Structured investment vehicles

Vinod Kothari
vinod@vinodkothari.com

Structured investment vehicles

- Structured investment vehicles try to create arbitrage opportunities by reaping spread differentials between long-dated assets and (short + medium) dated debt
- Typically a limited purpose operating company

- Typically, they invest in high grade ABS/ debt
- Refinance by a combination of :
  - CP
  - MTNs
  - Subordinated capital
- Weighted maturity of the liabilities is 4-6 months
- Typically backed by liquidity lines from a bank

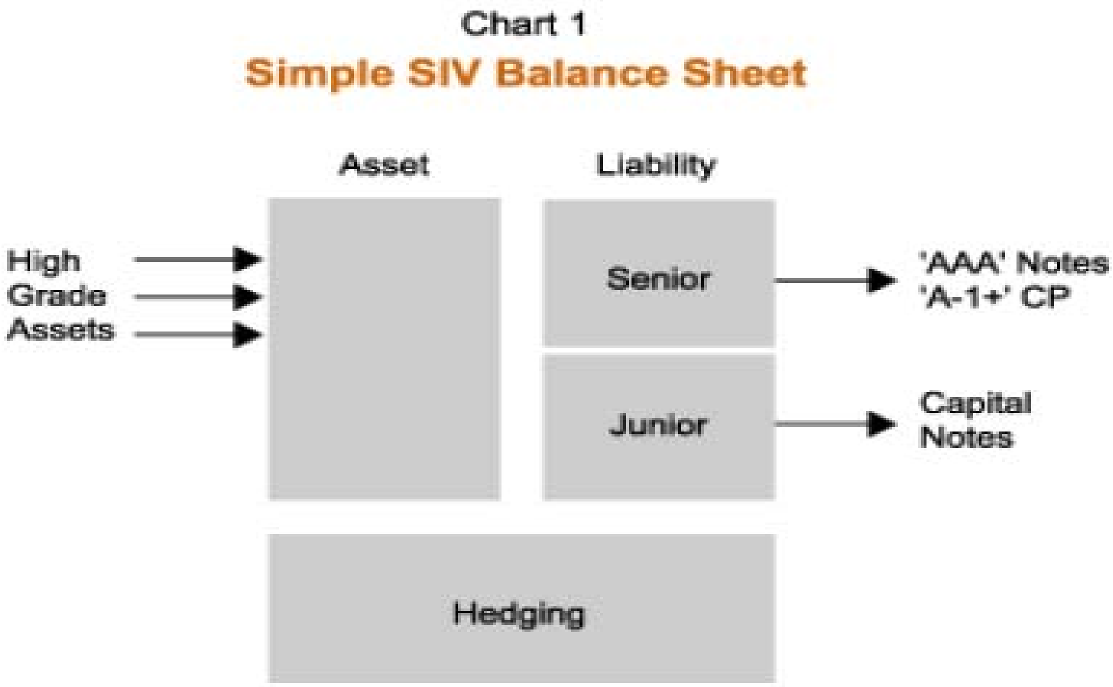
Origin and growth of SIVs

- Alpha Finance, 1988, is believed to be the first SIV managed by Citibank
- As of July 2007, Moody's was rating 36 SIVs, with assets of $ 395 bil; Fitch, quoting quoting JPM, mentions $ 357 bil
- average SIV portfolio was 57.5 percent structured finance, 41 percent financial-sector debt, with the remainder made up of corporate and government securities. Of the exposure, 62.4 percent was Aaa rated, 27.9 percent double-A rated, 8.9 percent single-A rated and just 0.2 percent in the Baa or Ba categories.

SIV-lite

- While SIVs are perpetual – that is, have open-ended assets and liabilities, the imposition of finite maturity CDO structure led to SIV-lite.
- Think of this as a CDO follows SIV-type structure

SIV structure



Case study: Vetra Finance Corp

- This is a Citibank SIV. Citibank has other SIVs, viz., Beta, Centauri, Dorada, Five, Sedna, and Zela.
- Citibank is the investment manager, funding manager, defeasance manager and custodian
- Collateral:
  - At least 85% of the portfolio must be AAA
  - 15% can be AA or A, and not more than 5% can be A
  - Concentration limits – sector limits, sub-sector limits
  - Entire portfolio may be invested in structured finance securities, but not more than 30% in financial companies
- Market risk neutrality
  - Market risk must be managed so that 1 bp shift in yield curve may not affect portfolio value by more than 0.4 bp
- Capital loss test:
  - If capital is lost beyond 50% on a weekly measurement basis, an enforcement event will occur

Vetra Finance - contd

- Liquidity support: liquidity facility not less than 3X max cashflows during any 5 days
  - Any breach must be cured within 5 days
- Liquidity facilities:
  - Banks
  - Breakable deposits
  - Liquidity eligible assets
- Defeasance event:
  - Defeasance occurs if the rating of senior securities falls below AA-, or that of CP falls below A-1+
  - Defeasance manager must wind down business

Structural protection in SIVs

- The asset liability structure and cashflow waterfall of SIVs is subject to several structural protections.
- First, SIVs operate in 4 distinct “operating modes”:
  - Normal operating mode:
    - The SIV may increase funding and add further assets
  - Restricted Investment operating mode:
    - May not raise any further funding except for refinancing
    - May not invest in any new assets
  - Restricted funding or defeasance mode:
    - Can only make repayments of the liabilities
  - Enforcement or liquidation mode
    - Has to draw on liquidity to redeem the liabilities
- The waterfalls are different in different states
- There are stringent guidelines for composition of assets and liabilities, portfolio diversification and market risk
- In case of breach of the asset rating or quality condition, capital requirements are increased