



Robin Hood Finance Limited

Using the Toolbox

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Robert is a plumber, and I am a carpenter. We have both worked in capital markets for many years. How can that be? Allow me to explain.

I was having a drink with Robert in a Canary Wharf bar some while back. He was at that time Head of Securitisation for a large bank, and I had left the world of big banks and set up Robin Hood Finance Ltd, a structured finance consultancy. The conversation turned to a common frustration in our business, the customer who asks about your specific experience in a very narrow area, such as (my caricature): “how many deals based on loans to SMEs based in South-Eastern Belgium and owned by left-handed Polish baseball players have you done...”. Robert gave me his ready answer for such cases: “I tell them that I’m a plumber. What does a plumber do? He has years of experience in dealing with water and pipes. Each case will be slightly different, and some may be very unusual, but the basic skills can be applied in every case. The plumber has to apply his knowledge and experience, and have at his disposal the right tools-but very importantly, know how to use them”.

By coincidence, I had developed a similar analogy since, like my friend, I have many years’ experience in structured finance, but have obviously not worked on all transactions which have ever been done. When asked about my specific experience in some obscure area, I would point out that I am a carpenter: I am trained to work with all types of wood, and have mastered the various tools. I can also recommend what structure is best for the customer’s requirements, what materials offer the best durability at the right price, where to source them, and how we should construct it.

A carpenter’s tools include saws, chisels, and screwdrivers. A structured finance professional’s tools include swaps, FX and bonds. And of course Credit Default Swaps (CDS), which is at the time of writing a USD 62 trillion [sic] market. Warren Buffett is no fan of CDS, and is on record as describing them as “financial weapons of mass destruction”. However, any tool can be used for both good or evil: the phrase “stabbed with a screwdriver” produces 822 hits on Google at the time of writing, but no-one has to my knowledge proposed a screwdriver ban. Or as Thomas Huertas, a director at the FSA in London put it in a speech in April, 2008, “Nuclear energy can create catastrophe or contribute to prosperity. Controls make the difference between Chernobyl and efficient energy. Whether nuclear energy has a future depends critically on whether controls can be effective”.

In this article I shall be arguing that there are many useful financial instruments, both traditional ones, and those which have been developed in the last few decades; that they are important tools in the toolbox; and can be used and combined to produce the most efficient structure for each set of circumstances. I contrast the toolbox approach with the “this worked in the US, so that must be the right way to do it here” school of thought. Many of us suffered from this when we were building up the European securitisation market, in the form of colleagues in New York who no doubt sincerely believed that what worked in the US must be exactly right for Europe, and indeed anywhere else.

Business Objective

The particular area we are concerned with here is improving funding and risk management to assist economic development in sub-investment grade countries. In other words, how can we use the tools at our disposal to bring together funders, risk takers and borrowers to get the most efficient deal for everyone.

The first stage is to identify clearly what our objective is. For example, assuming we are trying to get funding to corporate borrowers in a sub-investment grade country, there are a series of trade-offs. I have often asked customers whether they want the cheapest funding, or the maximum amount of funding. The answer is, of course, invariably “both”! This is an important part of the consultant’s job-identifying the boundaries of what constitutes a good deal for the customer.

A solution in search of a problem?

We then have to consider what is the best structure. This is where we part company with those large investment banks who tend towards full securitisations for assets from sub-investment-grade countries. I have told customers many times that, if they are being marketed to by a bank which sells bonds, then they will be strongly advised that a bond is the way to go. On the other hand, a bank which funds via a commercial paper conduit will be talking up its preferred distribution method. The bank acts primarily for the bank, not for the customer.

What is a “full securitisation”? My understanding is a deal put together by the securitisation group of one bank or another, bearing a striking resemblance to US or European mortgage, loan or some other well-established asset class. This involves

- the sale of assets to an SPV in one of the usual locations (Jersey, Caymans...)
- rating agency analysis
- swaps and other hedging provided by the arranger
- a (highly) rated bond issued in a major currency such as USD or EUR.

In other words, this approach starts with what has been done before and tries to work out ways of replicating it in often very different circumstances. There is a Buddhist saying that a man who uses a raft to cross a river is wise; but a man who carries a raft on his back after he has crossed the river is a fool.

Rather than start out with the mindset that we have to do what has been done many times before in developed countries, we start with an open mind, identify each individual risk, and then find the most efficient tool to deal with that risk in order to put together the best deal.

Risks

Some of the risks the structurer has to deal with are:

- Default
- FX
- Interest rate
- Country ceiling

These are dealt with individually below, including some of the tools we can use in each case:

Default

This is one of the key risks in credit—the risk that the lender doesn't get his money back because the debtor does not pay. The first stage in dealing with this is to identify exactly what the risk is. Is it, for example, the default risk of a single company, or group of companies in a single industry? Or are we dealing with a diversified pool of loans to individuals or firms? The easiest portfolios to analyse are those with very few or very many credits: a single debtor can be analysed using a traditional credit approach, and a diversified pool fits well with a securitisation-type approach. The traditional credit approach is what any bank should do before putting its shareholder's capital at risk: looking at the business of the potential borrower, analysing the accounts etc. A securitisation-type approach looks at a statistical mass of risks, such as mortgages or small loans, and uses past data to predict the probability of default in the future.

One challenge here in the case of less-developed countries is the quality of data. The first step to getting alternative finance in place is often to sort out systems and procedures. This applies to all countries, but in general the lower the quality of systems and procedures, the greater the uncertainty to the risk-takers and therefore the worse the deal. It is often the case that we have to work on getting this right first.

There is also the CDO-type approach which can be used in cases such as corporate loans where there are a few dozen credits; this is described in more detail in one of the case studies below, but suffice to say that in such cases, each credit has to have a rating or grade (probability of default or PD) which can be mapped to a rating agency grade.

Risk Transfer Tools

Once we have identified the right approach to the risk, how do we transfer it? There are various tools at our disposal. Some of these transfer risk and at the same time provide the funding, whilst others transfer risk only in order to facilitate funding. A simple example of the former is a traditional loan: the lender puts up the money, and has the risk of the loan defaulting. An example of the latter would be bond insurance. This started in the municipal market in the US, where little-known, unrated municipalities could borrow from investors who require a AAA rating by enlisting a AAA-rated bond insurer. The bond insurer has a high, often AAA rating (although there are some significant problems in this sector at present), and guarantees the bond: if the underlying issuer defaults, the insurer has to pay. It's a bit like a parent guaranteeing his student son or daughter's debt. Hence the investor's risk is that both the underlying issuer *and* the bond insurer default. The economics work because the AAA funding cost plus the insurance premium come to less than the cost of borrowing in the municipality's own name.

We may have to consider the use of a number of tools to transfer risk, as can be seen in the trade finance case study below. This is not always easy when dealing with a typical investment bank and its bunker-mentality departments with, more often than we would like to see, their own departmental P+L uppermost in their minds. We might find that insurance adds value to the transaction, or that we can transfer risk by means of a credit default swap. (CDS is pretty much the same thing as insurance in economic terms: if a defined event occurs, then one party has to make a payment to the other.)

We then have the question as to which investors, or risk-takers (including insurers, who might take risk but not provide funding) would be most likely to be interested in particular risks, and what their preferred format would be. There is no point in producing clever structures if the end result is something which investors are not interested in. There might, for example, be plenty of

USD investors, but fewer in the local currency; a large deal might go better with a rated bond, whilst a smaller one could be done as a private placement or bank syndication.

FX

One of the most difficult risks when dealing with sub-investment-grade countries is FX risk: the lender invariably does not have funding in the local currency, and wants an investment in USD, EUR or some other major currency. The borrower, on the other hand, often wants funding in his local currency. The normal approach in a securitisation is to put in place a currency swap. But the currency swap market between, say, Bangladeshi Taka and USD is not there for practical purposes.

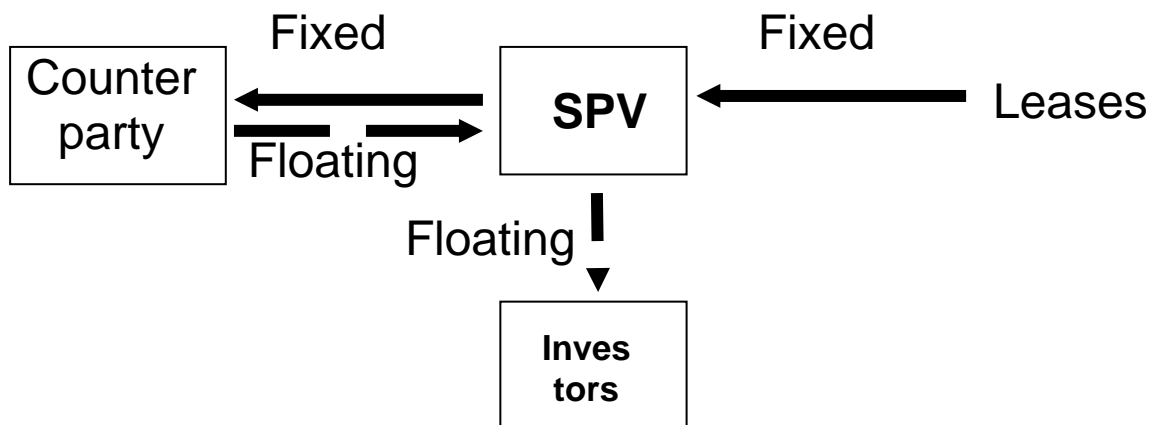
Deals have been done, for example in the world of microfinance, where the investment is made in a western currency such as USD, and the local originator is made to take the currency risk of having income in local currency but debt obligations in USD. Good for the investor, bad for the originator.

So we go back to basics: where's the cash? It is usually found in the local country. So we can consider a structure where the money is lent locally, by a bank, fund or whatever other entity has the cash to invest; and the risk is taken by an investor in a western country. This could be in the form of a guarantee, or some form of parallel loan (those of us who were around at the dawn of the currency swap market remember this old technique, which still has its uses today).

Another approach is to ask the question (using Bangladesh as an example again): who has USD income and Taka expenses? The answer would logically be Bangladeshi exporters, so it would be reasonable to examine the possibility of striking a deal with a domestic exporter who is long USD and short Taka. This is pretty much how deals were put together before the swap markets were established, so some of us have the advantage of experience here!

Interest Rate

In many structured financings there is a mismatch between the interest rates on the assets, and that which has to be paid to investors. The traditional way of dealing with this is an interest rate swap: but what if there is no established market in the currency we are dealing with? In the same way as the FX risk, we can ask who is a natural receiver and payer of fixed rate? For example, if we have a book of leases, which effectively pay a fixed rate, we might need to receive floating rate to pay investors. So who wants to receive our fixed rate from the leases and pay us floating? In the early days of the swap market, we would look for a local company which could borrow at an attractive fixed rate, but preferred to have a floating rate liability. A swap arrangement would then be entered into along the following lines:



It is important to bear in mind with such approaches that they can be time-consuming to put in place-but equally just asking a few investment banks to quote a price (or, even worse, taking whatever price is given by the derivatives department of a “partner” bank) is certainly no guarantee of getting the best deal. Both approaches should be explored.

Country ceiling

The country ceiling, where liabilities due from an entity in a country can typically not be higher rated than the government of that country, is a problem if we are trying to produce AAA assets from sub-investment grade countries. The first question to ask is “do we really need to produce AAA assets?”. If we do, as in the first case study below, we can look at alternative approaches such as various insurance instruments. If we do not, because we think that there are investors who will buy lower-rated or non-rated instruments, then we can move away from the AAA objective. If the country in question is acceptable to, say, Islamic investors for reasons of cultural or religious familiarity, a Western rating becomes less important.

Another possible approach is to use a form of the parallel loan structure previously mentioned-where the cash is provided by a local bank, but the bank in turn has protection from an international investor which has deposited USD in an escrow account. A variant on this would be for the local bank to be protected by a guarantee or CDS from an international investor. Thus the cash is provided locally, but the risk is taken internationally. Each party is taking the role which best suits it.

Case Studies

Some of these points can be seen in the approach taken to the cases below.

Case Study 1: Trade Finance Receivables

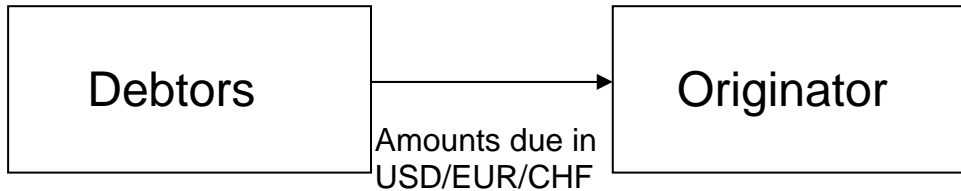
This case illustrates how various tools can be combined in a non-traditional way to get a deal done to all parties’ satisfaction.

A firm with a book of receivables from sub-investment grade countries approached us and asked whether we could help them to raise alternative funding by means of securitisation. At first sight, this looked like a tall order:

1. There were fewer than 20 receivables-hardly a statistical pool, but on the other hand a lot to be analysed individually

2. All the receivables were 3-5 years, and due from sub-investment grade countries. This gives us the country ceiling problem, which means in general that obligations from any debtor in a country cannot have a better rating than the government of that country. You don't expect to get AAA risk from a BB country.
3. The amounts due were in three major currencies, and payable on irregular dates throughout the life of the assets
4. The portfolio was around USD50m, which is not really big enough for a bond

This was the starting point:

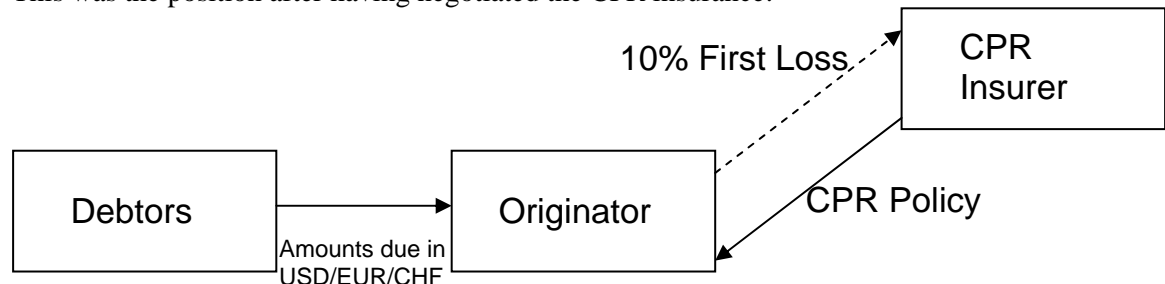


This portfolio was, therefore, quite unsuitable for a “full securitisation”. So we reached for our toolbox, and tried to identify the best way of dealing with each risk in order to be able to put together a viable deal. These are the steps we took:

1. Since we could not do a statistical analysis, and it was impractical to do detailed credit work involving due diligence trips to several countries on each asset, we looked at the possibility of insurance.

Bond insurers (often called monolines) do not take the sort of risk we were dealing with; they insure or “wrap” risks which are already of a rated standard. What other insurers could we approach? The solution was credit and political risk (CPR) insurers, whose business it is to cover risks from just the type of sub-investment grade countries we were dealing with. We negotiated a policy whereby the insurer (A rated) would cover all of the assets, with a 10% first-loss piece retained by the originator. The fee for this was quite high-but so was the yield on the assets, and the economics worked.

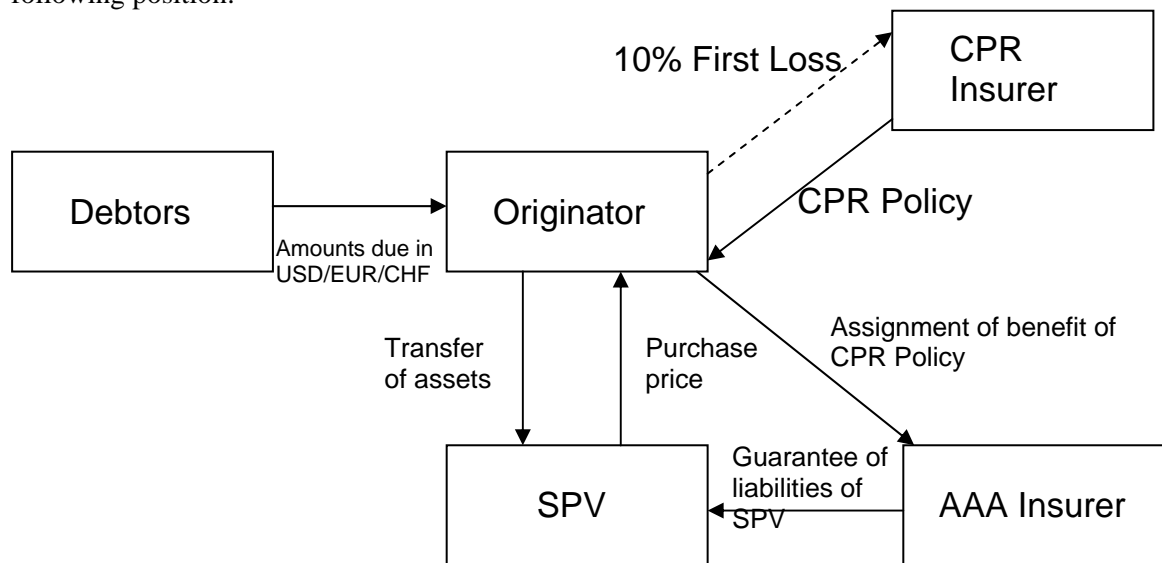
This was the position after having negotiated the CPR insurance:



2. So far so good, but we still did not have an instrument which we could sell to an investor. For one thing, there was a problem with the nature of the insurance. Capital market investors want to see an unequivocal obligation to pay on the due date. Traditional insurers, as everyone who has claimed on a car or home insurance policy will attest, require a claim to be completed, and may refuse to pay in part or in full if they consider that some term of the policy has not been complied with. We can sum this up as the difference between “pay first, ask questions later”, and “ask questions first, pay later”. Capital markets investors set little value on traditional insurance for that reason.

We needed a party with a high rating who will agree to pay when due with none of the “wriggle room” which insurers have. One possibility was a bank-but the pricing from banks was prohibitive. We looked at the insurance world further, since insurers understand insurers, and identified a reinsurance company which was prepared to guarantee the risk at an acceptable price.

3. The next step was to isolate the assets from the originator, making them “bankruptcy remote” from the estate of the originator. There seemed to be no reason not to use the traditional SPV structure, and Ireland was the chosen location due to the good tax regime in respect of both SPV taxation and cross-border tax. Hence we had reached the following position:

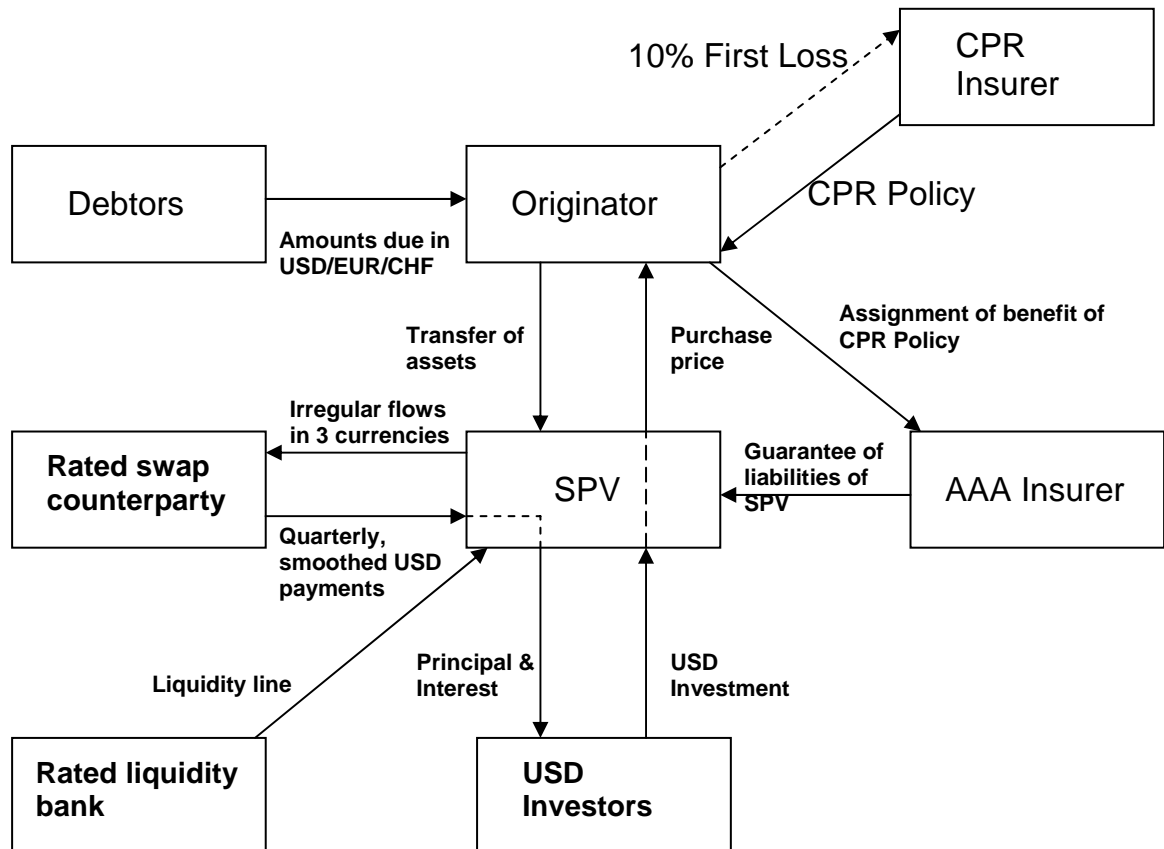


Note that the AAA insurer guarantees the liabilities of the SPV, not just the assets. This is important, since there are other parties to the transaction (e.g. the swap bank introduced below) which need to know who, and what credit quality, their counterparty is.

4. So we have come in two steps from sub-investment grade debt in developing countries to AAA risk, in a rather unusual way. As noted above, conventional securitisation thinking would simply not have worked, so we had to use different tools in a creative way. But there are a few more risks to be dealt with before we have a transaction which can be sold to investors. The cash flows are in three currencies and payable on odd dates. Investors like to invest in a single currency and have regular cash flows. Hence we designed a swap under which the cash flows from the assets (or from the AAA insurer if the assets failed!) are paid into a swap, and regular quarterly payments representing principal and interest to investors are paid back to the SPV.

One further party was required: the insurer might be good for the money, but being an insurer and not a bank, would it have the money available at two days’ notice? It was necessary to add a liquidity line from a bank, which would make payments as required, then re-claim from the AAA insurer.

Once we had achieved a AAA risk and dealt with the cashflows, we finally had an amortising USD bond with a AAA (private) rating which could be sold to investors. The final form of the transaction was as follows:



A somewhat unorthodox transaction, but by looking at each risk individually and working out the best way to deal with it, a good result was achieved. In the same way, this transaction should not be taken as a blueprint for any future deal. What is important is not the final structure, but the approach taken. That's how the carpenter and the plumber work.

Case Study 2: B+ rated country-car leases

This case concerns a leasing company in a B+ rated country whose business is leasing cars to companies in that country. They were partly funded by local banks, and partly by the (foreign) parent. We were approached with a request to see whether USD 100m+ of lease receivables from a B+ country could be financed via securitisation in order to get alternative, term funding, and reduce dependency on the parent.

The leasing company had enlisted a local bank a year earlier to assess the possibility of a securitisation. This bank had concentrated on the monthly amounts due from the lessees, and tried to analyse these in the same way as a mortgage pool. This analysis was inadequate for several reasons:

- Concentrations. A mortgage pool has thousands of similar assets, none of which forms more than a fraction of a percentage of the total. This pool had significant concentrations—single names as a proportion of the total pool. The top 25 customers were over half of the pool. This does not constitute a statistical pool: several of the individual assets are so

large as a proportion of the whole that they must be analysed individually.

The right way to analyse a book of corporate obligors when there are relatively few is usually a CDO analysis.

CDO analysis differs from other approaches in that it does not look at past pool performance. What it does is to start with a risk grade for each debtor, such as BBB-, B+ or whatever is appropriate to that customer. How we get to this is described in more detail below. The model then adds in the other key factor—correlation or co-variance. This is an estimate by the rating agency of how likely company B is to default if company A has defaulted. Common sense tells us that, if one US motor manufacturer is bust, then another has a strong probability of suffering the same fate, so the correlation is high. On the other hand, an Italian life insurance company would normally have a low correlation with a US motor manufacturer.

- Residual values. The analysis ignored a key factor in car leasing, which is the fact that the car does not decline to a zero value, but is sold after 2 or 3 years when the lease has expired. This is a large part of the financing requirement: in effect financing future cash flows from sales into the used car market. Securitisations have been done of both payments due from lessees—the monthly cash flows; and residual values. One example from Germany is League 2005-1 Ltd. in which separate series of notes funded the monthly lease payments and the RVs.
- Structure. The bank had spent quite some time analysing whether a conduit or a master trust would be the most appropriate funding source. The answer from our side was a) neither; and b) let's get the assets in securitisable form before we start to concern ourselves with such points.

That is the first hurdle in any transaction, especially in a non-investment grade country where securitisation is not the norm: how do we make the assets acceptable to investors or, their proxies, rating agencies?

We visited the customer at their head office. The answer to the question “what credit procedures do you use” was, somewhat surprisingly, “none”. This was not what we expected, and we asked for further background. It transpired that the approach was quite simple: if a customer asked about leasing, say, 50 cars for 3 years, the leasing company would approach several local banks and ask the banks whether and at what price they would factor the monthly payments. If the bank said yes, the deal was done. If the bank said no, then the deal was not done.

Such a procedure was not, unfortunately, of any use in convincing an investor that this was a reasonable risk. So we were a couple of steps back, and had to think about how to get credit procedures in place which would be acceptable to third parties. There were three possibilities:

- external rating of each customer by a rating agency (unlikely)
- internal rating (not done at present, but leasing company had considered moving in this direction)
- proxy rating (Dun & Bradstreet etc. OR rating agency scoring model such as S&P's Credit Risk Tracker)

The objective was to be able to have a measure of probability of default (PD) which was objective enough to be acceptable to a rating agency or external investor. After much discussion, the company decided to install a system based on one used by a local bank.

The residual values, a significant proportion of the funding requirement, had also been dealt with pretty much using a “seat of the pants” approach. As with the corporate risk, this was not going to be enough to convince raters and investors: proper, objective systems and procedures had to be put in place. This is Moody’s description of what information it obtained in one rated RV deal:

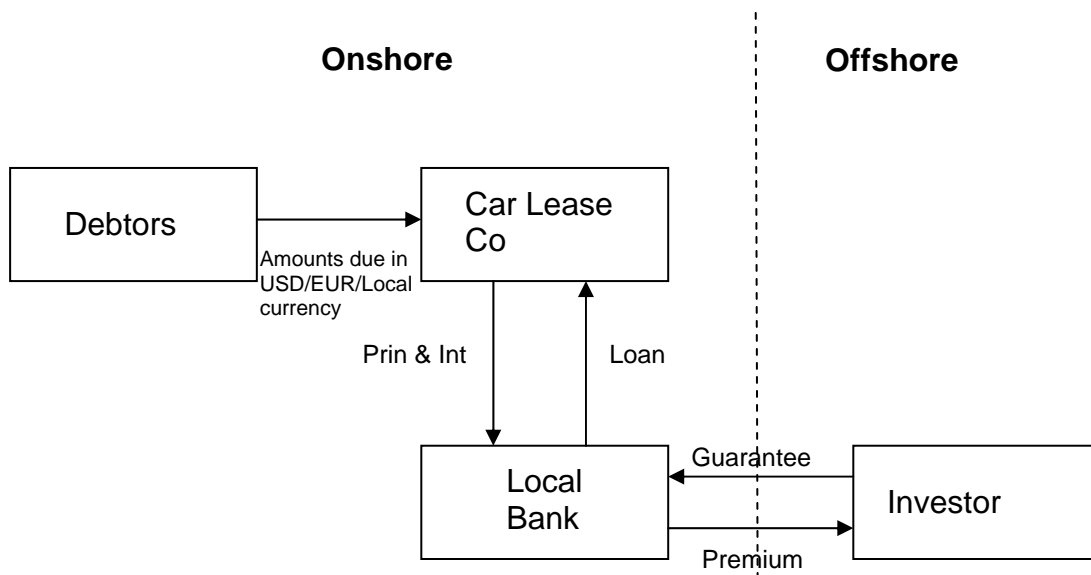
“Moody’s has been provided with static historical residual value performance data on the historical pool for the period starting from 1996. In addition, Moody’s also received contract-by-contract data (excluding defaulted leases) on the historical residual value performance (sample size over 13,600), which includes the following information:

- . the leased vehicles value and calculated residual value at the beginning of the lease;*
- . sale proceeds, proceeds arising from excessive mileage and damage costs payments and proceeds arising from extension of the lease agreement;*
- . date of lease origination;*
- . manufacturer and model of the leased vehicles;*

A consultant specialising in the auto leasing industry was brought in, and helped in designing and implementing market-standard procedures for the firm as a whole, including how RVs are set and managed.

How do we set about funding such a portfolio, assuming we have good systems and information? This case is still in process, but some of the main options were based on the fact that traditional ABS might be difficult out of a B+ country: how do we get to a AAA rating, not only for the monthly flows and RVs, but also for swaps, FX and indeed all other risks? The tool we used in the earlier case study was CPR insurance plus a AAA wrap, but that proved to be expensive in this case.

Thinking outside traditional securitisation, we changed the question from how do we get a AAA rating to how do we get acceptable funding to the leasing company? One approach we considered was local funding, with the risk taken by investors in higher-rated countries:



The advantage here was that the funding could be done locally, whilst the actual risk could be taken by a highly-rated investor. Thus the local bank funds the local leasing company, but the ultimate risk-taker is offshore, so the the bank has a highly-rated risk.

This is an attractive approach in principle, but in this case it proved difficult to identify an appropriate local bank. This might have been due to the philosophy common to protectionist-minded bankers throughout the world “...but I’d be cannibalising my own business”.

The preferred approach was to pursue Islamic financing. As is well known, Sharia law forbids the making and taking of payments of interest, but cars and payment for their use represent an underlying “real” transaction which can be made acceptable to Islamic investors. The latter are also not as ratings-driven as western investors, so it is possible to be more creative in putting structures together. Finally, there is a significant pool of funds looking for a Sharia-compliant home: estimates range up to over USD 700bn (quoted by Moody’s in a Feb 2008 paper). Space does not permit a full discussion of the crossover between securitisation and Islamic financing in this article, and in any event this transaction is still in process; but Islamic financing is generally seen as a significant growth area. As Standard and Poor’s put it in the title of a paper: “*Islamic Finance Is Securitization’s New Frontier*”.

Conclusion

We have seen that trying to replicate the developed countries’ approach to structuring AAA ABS bonds for risks in developing countries is not to be excluded, but equally is by no means the only possible approach. We should not see the traditional ABS approach as the target, and try to get there. The better approach is to examine the various risks and which parties can most efficiently take them, then use the tools in our toolbox to put together the best structure. A note of caution: even if you have the best tools available, if you’re not a skilled worker, you might just end up drilling through the water pipe, or short-circuiting the electrical system. Get professional plumbers and carpenters in!