Introduction

• This chapter discusses issues which are immediate to structuring viable and compliant Islamic securities for the perspective of both the issuer and investor, as the case may be.

• The understanding of each of these issues is crucial to appreciate the practical issues surrounding the issuance of a high quality of securities.

• Issues are of various backgrounds and each of them will be discussed in its own context and will only be linked to other issues ranging from the Shariah contract and compliance to market consideration to regulators requirements and to risk consideration and management.

• The chapter aims to expose the students to most of the relevant steps that are involved in the process of structuring viable and compliant Islamic securities instruments.
Why Islamic Securities – Issuers’ and Investors’ Perspectives

• Islamic securities or known as bond in conventional market is an asset class different from equity and banking products respectively.

• The conventional securities market consists of both bonds and stocks. However, both are different from each other from the fact that while the stock holders own a part of the issuing company (have an equity stake), bond holders are in essence lenders to the issuer.

• Also, while stocks may be outstanding indefinitely, the bonds usually have a defined term, or maturity, after which the bond is redeemed.

• The same is true with Islamic securities which also comprise of two instruments; bonds or better known as sukuk and shares. The discussion in this section is relatively concerned with bonds/ sukuk.

• Islamic bonds/ sukuk, in Islamic term, are products that mirror the behaviour of a bond in conventional finance. A conventional bond is a debt security in which the issuer owes the holders a debt.
Why Islamic Securities – Issuers’ and Investors’ Perspectives

• The obligation to repay the principal and interest (the coupon) at a later date is in the form of a security which can be traded freely in the secondary market.

• As bonds are issued to enable the issuer to finance long-term investment with external funds, the same is true with sukuk. Sukuk are also issued to raise necessary funds to finance the financial needs of the issuer. The issuance of sukuk would benefit both the issuer and the investor respectively.

• Broadly speaking, an issuer would seek sukuk instruments because the cost of funding will be lower as the price is a function of rating.

• This is because the rating would increase efficiency of the market, thus lowering the cost to both the issuer and the investor. Also, the sukuk will be treated as off-balance sheet item.

• Equally interesting, a corporate can expand business through Islamic security issuance without necessarily increasing its capital base.
Why Islamic Securities – Issuers’ and Investors’ Perspectives

• The originator in asset-backed securities may have an opportunity to enjoy most of the benefits of taking new financing without bearing the risk involved. ABS offer several advantages to the originator of the asset pools, as the following illustrates:
  
• Selling those assets to the pools reduces their risk-weighted assets and thereby frees up their capital, enabling them to originate still more financing to their new customers.

• Examples of such off-balance sheet methodologies include a sale and lease back transaction as well as securitization via ABS.

• ABS will lower the originator’s risk. For instance, ABS will allow the originator minimize credit risk that it may formerly undertake with it’s, for example, house financing portfolio.

• In a worse-case scenario, where the pool of assets performs badly the holders of ABS would pay the price of the bankruptcy rather than the originator.
Why Islamic Securities – Issuers’ and Investors’ Perspectives

• In addition, the originator earns fees from originating the financing as well as from continuing to serve the assets throughout their life.

• As for investors, obviously they have invested in a form of investment which is liquid in character. This would allow them to liquidate their investment in a relatively speedy manner in order to either fulfil their liquidity needs or to switch to another instrument which is thought to be more profitable, as the case may be.

• From another perspective, investors are able to participate in a scheme of investment which is driven or dictated by risk profile, yield expectation and maturity horizon.

• It should be mentioned that in Islamic securities like sukuk ijarah, leased assets are normally created under the Trust i.e. Trust assets to be maintained by a SPV which is a remote bankruptcy. The trust assets will be removed from the legal action under receivership or bankruptcy order, hence the interest of the investors will be protected.
Application of Islamic Contracts - with Special Reference to Applicable Assets

- Contracts are central to all Islamic financial products and services. Indeed, contracts shape and mould the features of the product.

- Islamic securities, being new and innovative, are dependent on the ability of identifying contract or contracts to meet both commercial needs as well as the Shariah compliance requirements of a particular instrument.

- Relatively speaking, commercial perspectives, unlike Shariah compliance perspectives, are quite standard in the market. This covers the issues of rating, pricing, credit enhancement, underwriting, etc.

- However, issues pertaining to Shariah compliance will always be an issue when discussing the application of some contracts to facilitate the structuring and processing of Islamic securities.
This section will be biased towards highlighting Shariah issues though some reference will be made to other relevant aspects relating to contracts and their underlying assets, if any.

As already established in the earlier modules, Islamic securities are the products of the process of securitisation, both of tawriq (debt securitisation) and taskik (asset-based securitisation).

The process of securitisation is to transform something which is normally illiquid into another form which is liquid in character. Debt or receivables, as it stands, is not liquid and tradable.

The right of the creditor or lender to receive payment from the debtor or borrower cannot be liquidated easily and freely without first transforming it into securities to evidence this right to a payment.
In other words, securitisation helps to render this right to receivables liquid and tradable whereby the holder of the securities may cash out his position by selling these securities to another interested party in the secondary market.

Also, a property such as a power plant or a project such as the development of a new hospital, are not liquid on their own merits.

The owner of these assets will not be able to liquidate his ownership except through a proper sale transfer which is time consuming and non-cost effective.

In other words, securitisation helps to render this right to receivables liquid and tradable whereby the holder of the securities may cash out his position by selling these securities to another interested party in the secondary market.
STRUCTURING AND PROCESSING ISLAMIC SECURITIES

• Also, a property such as a power plant or a project such as the development of a new hospital, are not liquid on their own merits.

• The owner of these assets will not be able to liquidate his ownership except through a proper sale transfer which is time consuming and non-cost effective.

• The normal transfer of an asset ownership requires many legal documentations and processes to make the transfer valid and enforceable.

• However, the transfer or trade of securities arising from the securitization process is simpler and time as well cost effective.
Therefore, the discussion of contracts is relevant at the level of the origination of receivables or assets, as the case may be, as well as at the level of the trading of these securities which is post origination and issuance.

The next detailed discussion will address two types of securitisation, namely receivables securitisation and asset-based securitisation as an elaboration of the above.

It is important to note that there are fundamental differences between receivables securitisation and asset-based securitisation with regards to aspects of origination and trading which is post origination.

With regards to receivables-based securitisation, it should be noted that the securitisation process must be preceded by a contract that creates future obligation (from the issuer’s perspective) or establishes future receivables (from the creditor’s perspective).
STRUCTURING AND PROCESSING ISLAMIC SECURITIES

• These future receivables will be securitised into papers at a later date as evidence of the obligation of the issuer/debtor to either pay this financial obligation or to deliver an asset(s) to the holder of these securities.

• It is to be noted that future obligation or debt in Islamic law, known as *dayn*, refers to both monetary assets (deferred payment amount) as well as tangible assets to be delivered in the future (deferred delivery asset).

• What are the possible contracts that could create a future obligation (*dayn*)? Both the AAOIFI Shariah Standard on Investment Sukuk and the Securities Commission’s Guidelines on the Offering of Islamic Securities (2004) have listed a few contracts that are deemed to create future obligation or receivables which are the subject of securitisation.
## STRUCTURING AND PROCESSING ISLAMIC SECURITIES

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**CONTRACTS THAT CREATE FUTURE OBLIGATION/RECEIVABLES**
An explanatory note to this table is needed to put the contracts in their respective context.

The contracts listed in SC guidelines consist of almost all contracts that could create future obligation on the part of the issuer.

The list has however included three interesting contracts, two of which are not yet developed and the third one is highly contentious amongst scholars.

The first two contracts which are under developed, even in Malaysian market practice, are bay’ al-wafa’ and bay’ al-istijrar.
• The other contract which is highly questionable is *bay’ al-‘inah* which is basically based on a sale and buy-back arrangement.

• *Bay’ al-‘inah* has been approved by the Shariah Advisory Council of the Securities Commission as a permissible contract in Islamic Capital market products.

• On the other hand, the AAOIFI Shariah Standard has deemed ‘*inah*’ sale prohibited and this has been documented in various relevant sections of respective Shariah Standards on *murabahah, ijarah and istisna’* wherever the practice refers to sell and buy-back or lease and lease back in all of the above-mentioned contracts.
As a quick comparison, only four contracts are able to create future obligation as listed in the AAOIFI Shariah Standard. Relatively speaking, these four contracts are also in the SC list and form the major components of Islamic contracts.

Putting aside bay bithaman ajil which is a variation of a murabahah sale, bay’ al-‘inah which is only peculiar to the Malaysian practice as well as both bay’ al-istijrar and bay’ al-wafa’, the two lists are almost identical to each other. Ironically, the SC’s list has also included the contract of qard hasan which is not essentially relevant to securitisation from a Shariah perspective because the loan arising from a qard contract is not based or linked to any asset.

In other words, loan arising from qard which is a loan contract, though can be securitized, but cannot be traded freely even from the Malaysian Shariah Standard practice.
To conclude on this issue, it can be noted that these contracts (other than *inhā*ah) are universally acceptable to create Islamic financial obligation which can be securitized.

However, these securities, upon issuance cannot be traded freely from the AAOIFI Shariah Standard perspective because the underlying assets are receivables.

Out of these contracts, *ijarah* contract could be an exception as *ijarah* asset can be the underlying asset together with the rental payment.

Therefore, *ijarah* contract allows the owner of the sukuk *ijarah* investors to own the leased asset proportionately and therefore, these sukuk can be traded freely.

An example of sukuk *ijarah* based on *ijarah* contract will be explained in the forthcoming sections.
In addition to contracts that create future obligation which can be securitised but not necessarily traded freely in the secondary market, there are contracts which are equity-based.

These contracts comprise of both Mudarabah and Musharakah. Obviously, both Mudarabah and Musharakah represent proportionate ownership of the investors in the underlying asset or project to be undertaken by the partnership.

Here lies the ownership right for each and every investor. Subsequent to that, the issuance of sukuk mudarabah and sukuk musharakah would reflect that ownership right which is different from the right to receivables.

This would render these kinds of securities tradable in the secondary market.
Apart from Mudarabah and Musharakah, equity-based sukuk could also be structured using the principle of agency in investment (wakalah fi al-istithmar).

The issuer, under this principle, will issue sukuk Mudarabah or Musharakah to the investors, but the issuer is not a partner to the other investors.

Although this is based on agency contract, the contract behaves in the same manner as equity contract in the sense that the agent/issuer cannot provide any guarantee to either capital or profit.

The agent is simply a manager who will manage the operation on behalf of the sukuk holders. Normally, the agent will be paid a fees for their services and this fees could be paid upfront or in the form of performance fees.
It is clear that there are several classifications of contracts which relate to assets under Islamic securities. These are illustrated in the following table.

**Islamic contracts and asset classification**

<table>
<thead>
<tr>
<th>Contracts</th>
<th>Asset of Islamic Securities</th>
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<tr>
<td>Murabahah</td>
<td>Debt/receivables</td>
</tr>
<tr>
<td>Istimna’</td>
<td>Debt/receivables</td>
</tr>
</tbody>
</table>
| Ijarah             | a. Debt/receivables  
b. Asset-based |
| Salam              | Debt                             |
| Mudarabah          | Asset-based                      |
| Musharakah         | Asset-based                      |
| Wakalah in investment | Asset-based                  |
Pricing Strategy – The Role of Conventional Interest Rates as a Benchmark.

Nature of Interest

• Interest can be simply described as the pre-determined agreed payment on borrowed money. The lender receives compensation for foregoing the immediate use of their funds, including current consumption.

• The original amount lent is called the "principal," and the percentage of the principal which is paid/ payable over a period of time is the "interest rate."

• The loanable funds theory of the rate of interest asserts that interest rates are determined by the supply and demand of loanable funds in the capital markets. The theory suggests that investments and savings determine the long-term level of interest rates, whereas short-term rates are determined by financial and monetary conditions in the economy.
• The Loanable Funds theory above posits interest as the payment for borrowed funds, extracting the analogy that the aforementioned owner of funds can, instead of lending the funds, purchase debt obligations or bonds earning the same return or interest for the investment.

• As such, interest can be viewed as the opportunity cost of lending the funds. However, the classical view on factors of production only accounts for THREE original factors of production; Land which is remunerated by Rent, Labour which is paid by Wages, and Capital which is compensated by Profits.

• Un-invested funds or money is not capital and thus under the same analogy should not be attracting any return. Nevertheless, the payment of interest, endorsed by the capitalist class and the bourgeoisie, endured throughout the 20\textsuperscript{th} century and does not show any sign of abating.
Prevalence of Interest Rate as a Benchmarking Mechanism

- It is common knowledge that Islam prohibits the receipt or payment of Riba and the general consensus from Shariah Scholars is that interest, in any form, constitutes a form of Riba.

- To answer the question of why conventional interest rate is often used as a benchmark even in Islamic finance, one needs to comprehend the extent to which interest is prevalent in the economy.

- The goals of monetary policy relate to financial soundness and stability and these can generally be described as the creation of a conducive environment for an economy to develop. One of the ways the authorities can achieve this is to improve conditions that promote employment as well as to reduce inflation in the economy.

- At the same time government fiscal policies involving the use of fiscal tools such as taxes and government expenditure are meant to achieve similar goals of the economy.
Monetary Policy Approaches and Economic Goals

• As an example, the Monetary Authorities could target inflation as the policy goal, and use Monetary Aggregates (either narrow or broad money such as M1, M2 or M3) as their main policy tool.

• This means that the authorities would control the supply of base money to conduct their monetary policy. This was the popular methodology of most economies in the 1970’s.

• Deregulations in the banking system after the 1970’s meant that the Monetary Authorities have relinquished control of Monetary Aggregates (especially broad money) as Commercial banks were in the position to produce money with their bulging demand deposit portfolios.

• Consequently, Monetary Aggregates lost its appeal as the primary Monetary Policy tool as the authorities searched for an alternative that would allow them to exercise maximum control.
This turned out to be Interest rates, specifically short-term interest rates, which are currently the most popular Monetary Policy tool even though the policy goal remains the control of inflation and minimisation of unemployment.

Interest-rate changes, initiated by the Monetary Authorities’ policy initiatives, are transmitted via Money and Credit channels. A contractionary monetary policy can be triggered by the hiking of the Overnight Money Market rates (Direct Lending) or the Discount-Rates of Treasury Bills (OMO).

This initiative will pass along the credit channel of the Commercial Banks, resulting in higher consumer lending rates.

A contractionary policy could also be caused by an increase of the Statutory Reserve Requirements of the Banks, resulting in a higher positive reserve target for the Banks. With a higher reserve target, the funds available for banks to generate loans are reduced.
• As such, the banks would seek to increase their lending rates in order to maintain the profitability of their asset portfolio. The effective transmission of the monetary policy initiatives through both channels as well as the ability of the Monetary Authorities to exert ‘monopolistic’ control over short-term interest rates exhibits the importance of interest rates in any economy.

• A validation of the commercial importance of interest-rates can be illustrated with its application in several management accounting techniques such as the Discounted Cash Flow (DCF) and the Internal Rate of Return (IRR).

• Widely used to appraise the viability of investment projects, such techniques use interest rates as a benchmark to either ascertain the current value of a future cash flow stream or whether a project has the potential to succeed.
These exact techniques are still applied in Islamic finance in the same capacity, extending the importance of interest-rates in contemporary finance.

The irony of it all is that the current practice of Islamic Finance incorporates its single most prodigal nemesis that is interest rates. As in the conventional market, all Islamic Finance projects are appraised using interest rates as a benchmark, whether it is the London Inter-Bank Offer Rate (LIBOR) or the Federal Reserve Rates.

A good example is the Malaysia Global Sukuk which is based on an Ijarah contract, launched in June 2002.

The 5 year USD denominated Sukuk, issued in Bahrain and Malaysia; promises a return of 6 month LIBOR + 95 basis points. It is clear that an Interest rate index is used here as the equivalent benchmark of the Sukuk’s return and further examples can be established to illustrate the use of such interest rate benchmark mechanisms.
The natural question is why interest rate benchmarks are used in the pricing of Islamic Securities.

The simple answer would be that investors, whether Muslims or otherwise, would not want to be exposed to interest rate risk, especially when investing in fixed-income securities as the above example illustrates.

They need to be assured that their investments will not depreciate as a result of further movements of interest rates. The next question is then why interest rates are used as a benchmark and not a more representative “islamically-derived” index?

The answer to that is that there is simply no other current index or one that can be currently conceived which is universally accepted by both the market and the authorities to replace interest rate index.
• To establish such an Islamic Index, it must be robust enough not only to be compared against interest rates but it must also be able to transmit the Monetary Authorities’ policies in a manner that is not less efficient than the interest rate.

• The base of the Islamic index must also be within the control of the authorities so that they can manage it as a tool to control inflation and reduce unemployment.

• It is also imperative to understand that though interest rates are used as a benchmark for Islamic Finance, the profits or returns that are generated by Islamic securities using the benchmark are interest-free.

• Profits generated from the Malaysian Global Sukuk example above are generated by the real return from rental of assets securitized in the structure.

• There is no question of payment or receipt of interest here; it is just that profits disbursed to the investor are calculated based on LIBOR. Shariah Compliance addresses transaction considerations and not the benchmark issue.

Nature of Risk: Exposure & Uncertainty

• The nature of risk have been explored and explained by various scholars including Frank Night (1921), Keynes (1921) and Andrey Kolmogorov (1933) with reference to foundations of probability.

• Two classical views between subjective versus objective interpretations of probability are debated. Objective interpretations held that probabilities are real whilst the subjective interpretation states that probabilities are human beliefs and hence non intrinsic in nature.

• According to David Hume (1748) who espouse empiricist view specified that
  ‘though there be no such thing as chance in the world; our ignorance of the real cause of any event has the same influence on the understanding, and begets a like species of belief or opinion. (p.55)’
• Knight adopting the competing objectivist perspective believed that propositions have intrinsic probabilities of being true or false and distinguished between necessary and mere factual ignorance.

• Probabilities could also be obtained either as priori probabilities from inherent symmetries or statistical probabilities through analysis of homogenous data. A distinction is also made between measurable uncertainty and referred to as “risk” and immeasurable uncertainty as “uncertainty”.

• A probability is a relationship between two propositions. A probability relation according to Knight is “rationally determinate”. The limitation of this view is the difficulty to defend this objective interpretation of the notion of ignorance and how ‘necessary’ ignorance can be distinguished from ‘factual’ ignorance. Furthermore there could be multiple symmetries that can provide range of probabilities.
Some authors like Bachelier (1900) and Alfred Cowles (1933, 1944) have addressed the nature of finance in economics though not apparent as a discipline at that time. Markowitz (1952) a student of Leonard Savage an advocate of subjectivist interpretation of probability propounded the theory of portfolio selection as doctoral thesis.

The portfolio theory is generally perceived as a body of models that describe how investors may balance risk and reward in constructing investment portfolios.

The theory provided a rule ‘… that the investor does (or should) consider expected return a desirable thing (return) and variance of return an undesirable thing (risk) …’.

The procedure to construct mean and covariance for use in optimization “should combine statistical techniques and the judgment of practical men” according to Markowitz. Subjective probability was the view held by this theory.
Risk entails two essential components namely exposure and uncertainty. Uncertainty is a state of knowing whether a proposition is true or false. Probability is used as a metric of uncertainty and at best quantifies perceived uncertainty based on subjective interpretation of probability (Holton, 2004).

Generally we are exposed to propositions of true or false which have material consequences. Preferences for such exposures indicate whether there is care or concern for such exposure.

Metrics for exposure can be based on utility of Daniel Bernoulli (1738), John von Neumann and Oskar Morgenstern (1944) Lonanard Savage or Kenneth Arrow (1953) and Gerard Debreu (1954). Hence ‘risk is exposure to a proposition of which one is uncertain’.

Risk behavior relates to a condition of awareness which is represented by individual or group of individuals affiliated to an institution or market participants.
• Operational definition of risk can be traced back to ‘operationalism’ by Bridgman (1927) who surmised that if all knowledge of the world stems from our experiences, then definitions can be meaningful only if they refer to experiences.

• Hence the concept is synonymous with the corresponding set of operations. This view is also common to logical positivism of the Vienna Circle that emphasizes empiricist view that is founded on experiential knowledge.

• An operational perspective of risk hence is based on subjective interpretation of probability as a metric for uncertainty based on utility or state preferences as well as perception of preferred exposure.

• Thus true risk is diverted to perception of risk which is measured using among others setting risk limits, trader-performance-based compensation, portfolio optimization and capital allocation.
Utility function of wealth maximization behaviour

Sometimes under varying circumstances such as the amount of investment return at stake that lead to highly speculative behavior the utility function may portray a complex combination of risk preferences as shown in the figure below:
Complex utility function of wealth maximization behavior

At lower investment value risk averse appears to be the dominant behavior. However at much higher value with higher investment stakes, risk seeking behavior become dominant. An approach to measure and benchmark such risk behavior is to use certainty equivalents.
• An expected value is determined as benchmark and if the certainty equivalent is less than expected value the behaviour is risk averse and risk seeking if it is vice versa.

• Amongst market participants, risk preference behaviour is assumed to be risk averse, however matching of contrary investor expectations would not be feasible unless there are speculators who are prepared to assume higher risk than the general market expectation.
• **Investment Risk Profile**
  • The discussion on risk preferences is not complete without identifying the investment risk profile. No risk no gain is fundamental to investment decision.
  • The risk reward relationship is based on given risk preference of the investor where the investor will identify the degree or level of risk exposures to be assumed.
  • In theory higher return correspond with higher risks. For a risk averse investor this concept is refined to higher return for a given level of risk or lower risk for a given level of return.
  • For investment securities, we can create a chart with the different types of securities and their associated risk/reward profile. It provides a guideline that investors can use when picking different investments.
  • Located on the upper portion of this chart are investments that offer investors a higher potential for above-average returns, but this potential comes with a higher risk of below-average returns.
• On the lower portion are much safer investments, but these investments offering a lower potential for high returns.
• How much risk any investor is prepared to assume are influenced by the investment horizon, volatility of returns as well as the amount of investment.
• Short term investments with high volatility of return with sizeable investment amount pose a very risky investment structure.
• Opportunity for timely effective respond to risk mitigation is low. This is a pertinent feature of derivatives market where investment positions are re-evaluated on daily or much shorter basis.
• Long term investments with low volatility of return with moderate investment amount pose a much lower risky investment structure.
• This enables timely intervention to moderate the risk exposure over the investment period. Investment in real estate allow for timely response to investments.
Time Horizon

• Risk tolerance in terms of not pressured to sell off any investments because of panic or liquidity issues is also an important consideration in investment decisions. The capacity in terms of holding the investments with available capital or access to alternate sources of funds or availability of other forms of collateral that represent financial strength of the investor can also influence investment decision.

Risk spectrum

• The arrow figure provides a risk spectrum to profile risk behavior from most conservative to very aggressive. Such risk categories need to be understood within the context of risk exposures of classes or categories of investors.
Investment Risk Pyramid

- Having determined the category of risk behaviour, there is a need to match the behaviour to the investment products or schemes that meet the investor requirement. This investment risk pyramid can be thought of as an asset allocation tool that investors can use to diversify their portfolio investments according to the risk profile of each security. The pyramid, representing the investor's portfolio, has three distinct tiers:

Investor portfolio and risk correlation
The base of the pyramid represents the foundation of the pyramid which is the most stable and least volatile. This area should be comprised of investments that are low in risk and have foreseeable returns.

It is represented by a wide range of assets that provide high liquidity, low volatility and low return.

The middle portion of the pyramid is made up of medium-risk investments that offer a stable return while still allowing for capital appreciation.

Although more risky than the assets creating the base, these investments should still be relatively safe. It is represented by assets that provide moderate liquidity, moderate volatility and moderate return.
• Within this large category sub categories need to be identified as the degree of volatility varies between real estate and small market capital stocks
• Each form of investment is characterized by risk behaviour processes that differ between investment vehicles.
• Fore example fixed income investments offer relatively more stable return than the volatile capital gains of small capital stocks.
• The summit portion is the smallest area of the pyramid (portfolio) represented by high-risk investments. Although indicated as the highest risk investments, the nature of the sophisticated markets and the relevant regulatory and supervisory infra structure has provided comfort and ease especially to the institutional investors to take up or unload positions with ease.
• Market pricing mechanism is expected to be most efficient with relevant disclosure requirements that facilitate market discipline.
Application of Credit Enhancement In Issuance With Underlying Assets

• Credit enhancement encompasses a variety of provisions that may be used to reduce the credit risk of an obligation. Credit enhancements are often incorporated into Over the Counter (OTC) derivatives, corporate debt, securitized debt and other instruments.

• It can also be defined as the process of reducing credit risk by requiring collateral, insurance, or other agreements to provide the financier or investor with reassurance that it will be compensated if the borrower defaulted. In essence it is a method whereby an institution attempts to improve its debt or credit worthiness.

• The underlying principle of credit enhancement relates to credit risk as counterparty risk. By reducing credit risk exposure of the financier or investor, the issuer or borrower will obtain a cheaper cost of funds.
Forms of Credit Enhancement

- Credit enhancements take many different forms. An example of a credit enhancement would be.

- **Collateralization**: One or more parties may agree to post collateral. Collateral levels may be fixed or vary over time to reflect the market value of different parties' obligations.

- **Third Party Guarantees**: A parent company or other third party may be contractually bound to meet the obligations of one party should that party default.

- **Credit insurance**: An insurance policy may provide for compensation in the event that a party defaults.

- **Letters of credit**: A bank may confirm financing to the exporter or seller upon issuance of letter of credit by the importer or buyer bank.

- **Special purpose vehicle**: One party may enter into the deal through its own over-capitalized, bankruptcy remote subsidiary.

- **Convertible Feature**: Conversion rights added on to an instrument in order to lower the issuing financing rate.

- Other techniques may sometimes also include netting agreements, credit downgrade triggers, and bundling with credit derivatives.
Credit Enhancement & Rating

Credit enhancement is fundamental to Asset-backed securitization transaction and is important for the Credit rating agency when rating a securitization. The different types of credit enhancement discussed below address various forms of credit risk exposures of securities as well as their impact on credit rating.

- **Excess Spread** refers to the difference between the fixed income received on the underlying collateral and the coupon on the issued security. In this manner, even if some of the underlying payments are late or default, the coupon payment can still be made.

- **Overcollateralization** is a commonly used form of credit enhancement. With this support structure, the face value of the underlying loan portfolio is larger than the security it backs, thus the issued security is over collateralized. In this manner, even if some of the payments from the underlying loans are late or default, principal and profit payments on the ABS can still be made.
STRUCTURING AND PROCESSING ISLAMIC SECURITIES

• A reserve account is created to reimburse the issuing trust for losses up to the amount allocated for the reserve.

• To increase credit support, the reserve account will often be non-declining throughout the life of the security, meaning that the account will increase proportionally up to some specified level as the outstanding debt is paid off.

• In any type of securitization, a reserve account is established to ensure distribution of principal and profit on the certificates as required in the pooling and servicing agreement.

• The bank may have the option of funding the reserve account with an initial cash deposit or through the retention of specific periodic distributions of principal or profit otherwise payable to the investors.

• The amount required in a reserve account may be stated as either a percentage of the certificates or any other amount designated by the bank.
**STRUCTURING AND PROCESSING ISLAMIC SECURITIES**

- **Surety Bonds** are an external form of credit enhancement, which are insurance policies that reimburse the ABS for any losses. ABS paired with surety bonds have ratings that are the same as that of the surety bond’s issuer. By law, surety companies cannot provide a bond as a form of a credit enhancement guarantee.

- A **wrapped security** is insured or guaranteed by a third party. A third party or, in some cases, the parent company of the ABS issuer may provide a promise to reimburse the trust for losses up to a specified amount. Deals can also include agreements to advance principal and profit or to buy back any defaulted loans. The third-party guarantees are typically provided by AAA-rated financial guarantors or ‘monoline’ insurance companies.
STRUCTURING AND PROCESSING ISLAMIC SECURITIES

• With a **letter of credit (LOC)**, a financial institution—usually a bank—is paid a fee to provide a specified cash amount to reimburse the ABS-issuing trust for any cash shortfalls from the collateral, up to the required credit support amount.

• However letters of credit are becoming less common forms of credit enhancement, as much of their appeal was lost when the rating agencies downgraded the long-term debt of several LOC-provider banks in the Fixed Income Sectors: Asset-Backed Securities early 1990s.

• Because securities enhanced with LOCs from these lenders faced possible downgrades as well, issuers began to utilize cash collateral accounts instead of LOCs in cases where external credit support was needed.

• With a **cash collateral account (CCA)**, credit enhancement is achieved when the issuer borrows the required credit support amount from a commercial bank and then deposits this cash in short-term commercial paper that has the highest available credit quality.
Another commonly used credit enhancement tool is the netting agreements. A netting agreement is an agreement between two parties to net off mutual claims and receivables under certain specified circumstances.

A well drafted netting agreement will result in the reduction of counter party risk and therefore would assist to enhance the credit rating of the instrument.

In addition to the above, another tool that can be used to offer credit enhancement is the credit downgrade triggers. In order to safeguard the interest of the investors, a termination or restructuring clause can be incorporated in the agreement.

This clause will be activated by any credit downgrade of the issuer by a specified rating agency. By having such a clause, the investors are covered as any indication given that the issuer is moving towards a default position will trigger a restructuring or a termination.
PARTIES may also agree to bundle credit derivatives in the instrument as another credit enhancement mechanism. Credit derivative is an agreement to transfer credit risk between the two parties.

This agreement can be negotiated and customized. It bears a similar resemblance to an insurance contract with the differences being that it can be actively traded and no loss needs to occur for the protection buyer to be paid.

In the industry, they are able to reduce operating cost, enhance customer service and evaluate/manage risk much more efficiently.
Credit Enhancement & Public Funding

- Credit enhancement has emerged over the past decade as a critical factor in the development of municipal or local governments’ credit markets in developing and transitional countries.
- Credit enhancement is especially crucial in the development of market-based systems—as distinct from government run systems—since private lending institutions have had relatively little experience with financing local government investments in the developing world.
- Credit enhancement strategies are designed to mitigate the risks associated with financing and therefore foster the growth of the overall municipal credit system. These programs help local governments develop experience in managing financial obligation, and encourage the private sector to lend to sub-national entities, either directly or through market intermediaries.
Types of Credit Enhancement Structures

- Credit enhancement structures are designed to address risks associated with debt obligations and their designs are dependent on the status of domestic financial markets and degree of sophistication at local banks and institutional investors. In local government case, institutions varies from government agency or government-owned entity, to public-private mixture entity, to private capital funds. Certain credit enhancement structures are generic whilst others are suited for such institutions.

Comprehensive Guarantees

- These are the most common form of direct credit enhancement for debt providers. The simplest form is the comprehensive or full credit guarantee, which covers principal and interest payment regardless of the cause of debt service default.
Partial Credit Guarantees

• A variant of the guarantee approach is the partial guarantee, whereby the guarantor shares the risk of debt service default with the financiers on some predetermined basis. The idea is that there will be risk sharing between the financier and the guarantor that effectively mitigates borrower risk to the level absorbable by the lender.

• There are two types of partial guarantees – partial credit guarantees and partial risk guarantees. Partial credit guarantees are guarantees where the guarantor covers a portion of debt service payments (regardless the cause of debt service default). Partial risk guarantees are guarantees where the sharing of borrower default risk is based on the cause of such default.

• One advantage of the partial guarantee approach compared with a comprehensive guarantee is that, with its own capital on the line, the partially guaranteed lender will examine much more carefully the credit of the borrower or the viability of the underlying transaction.
Co-Financing and Subordination

- Debt subordination has been used in larger international or corporate transactions and to a limited extent in the area of sub-national lending. In this case, the subordinated financier acts as the credit enhancer, taking a junior lien against senior financiers. Subordination can be used in the debt structure of a sub-sovereign borrower, or of a financial intermediary where the donor provides for subordinated debt to expand the capital reserves of that entity.

Bond Banks and Pooling

- In developing country sub-national borrowing, many of the individual loans are in many cases too small to be of interest to the private capital markets that are oriented to larger commercial borrowers. This situation often commends the pooling of small credits into a larger, more efficient grouping. In addition to achieving the same economies of scale that are possible with larger issuances of bonds, this technique offers a reduction in risk through portfolio diversification. Ultimately, this pooling results in reductions in the cost of borrowing to the local borrowers.
The bond bank bundles the underlying sub-national debt and then sells its bonds to investors in the capital markets. The basic idea behind the pooling concept is to develop a portfolio of loans that can then be remarketed in bulk to the securities markets as bond bank obligations. Bond bank obligations almost always carry with them a variety of enhancements, such as reserves, various intercept provisions and perhaps bond insurance.

The pooling concept also provides a number of inherent enhancements in terms of the size and diversity of the pool’s portfolio, which serve to protect against individual “event” risks.

This means that with appropriate design, a specific debt service problem with an individual borrower can be successfully handled through means of reserve funds and various other credit supports. The overall pool’s diversity provides its financial stability, thereby mitigating the pool’s overall credit risk.
Structuring and Processing Islamic Securities

- **State Agency Oversight of Local Government Borrowing**
  - In addition to the general classes of credit enhancement mechanisms described above is the creation of a state agency to oversee and facilitate local government borrowing.
  - Such agencies can take several forms but most importantly they provide both (a) technical assistance to would-be borrowers in preparing borrowing proposals and, at the same time, (b) certify that the borrowers have met certain standards of credit worthiness. In some cases, these agencies may even act as a go-between in the debt issuance process matching the borrowers with lenders.
  - Partial and comprehensive guarantee can be applied using *kafalah* (suretyship) contracts to provide confidence to investors.
  - Opportunities for co-financing to re-distribute risks could be explored using equity claim financing contracts such as Musharakah and Mudarabah.
• **Strategies to Structure Islamic Securities**

• There is more than one strategy in the structuring of Islamic securities not only with regards to the selection of contracts but also, the selection of certain features that are inherent in a particular contract.

• The key objective is to enable Islamic securities to function in a manner that could potentially meet all the expected requirements of Shariah compliance, pricing, legal compliance, rating enhancement, etc.

• One strategy would not meet all the different requirements in all circumstances. Therefore, being innovative and creative is crucial when undertaking the task of structuring proper Islamic securities for maximum benefit and value.