

The Bank Liquidity Crisis and Aircraft Finance: A Sector Review

By Ronald Scheinberg

Fewer lenders, higher pricing, yield protection among results of the worldwide liquidity crisis.

The liquidity crisis in world financial markets precipitated in fall 2008 by, among other things, the collapse of Lehman Brothers, has continued unabated. This crisis has affected the extension of bank credit to every industry, with banks reluctant to make loans so as to preserve their capital, especially in anticipation of deteriorating performance of existing customers/borrowers in the face of the worldwide recession. One industrial sector particularly hard hit by the crisis is the financing and refinancing of commercial aircraft for both airlines and aircraft lessors. In this article, I review the myriad effects that the liquidity crisis has had on that sector, which may help shed some light on the crisis as a whole.

The major manufacturers of commercial aircraft, Airbus, Boeing, Bombardier and Embraer, have been producing between 937 and 1,152 aircraft every year over the last five years. Commercial aircraft are rather expensive capital goods, with list prices ranging from \$32 million for a 70-seat Embraer ERJ-170 regional jet to almost \$340 million for a 525-seat Airbus A380 superjumbo jet. It is estimated that some \$70 billion of new commercial aircraft will be delivered in 2009, and many billions of dollars of other aircraft will need to be refinanced. In light of their large expense, commercial aircraft are seldom paid for with cash. Historically, they have been financed on delivery by means of bank loans, capital markets debt, operating leases and manufacturer support.¹ In the current market environment, access to the capital markets (such as EETCs²) is limited,³ and the operating lessors who supply lease financing are necessarily looking at the remaining sources of credit to finance their aircraft acquisitions.⁴ This leaves bank financing and manufacturer support. As

for manufacturer support, the aircraft manufacturers are loath to supply financing and do so only for their best customers or when contractually required to do so. Boeing's finance arm, Boeing Capital, has funded transactions over the past three years in amounts between \$25 million and \$250 million, in contrast to the \$2.97 billion and \$2.82 billion it financed in 2001 and 2002, respectively, in the aftermath of 9/11.

Accordingly, unless the capital markets revive, the acquirers of aircraft are looking primarily to the bank market to supply the necessary financing for their purchases. Banks are already a major source of financing. In 2008, for example, commercial banks provided about 40 percent of all aircraft financing.⁵ The bank financing market in the aircraft finance sector has been dominated by European banks, primarily French, German, English and Dutch banks. U.S. banks hardly participate (other than in arranging or capital markets capacities), and Japanese banks largely exited this sector in the late 1990s.

There are two very distinct bank markets in aircraft finance. The first are traditional asset-based lenders (asset banks). While there is some credit component to financings in this sector, the primary focus of these banks is on the assets, that is, the aircraft and engines that they are financing (and which serve as collateral security). The second are banks (ECA banks) that provide financing based on the support of export credit agencies (ECAs). The ECAs of the United States (the Export-Import Bank of the United States, or Ex-Im Bank), France (Coface), Germany (Hermes) and the United Kingdom (ECGD) issue

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guarantees that support bank (and other) loans made to finance the export of Boeing and Airbus aircraft, as the case may be. These guarantees have the full faith and credit of the governments of their respective countries.

The aircraft finance bank market, whether for asset banks or ECA banks, is subject to the same global liquidity problems facing all bank market sectors. Broadly speaking, the bank liquidity crisis is evidenced in two ways:

- A lack of overall liquidity
- Higher loan pricing

Scarce Liquidity

The overall lack of liquidity in the aircraft finance bank sector is evidencing itself in a number of ways. First, quite a few major international banks have disbanded their aircraft finance teams and have left the sector. ING, RBS, WestLB, Bayerische Landesbank, Alliance & Leicester and ABN AMRO, for example, heretofore major providers of credit in this sector, have either withdrawn from aircraft finance altogether, or at least from acting as asset banks. Second, other major banks are on a lending “hiatus”; while not having pulled out of the market entirely, they are not authorized to be making loans in this sector “at this time.” The aircraft finance teams at these institutions are, for the time being, staying intact but have no current ability to extend credit. “Maybe next quarter” is a constant refrain we are hearing from bankers at these institutions. Third, for many banks that remain “active,” their budgets have been greatly reduced and their capacities to fund deals have been heavily curtailed. This phenomenon is the result of a number of factors:

- Banks are looking to preserve capital, so as to minimize the addition of further liabilities at a time when their balance sheets are already rather stressed.
- Banks are being cajoled, or even forced, by their new taskmasters and owners (that is, national and state governments) to redirect their available liquidity to local businesses and industries.
- Banks are having difficulty accessing capital with which to make loans in light of restrictive credit exposure limitations imposed by their funding counterparties.

The scarcity of available funds has forced some banks to insert a new bureaucratic barrier to the

making of loans, often called the “liquidity committee.” These committees must give their approval to the making of loans, even after a loan has passed muster at the more traditional credit committee. Liquidity committees review transactions on a sort of strategic level, assessing whether using the bank’s scarce liquidity for a particular deal achieves some big-picture delineated (or not delineated) goals.

The withdrawal of bank liquidity in the aircraft finance sector has led to much discussion as to whether there will be a funding gap in 2009 (and 2010 and beyond); that is, will there be enough available funding sources to finance new deliveries scheduled for the coming few years (as well as to refinance those aircraft the financings of which mature)? The answer to this question has major ramifications in the aircraft finance sector. If there is a gap, then the major aircraft manufacturers, if they are unwilling to supply the requisite financing, may be left placing “whitetails” in the desert insofar as their customers will not be able to purchase the aircraft as they roll off the assembly line.⁶ In addition, if refinancings cannot get done because of the lack of financing, airlines or operating lessors who owe balloon payments on loan maturities may face bankruptcy or, at a minimum, may be forced to turn over aircraft collateral in satisfaction of debt (if a nonrecourse financing). A plethora of whitetails and repossessed aircraft would serve to place pressure on aircraft values over and above the pressures placed on those values as a result of the economic downturn. The bottom line to the “funding gap” debate is usually the question as to what degree the manufacturers will need to step up to fill the gap so as to avoid, for new deliveries, the prospect of whitetails in the desert. Airbus anticipates offering about \$2.6 billion of financing support in 2009, and Boeing has advised it is anticipating about \$1 billion of financing support for 2009.⁷

One of the major contributors to fill the funding gap will be the ECAs. They can fill the gap in one of two ways: First, they can support with bank guarantees an increasing number of aircraft exports so as to tap the pool of ECA banks (which seems to be facing a less severe liquidity cutback than the asset banks). Second, they (or at least the Ex-Im Bank) can issue loans on a direct basis if ECA banks are not willing to step up to the plate at competitive pricing⁸ (or at all).⁹ Ex-Im Bank is estimating that

it will provide between \$7 billion and \$9 billion in guaranteed support in 2009 (up from \$5 billion in 2008). In addition, ECA-supported transactions do not necessarily need to guarantee bank debt. There are substantial efforts to access the capital markets through commercial paper (such as Citibank's Govco program) and other nonbank placements.

There has also been much speculation as to whether the major Chinese banks (who remain flush with U.S. dollars), like Bank of China or Industrial and Commercial Bank of China, will step in to fill the void. We have seen these banks (as well as their leasing affiliates) increase their participation in the aircraft finance sector, but, as of the date of this writing, their participation has tended to focus on the better credits and in a measured and deliberate ramp-up.

Longer term, German (and other European) banks may be able to create liquidity out of their current and future portfolios by availing themselves of the *Pfandbrief* covered bond product. The *Pfandbrief* under German law is an internationally recognized type of covered bond. *Pfandbrief* covered bonds are highly secure securities that have wide appeal and a high level of liquidity. The *Pfandbrief* product was only recently approved in Germany to be available for aircraft loans (having long been available for shipping, government-backed and real estate portfolios), but the implementing rules and procedures will likely take a number of months to be adopted.¹⁰

Higher Loan Pricing

The higher loan pricing phenomenon is affecting the aircraft finance sector as well. To understand the nature of this aspect of the crisis, let's look at the manner by which many of the banks participating in the aircraft finance markets fund themselves to make (and carry) loans.

In contrast to financial institutions like insurance companies, which have access to large sums of cash generated by insurance premiums, the banks in this market obtain funds to make, and maintain, loans to their borrower customers primarily by themselves borrowing funds from other banks; they borrow from Peter to lend to Paul. They make their money, then, by charging their borrowers a margin over the banks' own borrowing costs, which margin reflects their borrowers' credit risk and the banks' return

requirements.¹¹ Since borrowers want an objective publicly available benchmark rate for determining the interest they are required to pay, and banks do not always care to reveal their own cost of funds, a proxy market standard for assessing the banks' cost of funds for U.S. dollar-based borrowings is the published Libor rate (the London interbank offered rate). Libor rates are short-term fixed rates that are quoted for "interest periods" of, typically, one, two, three and six months. So, these Libor rates are good for the duration of agreed interest periods and are reset at the end of the interest period to reflect market conditions. The actual Libor rate used in the market is posted on an electronic screen by Reuters and reflects the British Bankers' Association's (BBA) determination of an average rate quoted by 16 money-center banks as their individual cost of funds to borrow in the London interbank market, thereby reflecting an industry benchmark rate.¹² Accordingly, for loans borrowed in this market, borrowers are assessed interest at the Libor screen rate for each relevant interest period plus the applicable credit margin.

For the (small) handful of aircraft finance sector banks that have been able to continue on a business-as-usual basis, as well as for those operating on limited budgets, a critically important phenomenon of this banking liquidity crisis is how expensive bank borrowing has become in relative terms.¹³ There are two components to the higher margins: higher credit/risk margins and higher baseline costs.

Credit spreads have risen somewhat precipitously in recent months in light of heightened assessed credit risks in the face of the current recession with greater risk of borrower defaults and greater uncertainty of the firmness of collateral values. The higher risk on the credit side should not be surprising in light of the dramatic drop in business and pleasure travel in the face of the current recession. With the drop of ridership, airlines are cutting capacity as quickly as they can, thereby placing a relative glut of aircraft on the market that, obviously, has a negative effect on aircraft values. Feeding the glut may also be the whitetails and turned-over aircraft described above resulting from the lack of liquidity.

To get a sense of the higher baseline costs, one only needs to consider the change in pricing over the last nine months or so in ECA-supported aircraft financings. As noted above, the ECAs issue

guarantees that support bank (and other) loans made to finance the export of Boeing and Airbus aircraft, as the case may be. These guarantees have the full faith and credit of the governments of their respective countries. As, basically, zero-credit-risk loans, the pricing on such loans provides a baseline level of spreads over Libor (or other relevant pricing screens) from which pricing on loans with actual credit risk can be measured. So, the movement of these spreads from close to zero to 150 to 180 basis points at the peak of the liquidity crisis indicates that the *starting point* for loan margins is at this heightened level (rather than zero).¹⁴

There are two primary drivers of these increased baseline margins, each of which creates higher borrowing costs for the banks participating in the aircraft finance sector. To understand these costs, one must understand the two basic models for bank borrowing.

Under the first model (Model 1), the banks will borrow from Peter to lend to Paul from interest period

to interest period as described above¹⁵ and will take the risk that (1) they will be unable to roll over their funding for any particular interest period and (2) they will be charged loan margins on their own borrowings that will eat into the loan margins they have with their borrowers.

Insofar as the screen-based Libor rate is an average of quoted rates, any particular bank's cost of funds for any interest period may naturally be higher or lower than the screen rate. Whether higher or lower will depend, largely, on such bank's credit quality; the better its perceived credit, the lower the interest rate other banks will charge it. The banks that are not of the highest credit quality will typically adjust (higher) the margins they charge borrowers to take account of their own higher borrowing costs relative to the Libor screen rate. Historically, higher interbank borrowing costs have hit whole classes of banks; in the early 1990s, Japanese banks were almost universally assessed an interbank market premium of 20 to 100 basis points over screen-rate Libor rates due to credit concerns endemic to the Japanese economy.

The current liquidity crisis has radically challenged the presuppositions on which Libor-based lending is

based. Not only are banks' borrowing costs far higher than the quoted screen rates, but many banks are literally unable to borrow altogether for any of the monthly standard interest periods. During the most difficult days of the liquidity crisis in fall 2008, many banks were largely unable to access funds in the London interbank market other than on an overnight basis; that is, rather than borrowing for prescribed interest periods in the interbank market, banks were extending credit to each other in the interbank market on a day-to-day basis only. Apparently, banks were extremely wary of other banks' credit risks and not willing to grant other than overnight loans. Some banks were even finding that overnight funds were not available altogether or, even if available, they were unwilling to place themselves at risk of a failed overnight rollover or constantly shifting

interest rates, which may move adversely relative to a screen rate for a contractually prescribed interest period.

Under the second model (Model 2), banks continue to fund themselves from interest period to interest

period, but they also lock up a counterparty in the bank market over the *entire term* of the transaction to provide rolling, say, three-month, Libor. In other words, these banks must find a counterparty that is willing to lend to it at Libor (at whatever the underlying transaction's interest period periodicity) for the period commencing on the anticipated closing date through the anticipated maturity date. So, in a 10-year aircraft-secured loan financing, a Model 2 bank will contract with another institution to provide to it funding each three-month period at the then-current Libor rate over 10 years. A bank employing this model will have obviated the risk described in the preceding paragraph of not being able to find a counterparty during the life of a particular transaction from which to borrow U.S. dollar funds for the requisite interest periods. In fact, many banks are obligated under local banking rules and practices to lock in their funding over the tenor of a transaction.¹⁶ This is especially true of the German *landesbank* banks participating in the aircraft finance sector.

Prior to the recent market meltdown, the cost for Model 2 banks to enter into the long-term hedging arrangements was rather nominal, reportedly, 10 to

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20 basis points. Since the banking crisis, these costs have mushroomed to 100 to 200 basis points.

The higher spreads, then, originate from the higher costs the banks themselves are paying their counterparties for funds for each interest period. Under the first model, borrowing banks are finding that they are not able to borrow at Libor flat but rather at Libor plus a spread, which they seek to pass on to their borrowers/customers.¹⁷ This spread will likely fluctuate over each interest period depending on a myriad of factors, including assessments of the borrowing bank's relative credit. Under the second model, the borrowing bank is passing along to its borrowers the long-term, fixed spread that its counterparty is charging to it to lock in access to rolling Libor over the term of the loan made to the customer. In addition, Model 1 banks may be taking the pricing leads of the Model 2 banks in light of the scarcity of bank debt in the market and the concomitant lack of competition as to loan pricing. In light of finite budgets even for the most stable banks, there is no reason or ability to buy market share by offering lower spreads than other market leaders.

Finally, many banks participating in this sector that are otherwise perceived as Model 1 banks may be required by their treasury desks to charge higher margins because their own liquidity costs have gone up. The liquidity costs for these banks are not the costs to reserve U.S. dollars; rather, these banks rely on an assortment of other capital sources to fund themselves (not simply Libor market rollovers), such as long-term debt, preferred stock and common stock. Insofar as the cost of such capital has been increasing, these banks are forced to pass along such costs to their customers.

On balance, banks with large deposit bases, or access to the long-term credit markets, are more apt to use the first model (since they have the luxury of going to their deposit or other markets if they cannot roll over). The balance of banks will likely use the second model since they need to mitigate the risk of not having access to dollar deposits on a rolling basis (that is, they need to match their long-term loan asset with a long-term—not short-term—liability).

Yield Protection

Model 1 banks will seek to build in their loan documentation the ability to charge during the

life of a transaction any incremental mismatch between the bank's cost of funds and the Libor screen rate.¹⁸ Model 2 banks will seek to build in the loan documentation the ability to charge a special prepayment cost to the borrower, assessed at the time of a prepayment on the amount prepaid based on the present value of the amount of any decrease in a bank's liquidity reserve cost at such time relative to its original reserve cost.

The Model 1 bank approach, charging for any incremental cost of funds over the Libor screen rate, is one that has been seen in various guises in the bank financing market. In transactions documented in Europe (primarily documentation governed by English law), there exists an industry standard as adopted by the London-based Loan Market Association (LMA) that provides, in part, that a bank may charge its cost of funds if "the cost to it of obtaining matching deposits in the Relevant Interbank Market would be in excess of Libor." In a number of U.S.-based transactions, primarily widely syndicated unsecured loan facilities, the failure of the Libor screen rate to adequately cover cost of funds would kick over the interest rate basis to "base rate" loans, which typically is the higher of the announced "prime rate" by a New York money-center bank or federal funds plus one-half of one percent. The LMA approach is deficient insofar as it presumes availability of matching deposits in the London interbank market; as noted above, many banks were unable to access deposits in the interbank market on other than an overnight basis. The U.S.-based approach is deficient for most European-based lenders as neither U.S. "prime rate" nor federal funds rates have any operational meanings for them insofar as they have no ability to access funds at those rates.¹⁹ Accordingly, the evolving standard has become that borrowers will indemnify Class 1 banks for their incremental cost of funds over the Libor screen rate for any applicable interest period.

The Model 2 approach is intended to indemnify the Model 2 bank from the cost its counterparty will charge it to unwind the long-term Libor lock.

Once a particular approach is adopted as a condition for the extension of credit,²⁰ a mutually satisfactory way of determining a "cost of funds" or "liquidity reserve indemnity" must be agreed. That being said, banks insist on not providing any borrower (or anyone else, for that matter) with any

ability to second-guess their costs of funds or liquidity costs. That information comes from the bank's treasury desk, and its determination is necessarily conclusive; as one can imagine, a bank's assessment of its cost of funds (or liquidity cost) is a complex evaluation of its funding sources. For this reason, banks require documentary formulations such as: "The report by any Bank to the Agent of its cost of funds/liquidity reserve premium shall be conclusive and shall constitute a certification by such Bank that the interest rate so provided is an accurate and fair calculation of its Treasury-assessed funding costs for such period, and that such assessment has been made on a fair and non-discriminatory basis."²¹

The bifurcation of banks under the two models described above will create some interesting issues that will need to be dealt with in documenting bank-financed transactions:

- In a syndicated transaction with Model 1 banks and Model 2 banks, will there be two different interest rate margins and the two categories of indemnities described above?
- Can Model 1 banks sell down to Model 2 banks and *vice versa*?[®]
- Will Model 1 banks be able to assign the loans to other Model 1 banks with higher cost of funds (1) at the time of transfer or (2) in the future?
- How will the borrower be able to monitor whether a Model 2 bank transferee has higher reserve breakage costs than its Model 2 bank transferor?

Power Shift from Borrowers to Banks

A final observation that can be made in the aircraft finance bank market is that there has been a dramatic shift in bargaining power from the airlines and lessors to the banks. While this can obviously be attributed to the scarcity of capital, the shift has been more pronounced in this sector due to the fact that, historically, there were too many banks with dedicated aircraft finance departments chasing too few deals. These dedicated departments had to do transactions to justify their existence, so they fought tooth and nail with each other for market share. The airlines and lessors, to be sure, got used to that, and these borrowers were able to develop a level of deal terms (and arrogance) not at all befitting their credit quality.

Now, with the shoe on the other foot, the airlines and operating lessors are having to agree to more stringent economic terms (including as to market disruption and liquidity reserve costs), with shorter terms, better loan-to-value ratios (LTVs) and enhanced up-front fees rather commonplace, as well as more rigorous documentary terms. As well, banks are being enticed to participate in financings by the borrower's agreement to allow the new aircraft collateral to support older transactions on a cross-collateralized basis where the LTVs on those older deals are under water. "Take it or leave it" are now the unstated, but known, terms offered to borrowers by the banks.

The aircraft finance sector, while unique, shares many of the same problems as every other credit-hungry industrial sector. There is no special bullet to fix the liquidity problems in this or the other sectors. Only when the global economy makes a recovery (thereby lessening risk of borrower defaults) will banks start having more faith in each other (to be reflected in lower interbank borrowing costs) and will banks then be more willing to open the spigot of loans to airlines and operating lessors. Who knows, but those banks that left this business may be coming back, and there may yet again be too many banks chasing too few aircraft financings.

Endnotes

- ¹ As well, aircraft are usually refinanced once the initial financings have matured; usually in the bank market or, if part of a securitization, in the capital markets.
- ² Enhanced equipment trust certificates. EETCs have supported large percentages of the aircraft financings for U.S. major airlines over the last decade. This is an especially important source of financing in the United States since U.S. airlines are not able to access ECA-supported financing discussed below. For more information on EETC financings, see R. Scheinberg, *A Guide for the Perplexed: Exogenous Elements to Consider When Investing in Enhanced Equipment Trust Certificates (EETCs)*, J. STRUCTURED FIN., Winter 2005, at 46–54.
- ³ But not shut down altogether. Both Continental Airlines and American Airlines are in the process of closing single tranche EETCs. Continental's EETC financing is a \$390 million financing that covers 12 Boeing aircraft currently owned by Continental and five Boeing 737-900ERs scheduled for delivery between July and September 2009; the collateral includes three Boeing 777-200s, five Boeing 737-900ERs, three

Boeing 737-800s, four Boeing 737-700s and two Boeing 757-200s. American's EETC financing is a \$520 million financing that covers four Boeing 777-200ER aircraft currently owned by American and 16 Boeing 737-800s scheduled for delivery between July 2009 and October 2010. In addition, Lufthansa successfully issued a 750 million euro bond to raise cash for, among other things, new deliveries.

⁴ The operating lessors themselves have been hard hit by the economic crisis, and many of the bigger ones may not be in a position to step into the breach. General Electric's leasing subsidiary, GECAS (like its parent GECC), as is widely reported, is facing liquidity issues. ILFC, as an AIG subsidiary, is also facing liquidity issues. RBS Aviation Capital, owned by The Royal Bank of Scotland, likewise is reportedly having difficulties. What is more, many of these leasing companies, as well as others (such as BBAM and Allco) are on the block to be sold (and the sale of any of them would likely tap into precious bank liquidity as well). Having said that, some new operating lessor players are appearing to take advantage of the market dislocations, such as John Slattery's GreenStone Aviation and Richard Wiley's Sky Holding.

⁵ Further financing from the bank market has come from ECAs (explained in text *supra*), which, for example, have consistently financed around 20 percent of both Boeing's and Airbus's deliveries.

⁶ We wouldn't expect the manufacturers to force their customers to go into bankruptcy if they fail to take deliveries.

⁷ In a bid to obtain financing from the aircraft (and engine) manufacturers, airlines may condition new aircraft orders (which the manufacturers are almost desperate to obtain) on new (and immediate) financing. United Airlines, which recently announced its intention to place a large order, has made it no secret that they are looking to the financing package offered by the manufacturers in their evaluation of bids. As the treasurer of one U.S. major told us (repeatedly) as we were negotiating a financing package for a new order: "We don't buy airplanes; we buy financing and it comes with an airplane."

⁸ The Ex-Im Bank is authorized to make 10-year amortizing loans at U.S. Treasuries plus 1.20 percent and 12-year amortizing loans at U.S. Treasuries plus 1.75 percent.

⁹ Importantly, the ECA financings can only support exports. So, due to that fact and agreements that exist among the ECAs, ECA financing is not available for purchasers/users of commercial aircraft located in the United States, France, Germany, Spain or the United Kingdom. This lack of availability of ECA financing partially explains why airlines in these jurisdictions are more apt to turn to the capital markets. See note 3, *infra*.

¹⁰ At the end of March 2009, new legislation was released in Germany that allowed aircraft to be financed by the

Pfandbrief covered bond market. This *Pfandbrief* program can be used by qualifying financial institutions to refinance aircraft loans. *Pfandbrief* bonds offer high levels of security as a result of a combination of safety mechanisms. Under a *Pfandbrief* program, a fiduciary agent (*Treuhänder*) and at least one deputy are appointed by the Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*, the BaFin) after consultations with the *Pfandbrief* bank. The most important duty of the fiduciary agent is to monitor the prescribed cover of the *Pfandbrief*. The *Pfandbrief* program contains detailed provisions on requirements to maintain LTVs (60 percent), detailed specifications for qualifying collateral and a risk management system in order to further improve protection for *Pfandbrief* creditors. Furthermore, the transparency provisions of the *Pfandbrief* Act are intended to permit investors to assess the inherent risks in a *Pfandbrief* program. Finally, both the issuance of the covered bonds and the management of the related program are supervised and monitored by the BaFin, which makes random checks on the cover of the *Pfandbrief*. A further advantage of *Pfandbrief* is the separation of assets in the event of a *Pfandbrief* bank's insolvency. The claims of the *Pfandbrief* creditors are not affected by the commencement of insolvency proceedings against the assets of the *Pfandbrief* bank.

¹¹ This is called "match funding," which model of bank funding serves as the theoretical basis for bank lending and pricing of Eurodollar-priced loans. Having said that, the theory does not usually follow bank practice, since banks may fund themselves on a portfolio basis.

¹² Actually, of the 16 rates received, the BBA throws out the four highest and the four lowest and averages the remaining eight quotes.

¹³ We speak in "relative" terms because base lending rates, such as Libor, are at or near historic lows.

¹⁴ These spreads have, more recently, settled down to the 90-to-130-basis-point level.

¹⁵ See text, *supra*, at notes 7 and 8.

¹⁶ Matching their long-term assets with long-term (rather than short-term) liabilities.

¹⁷ As noted above, banks are reporting that the BBA's posted Libor screen rate does not reflect their cost of funds by factors well in excess of any deviations (based on their relative credit) to which they were subject before the current liquidity crisis. This raises an interesting question: Why aren't the BBA banks quoting true cost-of-funds rates? We can speculate that the BBA banks are reluctant to report to the market on a "name" basis their true cost of funds, as they do not want to look bad in front of their peers as having pricey borrowing rates reflective of their (dicey) credit.

¹⁸ It is important to note that the cost-of-funds issue is an issue for banks even if a particular transaction is quoted on a fixed-rate basis. This is because in a fixed-rate deal, the bank is swapping the fixed-rate interest-related cash flow it is receiving from its borrower for Libor under an interest-rate swap. Therefore, the banks offering fixed-rate interest are seeking cost-of-funds protection that would entitle them to the differential of cost of funds over the Libor applicable to each interest period.

¹⁹ These borrowing bases may, in fact, be *lower* than the Libor rate.

²⁰ It should be noted that these two models are just that. It is unlikely that any particular bank is purely a Model 1 bank or a Model 2 bank. While a bank may tend to follow one particular model more closely than another model, it is rather likely that the model approaches are blended. A particular bank treasury department, which manages billions of dollars (and other

currency) financings, most likely determines its funding and hedging strategies based on some black box portfolio-based methodologies that are far more complex than the two models outlined herein.

²¹ While borrowers have, based on our experience, been willing to agree to these terms, the ECAs, particularly Ex-Im Bank, have been rather reluctant to give the banks *carte blanche* protection on these two protections. In the ECA-guaranteed financings, Ex-Im Bank has been unwilling to provide guarantee cover for the incremental interest amounts represented by cost-of-funds indemnities without rather extensive certifications and totally discretionary approval rights and the European ECAs, reportedly, do not cover these incremental interest amounts under their guarantees. Any liquidity reserve indemnity has not been subject to guarantee cover by the ECAs.

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