

## SESSION 5: BANKING & INFLATION

### Key Focus

- Identify the different types of bank accounts
- Perform calculations involving simple and compound interest
- Define and calculate the effect of inflation

### X-planation

#### Types of Bank Accounts

- **Transactional accounts**

Certain accounts are useful for everyday transactions, such as buying groceries or paying your cell phone bill. These would be accounts such as a current/cheque account or a debit account.

- **Savings accounts**

There are savings accounts that you can put money into whenever you have money available, or special savings accounts, such as fixed deposit accounts, where a set amount of money is put away every month.

- **Credit accounts**

This type of account works with a credit card. You use it to pay for things and then need to pay the amount you have spent back to the lender. The interest penalties on this account are very high so you need to make sure you can pay back the full amount you owe on time.

#### Interest

As a consumer, interest can work in your favour, or against you, depending on whether you are paying interest on a borrowed amount, or earning interest on savings.

- **Simple Interest**

Simple interest is a percentage of the original amount. This set amount is added each time interest is added.

- **Compound Interest**

Compound interest is different because the amount added each time depends not only on the original amount but also on the amounts of interest already added.

#### Inflation

Inflation is a way to measure how the purchasing power of money changes over time. Inflation represents the average increase in the prices of various goods or services over time. The prices of all goods and services do not increase by the same amount over a certain time period. The rate of inflation is calculated on the change in price over time of a basket of goods commonly bought by consumers.

## X-amples

### Question 1

Sipho has just started his first job. He currently does not have a bank account and wants to open one now that he will be earning a salary. Sipho lives in an area where the shops do accept cards and he has access to Internet. Based on Sipho's salary, he qualifies for the following two options at his bank:

#### Option 1

The Green Account includes a set monthly fee. This fee allows you a five free transactions per month. Any transactions over this limit will be charged at 'Pay as you transact fees'.

The Green Account is structured as follows:

<b>Monthly Fee</b>	<b>R95</b>
<b>Includes:</b>	
ATM withdrawals	5 free
Electronic transactions *	Unlimited
ATM cash deposits	2 free
Internet banking subscription	Included
* Debit orders, stop orders, electronic payments, debit / cheque card purchases	
No cheque book	
A debit or cheque card for world-wide payments	
Access to overdraft and personal loan facilities	

#### Option 2

The Gold Account does not have a set monthly fee, although there are monthly costs involved.

Each transaction is charged for as follows:

<b>Monthly Fee</b>	<b>No set monthly fee</b>
<i>Pay as you transact fees:</i>	
<b>Deposits</b>	
Cheque deposits	R11,00
Cash deposits - At ATM	R3,80 + 1,10% of value
- At branch	R8,00 + 1,20% of value
<b>Cash withdrawals</b>	
DBSA Bank ATM	R3,95 + 1,15% of value
Other ATMs	R27,50 + 1,35% of value
At branch	R24,00 + 1,30% of value
<b>Payments</b>	
Stop/Debit order	R4,10 + 0,90% of value
Electronic account payments	R4,00 + 0,75% of value
Cheque/Debit card purchase	R3,65 + 0,70% of value
<b>Monthly Charges</b>	
Monthly service fee on arranged overdraft	R23,00
Monthly service fee on unauthorised overdraft	R58,00
Minimum monthly service fee	R55,00
Monthly management fee	R21,50
Internet banking subscription fee	R22,00

- a.) Siphso wants to calculate what his monthly bank fees would be for each account, excluding any transactions. How much would he pay in fees each month if he chose Green account?
- b.) Siphso does not want to draw too much money at a time, as it is risky to carry large amounts of money. He plans to do shopping one a week and he will swipe his card. How much will he pay for these transactions if he opens a Green account?
- c.) He estimates that he will need to draw R200 at least 5 times a month. How much would it cost him to make these withdrawals each month if he chose the Green account?
- d.) Siphso plans to pay his rent and medical aid contribution via the Internet. His rent is R1500 per month and his medical aid costs him R550 per month. How much would it cost him to make these payments each month if Siphso chose the Green account?
- e.) Are there any things Siphso can do to reduce the cost of banking for this option?
- f.) Siphso wants to calculate what his monthly bank fees would be for each account, excluding any transactions. How much would he pay in fees each month if Siphso chose the Gold account?
- g.) Siphso does not want to draw too much money at a time, as it is risky to carry large amounts of money. He plans to do shopping one a week and he will swipe his card. How much will he pay for these transactions if he opens a Gold account?
- h.) He estimates that he will need to draw R200 at least 5 times a month. How much would it cost him to make these withdrawals each month if he chose the Gold account?
- i.) Siphso plans to pay his rent and medical aid contribution via the Internet. His rent is R1500 per month and his medical aid costs him R550 per month. How much would it cost him to make these payments each month if Siphso chose the Gold account?
- j.) Are there any things Siphso can do to reduce the cost of banking for this option?
- k.) Calculate the total Siphso will pay in bank charges per month for each account.
- l.) Which account would work out the cheapest for Siphso?

**Question 2**

Lucky wants to invest R10 000. He has two options:

**Action Saver**

5% per annum  
compounded quarterly

**Safe Saver**

6% per annum  
simple interest

- a.) If Lucky decides to invest with Safe Saver for three years:
- i. How much interest will he have earned after three years?  
Show all your calculations.
  - ii. How much will he have in his account in total after three years?
- b.) Lucky decides to invest with Action Saver for three years. He draws up the table below to help him calculate the interest earned and the total at the end of three years.

<b>Date</b>	<b>Interest</b>	<b>Balance</b>
Jan-13		10 000.00
Quarter 1	125.00	10 125.00
Quarter 2	126.56	10 251.56
Quarter 3	128.14	10 379.71
Quarter 4	129.75	10 509.45
Jan-15	136.36	11 044.86
Quarter 3		
Jan-16	143.30	11 607.55

- i.) One what date will the first instalment of interest be paid?
  - ii.) Calculate the balance at the beginning of the last quarter
  - iii.) How much interest is earned in the third quarter of 2015?
  - iv.) Calculate the total amount of interest earned over the three year period
- c.) Which savings account would you choose?

**Question 3**

The average inflation rates for the period of 2006 to 2010 are shown in the table.

	<b>2006</b>	<b>2007</b>	<b>2008</b>
Average Rate	5%	6.5%	11,5%
Cost of a litre of milk	R 4,45		
Cost of a litre of cold drink	R 5,99		

- Use the average inflation rates to complete the table above.
- By how much did milk increase between 2007 and 2008?
- During which year was the rate of inflation the highest?
- In 2009 the rate of inflation was 7,6%. Does this mean that things were cheaper in 2009 compared to 2008?

**X-ercises****Question 1****Question 2**