



# Theron Group Of consultants

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BANKS

RSK4805

### The Dutch Auction Approach.

A rare method of issuing new shares like the public offering begins with a prospectus that alerts potential subscribers of the stock to be sold. Investors (individuals and institutional investors) bid on the number of share and price they are willing to subscribe to. Just like the ordinary auction process shares will be issued starting from the highest bidder cascading downwards.

**Let us use the following example to illustrate the Dutch approach.**

The bidding process using the Dutch auction approach. For a maximum of 1300 shares

<i>Investors</i>	<i>DE</i>	<i>FG</i>	<i>HI</i>	<i>JK</i>	<i>LM</i>	<i>OP</i>
<i>No# of shares</i>	150	1000	600	100	1200	500
<i>Price</i>	R100	R85	R90	R105	R83	R88.50

*Shares allocation.*

1. JK- R105	100 shares	(1300 – 100)	1200 shares remaining
2. DE- R100	150 shares	(1200 – 150)	1050 shares remaining
3. HI- R90	600 shares	(1050 – 600)	450 shares remaining
4. OP- R88.50	450 shares	(450 – 500)	-50 shares (share price)

OP will obtain 450 shares instead of 500 shares

The share price will be quoted at R88.50. All the R1300 shares will be sold at the lowest successful bidder`s price (OP).

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## Further Research

Investment banks provide a variety of services to both institutional and individual investors, ranging from investment advisory, mergers and acquisition, research and development strategies. The major changes which brought about the selling of all financial products under one roof have also lead to some conflict of interest. Universal banks due to their exposure to information with regards to corporations and clients are banks not going to use the information for their advantage. Banks that are expanding into non-banking activities, for example, bancassurance, may illegally tap into the client's information to manage the potential risk associated with them. Explain the conflict that arose with universal banking, in your research make sure to use the Glass–Steagall of the United States.

### Trading and Banking Book.

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A banking institution has two books (trading and banking Book), that serves different purposes, the demarcation is aimed at avoiding extreme exposure of the banking assets.

A Banking book holds all instruments which do not qualify in the trading book, the include unlisted equities, instruments meant for securitisation warehousing, real estate holdings. Market price risk and liquidity risk affect the trading book, these include bonds and derivatives.

### Key features of trading and banking book

Banking book	Trading Book
Lending and borrowing	All market transaction
Buying and holding the asset, earn interest	A trading asset to earn money
Not subject to market risk	Market risk
Book values of the asset.	Market to market, ma
Profit is derived from interest (interest rate risk)	Profits depend on the mark-to-market value of assets
Local transactions	International transaction, high FX risk exposure

## Income for a banking institution (traditional banking)

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In our example, we used a traditional banking situation that relies on deposits to make loans, with net interest income the primary source of earnings. The asset side is concentrated on loans and the liabilities side by deposits. Net interest income will be the difference between interest on loans (assets) and the interest paid to depositors. In this hypothetical setup, it is beyond a reasonable doubt that the risk attached to a banking institution is high. Depositors, demand depositors may call for withdrawal without prior notice. The goal hence is to strike a balance between earning profits and managing liquidity risk.

$$\text{Net interest Income} = \text{interest earned} - \text{Interest paid}$$

$$\text{Net interest margin} = \frac{\text{Net interest Income}}{\text{Average assets}}$$

The assets in the denominator represent interest-bearing assets.

### Financial statement for FGT bank for the year 2020

Investment returns	R500 000.
Outstanding loans (beginning year).	R700 000
Outstanding loans (Yearend)	R950 000
Interest on deposits	R400 000
Interest on Income (from Profit & loss).	R800 000

$$\text{Net interest Income} = \text{interest earned} - \text{Interest paid}$$

$$= (R500\ 000 - R400\ 000) = R100\ 000$$

$$\text{Average earning asset sn} = \frac{\text{Assets as of beginning of the year} + \text{Assets at year end}}{2}$$

$$= \frac{R700\,000 + R950\,000}{2} = R825\,000$$

$$\begin{aligned} \text{Net interest margin} &= \frac{\text{Net interest Income}}{\text{Average assets}} \\ &= \frac{R500\,000 - R400\,000}{R825\,000} \\ &= 12.12\% \end{aligned}$$

### Interpretation of results.

1. A positive NIM indicates good investment decisions.
2. Negative NIM indicates that the investments lead to a loss.

From our example, for every R100 investment, the return is R12, after paying expenses.

### The Gap Analysis

The repricing, or funding gap, model concentrates on the impact of interest rate changes on an FI's net interest income (NII), which is the difference between an FI's interest income and interest expenses. **Gap analysis** is possibly the best-known interest rate risk management technique. The 'gap' refers to the difference between interest rate sensitive assets and interest rate sensitive liabilities over a specific time-horizon. If the interest rate sensitive liabilities are greater than the interest rate sensitive assets, then an increase in interest rates will reduce a bank's profit and vice versa.

$$\text{GAP} = \text{RSA} - \text{RSL}$$

where:

**RSA = rate-sensitive assets**

**RSL = rate-sensitive liabilities.**

An asset or a liability is defined as rate-sensitive if the cash flow from the asset or liability changes in the same direction as changes in interest rates.

1.  $RSA > RSL$  (Positive Gap), Long term asset investment vs Short term borrowing. (deposits)
2.  $RSA < RSL$  (Negative Gap)
3.  $RSA = RSL$  (Perfect Match)

The main aim of gap analysis is to evaluate the impact of a change in interest rates on the bank **net interest income** and **net interest margin**. Ideally, the gap should be managed in such a way as to expand when interest rates are rising and contract when interest rates are declining.

### **Asset and liability management**

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In depository institutions, this is one of the major tasks. Management of the asset (income-generating securities) and liabilities (funding). There is a tradeoff between risk and return, likewise between interest accumulation and liquidity risk. Banks can be viewed as short funded (deposits) and lending long. This brings the issue of asset transformation into play.

### **Asset transformation**

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Involves engineering of an asset to meet the desired standards through financial intermediation. This might be aggregating numerous small and medium-sized loans or funds from small investor and establish hybrid security that can be easily traded with minimum risk. It also involves the opposite or reverse engineering of breaking large denominations into smaller units. The process involves creating long term attractive securities from short term deposits. This process comes along with risk resulting from maturity mismatches.

- GT Bank is receiving the 1-year deposit and is offering an annual interest of 2.3%
- GT aggregate small deposits to create and 5-year investment (financial asset) or mortgage earning 4.5%.

Already GT bank is likely to face liquidity risk due to mismatches between liabilities and assets. That is the job of asset and liability managers. Investors are willing to invest short if there is a probability of a downfall in interest rates. Likewise, borrowers take longer periods, hoping to pay less in the future.

## Refinancing Risk.

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This is the risk that the cost of rolling over or reborrowing funds could be more than the return earned on asset investments. Fluctuations in interest rates lead to this form of risk. An increase in interest rates results in loan repayment more expensive, the return on investment is less than the interest repayment.

## Reinvestment risk

The risk that the return on funds to be reinvested will fall below the cost of funds. This situation comes along with a decrease in interest rates or **inflation**.

Refinancing (liabilities)	Reinvestment (Assets)
A loan issued to the bank at X% interest comes due and must be refinanced at Y%, 1.2% more.	A mortgage issued by the firms at X% matures and a net mortgage can be issued at (higher)Y%
Variable factor-floating rate loan repriced when rates adjust.	Variable factor, floating rate, mortgage, the mortgage is repriced.
Assets long-term compared to liabilities	Assets are short term compared to liabilities.
Reborrowing is higher than what assets are currently earning	The return on the funds to be reinvested will be less than the cost of funds or borrowing. <b>Interest decreased</b>

## Bank performance.

Capital adequacy, the return on equity can help show the performance of a bank.

### Homework:

What is the role of a Deposit Insurance company? Does the South African banking sector have a DIC?

**Reinsurance** is a risk management tool used by most insurance companies to lessen their risk exposure. Companies (insurers) purchase insurance from another insurance company (reinsurer) to transfer some risk from the insurer to the reinsurer. The reinsurer has the company's back when losses occur. A company can insure a percentage of the exposure to a reinsurer be it a company or wealth individuals willing to collect the premium and reimburse the policyholder the agreed percentage in the event of a loss.

The main difference between financial service institutions with the rest of other business is the risk attached to their operations. Below are the various risk attributed to banking and financial service institutions.

### Interest rate risk

- Interest rate risk is the risk arising from the mismatching of the maturity and the volume of banks' assets and liabilities as part of their asset transformation function.

### Credit Risk

Credit rating and loan policies reduces unsystemic or firm specific risk

- Basle Committee on Banking Supervision (2000) credit risk is defined as 'the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms'.

### Liquidity Risk

Read on Day-to-day liquidity risk and Liquidity crisis

- The risk that a sudden surge in liability withdrawals may require an FI to liquidate assets in a very short period of time and at less than fair market prices.



### Foreign exchange risk

The risk that exchange rate changes can affect the value of an FI's assets and liabilities denominated in non-domestic currencies

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### Country or Sovereign risk

Country risk is the risk that economic, social and political conditions of a foreign country will adversely affect a bank's commercial and financial interests.

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- Sovereign risk is the possibility that governments, as sovereign powers, may enforce their authority to declare debt to external lenders void or modify the movements of profits, interest and capital.

### Market risk

Read general systematic market

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- Is the risk of losses in on- and off-balance sheet positions arising from movements in market prices. It pertains in particular to short-term trading in assets, liabilities and derivative products, and relates to changes in interest rates, exchange rates and other asset prices.

**Sources:** (Casu et al., 2008)

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