CHAPTER 13

Case Studies

Developing the RF Banking Investment Products

This chapter is designed to apply the riba-free (RF) banking principles discussed in the book to different financing situations. Portfolio managers are trained to diversify an investment portfolio between different asset classes to optimize the expected return in light of the risk level that fits the particular situation of each investor. The portfolio manager is trained to construct an *investment pyramid* (see Exhibit 13.1). Because the conventional riba-based banking system has been in existence for hundreds of years, serves some of the major world economies, and is standardized worldwide, the portfolio manager can tap many asset classes to build a certain portfolio. This is not the case in RF banking. This brand of banking has lagged behind the conventional system for about 600 years. The challenge ahead for RF bankers is to develop such products, with two important guidelines:

1. The product must comply with the Law (Shari'aa) and the laws of the land.
2. The product, at least in the beginning, must have the same feel and purpose as those offered by the conventional riba-based banks to enable the customer to conduct a fair and equitable comparison—and it must be at least of the same (or superior) quality.

In this chapter, the reader will be exposed to a number of real-life examples of financing conducted in an RF way. These cases are presented as an example of how to apply the RF principles to serve different financing needs and offer examples of the RF investment products that can be produced for the RF financial advisor. It is hoped that these "case studies" will make the RF financing and banking principles clearer and encourage the

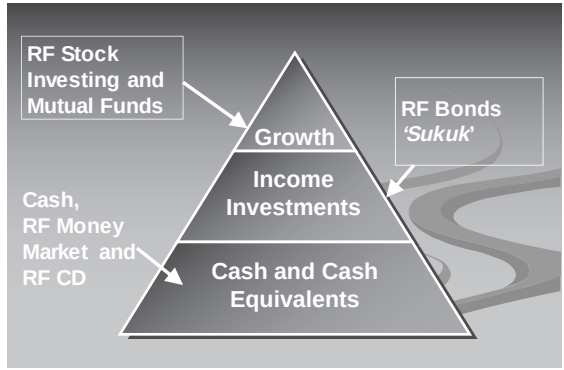

EXHIBIT 13.1 Riba-free investment tools.

readers to come up with new ideas, approaches, and products that are in compliance with the RF principles, offering new, less risky, and more rewarding services in the market.

THE INVESTMENT PYRAMID

When a financial advisor attempts to construct an investment portfolio for a customer, that portfolio is usually built using what is known as the *investment pyramid*. The pyramid consists of three layers, of which the foundation has the least risk and the top has the highest risk. Exhibit 13.1 displays the characteristics and nature of the products that fit each layer.

Cash and Cash Equivalents

At the bottom of the pyramid, the advisor allocates a certain percentage of the customer's wealth in the form of cash and other cash equivalents. The cash equivalents are instruments, such as money market funds. The challenge here is to develop an RF product that is equivalent to the money market fund, a short-term instrument that will offer RF customers an alternative to the riba-based money market instruments.

At an RF bank, this layer will include the demand deposit (deposit in trust, also known as DIT or *Amana*) accounts as well as other Fed Fund deposits with the Federal Reserve System.

Short-Term Investments

The next layer of investments is a longer-term investment that can mature in three months to three years. Riba-based conventional banks offer time certificates of deposit (TCDs) that mature in three months to three years or more.

This category includes short-term financing instruments structured using the RF finance principles discussed in Chapter 10, such as a one- to three-year RF financing of an automobile or a piece of equipment.

RF Bonds: Sukuk (RF Income Instruments that Replace Riba-Based Bonds)

The next layer is a higher risk investment category, which includes the investment in fixed-income securities (riba-bonds) in the case of riba-based conventional banks.

A new RF asset-based bond was developed to substitute for riba-based bonds. The RF bonds are called s*ukuk*. (The word *sukuk* is the plural of the word *Sa'k*, which is the origin from which the word *check* was derived.) In this layer, the LARIBA model offers, as an example, two products, which were developed in the early 21st century and applied in Singapore.

Investment in Stocks

This layer represents the highest return, but also the highest risk. The RF guidelines for investing in the stock market will be summarized.

RF ASSET-BACKED BONDS (SUKUK)

RF Mortgage-Backed Sukuk Securities

A riba-free mortgage-backed security (RF MBS) uses the financing contracts developed to finance home mortgages according to the Shari'aa-based LARIBA model described in Chapter 10. The first RF MBS ever in the history of the United States was issued with Fannie Mae in 2002.

An MBS is an investment representing an individual interest in a pool of mortgages. Payments on the underlying pool of mortgages[1] that back an issue of MBS are *passed through* each month from the servicer of the mortgages to the security holder. A unique security identification number assigned by the Federal Reserve to each MBS is maintained and transferred on the Fed's book-entry system.

In these pools, the RF mortgages are assembled in $1 million packages, given a CUSIP number (CUSIP refers to both the Committee on Uniform Security Identification Procedures and the 9-character security identifiers that they distribute for all North American securities for the purposes of facilitating clearing and settlement of trades), and are bought by the bank, which uses them as a source of RF income for longer-term RF investors, who seek monthly or quarterly income. The income is generated from the rent stream of income paid—for example—by the house owner, as described earlier in the model.

The Development of MUIS[2] Waqf Sukuk:[3]RF Asset-Based Bonds Used to Unlock the Value of Trusts

This example is a product of a very interesting situation that helped the Singapore Muslim Community (MUIS[4]) unlock the tremendous value of the different trusts that were pledged to serve the interests of the Muslim community hundreds of years ago (these are called w*aqf*, which means pledged trusts that can only be used for the service of the faith). This example shows how MUIS was able to generate liquidity from the trust in an RF way using RF bonds (*sukuk*). These funds were used to develop old and undeveloped real estate properties into highly valued and market-rated properties.

The world is full of goodhearted people who want to leave a legacy by giving back to society in the form of donations or by pledging a productive asset that can produce enough income to help finance the operation of a place of worship, like a temple, a synagogue, a church, or a masjid (mosque). In the United States, donations of this sort are often motivated by reduction of taxes, retirement planning, and asset transfers to future generations to keep the family legacy alive. The foundations left behind by Ford, Carnegie, Rockefeller, and Kennedy are examples of such efforts.

In Islam, and for that matter the Judeo-Christian-Islamic value system, there is a similar system for giving that is motivated only by the interest of the donors to please God by donating assets that can be used as facilities for worship, education, health care, and administration of peoples' affairs, or that produce income to help the poor and the needy. Donations can also include income-producing assets. The income of these assets would be used to fund education, health care, research, and other public projects and needs. These trusts are called w*aqf*. The word w*aqf* literally means that the title of the asset has been ''arrested.'' In today's lingo, a waqf is a *public charitable trust*, in which the assets are pledged to God. The title of the asset is treated as that of a ceased property that is pledged to God. This asset can be a prayers place (masjid), a hospital, a research center, a library, a school, or an income-producing asset, perhaps producing a stream of rent, crops, minerals, and oil and gas. These tangible productions can be sold to produce cash income that can benefit the beneficiaries and maintain the asset; if there is a surplus, it can be used to benefit other waqf assets. History shows that charitable waqf giving escalates with economic prosperity; the opposite is also true. Charitable waqf properties are usually not well maintained and are left to run down during times of economic and political decline. According to Shari'aa, assets that can be pledged as *waqf* can be classified in two types:

1. *Immovable:* Like real estate, including land, buildings, and other location-specific assets, such as fruit orchards, trees, water, and oil and gas wells.
2. *Movable:* Like cash and investments in stock portfolios.

An interesting situation came up during one of my visits to Singapore. The community had lost a prime multimillion dollar property in one of its most expensive areas in downtown Singapore because they did not have the money to develop it and they were not allowed to borrow money with riba. The big dilemma was that two more properties in prime downtown areas required renovatation and development by the municipality before a certain approaching deadline, otherwise those properties would be lost as well. I had a meeting with the leaders of the community and developed a riba-free approach to solving the problem. The approach involved the issuing of *RF sukuk* for the first time in the history of Singapore. The following is a summary of what was done, especially in this field of unlocking the vast economic and financial potential of the frozen assets of waqf, which had not been researched for a long time. This approach is now being implemented in many Muslim countries, and a special waqf bank is being sought to focus on this large market demand.

The Law (Shari'aa) states that, in general, the pledged assets of a waqf (public charitable trust) cannot be sold, granted to others, nor inherited by others. It must be used always for the purpose it was pledged to fill.[5] However, historians and scholars in Shari'aa have documented some exceptions, which were practiced under unusual circumstances that required modification of this rule.[6] For example, the second Khalifa (Omar Ibn Al Khattab) approved the change of use of a masjid (mosque) when he ordered that the old *Kufah* (in Iraq) masjid moved to a new location to improve the services. The old location was changed from a masjid to a market for date sellers. In addition, history records that both the second Khalifa (Omar Ibn Al Khattab) and the third Khalifa (Othman Ibn Affan) did approve the expansion of the original masjid of the Prophet Muhammad (pp) in Madinah. This opened to us some very interesting and creative ideas.

One of the two Singapore properties was a historic masjid in downtown proper. The problem was that the waqf consisted of a masjid in a prime area, and that it also had attached to it a prime piece of undeveloped real estate. The challenge was to see how it could be developed—as required by the local municipality—into a prime commercial building that could generate income for the waqf without violating Shari'aa conditions regarding the assets pledged as a waqf.

Naturally, the community would be up in arms if the leadership decided to demolish the historic masjid and build a modern and more efficient one.

along with a high-rise building that could produce enough income to enhance the fortunes of the community. After in-depth discussions with the architects and the developer, a plan was created to keep the masjid intact and to attach to it a long-term-stay hotel for professionals who come to work on special projects for periods ranging from one to twelve months. The problem was how to generate the money needed to finance this development. The solution offered was formulated by two Shari'aa advisors, Dr. Mohamad Daud Bakar (from Malaysia) and me. The solution involved using the LARIBA model of forming an entity that would raise the capital and appraise the value of the waqf asset. The combination would form a joint venture between waqf and the sukuk investors. The capital raised would be used to develop the property, lease it, and share the rental income while the waqf bought back the shares of the venture from the sukuk investors, using the LARIBA mark-to-market RF Shari'aa-based model in the same way as was described in Chapter 10. In this way, the waqf asset could be kept intact while its real value was unlocked to generate the capital needed to develop the property.

The Building of the MUIS Waqf Sukuk[7] The effort involved the rescuing of two properties. The first was a high-rise building called *Fusion* that required S$25 million to renovate and to bring to required standards.[8] The property is located on the corner plot of the famous Raffles Hotel landmark and Shopping Arcade block. The other was a masjid property called *Bencoolen*, in a high-traffic market area close to the new business school. The property needed to be developed into a high-rise residence hotel and required an investment of S$35 million.

Charging, paying, receiving, and dealing in interest is clearly prohibited by Shari'aa. The sukuk (bond) issue is in fact a Musharakah (Joint Venture) agreement between MUIS and United Overseas Bank (UOB), which uses the LARIBA Shari'aa-based approach to formulate such a bond. Following is a description of the four steps we followed:

1. MUIS Waqf Fund (the owner of the property) and UOB entered into an agreement to jointly own the property. The property was appraised at S$34 million. UOB agreed to forward S$25 million to MUIS in order to own 73.52941 percent of the joint venture (obtained by dividing $25 million by $34 million). MUIS retained the balance, or 26.47059 percent, of equity in the property. The title of the property is held by MUIS, and a lien is placed on it for the benefit of the joint venture to utilize its usufruct as described in the LARIBA model in Chapter 10. This way the rule of not compromising or transferring the title of a waqf property is violated.

2. The Joint Venture participants (Musharakah partners) agree to sign a five-year lease of the property at a fair and mutually agreed-upon lease rate.
3. UOB agrees to sell its share back to MUIS at the same price, or $25 million, and to get paid after five years. The lease income, after expenses and applicable taxes, will be distributed between MUIS and UOB in the same proportion of ownership.
4. To abide by the laws and monetary regulations, and to benefit from the tax advantages of issuing a bond in the state of Singapore, the return on invested capital for the sukuk (bond) holder may be called *implied interest*.

The transaction is depicted in Exhibit 13.2.

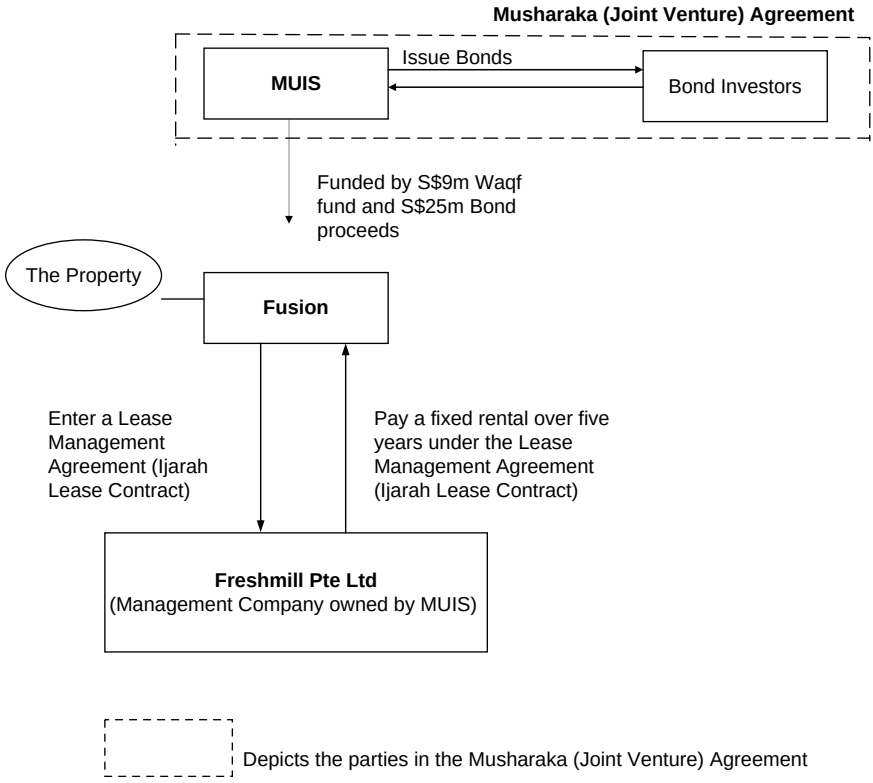

EXHIBIT 13.2 A pictorial diagram of the transaction structure.

RF STOCK MARKET INVESTMENTS

The next layer in the Investment Pyramid has to do with investing in the stock market. This section will detail how the RF parameters for investing in stocks were developed for the first time and which guidelines were used. In addition, many of the principles of RF financing and investing will be discussed in order to avoid participating in a bubble that would waste the hard-earned wealth of the customers involved.

The following are the guidelines that were developed for investing in the stock markets in an RF way.

Guidelines for RF Investing in the Stock Market

The spirit of investing according to Shari'aa is to participate in equity investing and not in debt-type investing. Equity investing means owning equity in the company (companies). Debt investing means lending money to the company using a riba-based instrument, such as a direct loan, an interest-based (renting money) promissory note, or a predefined interest-based bond.

Investing in equities is highly encouraged by Shari'aa. RF financing is all about equity participation in business activities that need financing. The author was part of a group of scholars and experts who started investing according to Shari'aa in 1988 in a $250 million portfolio. The portfolio performed better than the market averages. A number of guidelines were developed as early as 1988 to regulate investing in stocks based on Shari'aa. The following is a list of these guidelines:

1. It is preferred to invest in companies that operate in local communities to generate economic growth and prosperity that would create new job opportunities, peace, and harmony in the community.
2. Investing should be in socially responsible companies with a management dedicated to high ethical and moral standards.
3. Investing cannot be in companies which are involved directly or indirectly in divinely prohibited (*haram*) businesses, such as:
   a. Alcoholic beverages, intoxicants, bars, nightclubs and associated activities, casinos, hotels that operate bars and casinos, airlines that serve alcohol on their planes, or promiscuous activities. For example, Walt Disney Company provides family entertainment and theme parks, but it also owns movie divisions and trade names that may violate the promiscuous activities rule. Coca-Cola, in addition to its huge soft drinks business, has a thriving alcohol-related wine business. We could not invest in either of these companies.

b. Pork and pork products industries,
c. Tobacco products,
d. Interest-charging and/or -paying entities, such as banks, finance companies, investment banks, insurance companies, and related businesses.
e. Any other unethical activities and businesses that are not fair to their employees and customers or are environmentally irresponsible.

4. The company capital structure should have minimum debt. This has generated a lot of research and debate. The first issue was how to calculate the debt structure of the company. Should it be based on the company's book value or the company's market value? In the beginning, most scholars and Shari'aa committee members preferred using the book value as a basis for calculating the debt as a percentage of total company capitalization and preferred to keep debt as low as possible. Later on, as Islamic mutual funds started to grow in the market, the regulation was relaxed to replace book value with market value, which has allowed practitioners to expand the list of company stocks from which they can choose.
5. Equities in the U.S. market were screened as part of the research;[9] more than 10,000 companies were analyzed. The percentages of noncompliant stocks (in 2000) were:

   Prohibited business line: 22%

   Excessive borrowing: 62%

   Excessive interest income: 8%

   Other exclusions: 3%

   The total percentage of companies excluded was 95 percent. Out of 10,000 companies, only 500 were Shari'aa compliant.
6. The maximum debt allowed is 33 percent of the market capitalization, not the balance sheet capitalization (originally the ruling was to use the balance sheet capitalization).[10] However, in an RF regime using the mark-to-market approach along with the commodity indexation principles discussed in Chapter 5, a corrector should be used that reflects the overpriced assets in case a bubble is detected. For example, if oil price reaches $150 and, based on the commodity indexation principles, the oil price should be $50 – $70, that means the market valuation of that stock should be reduced to about one-third to one-half of its value, leading to a decision to sell out of the position to avoid participating in the bubble.
7. Company accounts receivables should remain at 45 percent of total company assets.

8. Interest income should be less than 5 percent of total revenue.
9. Investment should be in actual stocks backed by an operating company and not just a paper index. Indexes are only used for measuring performance results.

These foundations for stock market investing according to Shari'aa were adopted by the Dow Jones company to develop the Dow Jones Islamic Market Index (DJIMI).[11] Later, Standard & Poor's[12] introduced its own S&P Islamic index. These indexes formed the bases for many Islamic mutual funds available in the market today. Amana Funds,[13] one of the most successful funds, developed its own parameters and screens. Its two funds, the Amana Income Fund and the Amana Growth Fund, realized a five-star rating on the Morning Star rating system. The company was successful in getting some of the major brokering companies, like Charles Schwab and T. D. Waterhouse, to distribute its fund for retirement plan and general investors. This has increased the assets under management from approximately $65 million in the late 1990s to almost $1,000 million in 2006 and $1,800 million in 2009.

Normalization of Various Stock Market Indexes Using the Commodity Indexation

Perhaps one of the riskiest factors in the stock indexes, including the Islamic stock indexes, is that the market value of the stocks is included in the index without allowing investors to detect any bubble formation due to speculative market forces created by options and derivatives and excessive hedge funds market speculation techniques. In the case of the Islamic Shari'aa-compliant indexes, the use of market value to screen for the debt a company has on its balance sheet to be a maximum of one-third of total market capitalization can be particularly hazardous, because of the gyrations in the market value of stocks on the market, especially in the case of speculative market bubbles.

It is recommended that the index be normalized using a reference commodity like gold, silver, a staple commodity (as described in Chapter 5) or a combination thereof, depending on the market in question. In this approach, it is recommended that we relate the market index, say, to gold, and follow the gyrations in terms of gold to detect for bubbles and to reduce positions and exposure to the market accordingly. This approach is still in its infancy and requires more intensive research.

As an example, let us study the value of oil company stocks in the volatile period when oil prices skyrocketed to almost $150 per barrel in 2008. At the time, many analysts expected the price to reach $200 per barrel and

recommended the purchase of more oil company stocks. However, based on the gold price and oil relationship and applying the commodity indexation rule described in Chapter 5, the data indicated to us that oil was extremely overpriced and suggested that oil prices were experiencing a serious bubble. This should have prompted the Shari'aa-based investors not to invest more in oil company stocks, but rather to liquidate their positions in oil company stocks, because the commodity price indexation principal suggested that the oil price must decline to around $55 – $75 per barrel. However, when oil prices reflect an extreme low in terms of gold, as happened in February 2009 when oil reached $35 per barrel, Shari'aa-based investors should have accumulated more oil company stocks in their portfolios.

This approach can be generalized to the whole market by applying the commodity indexation principal to the index. The chart on the following page shows the relationship of the index in terms of gold price. The chart shows the relationship between the Dow Jones market index (DJIA), the NASDAQ market index, and the S&P 500 market index in terms of gold price.

Please note that these are not to be taken as predictive tools but rather as tools that would be used as a guide to directional movements into an overpriced—bubble—territories.

The charts indicate that:

- The DJIA value divided by the price of gold fluctuated in a channel in the range of 4 to 10 times the price of gold with a mean of seven. That means if gold price is $950 the fair value of DJIA would be in the range of 3,800 and 9,500 with a mean fair value of 6,650. The important level beyond which the DJIA starts to be overpriced based on the commodity indexation rule is 9,500.
- The NASDAQ value divided by the gold price fluctuated in a channel ranging between one and four units of NASDAQ for each dollar of gold price with a mean value of 2.5. That implies that if gold price reaches $950 per ounce that NASDAQ's fair value would fluctuate between 950 and 3,800 with a mean of 2,375. The important level beyond which NASDAQ starts to be overpriced based on the commodity indexation rule is 3,800.
- The S&P 5000 value divided by the gold price fluctuated in a channel ranging between one half and one unit of S&P 500 for each dollar of gold price with a mean value of 0.75. That implies that if gold price reaches $950 per ounce that S&P 500's fair value would fluctuate between 475 and 950 with a mean of 712.5. The important level beyond which the S&P 500 starts to be overpriced based on the commodity indexation rule is 950.

The following table shows the "red flag" levels of the stock market indexes at different gold prices. Investors—especially those in the RF stock market portfolio and mutual funds investors—are advised to use these directional levels to exercise wisdom and prudence in their investment decisions.

	Red Flag Levels of Market Indexes		
Gold Price $/Oz	**DJIA**	**NASDAQ**	**S&P500**
1000	10,000	4,000	1,000
950	9,500	3,725	950
900	9,000	3,600	900
800	8,000	3,200	800
700	7,000	2,800	700
600	6,000	2,400	600
500	5,000	2,000	500

It is clear that definite signals of a serious inflated market bubble have loomed since 2006. I would be the first to admit that this is an art—based on technical analysis—and not a science, but I call for more research and strategy development in this field. Many may argue that the approach may lead to premature selling, which happened to me personally when I got out of the market in 2006. However, it is better to err on the conservative side and miss 20–35 percent of the market's move to the up side than to sit in the market and lose 60 percent *of the entire value of the portfolio*. Many investors do not realize that if the market declines by 50 percent, that means that the market must appreciate by 100 percent in order to return to where it was before. This is a move that will require many years to achieve.

NOTES

1. A pool of mortgages is a loan or group of loans with similar characteristics. Minimum pool submission size in case of single pools is $1,000,000 for fixed-rate mortgages with monthly payments and $500,000 for fixed-rate mortgages with biweekly payments.
2. MUIS, also known as the Islamic Religious Council of Singapore, was established as a statutory body in 1968 under the Administration of Muslim Law

Act, Chapter 3 of Singapore (AMLA). Under the AMLA, MUIS is to advise the President of Singapore on all matters relating to Islam in Singapore.

3. Yahia Abdul-Rahman, research presentation at MUIS WAQF Conference, Singapore, March 6–7, 2007.
4. MUIS is the abbreviated name of the body that serves the needs of the Singapore Muslim community: "Majlis Ugama Islam Singapura."
5. Based on a saying—Hadeeth—of Prophet Muhammad (pp).
6. The two scholars, Abu Hanifa and Ibn Taymiya, allowed it with the condition that one must prove that there will be benefit to the public as a result of such modification. However, the scholar Imam Al Shafi disallowed it because it is the property of God.
7. Based on Yahia Abdul-Rahman, *A Memorandum of Understanding and Agreement, Musharaka Bond Issue by Majlis Ugama Islam Singapore (MUIS)*, which was authored in preparation of the first RF sukuk to be issued by MUIS in February 2001, to be arranged by United Overseas Bank, Asia.
8. MUIS—UOB Asia Ltd. Bond (sukuk) issue of S$25 Million in 2001, due in 2006.
9. Saleh Jameel Malikah, presentation at the LARIBA 2000 Seventh Annual Symposium on LARIBA (Islamic) Banking & Finance and Awards Dinner, April 29, 2000, Pasadena, California.
10. The original opinion was to minimize the debt so that it would be as close to zero as possible. With the resulting small number of companies in which one can invest, the scholars and financial experts agreed to use analogy, with the conclusions used to limit the change in inheritance distribution to be a maximum of one-third. The scholars used this as a foundation to limit the debt of a company that can be invested in to one-third of the capital at first, then relaxed the ruling to be the company's market value on the market. Another major issue erupted with the minimum debt. The issue had to do with the dot.com and technology companies that were sizzling in the market in the late 1990s and early 2000s. These companies had essentially no debt and were included in the Islamic indexes. With the bursting of the dot.com bubble in 2000, many of these indexes lost a major percentage of their value. Islamic mutual funds that started in the late 1990s ended up losing more than 50 percent of their value.
11. The Dow Jones Islamic Market Indexes (DJIMI) were introduced in 1999 as the first benchmarks to represent Islamic-compliant portfolios. Today, the series encompasses more than 70 indexes and remains the most comprehensive family of Islamic market measures. The indexes are maintained based on a stringent and published methodology. See the Web site for more information: www.djindexes.com/mdsidx/index.cfm?event=showIslamic.
12. The S&P Shariah index series is designed to offer investors a set of indices that are Shari'aa compliant. The S&P 500, the leading measure of the U.S. equity market, was one of the first S&P indices to offer a Shari'aa-compliant version. Modeled after its U.S. counterpart, the S&P Europe 350 and the S&P Japan 500 indices also offer their respective compliant versions. See the Web site

for more information: http://www2.standardandpoors.com/spf/pdf/index/Shariah_factsheet.pdf?vregion=us&vlang=en.

13. Amana Mutual Funds Trust is designed to provide investment alternatives that are consistent with Islamic principles. Generally, Islamic principles require that investors share in profit and loss, that they receive no usury or interest, and that they do not invest in a business that is not permitted by Islamic principles. Some of the businesses not permitted are liquor, wine, casinos, pornography, insurance, gambling, pork processing, and interest-based banks or finance associations. The Funds do not make any investments that pay interest. In accordance with Islamic principles, the Funds shall not purchase bonds, debentures, or other interest paying obligations of indebtedness. See the Web site for further information: www.amanafunds.com/amanx.html.