

## Justifications of avoiding Riba (Part X): The 2008 financial crisis

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Following the 2008 financial crisis, the US government formed a 10-member commission to determine the root causes of the crisis. The commission released its final report in January 2011 titled 'The Financial Crisis Inquiry Report' which is available online. In the report, the commission members identified several causes of the financial crisis. They categorized the root causes under some broad headers like 'Shadow Banking', 'Securitization and Derivatives', 'Deregulation Redux', 'Subprime Lending', 'Credit Expansion', 'Mortgage and the CDO Machines', etc. In this article, MABROOR MAHMOOD will only concentrate on how mortgage securitization and the development of collateralized debt obligations (CDOs) fueled the crisis.

In order to understand easily how they worked, let us assume there are only three persons operating in the market, ie David, Samantha and Robert.

David is a mortgage banker and his job is to sell mortgage loans to the people willing to buy houses. Samantha is a securitization specialist and her job is to buy loans from mortgage banks, securitize them and sell them to the interested investors. Robert's job is similar to Samantha's but at a downstream level of the market.

David's salary is dependent on how much mortgage he can sell to the market. He gets a fixed salary and a commission on the basis of total mortgage loans sold. The same is true for Samantha and Robert. Their pay-offs also depend on how much securitization they can create and sell to the market. So all these three players have an incentive to sell more of their products to earn more.

David has sold hundreds of mortgages to interested homebuyers. Many of them are high-net-worth individuals who have stable income flows. There are also buyers who don't belong to the elite class and depend on salaried income from various corporates.

During the early 2000s, there was cheap credit available in the market and people could afford buying houses at less cost. This fueled the demand for housing loans. David's business thus grew over time as he was selling more mortgage loans over the years. He did not use his own equity for buying these houses. He used loans from other parties instead to buy those houses for the homeowners. This process was going well as long as the homebuyers were repaying their dues on time.

With the housing demand growing, Samantha saw an opportunity with David's business. She offered to buy all the mortgage loans from him by paying cash. This was a lucrative offer for David as he could get cash from Samantha, could repay his periodic dues on debt and also could use the surplus cash to create more mortgage loans.

Since David had more equity with Samantha's help, the debt providers were more interested to give him more loans to use them for buying houses as well. So David's business grew remarkably as the demand for housing grew in the economy.

Now what Samantha did was a bit complex. She pooled the mortgage loans of David and mixed them with other mortgage loans purchased from other similar bankers and issued securities against them that could be sold to interested investors.

Samantha broke the potential return of the mortgage loans in different tranches on the basis of their risk characteristics; the lowest risk tranche in the top with the lowest yield, followed by medium-risk mezzanine tranches with medium high yield, and finally, the most risky lowest tranches offering the highest yield to attract potential investors.

So the idea was that as long as all the homebuyers irrespective of the risk class were repaying their dues on time, all the tranche holders would be able to obtain their expected return. However, if there was a default, then the returns from the homebuyers would follow a waterfall mechanism with the investors in the top tranche getting the first return, followed by mezzanine ones, and if there was no cash left, the lowest tranche holders would get nothing.

In order to make these securities sellable, Samantha arranged rating agencies to give the rating for these securities. After using complex models, the raters rated them highly presuming that diversification benefits were inherent in these

mortgages as many mortgage loans were pooled together and it was very unlikely that everybody would default at the same time.

Samantha again did not use her own cash to pay off David; rather, she used credit lines from other banks to create such mortgage-backed securities. So all these money flows with Samantha and David kept growing as long as there was growing interest to buy houses from the potential homeowners.

Now technically, Samantha's mezzanine tranches were more risky and it was very unlikely that anybody would be willing to buy out those tranches with the help of re-securitization. But this happened as Robert came up with a bright idea of re-securitizing the mezzanine tranches of Samantha with the help of CDOs.

With the help of CDOs, Robert offered Samantha to buy out the mezzanine tranches by paying cash so that this could be taken off the balance sheet of Samantha. This was a lucrative offer to Samantha to reduce her overall risk and increase her pay-off.

Now what Robert did was even more complex than Samantha's. He pooled all these mezzanine tranches of Samantha and all other similar security specialists, pooled them with many other loans such as car loans, leases, etc, and securitized them and sold them to the potential investors. He arranged the same waterfall mechanism of yield like Samantha where the investors holding the least risky tranches would be repaid first, followed by other tranche holders, in case of default.

In order to attract investors, Robert arranged rating agencies to give ratings to these CDOs and after careful review with the help of complex models, they again came up with very high credit ratings presuming that additional diversification benefits were inherent in such CDOs and the likelihood of default was quite a remote possibility.

Robert, like Samantha and David, did not use his own cash to create such CDOs. He instead used debt from other parties to create such new securities and eventually sold them to the market.

So as the housing market kept growing, more people became interested to put money into these ever-moving machines of securitizations and re-securitizations and the process went on.

Since all the market players could pass their risks to somebody else, there were growing incentives for people like David, Samantha and Robert to concentrate on more risky asset classes to increase their pay-offs. So at the end, everybody

started to invest in assets which would not have been used if there was no such mad demand in the market.

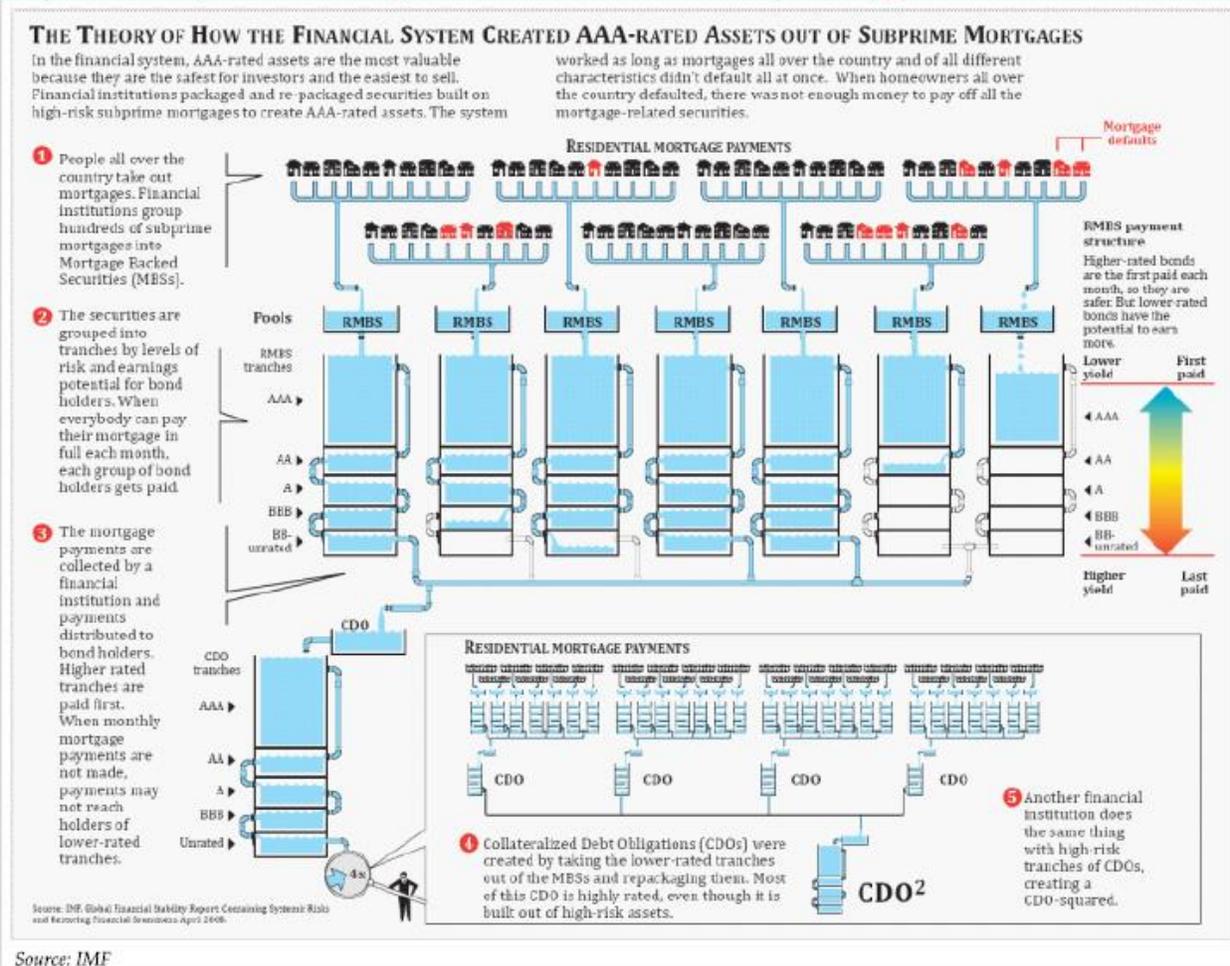
This money-flowing machine did not even stop here. On the basis of CDOs, more complex securities were developed at further downstream levels like synthetic CDOs, CDO squared, credit default swaps, etc.

Now when the entire housing market went south and homebuyers started to default, everybody felt the pain. David, Samantha and Robert were supposed to pass all their risks to other parties, but since the money flows kept growing, everybody had some sort of exposure to the toxic assets. The greatest hit was felt by those who stayed at the bottom of the ladder with the most toxic assets in their balance sheet.

The commission members thus concluded: “ ... The originate-to-distribute model undermined [the] responsibility and accountability for the long-term viability of mortgages and mortgage-related securities and contributed to the poor quality of mortgage loans ... declining demand for riskier portions (or tranches) of mortgage-related securities led to the creation of an enormous volume of CDOs. These CDOs – composed of the riskier tranches – fueled demand for nonprime mortgage securitization and contributed to the housing bubble ... Many of these risky assets ended up on the balance sheets of systemically important institutions and contributed to their failure or near failure in the financial crisis.”

The entire mechanism of how these mortgage-backed securities and CDOs fueled the crisis is depicted in Diagram 1 which is available from the [IMF](#).

**Diagram 1: The theory of how the financial system created 'AAA'-rated assets out of subprime mortgages**



Now the question is, if the entire financial system was designed with Shariah compatible structured products, would there have been a similar crisis faced by the global financial industry?

Before answering the question in detail, let us first acknowledge that many of the factors that fueled the 2008 financial crisis are applicable to the Islamic banking industry as well.

If there is less regulation, an overexposure of banks on a certain risky sector and if risk management practices are outdated, the Islamic finance industry can also face a similar crisis in the future. The reality is that the Islamic finance industry is not yet big enough to generate a crisis on such a massive scale. However, if we isolate only the cases of mortgage-backed securities (MBS) and CDOs, we can find some rational argument to prove the strength of the Islamic finance industry.

Although securitization is possible in Islamic banking as well in the form of issuing Sukuk under which a financing institution can pass the risks of an asset

class to another party with the help of securitization, the process is not similar to the conventional banking industry.

Due to Shariah restrictions, there are many covenants that Sukuk issuers need to follow that make it impossible for Sukuk issuers to re-securitize the same asset class multiple times. So in an Islamic finance environment, the creation of MBS-like securities are somewhat possible; however, the creation of CDOs and all other similar securities in the downstream levels are not possible.

In order to avoid Riba in similar transactions, Islamic finance requires trading houses with money. So in an Islamic finance environment, David would have owned the houses and leased them to the homebuyers, and ownership would have been gradually transferred to the buyers as the rentals were paid.

Now, David could have bypassed his risks with the help of Samantha by transferring the home ownership titles to another entity, issue Sukuk from that entity to the investors, and obtained the money raised from the Sukuk. For David, getting out of the deal completely is not possible in Islamic finance because David would still stay as the lessor in the transaction.

So in this case for Samantha, it would not have been possible to re-issue the Sukuk on the same assets by transferring them to Robert because the houses were already leased to a certain class of homebuyers with David still staying as a lessor, and they could not be leased again to the same buyers or different buyers.

In order to do this, the existing lease agreement between David and the homebuyers would need to be cancelled completely, and the whole process of buying the homes would need to be started from scratch which is very costly.

Therefore, the requirement of trading goods with money has made it impossible to re-issue Sukuk on the same asset class. But for the conventional system, since the trading of goods with money is not a requirement, and trading money with money is widely practiced, the same asset pool was sold and resold multiple times that increased money flows into the entire financial industry.

So the flow of money into the financial industry on an asset class of a particular sector would have been much less if the financial industry were Islamic.

So at least we can say that if the global economy were Islamically structured, the extent of the financial crisis would have been much less.

Now the question is, to what extent it could have been possible to avoid the crisis with the help of Islamically structured products?

The answer lies in to what extent the CDOs and other downstream securities were responsible for the crisis. Were they responsible for 90% of the crisis or 10%, or in between?

*The views expressed here are the author's own and do not necessarily represent the views of the institution where he works.*