Subject SA5 — Finance
Specialist Applications

EXAMINERS' REPORT

April 2009

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

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Chairman of the Board of Examiners

July 2009

1 (i) **Term**

Venture capital is medium to long term financing. Bank debt is short to medium term.

Servicing of the debt

Bank debt requires a steady cash flow stream to service the debt. Venture capital repayments can be tailored through a combination of dividends and debt repayment.

Interest costs

Any debt component of the venture capital will be taking a second charge on the company assets and therefore the interest rate will be higher to allow for the increased risk.

Commitment to company

If the company is in difficulties a venture capital investor will have a vested interest in helping to overcome those difficulties. It will be committed until it exits the investment. A bank will have less interest and could withdraw financing. Overdrafts are repayable on demand and loans can be recalled if the terms of the loan are not met. The bank can ultimately put the company into receivership.

Business failure

If the business fails then the venture capital's equity investment ranks alongside other shareholders, after bank debt and any mezzanine finance.

Incentive to help business grow

A venture capital provider will be incentivised to provide assistance to help the company to grow profitably. A bank will have less incentive to maximise profitability and will only be concerned about the repayment of debt.

Additional help

Venture capital providers are often selected by the company because of the expertise that they can bring to the business, with contacts or specific experience of a market and management expertise. Banks will have less specific expertise and will not help with day to day running of the business.

Banks offer other services to corporate customers that include cash management schemes, payroll services, export and import financing services and leasing and hire purchase arrangements and can offer these more cheaply to customers that have other services.

Flexibility

Venture capital can be tailored with mixtures of equity and debt according to the company's needs. Bank financing is purely debt on the balance sheet and the restrictions imposed by banks can be far more penal.

Relationship management

Bank relationships generally require less time to manage as long as debts are being serviced. Venture capital equity investors are likely to be more hands-on and require regular updates of business plans.

(ii) Venture capital can be a mixture of debt and equity finance.

Equity finance may be in the form of:

(a) Ordinary stock, with the venture capitalists ranking alongside the other investors in all respects.

(b) Preferred stock, which ranks ahead of ordinary stock for income and capital repayment but rank alongside other shares after obligations have been met to all shareholders.

(c) Preference shares, which receive a fixed income and may be convertible into ordinary stock.

Debt finance can be secured or unsecured. If secured, and the company already has finance secured on its assets, the finance will take a second charge on the assets. The loan may be convertible into equity or it may have warrants attached that allow the holder to subscribe for new shares.

(iii) Exit strategies are:

- Sell their shares back to management.
- Sell their shares to another investor.
- Achieve a floatation of the company on the stock market — an initial public offering (IPO).
- Sell the entire company to another company in the trade.
- Company goes into liquidation.

(iv) The factors will be:

- Fred's experience, expertise, honesty and competence.

- Fred's management ability and any salary that he takes.

- Fred's other time commitments and extent to which he is committed to this company, indicated by his financial investment in the business.

- How Fred will source additional labour to manufacture his boxes and the level of wages required in this industry, likely to be relatively high given the specialist nature of the product. The history of industrial relations for this sector of industry will also be considered.

(v) This is an operating lease. Compare cost of lease to cost of purchasing the machine.

Further information required would be:

- The tax implications of leasing compared to purchasing. Depreciation of the asset is eligible for special tax relief. This should be compared to the tax treatment of the payments themselves in the calculation. Fred may not have the taxable income to shelter the tax depreciation immediately whereas the lessor will. This may make leasing very attractive to Fred.

- The value attributed to the option to cancel. Fred will need to consider how likely it is that he will need to change the machine.

- Need to compare against the cost of the lease without the option to cancel (a financial lease). The cost of the lease should be cheaper because it should not include an allowance for rental lapses. However, Fred would be taking the risk that the machine cannot be adapted for future changes.

- Whether maintenance of the machine is provided under the lease. Fred will need specialist help to maintain it and will need to compare the cost of obtaining the maintenance to the cost of the option on the lease.

- Any disposal costs incurred or residual value in the machine when it ends its useful life. Given that the machine requires the latest technology it may be possible to sell it on for less demanding applications or spare parts.

- Current interest rates so that the difference between purchasing the asset and the lease payments can be determined. If Fred needs further borrowing then any additional associated cost should be factored in.

- Will also need to compare the cost of these options against the cost of paying a third party to manufacture the boxes for him.

(vi) The company should consider:

- The need to retain earnings to use for internal capital against the cost of raising the capital in the markets.

- The requirement of the venture capital provider for dividends as part of the initial financing arrangement.

- The need for remuneration for Fred through any incentive programme.

- Any restrictions imposed by other lenders such as the banks.
- The tax treatment of dividends versus alternative forms of shareholder and management compensation.

A larger established company is likely to consider:

- Its target dividend ratio.
- Trends in its long-term sustainable earnings.
- The desire to avoid future reduction in dividends.
- How much smoothing it can apply to the dividend payment as companies often believe that shareholders expect a smooth progression of payments.

(vii) Alternatives are:

Share repurchases

May imply that the company has surplus capital that it is unable to use profitably in internal projects. May also signal that the company has confidence in its prospects and believes that its stock is undervalued. May also indicate that the company is performing some capital restructuring and plans to replace equity with debt.

Bonus issues and scrip dividends

Perceived as positive by the market as it indicates confidence in the performance of the company.

2 (i) Convertible bond arbitrage — This strategy tries to exploit the mispricing of the convertible bond of a company relative to that company's equity. The strategy would typically long the convertible bond and short the equity, effectively creating a long exposure to the price volatility of both instruments.

Merger & acquisition arbitrage — This strategy aims to exploit the mispricing of the risk premium that reflects the potential for an announced merger or acquisition between two companies to be called off. For a pure stock transaction, the strategy would typically short the acquiring company and be long the target company's equity to reflect the possibility that the acquiring company over paid for the target. For a cash transaction you would typically not short the acquiring company.

Fundamental long-short equity — This strategy aims to exploit the inefficiencies that create a difference between a company's equity value based on a fundamental assessment and the current market price of the company's equity. The strategy would typically aim to short companies where the share price is expensive relative to the fundamental assessment of the company's worth, and be long companies where the share price is deemed to be cheap relative to its estimated fundamental value.

(ii) (1) The use of "credit enhancements":

- Third party guarantees
- Subordination
- Over-collateralisation
- Cash collateral accounts

(2) A greatly enhanced role for rating agencies — examination of each security by one or more rating agencies.

(iii)

- Bankruptcy costs — direct: court, legal and administrative fees

- Bankruptcy costs — indirect:

  - costs of attracting and retaining staff, customers, suppliers
  - extra costs of management

A further issue is that a "firesale" of assets will often be controlled by senior lenders (who have no incentive to maximise returns for the shareholders).

These are all examples of the *agency costs* of borrowing. In particular, the existing lenders will be motivated to limit borrowing to "safe" debt levels, and will introduce restrictive terms into lending agreements to avoid additional risk of default. Costs incurred include monitoring and reporting costs, and also the opportunity cost of ventures foregone.

(iv) The size of the direct loss for the trading desk will come down to their ability to recoup the amounts owed (including cash balances) by TrustUs which depends on the seniority of the trading desk relative to other creditors.

There is potentially a significant delay in getting any assets back from the bankruptcy proceedings, which means the trading desk could be forced to unwind some of their current trades (as any capital loss will increase the overall leverage used in the strategy), potentially resulting in additional losses. The loss potentially increases if some or all of the assets are illiquid. Where margin or collateral were posted regularly, direct losses will be limited to any adverse market move since margin were previously collected.

Where no margin were collected (or not netted across all contracts) losses could be greater if many of the contracts were "in the money".

Costs involved in replacing the derivative exposure at TrustUs with that of another bank may be expensive during times of market turmoil.

Potential additional loss from any direct investment (as part of the trading desk's portfolio) in TrustUs Bank's listed equity or debt.

(v)

- Check that counterparties are diversified where relevant by number, type of institution, region or primary market of operation, and length of financing terms agreed on (i.e. not all 3 month).

- Check if all counterparties are of adequate credit quality, using ratings from rating agencies and performing own internal credit scoring metrics (including spread of CDS protection on counterparty) to confirm the credit quality.

- Assess if adequate margining or collateral arrangements are in place. These should be posted regularly and be netted across all relevant exposures.

- Check if cash balance belonging to the trading desk and held by the counterparty is "ring-fenced" away from the counterparty or that it has greater seniority relative to other potential creditors.

- Ensure a full legal review has been done on the various counterparty terms to ensure the trading desk is protected from potentially harmful clauses, for example having credit lines removed on short notice.

- Ask counterparty for more guarantees (parent or third party guarantor, more senior claim on assets etc.)

- Buy CDS protection on the counterparty or buy a put option on their equity if appropriate.

(vi) The FSA in the UK could be concerned that deteriorating market sentiment and potential speculation could result in a run on banks, which would leave them poorly capitalised or bankrupt, resulting in a reduced lack of confidence in the financial system and an inability to obtain credit. It is hoped that the nationalisation would mean that the deposit funds would be more secure and would restore calm to the financial markets and avoid a potential chain reaction as losses spread from one financial counterparty to another.

Similarly the Japanese regulator might have thought that the falling stock prices were due to short-selling pressure from speculation, which also makes it difficult for banks to raise more capital in the market through rights issues etc. Also, they want to force the closing of outstanding short positions — which means buying back the shorted stocks and this may help push up prices again.

(vii) Nationalisation:

- Long positions held in the equity of firms being nationalised is likely to result in a loss, this may include some M&A arbitrage trades that will now have failed. Short equity positions are likely to profit.

- Depending on the terms of the nationalisation, convertible bond holders may not be able to recover the full value of the debt from the government.

- The nationalisation may deter investors from future purchases of UK equities or debt in the fear the government may again seize control of companies, and thus potentially depressing UK prices (increasing the "UK" risk premium).

Short ban:

- Market reaction — initial market move is likely to be up as short sellers will need to buy stock to close out positions. This may benefit the trading desk's long financial stock positions.

- Potential losses for trading desk from being forced to cover short equity positions (e.g. Short squeeze).

- Convertible bond arbitrage trades of financial stocks will no longer be possible.

- M&A arbitrage — inability to short equity of acquiring banking co will mean deals done on a share offering will be less attractive due to an inability to hedge, but effectively unchanged for all cash deals.

- Long short equity will now have a reduced opportunity set, hence will be less attractive going forward.

- Could potentially result in reduced trading in the markets (as some investors are unable to hedge their positions), hence reducing liquidity of market instruments and increasing the transaction costs in involved in trading.

- Potential reduction in market efficiency as shorting also aids price discovery in the markets.

- The trading desk may face financial or other penalties if they are unable to comply within this relatively short timeframe (i.e. wouldn't have had time to change systems or unable to close out the positions in time).

(viii) (a) Short exposure through the use of derivatives, for example:

- Buying put options on the individual stocks

- Buying a short future on a broader index and then buying long positions in the relevant individual index constituents so that you are left with an overall short position on the individual stocks you wanted to short.

- Buying specific derivative contracts like swaps to give you direct short exposure to the individual stocks (e.g. contracts for difference).

- Buying Credit Default swap (CDS) protection on the individual companies.

(b) Short exposure on other (non-Japanese) exchanges if possible.

(c) More approximate methods:

- Having short positions in the company's convertible bond, or conventional corporate bonds.

- Shorting a basket of financial proxy stocks that are not banned, but have similar characteristics to the financial stocks.

- Buy Exchange Traded Funds (ETFs) that provide short exposure to the financial sector.

(ix)

- Fiscal policy — tax cuts or other stimulus packages for banks or consumers.

- Monetary policy — reducing costs at which banks can borrow from the central bank.

- Increasing the amount of financing available to banks.

- Regulation — limits on leverage used by banks, improved disclosure, etc.

- Guaranteeing of deposits held at banks.

- Working with the large market makers or other participants to improve market liquidity.

- Purchasing illiquid assets from the banks to help improve their balance sheets.

- Injecting more capital into the bank's balance sheet.

END OF EXAMINERS' REPORT