Rating Methodology

Banks: Conventional and Islamic

The Islamic International Rating Agency provides ratings of all types for banks of all types on two scales: domestic (national) and international. The rating process and rating definitions are more fully described in IIRA's introduction to ratings, of which this bank methodology is a part.

The comprehensive rating process employed by IIRA for financial institutions conforms to established global best practice. For Islamic institutions and products there is further cognizance of the constraints and mechanisms that distinguish such banks. Shari'a compliant products like Ijarah, IMB, Murabaha and Mudarabah have economic equivalents in conventional finance, but the definition and management of risk is different for Islamic institutions. To the extent the institution is a partner or equity investor, it may face greater entrepreneurial exposure. And, of course, its pricing is subject to commercial risk in that the post facto returns must be competitive with market levels.

The fundamental analysis that measures future net free cash flow is the same for all types of institutions as they are all subject to market forces and the laws of economics as well as equivalent regulatory oversight. Nevertheless, IIRA recognizes the important distinctions and challenges that faces the different classes of banks.

The company has implemented in its articles of incorporation and management rules the necessary prerequisites to assure independence of rating judgment. The analytical methodology outlined here is employed by IIRA for a range of financial institutions. The information requested to permit us to initiate a rating review is outlined in Exhibit A to this paper.

Investment quality and/or credit-worthiness is the issue. Banks of all types face the same conundrum: will the customer pay what he has agreed to pay? A few comments on the context for bank analysis are in order. The balance and character of both global markets and national financial systems are changing at an accelerating pace, driven by two principal trends: (1) deregulation which opens the doors to increased competition, and (2) improvements in communications and processing technology which permit the development of financial products to compete directly with bank services. While the U.S. is leading the way, it is virtually certain that these changes will take place in all markets because it is impossible to stop the flow of information. Technology is driving change in banking. Its effects are inescapable. Diversification will be forced on banks, but not all are prepared to handle it.

IIRA, in common with other agencies, employs a set of fundamental assumptions or expectations that are not necessarily precisely identified. They provide the framework for analysis and rating decisions. Among the more significant of these assumptions, relevant in most markets, are the following:

System consolidation will result in scale efficiencies. Bank combinations often have the support of regulators. Consolidations have happened everywhere, e g., Sakura Bank in Japan, Chemical, Manufacturers Hanover, Chase Manhattan and Morgan Guaranty in New York, the combination that is now Bank of America, Midland and Hong Kong Shanghai Bank in London, Barclays +ABN AMRO in the UK and Netherlands; and the creation of numerous smaller banks in other markets.

Opportunity is market driven; it is therefore limited by the environment. If a bank is in a poor, slow growth market, it will always be constrained with respect to asset growth, portfolio diversification, and profitability. Analysts start with the market.

Regulators tend to be reactive, whatever the system. In many markets, they take action after problems already manifest themselves. The US and Japan illustrate this.
Ratio analysis requires extensive adjustments by the agency analysts. Subjective judgment prevails. Differing national accounting practices and principles, generally driven by tax structures, make it very difficult to determine true profitability and asset risk. This is especially true for Islamic banks where pricing is indeterminate until after the fact despite the economic necessity to match market yields. Consequently, it becomes necessary to reduce the numbers to a common format, and this often necessitates subjective allocation judgments.

Bigger banks are better banks. The basic assumption here is that larger banks have pricing power, more sophisticated management, and a greater capacity to invest in computer systems, planning, product development, advertising, i.e., expense investments. This is not to say that smaller banks must be weaker, but they face different risks.

Banks manage risk -- credit, liquidity, operational and spread. Banks' attempts to manage risk are critically impacted by the asset portfolio composition and the liability profile dictated by the market. Banking failures are usually due to some failure of risk management.

Bottom line: Bank failure results from mismanaged liquidity in the face of mismanaged asset quality and inadequate real capital.

Bank analysis in all countries is comprised of a set of fundamentals:

- Market assessment
- Consideration of factors that determine asset quality
- Liquidity and funds management
- Asset/Liability management
- Capital adequacy
- Adjustments to achieve economic reality
- Finance, information systems, planning disciplines
- Earnings Performance
- Ownership and management performance, reflecting all the above

These fundamental factors are not evaluated with an accountant's yardstick but rather are viewed as having intrinsic economic benefits, enabling an institution to make profits and pay dividends, either in the form of debt service or returns to Islamic Investment Account Holders that result in predictable longevity for the institution. Capital formation, the key derivative of profitability, is an outcome affected by all these factors. Future chapters in this paper describe in more detail how we reflect these crucial features of professional analysis in IIRA's rating process.

Market Assessment

As we noted above, bank analysis in all countries is comprised of a set of fundamentals that appear simple on the surface, but are in reality complex.

This chapter will comment on rating agency practice, and the significance of market assessment since this sets the scene for later consideration of the bank's own credit characteristics. It provides the context for rating evaluation and assignment. A strong market is a precondition to a good rating. As might be expected in this analysis, several factors are key to setting the analytical stage: Size and character of the economy, market diversification, growth patterns, regulatory oversight if significant, the bank's competitive position in the market, and the nature of competition creating challenges faced by the bank.

Size and Character of the Economy

To begin with, the size of the home market determines likely opportunity for the bank. Simple logic dictates that the need for bank intermediation is directly proportional to total economic activity. While this appears uncomplicated, it often represents a major challenge to the analyst because aggregate statistics often include a high degree of estimation, and precision is required to effectively define target segments.

Market Diversification

A broadly based regional market economy is a prerequisite for the creation of a diversified loan portfolio. The bank's objective must be a balanced counter-cyclical portfolio that reflects steady growth and collections. In addition, the market affects management's ability to avoid undue sector concentration and excessive individual exposures.

Growth Patterns

The opportunity for growth is important for any industry, but especially so for banking. The economic axiom that says absence of growth results in ultimate failure is true for banks. Consequently, if growth is limited in the home market, the analyst's assumption or expectation is that the bank will lower its standards as it seeks growth outside its own area. Steady, consistent growth is better than rapid growth. The latter is seen as likely to encourage over-reaching for assets.

Regulatory Oversight

Rating agencies look at regulatory supervision and oversight to gauge whether the system is designed to control overly aggressive management. There is no expectation, however, that regulation can preclude failure. Rather, the emphasis is on a rational prudential framework that helps bankers balance safety of depositors with their obligation to shareholders. Basel 2 offers a prescription for bank credit assessment that is consistent with international best practice as found in the global rating agencies. Moreover, the direct correlation between risk assessment and capital adequacy is a substantial improvement over Basel 1 with its arbitrary and sometimes questionable risk weightings. The mechanics of reporting and supervision are evaluated in this context with particular attention paid to the quality of reporting and the expertise of examination teams.

Competitive Position

Competitive ranking is important. A large market share equals effective control of pricing in the market and thus higher probability of profitability. Without this, the bank will ultimately disappear. Moreover, "bigger is better" in that larger banks have substantially greater capacity for expense investment in such things as information systems, training, product development and marketing.

Nature of the Competition

In the future, deregulation and technology will result in increased competition for banks. These are worldwide secular trends; both geographic outsiders and non-bank competitors can enter desirable markets pretty much at will. While there are artificial regulatory barriers to entry in many countries, the pattern is toward free entry and homogenization with local market players offering products and services similar to those commonly available elsewhere. This process, which has already begun, is likely to continue in Eastern Europe, Asia and the Middle East over the intermediate term.

Evaluating Asset Quality

In the last chapter, we described the key elements of the basic process employed to rate bank paper and debt beginning with market assessment. This paper continues with consideration of additional factors that determine asset quality beginning with the discussion of the factors that determine asset quality for a bank and describe their significance in the analysis.

In order to effectively perform this analysis, comprehensive information regarding the bank's lending and investing activities is necessary. IIRA seeks to understand the asset origination process, controls, and the roles of individuals responsible for quality to set the context for assigning economic values and predictability measures to the existing book of assets as well as defining expectations for future asset origination. Moreover, many bank customers will be known to the agency independently of any information furnished by the bank. This permits the Rating Committee to incorporate its views (which may be discussed with the bank) in the determination of asset quality.

Like banking itself, the evaluation of asset quality is a complex topic. A multitude of factors contribute to the creation and maintenance of sound asset portfolios, most of which are relevant to any analysis. The direction of analysis moves from the environmental to the institutional, and from the more general to the more specific characteristics of the portfolio.

The key subject headings incorporated in the asset quality analysis include

- The Banking Environment
- Credit or Investment Policies and Loan Administration Procedures
- Portfolio Composition and Characteristics
- Risk Management Practices
- Lending History and Performance
- Forecasting the portfolio and quality
- Analytical conclusions regarding economic values

The Banking Environment

The basic character of asset portfolios will be determined by management choices made in the context of the markets in which the bank is able to operate. The features of the environment, as with the market assessment profile described earlier in this paper, rest on the basic demographics of the market: the entrepreneurial bent of human resources; natural resources and transportation promoting certain types of economic activity; the stage of industrial development; the penetration of small businesses and the varied nature of their activities; the needs and profile of the consumer market in the area; and the prevalence of large industrial concerns in the area.

In addition to these basic economic characteristics, several other environmental features are crucial predeterminants of asset quality: inherent growth rates, competitors' strategies and behavior, and regulator's perceptions. Moreover, deficiencies in any of the foregoing aspects is likely to lead management to seek access to new, and perhaps distant, markets. This entails significant inherent risk since it violates the first rule of banking - "Know your customer."

The basic demographics of an area will have a lot to do with opportunities for banks to create assets. A growing, educated population provides the market for business products and services while at the same time having a need for consumer bank intermediation products. Without such growth and individual capabilities affording a basis for low risk expansion, it is natural to "stretch" for assets. Most bankers recognize the truism that "if you're not growing, you're declining." Propensity to use banking services as an indicator of behavior is an important contextual element for banks, although over the long run it is possible to change such behaviors through marketing. The analyst must be aware of potential customers who use bank products versus those who do not.

Natural resources and infrastructure such as transportation facilities define the types of businesses that will logically develop in a given market. Abundance can set the stage for creation of economically sustainable industry or businesses with definable comparative advantages or protected niche positions. Without these, the hazards of bank lending are compounded many times. Lending must be a rational exercise, not related to friendship or contacts.

Like products and companies, the stage of development in an area or regional economy will reflect defined stages that provide the opportunity for the analyst to assess growth prospects. This answers the question, "Can the bank expand in its own market where it can be expected to know its customers?" A dynamic, evolving market suggests lenders will be able to create diversified, predictable portfolios.

To limit concentration risk, it is imperative the market reflect a balance between small and medium sized enterprises, and large companies that may need major loan facilities. It is equally important to find variety in the market - while resources will influence its basic character, over time, business activity should become diversified as entrepreneurs identify and provide new products and services for consumers and other businesses.

While the existence of an active consumer market is most important for the liability side of the balance sheet, the opportunity to provide lending products to support individual's life-style decisions contributes to asset portfolio diversification, and thus portfolio quality. Further, the secured nature of much consumer lending - most notably for home purchase and the acquisition

of automobiles - typically results in relatively strong quality characteristics. Banks need the chance to do this lending.

In some markets large concerns can offer significant lending opportunities. Companies get large by virtue of superior products, services or other comparative advantages. At the same time, financing needs, economically justified, may be large. This offers operating leverage for the bank since the fundamental process leading to a lending decision should be the same as for more modest credits. Thus returns are automatically greater if appropriate pricing is used.

It goes without saying that market growth is a precondition to the creation of successful portfolios. It serves the underlying borrowers, and permits new lending and diversification by the bank. With growth in its home markets, management is not forced to look elsewhere for business. The key, however, is sustainable moderate growth. Like everyone else, bankers are susceptible to the excitement of boom times. Fads and crazes can be seen in portfolio development and many markets resulting in irrational pricing and lending decisions.

Competitors' strategies and behavior will in many ways define the banking environment. In the quest for growth, marketing strategies and pricing tend toward the lowest common denominator as banks seek to defend market share. The implications for asset quality are clear.
Finally, regulators perceptions and the degree of oversight and control should play a key role in setting the context for bank lending. Where supervision is strong, and expected standards are conservative, bank management is more likely to establish and implement conservative credit policies and loan administration procedures.

While it is the sum total of many lending and investment decisions that will ultimately decide the quality of an institution’s asset portfolios, the underlying policies and procedures will define propensities and probable quality results. Therefore, it is important to describe and discuss the more significant elements of typical investment/credit policies and loan administration procedures.

Credit Policy and Loan Administration Procedures/Specialist Islamic Products

This chapter continues with a discussion of the evaluation of asset quality and the key factors that play a role in that evaluation. The following paragraphs will discuss credit or investment policy and asset/loan administration procedures as they affect the determination of asset quality in the rating process. Credit policy is a reflection of management’s willingness to accept risk: conservative management is most likely to establish conservative lending policies. Credit policy must also incorporate regulatory constraints which differ considerably from country-to-country.

Sound credit policies include several common factors that provide comfort with regard to prediction of asset values. The most important elements of the credit/investment policy document, although a limited list, to be discussed here are:

1. A mission statement that clearly identifies lending objectives
2. Management structure, training, control
3. Separation of client marketing and credit functions
4. Clear identification of the decision process

5. Stipulation of lending authorities
6. Specific file and analytical requirements
7. Classification/stratification categories based on the analysis
8. Geographic concentration policy
9. Targets for portfolio distribution and industry concentrations
10. Exposure and customer limits set against capital
11. Loan matching and risk-based pricing
12. Practice regarding participations and purchased loans
13. Protocols to ensure policy and quality compliance
14. Monitoring and review responsibilities
15. On-going file maintenance requirements and controls
16. Management of investment credit risk
17. Characteristics of Islamic Products

Mission statement

It is a truism that lending money is easy. Getting it back is hard. This is especially true if a bank management has not clearly defined that aspect of its purpose related to lending. The statement will typically state quality expectations. While at first glance, it may appear to be such, this is not a non sequitor because, as bankers know, there is an appropriate price and provision for every level of risk. The basic determination of the optimum level for risk is among management's first obligations. The mission statement will briefly describe customer groups and products.

Management structure, training and control

The primary purpose of this section is to place lending in the context of the over-all business of the bank. It will also specify personnel qualifications, expectations for training and basic control mechanisms that provide the basis for oversight of the loan book.

Separate marketing and credit functions

It is absolutely imperative that internal conflict of interest be reduced by separating loan marketing from the credit review function. Further, the loan officer's compensation should not be based on or significantly affected by volume commissions. This is an invitation to submit all possible business, and often overloads the credit group. The independence of the credit group should be sacrosanct, and compromises on quality should clearly be rigorously avoided as a matter of policy.

Clear identification of the decision process

The first rule is that no single individual should be able to commit the bank - basically for any amount, even small ones. After that, any decision process that incorporates the judgment of an independent credit group in the ultimate decision is likely to be satisfactory. The most common format is a credit committee with membership determined by the size of the exposure. That is, larger exposures require participation by more senior officers of the bank. Alternatively, a number of banks still use a sequential system where the loan officer, with support from credit analysts, generates a proposal that is reviewed and approved at sequentially higher management

levels until the final signatory has policy authority to approve the loan. Either process, properly documented and managed can be acceptable.

Stipulation of lending authorities

An effective credit policy will be a restrictive as well as a definitional document. Rating agencies will look for specific authorities based on group participation, starting with the board as the vehicle for committing the maximum percentage of the bank's capital. Authorizations should then scale downward at a rate that reflects the nature of the market's needs (big or small loans), and the underlying level of risk prevalent in the economy. In addition, it is expected that lending authority may be differentiated on the basis of collateral and that specialty lending like property loans will be handled by professionals rather than general lending officers.

Specific file and analytical requirements

Information is the "life blood" of banking to quote a cliché. A bank should set the standards for the data that will allow it to make a rational decision. There is a natural tendency to accept the data prepared by a businessman, not to impose an extra burden of preparation. This compromise on data results in a less than optimal decision, and may end up in the unnecessary generation of impaired assets. Rigorous standards for data contribute to valid decisions. Further, the sophistication of the bank's credit training program and clear analytical standards enable the rating agency to draw positive conclusions about asset origination.

Classification

The procedures for classification of proposed credit facilities, and the criteria for those classifications are of particular interest. Consistent and comprehensive analysis in every case is necessary. Conservative standards will lead to high quality assets if adhered to. In addition, pricing discipline reflecting valid classifications will ensure appropriate returns for the bank. The primary challenge faced by bankers in this classification process is the exercise of judgment in the qualitative aspects of the analysis. There is a natural tendency to rely on numbers that may or may not suggest the correct classification.

Geographic concentration policy

Geographic concentration is a double-edged sword. First, in order to truly understand its customers, a bank has to be in the market every day. There are limits to how wide a market can be covered in this fashion, but some concentration is necessary. The other side of the equation is vulnerability to local economic downturns with excessive reliance on a limited market. For these reasons, IIRA looks for a balanced policy that will not lead a bank to seek riskier business far from its franchise area.

Portfolio distribution targets

Bank management can assess sectoral lending opportunities predicated on analysis of demographics in their region. It is a given that some sectors entail more risk than others for reasons of cyclicality, leverage, low margins, intense competition and the like. Therefore, it is prudent to focus on sectors with lower risk to the extent optimization routines are able to

calculate the numbers. Thus portfolio distribution targets are directly indicative of management propensity, and provide a secondary indication of future risk characteristics.

Limits against capital

Prudent lending policy will set limits for individual loans, customer exposure and industrial sector aggregates in terms of a percentage of capital. Although banking regulations often specify such limits, conservative banks normally set limits that are lower than the maximum allowed. The Islamic International Rating Agency generally uses 5% of capital as the number for gauging significant concentrations (on both sides of the balance sheet) because a few significant loans of that size going sour can wipe out earnings for a bank with a 15% or 20% ROE. Sub-limits for particular types of borrowers are often appropriate.

Loan matching and risk-based pricing

Asset/liability management begins with recognition in credit policy that loan tenor can be matched with the run-off of liabilities. While there is no perfect way to accomplish this, recognition of the goal is evidence of a conservative management approach. Pricing parameters should be clearly defined in the policy, and relate yield to classification and presumed risk. Provisioning guidelines based on initial risk classification will also be included in credit policy. A handful of banks around the world take a slightly different approach: they acquire the liability first with set terms; then they book a matching investment asset, loan or bank placement.

Practice regarding participations and purchased loans

On the basis of their faith in their correspondent banks, bankers often buy participations in loan syndications far afield from their normal market area. While this can provide an element of geographic diversification, the credit review and approval process for such loans is sometimes simplified or less rigorous than normal. The result is variation in quality with respect to purchased participations or whole loans. Sound credit policy subjects these assets to the same analytical and classification process employed for loans made directly by the bank.

Protocols to ensure policy and quality compliance

It is necessary to specify the means by which policy is made known to managers and employees responsible for its implementation. Typically, this means the document specifies its own distribution parameters. Also, job descriptions, departmental objectives and individual objectives are linked to the written policy in a way that requires lending decisions to be taken in the context of the policy with specific reference to the quality standards established as policy by the management.

Monitoring and review responsibilities

To ensure maximum recovery if a borrower does encounter difficulties and is unable to service his loan, it is imperative to periodically review the borrower's performance, financial condition and prospects. And it is necessary to monitor any collateral dedicated to the loan on a frequent basis to protect the bank's interest. The responsibility for these activities should be separated from the reviews conducted by the lending officer to eliminate any tendency to ignore mistakes or delay action in response to unfavorable developments. Reviews must take place on a

specified schedule, involve precise reporting requirements, and charge specific position titles with responsibility.

On-going file maintenance requirements and controls

Policy states the documentation necessary for the initial lending decision. It must also require updated information on a periodic basis, and specify exactly what must be included in the file at any given time. Moreover, there must be a systematic log-in process that permits management to know where files are not being maintained. These controls identify cases where information is lacking. Often, this is a "leading indicator" that the customer has problems and the loan classification should be reviewed.

Management of investment credit risk

A final element of credit policy entails the recognition that investment assets also carry credit risk. The investment portfolio should be managed within the constraints and policies established for the loan portfolio. Moreover, while credit quality is not likely to be as volatile for investments as for loans since bond issuers often have a more established track record, quality characteristics can change, and a monitoring process is necessary. Rating agencies will note that these factors are covered.

This concludes the discussion of the key elements in evaluating credit policy. The following sections will deal with related features of the IIRA evaluation of asset quality, including portfolio characteristics, risk management practices, lending history and performance, forecasting the portfolio and quality, and how to derive analytical conclusions regarding economic values.

Looking at portfolio characteristics

Bank analysis as conducted by IIRA is a systematic process designed to permit an understanding of a bank's economic configuration and values, and to remove the effects of accounting choices and regulatory restraints. Previous sections have described the framework for the analysis. And they have covered the process of market assessment which sets the stage for evaluation of asset quality. IIRA will survey the bank's own credit policies as a first step to understanding asset quality. This is a key factor in predicting future earnings and capital formation. And it is the least predictable despite the agency's systematic approach.

The information needed to initiate this part of the review is quite detailed, and in many banking systems goes beyond the data that are typically published by banks. The intent is to gather schedules that account for the entire asset book. This element of the analysis examines and considers all off-balance-sheet exposures and obligations as well as those recorded on the balance sheet. The schedules must allow stratification by geography, industry, type of facility permitting differential risk assessment, and customer exposure in cases of significant concentration. As presented in the discussion on credit policy, IIRA will normally define a significant concentration as 5% of equity or more. Other information sought includes loan classification schedules according to whatever system the bank employs as well as loss reserve reconciliations reflecting provisions, write-offs, recoveries, and special items. The uses for these data are discussed in the following paragraphs.

By virtue of the market assessment, the analyst has a picture in his mind of the asset generation opportunities available to banks in a given market. The actual data presented by the bank are then organized to analyze the distribution of the portfolio by industry. This is compared with the market profile, and policy targets to ascertain the degree to which the existing portfolio conforms to rational, optimum credit choices. Moreover, where possible, a time series by industry is organized to evaluate the composition of loan growth, and whether the portfolio can be viewed as carrying increased risk because of changes in industry concentrations. Next, the analyst will look at the geographic spread. Different markets, to state the obvious, can offer differing lending opportunities. If a bank is able to avail itself of these opportunities, it can develop a portfolio with counter-cyclical balance. When problems occur in one market, another geographic market may do well and vice versa.

Additionally, the portfolio will be segmented by customer type because of the differences in risk measurement and predictability. This segmentation is especially important for industries with unusual risk like real estate or airlines.

Since IIRA looks for dispersion of credit risk, customer concentrations are extremely important in the analysis. Often, large borrowers are substantial well-known customers with whom the agency has a continuing relationship. The IIRA rating committee knows the credit, and can make its own judgments regarding quality. Where the customer is not well known to the agency, the case becomes an opportunity for testing the effectiveness of the bank's credit policy and loan administration procedures. The agency will ask to look at the files, and the documentation supporting the lending decision. The analysts can then determine whether the loan carries unusual risk, and they can test conformity with credit policy in a limited number of cases.

Another element of segmentation is the identification of portfolio sectors that are susceptible to actuarial analysis. These are primarily related to consumer installment lending, home mortgages, and credit cards, but some banks use various scoring models for small business lending. The agencies know the statistics for the market in question, as well as appropriate scoring techniques and weightings for the portfolio being evaluated. This part of the review, then, is testing the likelihood of loss, and the validity of the bank's measurement system and reserve allocations charged through the income statement.

A valuable tool for IIRA is our knowledge of the credit experience of others in the market. While credit policies and management decisions will differentiate portfolio outcomes, benchmarks are important. Conservative banks can achieve sound asset quality supporting adequate earnings even in a poor market. Conversely, others will do poorly even in a strong market if policies and management judgment are ineffective. Quality performance benchmarks allow the rating agencies to incorporate these market rankings in the analysis.

The Islamic International Rating Agency routinely seeks a detailed understanding of the bank's own classifications and credit experience as reported. These must always be the starting point for evaluation, although they recognize that opinions will differ from bank-to-bank. Here again, the knowledge of the experience of other banks in the market can validate classifications or cause the agency analysts to question them. The analysts will look for internal classifications and reserving practices that are more conservative than those required by the regulators. IIRA is aware of the cycle of problem asset development. And the rating committee is unlikely to be optimistic about expected collateral values as the basis for provisions.

Reserve reconciliations reflect the bank's actual experience with provisions and charge-offs. They do not necessarily reflect economic realities. Indeed, in tax systems like Japan and Poland, banks are unable to take appropriate write-offs, and may be discouraged from booking provisions when they are economically warranted. In addition to reported loss experience, loan recoveries are important as indicators that a conservative approach has been taken to write-offs. It is better to erroneously charge off a loan, and then recover it than to carry the loan in hopes of collecting principal and interest.

Evaluating portfolio characteristics clearly requires a great deal of experience with lending and portfolios if it is to be done properly. The challenge is to recognize problems or losses independently of the bank's judgment based on the analysts' knowledge of industry and borrower fundamentals in all cases where exposures could be material if the credit goes bad. This is subjective, and opinions can differ between the bank and the rating agency. If the analytical team is doing its job, however, bankers can benefit from the different perspective and knowledge of the market as the rating discussions take place.

An additional rating agency perspective that is of interest here relates to an all-to-common bank pattern of earnings. Asset quality deterioration and loss provisions often result in volatile earnings patterns as inadequate loss provisions are taken, and then the bank has to later make up the difference resulting in sharp declines in bank profit. To a rating agency, this boom and bust earnings cycle is simply evidence management has made some wrong decisions: first in making the loan, then in not properly recognizing the problem, and finally in under-reserving to protect earnings. The economic reality is different from this accounting perspective. Reflecting those differences in the rating is among the chief responsibilities of the IIRA rating committee.

Many Islamic products have been adopted by Islamic banks, and reflect the safety of a secured portfolio as commodities are employed in the pricing process to avoid charging interest (riba). In IIRA's analysis, the economic substance of the transaction and the risk to core earnings and capital are the important measurements. Key products include

1. Murabahah and Murabahah for the Purchase Orderer;
2. Salam and Parallel Salam;
3. Istisna and Parallel Istisna
4. Ijarah an Ijarah Muntahia Bittamleek (IMB);
5. Musharakah and Diminishing Musharakah;
6. Mudarabah;
7. Sukuks of various types held as investment.

The first three asset classes entail the transfer of physical commodities or product, and thus carry both credit risk with respect to the obligation of the customer, and market risk with respect to the possibility of price changes for the product.

Class 4 above is the leasing category with IMB reflecting transactions of a financing lease nature as opposed to the operating lease known as Ijarah. There is a risk the customer may fail to pay, but this is mitigated by the bank's ownership of the leased asset, which it can recover and sell. There is also residual market risk in that the bank may not be able to realize the full residual value recorded.

Classes 5 and 6 carry equity risk similar to venture capital investments in other markets. The bank is an equity partner and agrees to accept a share of profits, if earned, sometimes on an

unequal split. If it is Diminishing, the entrepreneur agrees to buy out the bank in addition to splitting the profits.

Sukuks are most commonly pass-through or pay-through instruments entitling the holder to cash flow from underlying Islamic instruments.

IIRA's analysis will evaluate the predictability of cash flows in all cases as the basis for testing asset valuations and capital estimations.

Risk Management Practices

The extensive discussion of IIRA's views on credit policy and loan administration procedures in previous sections highlights the importance of this fundamental element of the evaluation of risk management practices. And, of course, the bank's employment of hedging strategies and derivatives are evaluated to determine their mitigating effects. This section elaborates on the significance of the most important aspects of policy, and will comment on the importance of consistent policy implementation when booking the asset, the expected organization and role of loan review, auditing and classification support, and, briefly, reliance on external auditors.

Conservative and realistic limits are the key to risk management. Sophisticated risk management programs are all geared to effectively imposing and monitoring limits on risk. Increasingly, bankers are turning to programs that measure "value at risk" in ways that reflect the actual impact on earnings and capital when assets go sour. This simply highlights the adequacy of limits established by management.

Sound credit policies and procedures afford significant checks and balances in the origination process as well as clear control and monitoring mechanisms for the asset once it is on the books. Administration - that is, actually booking the loan, advancing funds, and recording collateral - must be separated from the lending department. In a sound bank, this function is normally the domain of a separate department that is associated with the controller's function. At the time the loan is booked, it is checked for compliance with policy by a staff member who does not report to the line lending manager. Once the loan is booked, there is a clearly understood schedule for periodic review based on the initial classification.

This credit classification works best when it is assigned as part of the origination process by an independent credit bureau or analytical department. Often, this department is headed by an individual reporting directly to the chief executive officer or board of directors. As described in the credit policy discussion, it is imperative this independent unit be part of every significant lending decision. The staff of this department spread the numbers, meet with the borrower if necessary, and provide objective conclusions for the base lending memo. This is not to imply the lending officer's recommendation is not objective, but simply adds the view of a department with different goals than the line lenders.

Once the loan has been granted, booked and funded, the hard part of banking begins: collecting the loan. Islamic International Rating Agency knows this. Surveillance must be the responsibility of a credit unit outside the department responsible for asset origination. IIRA generally expects this loan review function to report to the board or senior bank officers and this is often the case. The whole process seems to work best when a chief credit officer is elected as a member of the board with primary responsibility for the entire spectrum of quality.

Credit review has several functions:

1. Monitoring payment performance
2. File maintenance review
3. Credit analysis
4. Alerting lending officers to sector developments
5. Reclassification of customer facilities as condition deteriorates

File maintenance is often the weak link in the chain of quality assurance. It is systems and people intensive, because it is imperative to record receipt of business performance data, and to see to it that someone looks at it with an informed, critical perspective. It takes work to keep files up-to-date and orderly. This seems true in all markets

In addition to the line officers monitoring their loans, these reports and related exception reports defining reasons for delinquencies and problem resolution expectations, are more effective tools if the bank's credit bureau or audit function is also tracking performance.

Credit review must also perform periodic analysis to ensure the factors existing when the loan was granted continue to be applicable. The classification must be revisited and confirmed. While many banks conduct such reviews annually, rating agencies look for more frequent evaluations for certain classification categories and industries that are particularly volatile or distressed.

Effective risk management requires that credit specialists in the credit department maintain communication with the line lending officers to ensure a common understanding of sector risks. This also facilitates evaluation and modification of lending target markets.

Finally, with respect to the credit review department, while many banks charge the loan officer with reclassification of credits, it is important from a rating stand point to have a check on this. The credit review noted above leads naturally into this activity. Disagreements can result between the line and credit review, but it is considered more conservative when the judgment of the staff credit department is accorded appropriate weight.

When loans do turn bad, effective risk management requires specialist collection activities. In many markets, this has become an occupation unto itself - a subset of banking management. Depending on the significance of problem portfolios, IIRA looks for these departments to operate as independent sections with access to senior managers or the board. When this is the case, the rating committee expects managers to have a good understanding of the quality and prospects for the problem portfolio. This separate section has the added value of permitting line officers to continue with their marketing responsibilities - assuming, of course, they've learned the lessons inherent in the problem asset book!

Rating agencies will also look for independent audit functions within a bank that will duplicate some of the activities of the credit division or bureau. Asset values are a function of quality, and management must be sure they are not over-stated. Thus, internal auditors, who normally report to the board, offer a third level of protection beyond the lending department and the credit bureau. And, of course, external auditors will typically conduct extensive reviews encompassing all of the foregoing.

This discussion of the rating agencies' perspective on risk management has dealt with loan portfolio credit risk because this is the most important aspect of the analysis. There is also credit risk in other asset portfolios (equity and fixed income investments, counterparty risk in financial and interbank market activities) In addition, the ultimate analysis will have to consider management of non-credit risks associated with operations, balance sheet structure, changing market conditions, personnel risks, liquidity and competition, among other factors.

Lending History and Performance

IIRA's analytical approach is necessarily future oriented because the ratings predict the likelihood of payment, whether interest or PSIA returns, at some time in the future. Consequently, they stress forecasting real economic values and performance over the life of a debt issue or other obligation. The analysis explains what the Rating Committee expects to happen with respect to the variables that will affect credit quality and the ability to service debt. It is important to remember, however, that history is prologue to the past. For this reason, rating agency forecasting begins with the evaluation of past performance. This is especially true in evaluating asset quality. The single best indicator of future asset realization is historical performance. It provides a benchmark for measurement of the utilization of the asset quality factors discussed in previous sections of this paper such as policy and risk management practices. If you collected your loans in the past without difficulty, you might be able to continue doing so!

The key features of lending history include:

1. Implementation of credit policies
2. Industrial and sector diversification over time
3. Avoidance of customer concentrations
4. Actual loss experience
5. Treatment of problem assets
6. Reserving and write-off practices observed
7. Accounting for impaired assets
8. The asset book today

Lending history and experience, if driven by the implementation of credit policies, can offer the analyst insight into future risks. Anyone can make a loan, and find willing takers. Rating agencies know this, and that is why IIRA looks for a history of coherent lending practice within an organized framework. That is also the reason for the emphasis on understanding policy. It is impossible to stress too heavily the importance of lending into target markets previously analyzed and defined, and to employ pre-determined risk acceptance criteria. These elements of credit policy and risk management are proven effective only through actual tested experience. Without the portfolio history, that is actual loans granted and collected, set in this policy context it is very dangerous to forecast future asset quality.

History determines the diversification by industry or sector. The current portfolio is the outcome of a multitude of strategic and credit decisions. The effectiveness of this first order of control is measured by actual industry aggregates and sector concentrations over a long period of time, preferably a full economic cycle. This will illustrate whether management's propensity to accept risk will change as market conditions make it more difficult to identify suitable credits - that is, those that are consistent with policy, or whether the desire for growth will overcome

sound judgment. Further, the different risk characteristics of lending for consumers, large and small businesses and financial institutions must be evaluated in the context of sector exposures. This will tell the analyst a great deal about the predictability of loss and reserving practices.

The recorded avoidance of customer concentrations in accordance with stated policy that specifies limits related to capital provides the best evidence of the banker's intentions. This, of course, requires detailed information regarding commitments to major borrowers, but the outcome provided by a quality rating makes the disclosure well worthwhile. This assumes the bank's policy provides for conservative limits, and rigorous adherence to those limits. In general, these two factors - concentrations in problem industries and known exposures to large problem customers - are the first events leading to liquidity problems and bank failure. Their avoidance is critical. Positive examples can be seen in many markets where banks have substantially reduced involvement with certain problematic industries and borrowers.

Actual loss experience is not a simple concept for IIRA or other agencies. Regulatory and tax regimes that vary from country-to-country cause considerable problems because they can substantially inhibit a bank's ability to properly provide for losses. It is critical for tax authorities to encourage conservative reserving practices through deductibility for tax purposes. Moreover, a process that does not permit write-offs on a current basis to reflect true economic values will ultimately have severe consequences for a banking system. A similar situation exists in a number of countries which warrants attention by the authorities. IIRA's markets are being evaluated with respect to these issues.

The treatment of problem assets is closely related to the actual loss experience, particularly reserve practices when problems are identified. There are related issues, however, that actually pertain to administration procedures. Historical identification of problems, recognition rather than denial, is important evidence of management capacity. Instances abound of cases where the psychology of management was such that problems were known, but their severity was not acknowledged and acted on. Many of these banks no longer exist as independent institutions. The segregation of problem assets, and the work-out and collection process can and should be defined with actual examples from the portfolio. This ability to deal with problem loans, which are inevitable in all banks, is very important.

Reserving and write-off practices observed in the bank bring together the elements of the foregoing discussion on loss experience and treatment of problem assets. Provisions taken and reserves established must, at a minimum, be consistent with actual loss experience. Conservative banks will do their best to recognize impairment in asset values even without positive tax treatment. Write-offs will be taken without waiting for regulatory sanction or request. The freedom to do this is a precondition to effective bank management. Some will make mistakes, but ultimately the system will be stronger because decisions are taken in the market where they belong.

Accounting for impaired assets varies around the world with the key issues being valuation as discussed above and income recognition. Overstatement of income can be as serious a problem as overstatement of asset values. IIRA begins the analysis with schedules that specify payment delinquencies. Anything over thirty days past due is suspect, although regulators in many countries generously allow banks to continue accruing interest for loans up to ninety days past due. Or, even longer if the bank argues that "collateral" protects interest as well as principal. In addition, the Islamic International Rating Agency expects banks to identify potential problems, and cease accruing interest for significant loans even if payments are current. The actual

treatment of cash payments received is also an issue with the preferred application being to principal. Interest should only be recorded on problems when principal has been collected, and the cash is in the till.

The asset book today is the starting point for forecasting future quality. To the extent that conservative practices are followed by the bank in origination, valuation and accounting the agency forecasts will anticipate such conditions in the future. This will lead to positive conclusions regarding capacity to meet future obligations.

Forecasting the portfolio and quality

This methodology reflecting rating agency bank analysis has described in some detail the steps that IIRA follows in the initial evaluation of bank credit. This entailed an explanation of the significance of the banking environment, credit policy, portfolio characteristics, risk management practices and the means to assess historical lending performance. This section will integrate these elements of the rating review and highlight the factors and assumptions that contribute to a rating committee's view of likely future asset quality parameters. These are necessarily subjective, but are key to predicting the future cash flows that will enable the institution to meet its obligations as they fall due.

The nature of the market - demographics, retail business activity, commercial and residential construction, manufacturing, etc. - will determine the opportunities for profitable lending. IIRA analysts are familiar with these opportunities and competitive constraints. They understand the requirements for deriving a credit-worthy portfolio. Preparation for the analysis provides a picture of an optimal loan book based on the market. It does not necessarily match the views of the bank management who are sometimes more interested in loan growth than in asset quality. Consequently, there is a set of expectations incorporated in the review based on the analyst's pre-existing knowledge of the market and its prospects. The first step, then, is forecasting opportunities.

A second very important source of analyst's expectations is compiled from the portfolios of other banks competing in the market. Rating agencies normally provide ratings for all banks in a market, and therefore know with significant precision what is to be found in their portfolios. While it is not a polling process, it is possible to rank lending opportunities based on choices made that end up as outstanding loans. It is also possible to evaluate the general pattern of loan or asset pricing in the market which is a good indicator of risk perceptions. This knowledge of market aggregates, as well as understanding of loans actually outstanding affords a framework for prediction. With this background, IIRA can forecast the potential for incremental lending and begin making some quality judgments.

Of course, the bank's existing portfolio sets the stage for projecting growth and quality. The features of this analysis were presented in the last section. In most instances (sometimes unfortunately), the bank will continue doing what it knows how to do. A strong emphasis on real estate lending historically, or other types of high risk lending, will likely be continued. Moreover, portfolio growth that does not alter the risk profile will be limited by economic growth in the market. Bankers like to think they can take market share from other banks while maintaining quality standards. This is a fiction in virtually all instances.

For this reason, rapid growth in loans is a key risk indicator. The rating committee will assume credit standards are lowered, and will expect losses to accelerate because of this. Moreover, since growth should be supported by incremental capital, and reflect the general level of inflation and real growth, loan or asset growth which outstrips capital or the market pattern is cause for alarm. Often times, the strong desire to grow assets can lead banks to penetrate markets where they are not properly represented, and do not have enough knowledge. The consequence is a portfolio with a much higher probability of significant losses.

The existing portfolio is also the basis for the determination as to whether the institution will follow its own credit policies and loan administration procedures. It verifies the application of policy, and conformity with the pre-set limits that serve to protect capital and the earnings stream. Strict adherence to the policies presented as the basis for lending suggests management will continue rigorous supervision of lending. The rating committee is justified in giving the bank credit for sound policy and implementation, the first condition for predicting future quality.

The nature of the market and adherence to policy will result in loan losses that are either predictable or erratic. While this is simplistic, it provides a powerful tool. It is not always recognized that volatile loan loss performance can be as predictable as a steady pattern of write offs. The committee will look for the cyclical pattern of reserving and charge-offs. It is common to see low provisions during favorable economic times followed by massive provisions as a bank acknowledges its problems. The economic reality is that management was under-reserving, a phenomenon readily understood after the fact. A consistent pattern of provisions and subsequent write-offs within the reserve affords another type of comfort for the rating committee forecasting quality. Experience proves the case.

Another key factor in predicting asset quality is the significance of loan concentrations by industry, and equally important, by customer. It is a simple exercise to simulate the collapse of a large customer, with exposure exceeding 5% of capital, and determine the income statement and balance sheet effect. Often, these customers are important enough that the rating agency gathers sufficient information to make an independent credit judgment. That will serve as the basis for their estimation of appropriate reserves in cases where customer default could be significant to the bank. Diversification and distribution of risk are fundamental principals to be observed Rating agencies, IIRA included, will also use actuarial techniques for estimating losses for those categories of loans where this is appropriate such as consumer lending and home mortgages. In these cases, there is a large pool of assets with a well defined credit history, that can be extrapolated into the future.

Credit risk is not confined to loan portfolios. IIRA expects banks to employ decision criteria for inter-bank placements and investment activities that are similar to those established for lending. They will review the policies and procedures and the book of assets just as they do with loans. Independent judgments will be made regarding the potential loss content of these other assets, and estimated reserves and potential losses are forecast just as they are for loans.

Obviously, forecasting asset quality for banks is a complex but absolutely necessary process. The subjective elements are clear because agency assumptions underlying the analysis can differ from those of bank management. In the quest to predict future capital, cash generation and profitability in adverse scenarios, it is appropriate to take a conservative stance. This IIRA will do. To support this effort, it is normal for banks to share detailed portfolio information with the rating agencies, a crucial aspect of the rating process. Thus, in most cases forecasting asset quality is an informed and educated process. In those cases where such information is withheld

by the bank, the process is still educated, and relevant because it is informed by the analysts knowledge.

Analytical Conclusions Regarding Economic Values

The foregoing discussion on evaluating asset quality dealt with the IIRA's approach to the banking environment, credit policies and loan administration procedures, portfolio characteristics, risk management practices, lending history and performance, and the first steps in forecasting the portfolio and quality. All these are prelude to the core of rating agency measurement: the determination of true economic values for a bank's book of earning assets. This is a critical prerequisite for the estimation of cash flows that will provide liquidity, the ability to absorb losses and ultimately incremental capital through retained earnings to support future growth. An understanding of these values is a precondition to assessing capital and reserve adequacy, for predicting future earnings performance, and, of course, for rendering a rating opinion on the capacity and willingness to repay obligations or investors at some future time.

The basic IIRA stance is that there are two significant measures of true economic value:

What will a willing and able purchaser pay for an asset? While this sounds simple, it is almost impossible to define in advance. Management's expectation that it can sell an asset at a given price - recorded in its accounts - is just that, an expectation, not a value as far as the Rating Committee is concerned. When the asset is sold, the value is established!

IIRA also has a focus on cash generated from the asset because it has intrinsic value when and if received. Discounting and modifying the value for uncertainty are a normal part of the rating exercise as IIRA looks to debt service capability.

Principle of conservatism

Rating committees are not made up of optimists, although they must be realistic. Skeptical judgment begins with a recognition that numbers do lie, and the basis for the accounts which provide the starting point for financial statements are almost entirely assumptions, judgments and accounting policy choices, all with differing end effects. Moreover, since the rating must reflect true economic values, the first task is to ascertain the reliability of the starting numbers. Then, the analyst begins the process of sketching the "worst case scenario." That, in the analyst's judgment, will reflect the worst possible situation for the issuer, whether it is a bank, a company, or a municipality. This "worst case" is weighed within the logical range of likely outcomes, and a determination is made as to the most likely range of performance, asset values and cash flow. The view of the rating committee must be conservative. Its ability to rely on management's numbers will vary according to the perception of conservatism in the preparation of the numbers. Volatility in results or the analyst's view that aggressive accounting is the norm for an issuer will result in substantial discounting of the numbers presented.

Asset valuation and expectations

The disciplines of financial valuation are well known to IIRA's analysts as are the elements of the origination process that result in generation of sound assets. While it is not possible, except on a very limited basis, to assess individual assets, the rating committee will learn enough about

significant assets (equal to five per cent of capital) to consider whether appropriate values are recorded. The Rating Committee will also consider the related cash flows as the basis for market value estimation. Ultimately, the process leads to adjustment of balance sheet values, sometimes on an almost arbitrary basis. This leads the Rating Committee to review of capital and debt service relationships that reflect true economic values, or a probable closer approximation than most typical balance sheets can be expected to reflect.

Other similar techniques discount classes of assets on an arbitrary basis to reflect general loss experience with that asset class in the relevant market. For example, a particular bank may have a heavy concentration in real estate lending including a significant portfolio commitment to loans with retail shopping centers as collateral. The bank may report no losses or reserves, but other lenders in the same market have lost 10 per cent of the loan value. Naturally, the Rating Committee expects the bank in question to suffer at least some losses, and adjusts its figures accordingly.

Affect on cash flows

The process which reduces asset values in accordance with Rating Committee expectations necessarily reduces the associated cash flows. Since these assets are the basis for debt service coverage, the modified relationships are reflected in the rating judgment. For this reason, the reduction to true economic values, the Islamic International Rating Agency analysis differs from a standard financial analysis where the analyst typically places much more reliance on the financial statements as presented.

Adjusting capital

A final significant element in the rating process relates to the adjustment of capital based on reduced asset values. Capital relationships are calculated based on the lower asset values with the full charge for the reduction applied to the equity accounts. Comparisons with peer institutions are made based on similarly adjusted numbers for other banks.

This concludes the discussion of the process and factors that IIRA employs in its determination of bank asset quality. A sound book of assets with a predictable and sufficient cash flow derived from them is the first condition of a good credit rating.

Liquidity and Funds Management

The Islamic International Rating Agency evaluation of funding and liquidity encompasses the gamut of factors that permit the agencies to predict with certainty that the bank can fund the balance sheet under all foreseeable circumstances. That ability is predicated on the imperative to meet all liabilities in accordance with their contractual terms. These differ between traditional banks and Shari'a compliant institutions, but the expectation of payment is the same – only the amounts may not be defined. The nature of liabilities employed and the significance of concentration risk are reviewed and compared with equivalent structures and resources for the bank's peers. The principal elements in this review include capital as core funding, access to core deposits, utilization of purchased funds of various types, maturity structure of liabilities, ongoing requirements for funding growth, and finally the types and sources of liquidity to meet maturing obligations.

Clearly, detailed information is necessary to conduct the review. The rating agency will ask for schedules that stratify the deposit base by type of deposit, maturity characteristics, and size of individual deposits. Of course, for consumer deposits the schedules typically indicate numbers of customers in different size categories rather than individual concentrations. Similar schedules are sought for purchased funds that may be used by the bank. As with assets, concentrated funding sources are defined as those with deposits or money sold in amounts that exceed five per cent of the bank's capital. The basic premise is that the departure of one or two funds suppliers of that magnitude could cause distress for the bank that had to replace those funds.

There are no magic formulae for determining whether a bank employs the optimal mix of liabilities to fund the balance sheet. In general, the best banks begin with an unencumbered liquid capital component in excess of the amount committed to fixed assets and real estate. This suggests a conservative recognition of capital as a funding source. It is core funding whatever the proportions.

The franchise value of a bank rests first on its customer base and core deposits. The agencies look first at the proportions of deposits in current accounts and term accounts. The primary significance results from the demand nature of current accounts. Since payment is due to the customer immediately upon demand for the entire book of accounts, this type of account can be very volatile. The IIRA analysis is designed to measure historical volatility, and predict future liquidity required to satisfy current account withdrawals whether they are made using checks or transfer orders.

The real demand for overnight funds to meet these obligations is nearly always far different from the 100% of balances that can technically be withdrawn. The analysis looks at average balances over time, and uses actuarial methods to determine an assumed base of current accounts that are never withdrawn. Liquidity planning, then, need only deal with the remainder.

Term accounts constitute a very different challenge. The maturity run off of such accounts is within the bank's control and highly predictable based on the terms of the deposits. These core deposits, consistent and reliable funding derived from customer relationships, are the second safest form of funding after the banks own liquid capital. The main caveat to this would be customers providing significant amounts of deposits. The customer has the right of withdrawal, and the bank is obligated to pay the deposit. If an amount equal to five per cent of capital disappears overnight, the bank can be seriously threatened.

After evaluating the deposit structure and relationships, the IIRA analysis goes on to look at the preponderance of purchased funds, or "hot money" in the liability structure. The most important distinction is between direct customers and impersonal markets as the source of purchased funds. Most often, the bank is forced to rely on the markets because it is unable to attract sufficient deposits to fund growth in the balance sheet. It is forced to turn to the markets with the result that it is faced with several adverse consequences, including the need to pay top marginal rates. In addition, bought funds are extremely volatile because there is no relationship on a continuing basis. At the first sign of credit or liquidity problems, the money is moved to institutions perceived as stronger and safer. Indeed, the departure of this hot money is the most common direct cause of bank failures in most markets.

This general assessment of funding distribution and concentrations is buttressed with the section of the asset and liability management review that considers cash flow through the institution. As will be discussed in a future section, the agencies go well beyond the maturity "bucket"

approach. They will look at estimates of cash flow availability, and stress them versus the potential outflow of hot money and deposits. Liquidity measurements are an outgrowth of this review of cash flows.

A final significant element of this review is a look at liquid asset portfolios. Although selected categories have become saleable through securitization, the obstacles to creating standardized pools are extensive. Therefore, rating agencies tend to give only limited credit to loan books as sources of liquidity. More often, they will look at trading portfolios and investment portfolios as readily saleable. Several conditions pertain to this analysis, however, including

1. The type of securities;
2. The book must be written to market if lower than cost;
3. A broad and deep market exists for the securities.

If the conditions are met, the rating agency will net reserve requirements, if any, and factor the potential liquidity into their analysis.

The ultimate questions to be answered by the analyst include the significance of concentrations, the stability of funding sources and the precise plans in place for handling hot money if there is a run on the bank. The next section will discuss the approach to evaluating Asset/Liability Management.

Asset/Liability Management (ALCO) Evaluation

The importance of interest rate risk has grown significantly over the last two decades in many markets as deposits instruments and rates have been deregulated. For many years, banks could enjoy gap profits as regulation ensured a positive yield curve and a relatively measured pace of change in rates over the economic cycle. This changed. Rating agencies, including IIRA, are fully conversant with the risks associated with a floating rate regime and the consequences of mismatches. In the last section, this methodology addressed the analysis of balance sheet funding. This section describes how the agencies look at the management of the factors determining the net interest stream or other categories of asset revenues reported in Islamic reports and capital formation. Unless there is a clearly delineated limit on earnings at risk, the agencies are extremely uncomfortable with a suggestion that management believes it can forecast interest rates. Ideally, the policy will be to adequately protect the earnings stream no matter what happens to rates.

The agencies expect rated banks to develop comprehensive plans to manage the risk. And they look for multiple tools for this purpose. Most notable among these tools are

1. Asset allocation
2. Gap management
3. Duration management
4. Funds transfer pricing
5. Simulation modeling

IIRA is familiar with the pitfalls of each tool and will look for something like the Sendaro system (devised by a U.S. based bank consulting firm) which will measure all the different types of risk and support matching strategies.

Typically, the plan will resemble a Sendaro production, outlined as follows in which authority is delegated from the board of directors to the ALCO or CEO. The ALCO sets broad objectives supported by specific objectives and strategies. Generally, these will encompass limits to earnings or capital at risk in a way that ensures protection is well in excess of regulatory limits. Primary components include:

Purpose/Function

All of the bank's plans and activities have ALM implications. The plan should direct funds acquisition and allocation, identify and evaluate alternative scenarios, and provide for monitoring strategic plans and budgets.

Membership

Decision makers

An effective ALCO committee must have decision makers, those with policy-making authority, as its members. While there is a strategic element to the program, market changes can sometimes necessitate immediate remedial action like asset sales or fixing liability prices. If this is the case, delay resulting from implementation can result in unnecessary costs.

Duties

The duties are defined by objectives of the ALCO committee. They will entail whatever tasks are necessary for achievement of the objectives.

Rate sensitivity/rate risk

The plan will specify the various ways of measuring sensitivity and rate risk. It will also set limits and provide schedules for their review and confirmation.

Liquidity

This is subject to policy in place as well as regulatory considerations. It should not be a function of takings from the market, but result from conscious management choices.

Funding considerations

Banks cannot always acquire the types of funds that are optimal for their balance sheets. What is available?

Pricing

An ALCO committee should set general pricing, and define required spreads for different types of businesses. These can subsequently be modified for credit risk differentials.

Other subjects for the committee and policy documents can include review frequency, compliance, and the reporting process. The agencies will expect management reports to answer seven fundamental questions:

1. How much interest rate risk do we have in the existing balance sheet?
2. How much are we willing to accept? (to the NIM? portfolio equity?)
3. How much will we pay to change the asset book or hedge?
4. What range of rate movement must we prepare for?
5. What strategies can we employ?
6. How would earnings and capital change? Why?
7. How quickly?

An Asset/Liability Management Policy that utilizes the tools noted above, and provides the necessary process to answer these questions will result in a degree of positive comfort for the rating committee.

Evaluating Capital Adequacy

The analytical approach to measuring capital adequacy has been different from that of regulators who until recently have employed the simple and arbitrary BIS I definitions and specify a certain level of "tier 1" and "tier 2" capital as appropriate. More importantly, the regulatory methodology did not truly measure a bank's economic capital with any precision. Some of these problems have been addressed with the Basle II recommendations. The appropriate capital is different for every market and every bank. Despite the attention given to capital in the press, it is not the most important feature of the analysis conducted by IIRA.

The IIRA rating committee knows capital is in place to absorb the adverse consequences of risk-taking, whether it be in the form of credit risk, market risk, operational risk or simply questionable management practices. For this reason, capital adequacy must be a function of management's (and regulators) propensity to tolerate risk. Capital in this role is secondary to the institution's core earnings capacity because first loss should always be absorbed through the income statement. As the second level of defense, however, the accurate measurement of economic values becomes very significant. The book equity of the bank is only the starting point as IIRA engages in a "mark-to-market" exercise designed to approximate liquidation value in a worst-case scenario.

There are several elements to the capital exercise:

1. Defining the starting point for capital evaluation
2. Looking at net "liquid" book equity
3. Considering the effect of investments
4. The existence of so-called hidden reserves
5. Examining the value of impaired assets
6. Deriving the economic value of capital

Defining the starting point for capital evaluation simply refers to measuring the accumulated equity and reserves posted by the institution on its balance sheet. Commonly, these will include the equity accounts and loss reserves. Different accounting standards in different markets can make this difficult for several reasons. Depending on tax regimes, loss reserves may be maintained against assets that should more properly be written off immediately. Or, as in the United States, a significant intangible such as excess cost of acquisitions may be carried as an asset inflating equity. In some markets, accounting rules permit the write-up of fixed assets or

other investments to “reflect inflation.” This is unsound because the assets cannot be sold without impairing the ability to operate. Sale-leaseback transactions were popular a few years back in some markets, but here again the economic substance of the transaction is unchanged resulting in greater operating costs in the form of inflated lease payments. Generally, IIRA will seek to begin the process by excluding this type of over-statement.

Looking at net "liquid" book equity is designed to exclude excessive investment in property, fixtures and equipment, or, for that matter, in other types of non-earning assets. IIRA recognizes that it is proper to support property with equity, but are concerned when the proportion so employed is disproportionate when compared with the bank's peers.

Evaluating the effect of investments will focus on the long-term investment portfolio because, in most markets, short-term securities must be marked to market periodically. This assumes that lower of cost or market rules are applicable. Long term securities can often be carried at cost regardless of current value, on the theory that they will be held to maturity and the principal is sound. Cost may be above current market. Depending on the rate environment and the performance of the institution, the basis for this accounting may prove it accurate. But, IIRA must assume a need to liquidate at least part of the securities and recognize the related losses. Thus all or part of the discount to book will be eliminated from economic capital to estimate realizable values.

The existence of so-called hidden reserves is often the reciprocal of unrecognized differentials between cost and market. In some markets, most notably the U.S., banks have acquired long-term portfolios of government and municipal bonds in substantial amounts. As interest rates have moved down over time, gains have been realized in substantial amounts - nearly $1 billion in one well-known case. When such premia exist, the Islamic International Rating Agency will often give tax effect to the potential gains and utilize the numbers in pro forma comparisons.

Other similar types of hidden reserves that have been important include the unrealized gains on stock investments for the Japanese banks, and the balance sheet reserves created in "Other Assets" out of pre-tax income by the Swiss banks.

Examining the value of impaired assets, is of course, a key element of determining the economic value of capital. As discussed at length in earlier chapters, IIRA will forecast asset quality, eliminate assets and related reserves from the balance sheet if appropriate, and therefore adjust capital to presumed realizable or economic value. This can clearly have a very significant effect in cases where problem assets are substantial, or tax regulations do not facilitate the immediate write-off of problem assets.

Deriving the economic value of capital then becomes a process of addition and subtraction to reach a point where economic equity (capital plus reserves) is calculated as a proportion of the risk-adjusted, reasonably liquid portfolio of earning assets. A similar process is followed for all rated banks which allows most accurate comparisons of capital adequacy. All the standard ratios are used, particularly those that relate adjusted capital to the components of risk assets.

Strategic Planning, Budgeting and MIS

Strategic planning is a crucial indicator of management capacity. Effective banking begins with comprehensive knowledge of the market. The optimal planning process is a bottom-up approach where the bankers in the field use their knowledge of their customers’ needs to project

new business development. The forecast product results are then aggregated to define growth targets and create the formal plan for achieving the targets.
The heart of franchise value is the bank's customers. Who are they? Where are they? What are their needs for banking products and services as defined by the customer? The planning process begins with this information.

Then the bank must have a clear understanding of the competition, and the opportunity to create differential advantage to ensure future growth. Its products must be clearly defined, structured and priced. For Islamic banks, this is problematic.

The bank's distribution channels need to be fully understood, and technology must be in place to support electronic and POS delivery.

Management Information Systems must be, if not state-of-the-art, recent enough to afford comprehensive general ledger details, asset portfolio and liability information so that decisions can be taken based on an accurate picture of the bank.

Finally, budgeting must accurately reflect the expense and capita investment required to ensure the bank's ability to price effectively and take market share. With validated targets derived from what the line managers tell the planners they can do, objectives must be agreed and variances calculated monthly.

Earnings Performance

The income statement is the report card on the bank's achievements in the analytical areas discussed through this paper. However, it too often fails to accurately reflect economic reality. IIRA resets income and expense categories to derive net interest income or its Islamic equivalent presented as a net revenue figure. Other fee based income is added to determine effective income. IIRA then deducts operating expenses to derive a core profit number to serve as the basis for forecasting future performance.

Several revenue items are excluded from the calculation of core profit because they are not in control of management or they do not provide cash. These include:

So called fair value adjustments to write-up assets to presumed market value. There is no transactional basis for this. IIRA does not know if there are capable buyers, nor if the asset can be sold without impairing the bank's ability to operate. Consequently, these earnings are not recognized.

Trading and dealing profits are excluded. In the case of securities trading, markets must move if prices are to change. This is never assured. Foreign exchange profits, to the extent the transactions are customer driven, may have a predictable component. However, currency relationships are never predictable because even with substantial reserves and pegs, events can result in unforeseen changes.

It may also be necessary to adjust for deferred taxes in some environments.

Finally, IIRA adjusts core profits for required asset quality adjustments and measures the derivative capital formation. Against this, it sets management's demonstrated propensity to retain or pay out earnings reflecting its perspective on capital and the bank's future profitability.

Evaluating Ownership and Management

In most markets, significant banks are registered public corporations in some form with limited liability for shareholders. There are typically thousands of shareholders without controlling blocs or groups. In some markets, like the ones IIRA serves, however, there are relatively new banks or established banks with controlling shareholders. First, this creates a series of important potential considerations:

1. Who sets pricing and dividend policy?
2. What is the impact on capital formation?
3. How extensive is "policy" lending to affiliates and owners?

Second, if the controlling shareholders are strong institutions in their own right, they may be able to:

1. Refer independent customers;
2. Provide additional capital;
3. Offer technical expertise.

The most difficult task facing the rating committee is evaluation of management, especially in markets where ratings are little known or rarely employed. The rating is ultimately a sort of report card on management's performance, and sometimes bankers prefer not to be judged. The key tools for assessing management are

- Performance
- Organizational Structure
- Collegial Style of Management
- Strategic Planning
- Budgeting/Variances
- Information Systems and Reporting
- Marketing Outlook
- Rating Agency View

Performance is reflected in the positive economic spread, core profits attained and configuration of the balance sheet based on the alternatives selected by management. Thus the adjusted earnings and capital supporting the business are the best predictor of future outcomes. IIRA starts with the record.

The organizational framework is predicated partly on regulatory preferences and the legal framework for banking. However, it is usually possible for senior management to implement their own decision process and distribute authorities in light of their own expectations for achievement of agreed objectives. Planning for succession with identified replacement managers already employed is extremely important. The structure should be designed to eliminate "key man risk" whereby decision-making authority is concentrated with a single individual, contrary to a collegial style of management.

IIRA recognizes that a collegial style of management where information flows freely and there is a controlled distributed decision process has proven most effective in many markets. This optimum is not always achievable for social or cultural reasons, and in some cases laws require something different. As a practical matter, however, the senior officers can deal with this problem.

The output of the strategic planning process offer evidence regarding the sophistication of management. Further, the accuracy of forecasting and the quality of the budgeting process will be evident in the variance measurements made monthly, and the magnitude of necessary adjustments when the forecasts prove inaccurate.

The quality of the Management Information Systems is a key determinant of the bank's transparency and disclosure. It is viewed first on the basis of the bank's ability to respond to IIRA's request for information on which to base the rating. The data are needed to manage the bank. Many factors are considered this, including:

- Oversight of the preparation of financial statements;
- Quality of the financial statements;
- Timeliness in presentation;
- Accessibility of information (such as by-laws and other information) for stakeholders;
- Internal controls and the independence of the bank's auditors;
- Review of compensation for the chief executive officer and other senior executives;
- The way in which individuals are nominated for positions on the board;
- The resources made available to directors in carrying out their duties;
- Oversight and management of risk;
- The bank's openness regarding non-financial performance;
- Quality and timeliness of the website and the frequency with which it is updated.

If disclosures are incomplete or not sufficiently current, this constitutes a competitive weakness that must be reflected in the rating conclusion.

Management of all types of economic enterprises, must be fully knowledgeable about who their customers are, and what the customers' believe they need. This fundamental basis for value creation is not always fully appreciated because it is difficult to accomplish. This marketing orientation is a precondition for further analysis.

Finally, although there will always be rating committee members who have never met management, analysts and officers will necessarily be cognizant of demeanor and articulation by bank representatives as it reflects their level of comprehension and probable ability to initiate action.

Summary

These elements of the rating process employed by the Islamic International Rating Agency afford a comprehensive view of a bank and independently forecasts a profile extending into the future that highlights the capacity to generate investment returns. This paper is necessarily a generic document. The specifics the rating committee must consider will vary from country-to-country and bank-to-bank. Nevertheless, the focus on the underlying economic reality and its financial outcomes will prevail. The components of the analysis reflect the business activities that management must focus on every day, and the mechanisms whereby they are able to do this. The categories described and the important considerations are not limitations, but introductions that lead to analysis well beyond the scope of this short paper. It is nevertheless a guide as to what to expect when a bank applies for a rating from IIRA.

- Market assessment

- Consideration of factors that determine asset quality
- Liquidity and funds management
- Asset/Liability management
- Capital adequacy
- Adjustments to achieve economic reality
- Finance, information systems, planning disciplines
- Drivers of Earnings Performance
- Ownership and management performance, reflecting all the above