



DBS Bank's synthetic CLO of Dec 2001



A case study by Vinod Kothari

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The DBS Bank's Alco 1 synthetic securitisation

- In Dec. 2001, DBS Bank Singapore came out with Asia's latest, and arguably the first, synthetic securitisation.
- It issued the following securities:, adding upto SGD 224 million
 - USD29,550,000 Class A1 Floating Rate Notes due 2009, rated AAA interest rate 3M LIBOR +50 bps
 - SGD30,000,000 Class A2 Floating Rate Notes due 2009, rated AAA interest rate 3M Sg Dollar deposit +45bps
 - USD12,150,000 Class B1 Floating Rate Notes due 2009 rated AA interest 3m LIBOR +85bps
 - SGD20,000,000 Class B2 Floating Rate Notes due 2009, rated AA interest 3m Sg Dollar deposit +80 bps
 - SGD56,000,000 Class C 5.2 Per Cent. Notes due 2009, rated A interest 5.2%
 - SGD42,000,000 Class D 6.7 Per Cent. Notes due 2009, rated BBB interest 6.7%
- None of the notes are listed
- DBS Bank sought risk protection for a portfolio of SGD 2.8 billion of loans, indemnity obligations.
- Rating of DBS Bank - S&P A+, Fitch AA-

DBS Bank and its motivations

- DBS Bank has emerged as one of the largest banks in Singapore and SE Asia; has acquired Dan Heng bank in Hong Kong to become 4th largest bank in HK.
- MAS Singapore requires capital adequacy of 12%. DBS's capital as on 31st Dec 2000 is 16.1%
- However, between 1999 and 2000, DBS Bank's tier I capital has come down from 14.6% to 11.5%.
- Total customer loans extended by the bank as on 31st Dec 2000 about SgD 52 billion.



Transaction structure of Alco 1 DBS Bank's synthetic CLO

DBS Bank
(protection buyer)

Super senior
SGD 2,450m

Swap Premium

Credit Protection
Payments

Super senior swap
provider (undisclosed
high-rated bank

Interest rate swap
provider (JP Morgan)

SPV (Protection Seller)
*Credit Default Swap on
Mezzanine Risk of Reference
Portfolio*

Mezzanine risk
transferred
SGD 224mm

Swap Premium

Credit Protection
Payments

**Cayman
Islands
SPV**

P+I*

Issue
Proceeds

Class A1 USD 29.5mm AAA
Class A2 SGD 30mm AAA

Class B1 USD 12.1 mm AA
Class B2 SGD 20mm AA

Class C : A
SGD 56mm

Class D : BBB
SGD 42mm

First loss
SGD 126mm

SPV Credit
Protection
Payments

P+I

Collateral
Investment

Highly rated
collateral
SGD 224mm

Put option provider
J P Morgan

Reference
Portfolio
SGD 2.8 billion

Owned by
Jersey co.,
under charity

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The reference portfolio

- The reference portfolio is disclosed only by reference to internal identification numbers, value and maturity date.
- DBS Bank as the swap calculation agent will retain the schedule of the portfolio. In other words, investors do not know the portfolio except by its discriminating features.
- Portfolio has initial internal rating of 1 to 5 (one being the best rating, 11 being the worst). Maximum entities had a rating of 4 and 5.
- The initial portfolio (SgD 2.8 billion) constituted of 199 obligations in 136 entities. 80% of the portfolio relates to Singapore entities.
- Largest concentration in value (25.5%) was with companies in construction/real estate followed by cargo transporters (21.8%).
- For subsequent additions/ replacements, there are elaborate portfolio tests including industry concentration, borrower concentration, internal ratings, etc.



Cashflows in a no default situation

DBS Bank
(protection buyer)

Super senior
SGD 2,450m

Swap Premium

Super senior swap
provider (undisclosed
high-rated bank

Interest rate swap
provider (JP Morgan)

Mezzanine risk
transferred
SGD 224mm

Swap Premium
1.283%

**Cayman
Islands
SPV**

P+I*

Class A1 USD 29.5mm AAA
Class A2 SGD 30mm AAA

Class B1 USD 12.1 mm AA
Class B2 SGD 20mm AA

Class C : A
SGD 56mm

Class D : BBB
SGD 42mm

Pzyment
under
obligation
contracts

P+I

Highly rated
collateral
SGD 224mm

Reference
Portfolio
SGD 2.8 billion

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Credit loss structure

- Total loss transferred to noteholders SGD 224 million
 - Threshold amount retained by DBS: SGD 126 million
 - Class D upto SGD 168 million
 - Class C upto SGD 224 million
 - Class B upto SGD 266 million
 - Class A upto SGD 350 million
 - Super senior swap counterparty SGD 2800 million
- CDS notional amount equals the proceeds of the notes: SGD 224 million
- CDS payment 1.283% of the notional amount

Cashflows on default

DBS Bank

(protection buyer)

Super senior
SGD 2,450m

Swap Premium

Super senior swap
provider (undisclosed
high-rated bank

Credit Protection
Payments

Mezzanine risk
transferred
SGD 224mm

Writes down
swap notional
amount

Credit Protection
Payments

**Cayman
Islands
SPV**

$P+I^*$

Writes down principal
class A

Writes down principal
Class B

Writes down principal
Class C upto SGD 56mm

Writes down principal
Class D : upto SGD 42mm

First loss
SGD 126mm

SPV Credit
Protection
Payments

Collateral
Investment

Highly rated
collateral
SGD 224mm

Put option provider
J P Morgan

Bankruptcy
or failure
to pay

Reference
Portfolio
SGD 2.8 billion

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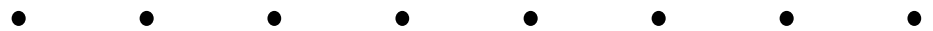
Alco 1 structure of the SPV

- Why has the SPV been located in Cayman Islands? What would have been the consequence had it been domestic?
- What has been done to ensure that the SPV is independent of the originator? What is the concept of charitable trust holding the equity of the SPV?
- What has been done to ensure that the SPV is bankruptcy-remote, as regards the bankruptcy of the SPV?
- Who is the security trustee? What is the role of the security trustee?
- What are the assets/ interests on which charges have been created?
- What is the priority order for the utilisation of the charged assets?
- What are the sources of income of the SPV?
- Who bears the expenses of the service providers - trustees, auditors, rating agencies, calculation agents, etc?
- Who will be the beneficiary if, after paying off all investors, the SPV has cash left?



Alco 1 transaction CDS structure

- Who are the counterparties in the CDS? There are two swaps in the transaction - one if funded and disclosed; other one is unfunded and undisclosed.
- What is the notional amount of each swap?
- What is the reference portfolio? What is the value of the reference portfolio? How is the reference portfolio selected? Is it static or dynamic?
- What is the role of the swap calculation agent?
- What are the credit events under the CDS?
- What is the nature of the swap - cash settlement or physical delivery?
- What are the steps when a credit event takes place?
- What is the loss calculation procedure?
- What is the impact of the credit event for the investors in the Notes? What is the order in which the investors suffer losses?
- Why did DBS Bank have to enter into a super senior swap?
- Why is the super senior swap called a “super” senior?



Reference portfolio

- What are the safeguards relating to additions to / replacement of the portfolio by DBS Bank?
- Given the fact that the threshold amount is less than 5%, what are the adverse selection problems which may expose investors to losses?
- What is the Moody's diversity score test in the case?

Collateral and investor service

- Where are the proceeds of the Notes invested?
- Why is the put option required for the collateral? Who is the put option counterparty? What is the significance of the rating of the put option counterparty?

Legal issues

- How does the transaction answer issues relating to bank secrecy under Singapore laws?
- What are the rights of the issuer against the obligors of DBS Bank? Are there any true sale issues involved?

Impact on regulatory capital

- What is the impact on DBS Bank's regulatory capital:
 - threshold loss SgD 126 million
 - notes issued SgD 224 million
 - super swap SgD 2350 million
 - Total SgD 2800 million
- What is the total capital relief?
- What is the economics of the deal for DBS Bank? The damage to DBS is initial expenses+ running exps to agencies +1.283% + super senior swap cost.
- What is the impact on Super senior swap counterparty?
- What is the impact on the noteholders?
- What would have been the impact, if instead of footing the first loss protection, DBS Bank were to buy junior bonds of equal amount?

Securitisation versus synthetic securitisation

- Imagine this transaction being a traditional securitisation, with the same level of credit enhancements as in the present deal.
- Outline the differences in respect of:
 - transaction costs
 - regulatory relief
 - balance sheet impact
 - other differences