froot
291	Anticipated Fiscal Contraction: The Economic Consequences of the Announcement of Gramm-Rudman-Hollings	Robert A. Johnson
290	Tests of the Foreign Exchange Risk Premium Using the Expected Second Moments Implied by Option Pricing	Richard K. Lyons
289	Deposit Risk Pooling, Irreversible Investment, and Financial Intermediation	Robert A. Johnson
288	The Yen-Dollar Relationship: A Recent Historical Perspective	Manuel H. Johnson Bonnie E. Loopesko
287	Should Fixed Coefficients be Reestimated Every Period for Extrapolation?	P.A.V.B. Swamy Garry J. Schinasi
286	An Empirical Analysis of Policy Coordination in the U.S., Japan and Europe	Hali J. Edison Ralph Tryon

Please address requests for copies to International Finance Discussion Papers, Division of International Finance, Stop 24, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

International Finance Discussion Papers

<u>IFDP NUMBER</u>	<u>TITLES</u>	<u>AUTHOR(s)</u>
285	Comovements in Aggregate and Relative Prices: Some Evidence on Neutrality	B. Dianne Pauls
284	Labor Market Rigidities and Unemployment: The Case of Severance Costs	Michael K. Gavin
283	A Framework for Analyzing the Process of Financial Innovation	Allen B. Frankel Catherine L. Mann
282	Is the ECU an Optimal Currency Basket?	Hali J. Edison
281	Are Foreign Exchange Forecasts Rational? New Evidence from Survey Data	Kathryn M. Dominguez
280	Taxation of Capital Gains on Foreign Exchange Transactions and the Non-neutrality of Changes in Anticipated Inflation	Garry J. Schinasi
279	The Prospect of a Depreciating Dollar and Possible Tension Inside the EMS	Jacques Melitz
278	The Stock Market and Exchange Rate Dynamics	Michael K. Gavin
277	Can Debtor Countries Service Their Debts? Income and Price Elasticities for Exports of Developing Countries	Jaime Marquez Caryl McNeilly
276	Post-simulation Analysis of Monte Carlo Experiments: Interpreting Pesaran's (1974) Study of Non-nested Hypothesis Test Statistics	Neil R. Ericsson
275	A Method for Solving Systems of First Order Linear Homogeneous Differential Equations When the Elements of the Forcing Vector are Modelled as Step Functions	Robert A. Johnson
274	International Comparisons of Fiscal Policy: The OECD and the IMF Measures of Fiscal Impulse	Garry Schinasi
273	An Analysis of the Welfare Implications of Alternative Exchange Rate Regimes: An Intertemporal Model with an Application	Andrew Feltenstein David Lebow Anne Sibert