

**MAC2602**

May/June 2015

**PRINCIPLES OF STRATEGY, RISK & FINANCIAL MANAGEMENT
TECHNIQUES**

Duration 2 Hours

100 Marks

EXAMINERS
 FIRST
 SECOND

 MS M LOTTER
 PROF M STEYN

MISS N-M SMIT

Use of a non-programmable pocket calculator is permissible

Closed book examination

This examination question paper remains the property of the University of South Africa and may not be removed from the examination venue.

This paper consists of 10 pages and interest tables A to D on pages i-iv

Table A	Present value of R1 after n years
Table B	Present value of R1 per annum received for n years
Table C	Future value of R1 after n years
Table D	Future value of R1 per annum received for n years

PLEASE NOTE:

- All questions must be answered and calculations must be shown
- Ensure that you are handed the correct examination answer book (blue) by the invigilator
- Each question answered must commence on a separate page
- Do not write in pencil
- Ignore value-added tax and capital gains tax except where indicated in the question.
- A combined final mark of 50% is required to pass this module. This final mark is calculated as follows (20% - obtained for compulsory assignments 01, 02 and 03) + (80% x mark obtained in this examination), subject to a subminimum of 40% for this paper

PROPOSED TIMETABLE

Question	Topic	Marks	Minutes
1	Time value of money	15	18
2	Capital structure and cost of capital	19	23
3	Analysis of financial information and working capital management	24	29
4	Capital investment and capital budgeting	22	26
5	Multiple choice questions	20	24
		100	120

[TURN OVER]

QUESTION 1 (15 marks) (18 minutes)

- a) Interest on investor's accounts is added monthly by the bank even though interest rates are expressed in annual terms. The quoted interest rate (annual percentage rate) is 6% per annum. You opened an account and deposited R1 550 on 1 June 2015 for a fixed term of four years.

REQUIRED:

Make use of the mathematical formulas and

- i) Calculate the amount of interest that you would have earned by 31 December 2015
- ii) Calculate the total amount that you will have in your account on 31 December 2018

[Show the mathematical formulas used and detailed workings. Use four decimal places for your calculations and round your final answers to the nearest rand.] (5)

- b) Nthabi wants to save her Christmas bonus of R3 900 at the end of each year for the next three years. The annual compound interest rate is 9%.

REQUIRED:

Make use of the factor table method and calculate the value of her total savings at the end of three years.

[Show the equation you used and detailed workings. Use four decimal places for your calculations and round your final answer to the nearest rand.] (2)

- c) The company that you work for has an office building that they want to rent out. The rental of R75 000 per annum will be receivable at the beginning of each year for the next five years. The discount rate is 8%.

REQUIRED:

Make use of the mathematical formula and calculate the present value of this annuity.

[Show the mathematical formula and detailed workings. Use four decimal places for your calculations and round your final answer to the nearest rand.] (3)

- d) Susan will receive R6 000 from her parents on her 21st birthday. She will invest the R6 000 when she receives it at an annual compound interest rate of 12% on 1 January 2015.

REQUIRED:

Make use of the factor table method and calculate the value of her investment at the end of seven years.

[Show the appropriate equation applied and factors and detailed workings. Use four decimal places for your calculations and round your final answer to the nearest rand.] (2)

- e) Name the type of interest referred to in the statement below.

"Interest that is calculated for the entire period based only on the principal amount." (1)

- f) Peter would like to buy a bachelor's flat in three years' time when he commences his articles. By then he will need to have a deposit of R30 000.

QUESTION 1 (continued)**REQUIRED:**

Make use of the factor table method and calculate the amount that he will need to invest annually for the next three years at 9% compounded interest to have the full amount for the deposit after three years

[Show the appropriate equation used to determine the annual investment (I) [or payment (pmt)] and detailed workings. Use four decimal places for your calculations and round your final answer to the nearest rand] (2)

[15]

QUESTION 2 (19 marks) (23 minutes)

[Set your calculator on four decimal places for the calculations of this question. Show the formulas used and detailed calculations. Round percentages to two decimal places and final answers to the nearest rand.]

PART 1:

Donatello Limited has the following funding structure

300 000 Ordinary shares are in issue with a nominal value of R30 per share. The next dividend payable will be R3 per share. It is expected that dividends will have a long-term sustainable growth rate of 3%. The shares have a current market value of R40 per share. Donatello's cost of equity is 10,5%

5 000 Bonds issued with a nominal value of R1 000 each and time to maturity of 15 years. It pays an annual coupon rate of 8% per annum and the current market return on similar bonds with a life of 15 years is 6% per annum.

The corporate tax rate is 28%

REQUIRED:

- i) Calculate the cost of debt for Donatello Limited
- ii) Calculate the market value of debt for Donatello Limited
- iii) Calculate the weighted average cost of capital (WACC) for Donatello Limited (based on market values) by using the WACC formula

(9)

PART 2:

The following information relates to Sibusiswe Limited:

The company holds R2 000 (face value) debentures which are redeemable after six years at face value.

The annual interest payment on the debentures (coupon rate) is 12%.

The current market return for similar debentures with a lifespan of six years is 11%.

Assume that the current company rate is 28%

[TURN OVER]

QUESTION 2 (continued)**REQUIRED:**

- (i) Calculate the current market value of the debentures (4)
 (ii) Calculate the effective after tax cost of debt (IRR/YTM) by mathematically computing the IRR and interpolating between 10% and 12% (use factor tables) (6)

[19]

QUESTION 3 (24 marks) (29 minutes)

Flying Wheels Travel SA (Pty) Ltd supplies sport utility vehicles to tourists. These vehicles are equipped with all the necessary equipment for outdoor adventures.

The following financial statements of Flying Wheels Travel SA (Pty) Ltd are provided to you

Statement of profit or loss and other comprehensive income for the years ended 28 February 2014 and 2015

	<u>2015</u>	<u>2014</u>
	R'000	R'000
Revenue	19 899	21 336
Cost of sales	(10 965)	(11 362)
Gross profit	8 934	9 974
Operating costs	(4 518)	(5 563)
Distribution costs	(1 950)	(3 051)
Administrative expenses	(615)	(553)
Other expenses	(468)	(556)
Net operating profit /(loss)	1 383	251
Interest and other income	495	232
Earnings before interest and tax (EBIT)	1 878	483
Interest expense	(1 005)	(956)
Profit before tax	873	(473)
Income tax expense	(262)	142
Net profit	611	(331)

[TURN OVER]

QUESTION 3 (continued)

Statement of financial position as at 28 February 2014 and 2015

	<u>2015</u> R'000	<u>2014</u> R'000
ASSETS		
Non-current assets		
Property, plant and equipment	21 556	20 336
Other investments	6 530	5 536
Total non-current assets	28 086	25 872
Current assets		
Inventories	1 220	5 632
Trade and other receivables	356	265
Cash and cash equivalents	2 100	1 563
Total current assets	3 676	7 460
TOTAL ASSETS	<u>31 762</u>	<u>33 332</u>
EQUITY AND LIABILITIES		
Capital and reserves		
Share capital	10 000	10 000
Retained earnings	3 948	3 337
Total equity	13 948	13 337
Non-current liabilities		
Interest-bearing borrowings	15 559	17 520
Deferred tax	556	459
Total non-current liabilities	16 115	17 979
Current liabilities		
Trade and other payables	954	1 253
Current tax payable	440	562
Current provisions	305	201
Total current liabilities	1 699	2 016
TOTAL EQUITY AND LIABILITIES	<u>31 762</u>	<u>33 332</u>

Additional information.

1. The company has 2 million authorised shares and 1 million issued shares
2. The opening balance of inventory for 2014 was R3 856 000
3. The amount of sales on credit is 60% of revenue for both years.

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QUESTION 3 (continued)**REQUIRED:**

- a) Calculate the growth rate for Flying Wheels Travel SA (Pty) Ltd for the year ending 28 February 2015 in the following line items, and briefly discuss the changes
- | | | |
|------|---------------|-----|
| (i) | Cost of sales | (2) |
| (ii) | Inventory | (2) |
- b) Name the four categories in which financial statement ratios are grouped (2)
- c) Calculate the following ratios for Flying Wheels Travel SA (Pty) Ltd for the years 2014 and 2015, and briefly discuss reasons for the changes
[Clearly indicate the specific formula for the ratio and the calculation in each case and round to two decimal places]
- | | | |
|-------|---|-----|
| (i) | Current ratio (industry average 2.1) | (3) |
| (ii) | Liquid asset ratio | (3) |
| (iii) | Inventory days | (3) |
| (iv) | Inventory turnover ratio/rate (using average inventory) | (3) |
| (v) | Earnings per share | (3) |
- d) Read the following statement regarding the management of the company's inventory and answer the question related thereto.

"The management of the company's inventory is important as it ensures that the level of inventory is adequate to sustain the operations and keep the costs at a minimum"

Define the two major costs in keeping inventory and name an example of the type of costs which are included in each.

(3)
[24]

QUESTION 4 (22 marks) (26 minutes)**PART 1**

You are given the following scenarios of capital expenditure

- a) The Apple Company realised that voice recognition technology is becoming more important in mobile equipment markets. However, they have no in-house expertise and decided to buy a small company called Siri with state of the art technology in voice recognition platforms. This will enable Apple to become leaders in the mobile markets.
- b) An industrial valve manufacturing company has a few machines that are used in the manufacturing of valves. One of the machines broke down and after contacting the supplier, it was found that the machine could be reconditioned by replacing the old engine and gear box.
- c) A transport company is transporting cargo from the Durban port to countries in Africa. In one of the countries, a truck was filled with contaminated diesel. The truck could not drive further and a mechanic had to be flown out to the site. The mechanic's report stated that the contaminated diesel damaged the truck's engine and that it was beyond repair. As the cost to replace the truck's engine was much higher than the book value of the truck, the transport company decided to buy a new truck.

[TURN OVER]

QUESTION 4 (continued)**REQUIRED:**

Identify the correct type of capital expenditure for each scenario and briefly explain why the capital expenditure should be classified as that specific type (6)

PART 2

The following are examples of either factors that can have an influence on the capital allocation decision or risks and uncertainties in capital budgeting decisions

- inflation rates for different input costs
- availability of funds
- legal factors
- current and target capital structure of the organisation
- future demand for the product
- selling price of the product
- immediate need for the project
- reaction from competitors

REQUIRED:

Group together all factors and all risks and uncertainties in table format e.g

Factors	Risks and uncertainties
•	•
•	•

(4)

PART 3

The company Fast Shearing (Pty) Ltd is experts in shearing sheep. They consider buying new electronic shearing equipment. They have gathered information on two possible options, equipment Zipper or equipment Rambo.

The following information regarding the equipment is available

	Equipment	
	Zipper	Rambo
Cost price	R 15 600	R 18 900
Working capital required	2 000	2 300
Net operating income before tax	5 940	6 220
Realisable value at end of useful life - current	1 000	1 100
Useful life	6 years	6 years

Additional information:

1 Taxation

- Tax deductible wear and tear allowances are calculated on the straight-line method at 20% per annum, on the cost of the asset
- Normal income tax rate - 28%

[TURN OVER]

QUESTION 4 (continued)

- 2 In determining net operating income, depreciation has not been taken into account. The accounting policy of the company is to provide for depreciation in accordance with wear and tear allowed by SARS
- 3 Management requires a 17% after-tax return on all capital investments
- 4 Assume that all cash flows occur at the end of each year, except the initial capital outlays, which occur at the beginning of year one
- 5 The IRR for Zipper is already correctly calculated to be 17,56%

REQUIRED:

Calculate the IRR of machine Rambo by interpolating between 16% and 18%. Advise whether machine Zipper or Rambo should be acquired. Motivate your decision based on your calculations and use four decimals for your calculations and round your final answer to two decimals or the nearest rand.]

(12)
[22]

QUESTION 5 (20 marks) (24 minutes)

This question consists of ten multiple-choice questions. Each question must be considered independently, except where specific reference is made to information in another question. Each question has only one correct answer, and the marks per question (5.1 – 5.10) are indicated in brackets after each question.

Please answer the ten questions in your examination answer book and list the question numbers below one another, from 5.1 – 5.10, with your corresponding answer next to it, for example

- 5.1 (a)
5.2 (b)

The questions are as follows

- 5.1 Which of the following strategies are generally accepted competitive strategies available to an organisation in order to achieve their long-term goals?
- (1) Alignment strategy
 - (2) Cost leadership strategy
 - (3) Pricing strategies
 - (4) Risk strategy
 - (5) Differentiation strategy
- a) Statements (1), (3) and (4)
b) Statements (1), (2) and (5)
c) Statements (2), (3) and (4)
d) Statements (2), (3) and (5) (2)
- 5.2 Which one of the following list of stakeholders can be considered to be a secondary stakeholder of Duplo (Pty) Ltd?
- a) The South African Institute of Chartered Accountants (SAICA)
 - b) Banks
 - c) Customers
 - d) Employees (2)

[TURN OVER]

QUESTION 5 (continued)

- 5 3 Which one of the following examples is an external economic factor that has an influence on the development on strategy?
- a) Unethical and unlawful actions
 - b) Timing of local elections
 - c) Inflation
 - d) New technology
- (2)
- 5 4 Measuring annual profitability based only on accounting and financial indicators have certain drawbacks Which of the following statements are examples of these drawbacks?
- (1) Encourages short-term returns at the expense of the development of the business
 - (2) Is a long-term measure
 - (3) Profit earned is not an indicator of cash flows generated
 - (4) Ignores risk
 - (5) Can be manipulated by the use of creative accounting
- a) Statements (1), (2), (3), (4) and (5)
 - b) Statements (1), (2), (3) and (5)
 - c) Statements (1), (3), (4) and (5)
 - d) Statements (2), (3), (4) and (5)
- (2)
- 5 5 From the list below, identify advantages of a close corporation
- (1) Membership can be transferred to a new member, if the other members agree to it, ensuring the continued existence of a close corporation
 - (2) It is a less expensive and simpler legal form of business for the entrepreneur or a few participants
 - (3) It is taxed as an organisation apart from the members, at 28%
 - (4) Members enjoy limited liability for debts of the organisation unless it can be proven that they acted fraudulently
- a) Statements (1), (2), (3) and (4)
 - b) Statements (1), (3) and (4)
 - c) Statements (1), (2) and (3)
 - d) Statements (2), (3) and (4)
- (2)
- 5 6 Which of the following statements regarding sources and forms of finance are TRUE?
- (1) Raising money internally is the process by which an organisation retains the operating cash flow to be saved and reinvested in the organisation on behalf of the organisation's owners/investors
 - (2) A capital market is a financial market in which equity and long-term debt securities are traded
 - (3) The money market is a financial market used mainly for raising short-term finance
 - (4) A mortgage loan, where the loan is normally secured over the value of the property offered as security, is a form of a long-term loan
- a) Statements (1), (2) and (3)
 - b) Statements (2), (3) and (4)
 - c) Statement (1), (2) and (4)
 - d) Statements (1), (2), (3) and (4)
- (2)

[TURN OVER]

QUESTION 5 (continued)

- 5 7 The following are statements regarding long-term financing considerations Which one of the following statements is FALSE?
- a) Dividends are not deductible for normal tax purposes as a business expense, whereas interest usually is
 - b) In the case of liquidation, debt is repaid before equity
 - c) Equity holders control the organisation while debt holders normally do not have control over the organisation
 - d) Equity tends to have a finite life (repaid over a period of time) while debt tends to be part of the organisation for life
- 5 8 Which of the following statements regarding the issue of ordinary preference shares can be regarded as advantages to the organisation?
- (1) The control of the organisation will not be affected when the shares are issued as the shares do not have any voting rights
 - (2) Ordinary preference shares present a lower risk to lenders/investors as they require a lower return
 - (3) Financial leverage will reduce as the amount of ordinary preference shares (classified as equity) increases without bringing about dilution for the average shareholders
 - (4) Preference dividends are not deductible for tax purposes
- a) Statements (1), (2) and (3)
 - b) Statements (1), (2) and (4)
 - c) Statements (2), (3) and (4)
 - d) Statements (1), (2), (3) and (4) (2)
- 5 9 This helps to identify possible legal exposure or contractual liabilities, indicate sources of income and losses and/or identify values that are at risk Which method to identify risk is described above?
- a) Results of quality control checks, inspection and audit reviews
 - b) Analysis of financial statements
 - c) Organisation charts and flow charts
 - d) Stakeholder consultation (2)
- 5 10 The process of selecting and implementing measures to reduce or mitigate risk to an acceptable level is known as?
- a) Risk analysis
 - b) Risk monitoring
 - c) Risk response
 - d) Risk reporting (2)

[20]

[TURN OVER]

TABLE A / TABEL A

PRESENT VALUE OF R1 RECEIVED/PAYD AFTER N YEARS / HUIDIGE WAARDE VAN R1 ONTVANG/BETAAL NA N JAAR

Year/ Jaar N	1%	2%	4%	6%	8%	10%	12%	14%	15%	16%	18%	20%	22%	24%	25%	26%	28%	30%	35%
1	0,980	0,980	0,962	0,943	0,926	0,909	0,893	0,877	0,870	0,862	0,847	0,833	0,820	0,806	0,800	0,794	0,781	0,769	0,741
2	0,980	0,961	0,925	0,890	0,857	0,826	0,797	0,769	0,756	0,743	0,718	0,694	0,672	0,650	0,640	0,630	0,610	0,592	0,549
3	0,971	0,942	0,889	0,840	0,794	0,751	0,712	0,675	0,658	0,641	0,609	0,579	0,551	0,524	0,512	0,500	0,477	0,455	0,406
4	0,961	0,924	0,855	0,792	0,735	0,683	0,636	0,592	0,572	0,552	0,516	0,482	0,451	0,423	0,410	0,397	0,373	0,350	0,301
5	0,951	0,906	0,822	0,747	0,681	0,621	0,567	0,519	0,497	0,476	0,437	0,402	0,370	0,341	0,328	0,315	0,291	0,269	0,223
6	0,942	0,888	0,790	0,705	0,630	0,564	0,507	0,456	0,432	0,410	0,370	0,335	0,303	0,275	0,262	0,250	0,227	0,207	0,165
7	0,933	0,871	0,760	0,665	0,583	0,513	0,452	0,400	0,376	0,354	0,314	0,278	0,249	0,222	0,210	0,198	0,178	0,159	0,122
8	0,923	0,853	0,731	0,627	0,540	0,467	0,404	0,351	0,327	0,305	0,266	0,233	0,204	0,179	0,168	0,157	0,139	0,123	0,091
9	0,914	0,837	0,703	0,592	0,500	0,424	0,361	0,308	0,284	0,263	0,225	0,194	0,167	0,144	0,134	0,125	0,108	0,094	0,087
10	0,905	0,820	0,676	0,558	0,463	0,386	0,322	0,270	0,247	0,227	0,191	0,162	0,137	0,116	0,107	0,099	0,085	0,073	0,050
11	0,896	0,804	0,650	0,527	0,428	0,350	0,287	0,237	0,215	0,195	0,162	0,135	0,112	0,094	0,086	0,079	0,066	0,056	0,037
12	0,887	0,788	0,625	0,497	0,397	0,319	0,257	0,208	0,187	0,168	0,137	0,112	0,092	0,076	0,069	0,062	0,052	0,043	0,027
13	0,879	0,773	0,601	0,469	0,368	0,290	0,229	0,182	0,163	0,145	0,116	0,093	0,075	0,061	0,055	0,050	0,040	0,033	0,020
14	0,870	0,758	0,577	0,442	0,340	0,263	0,205	0,160	0,141	0,125	0,099	0,078	0,062	0,049	0,044	0,039	0,032	0,025	0,015
15	0,861	0,743	0,555	0,417	0,315	0,239	0,183	0,140	0,123	0,108	0,084	0,065	0,051	0,040	0,035	0,031	0,025	0,020	0,011
16	0,853	0,728	0,534	0,394	0,292	0,218	0,163	0,123	0,107	0,093	0,071	0,054	0,042	0,032	0,028	0,025	0,019	0,015	0,008
17	0,844	0,714	0,513	0,371	0,270	0,198	0,146	0,108	0,093	0,080	0,060	0,045	0,034	0,026	0,023	0,020	0,015	0,012	0,006
18	0,836	0,700	0,494	0,350	0,250	0,180	0,130	0,095	0,081	0,069	0,051	0,038	0,028	0,021	0,018	0,016	0,012	0,009	0,005
19	0,828	0,686	0,475	0,331	0,232	0,164	0,116	0,083	0,070	0,060	0,043	0,031	0,023	0,017	0,014	0,012	0,009	0,007	0,003
20	0,820	0,673	0,458	0,312	0,215	0,148	0,104	0,073	0,061	0,051	0,037	0,026	0,019	0,014	0,012	0,010	0,007	0,005	0,002
21	0,811	0,660	0,439	0,294	0,199	0,135	0,093	0,064	0,053	0,044	0,031	0,022	0,015	0,011	0,009	0,008	0,006	0,004	0,002
22	0,803	0,647	0,422	0,268	0,194	0,123	0,083	0,056	0,046	0,038	0,026	0,018	0,013	0,009	0,007	0,006	0,004	0,003	0,001
23	0,795	0,634	0,406	0,262	0,170	0,112	0,074	0,048	0,040	0,033	0,022	0,015	0,010	0,007	0,006	0,005	0,003	0,002	0,001
24	0,788	0,622	0,390	0,247	0,158	0,102	0,066	0,043	0,035	0,028	0,019	0,013	0,008	0,006	0,005	0,004	0,003	0,002	0,001
25	0,780	0,610	0,375	0,233	0,146	0,092	0,059	0,038	0,030	0,024	0,016	0,010	0,007	0,005	0,004	0,003	0,002	0,001	0,001
26	0,772	0,598	0,361	0,220	0,135	0,084	0,053	0,033	0,026	0,021	0,014	0,009	0,006	0,004	0,003	0,002	0,002	0,001	0,001
27	0,764	0,586	0,347	0,207	0,125	0,076	0,047	0,028	0,023	0,018	0,011	0,007	0,005	0,003	0,002	0,002	0,001	0,001	0,001
28	0,757	0,574	0,333	0,196	0,116	0,069	0,042	0,026	0,020	0,016	0,010	0,006	0,004	0,002	0,002	0,002	0,001	0,001	0,001
29	0,749	0,563	0,321	0,185	0,107	0,063	0,037	0,022	0,017	0,014	0,008	0,005	0,003	0,002	0,002	0,001	0,001	0,001	0,001
30	0,742	0,552	0,308	0,174	0,099	0,057	0,033	0,020	0,015	0,012	0,007	0,004	0,003	0,002	0,001	0,001	0,001	0,001	0,001
40	0,672	0,453	0,208	0,097	0,046	0,022	0,011	0,005	0,004	0,003	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001
50	0,608	0,372	0,141	0,054	0,021	0,009	0,003	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001

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TABLE B / TABEL B

**PRESENT VALUE OF R1 PER ANNUM RECEIVED/PAID AT THE END OF THE YEAR FOR N YEARS /
HUIDIGE WAARDE VAN R1 PER JAAR ONTVANG/BETAAL AAN DIE EINDE VAN DIE JAAR VIR N JAAR**

Year / Jaar N	1%	2%	4%	8%	10%	12%	14%	15%	16%	18%	20%	22%	24%	25%	26%	28%	30%	35%
1	0,990	0,980	0,962	0,943	0,926	0,909	0,893	0,877	0,870	0,852	0,847	0,833	0,820	0,808	0,794	0,781	0,769	0,741
2	1,970	1,942	1,886	1,833	1,783	1,736	1,690	1,647	1,628	1,605	1,586	1,528	1,492	1,457	1,424	1,392	1,361	1,289
3	2,941	2,894	2,775	2,673	2,577	2,487	2,402	2,322	2,283	2,246	2,174	2,106	2,042	1,981	1,923	1,868	1,816	1,696
4	3,902	3,808	3,630	3,465	3,312	3,170	3,037	2,914	2,855	2,788	2,690	2,599	2,494	2,404	2,320	2,241	2,168	1,997
5	4,853	4,713	4,452	4,212	3,983	3,791	3,607	3,433	3,352	3,274	3,127	2,991	2,864	2,745	2,635	2,532	2,436	2,220
6	5,795	5,601	5,242	4,917	4,623	4,355	4,111	3,889	3,784	3,685	3,498	3,326	3,167	3,020	2,885	2,759	2,643	2,385
7	6,728	6,472	6,002	5,562	5,206	4,866	4,564	4,288	4,150	4,039	3,812	3,605	3,416	3,242	3,083	2,937	2,802	2,508
8	7,652	7,325	6,733	6,210	5,747	5,335	4,968	4,639	4,487	4,344	4,078	3,837	3,619	3,421	3,241	3,076	2,925	2,598
9	8,566	8,162	7,435	6,802	6,247	5,759	5,328	4,948	4,772	4,607	4,303	4,031	3,786	3,566	3,366	3,184	3,019	2,665
10	9,471	8,983	8,111	7,360	6,710	6,145	5,650	5,216	4,933	4,734	4,394	4,192	3,923	3,682	3,455	3,269	3,092	2,715
11	10,368	9,787	8,760	7,887	7,139	6,495	5,937	5,453	5,029	4,784	4,488	4,227	4,035	3,776	3,544	3,335	3,147	2,722
12	11,255	10,575	9,385	8,384	7,536	6,814	6,194	5,660	5,241	4,917	4,583	4,299	4,127	3,851	3,606	3,387	3,190	2,778
13	12,134	11,343	9,986	8,853	7,904	7,103	6,424	5,842	5,453	5,042	4,610	4,303	4,203	3,912	3,658	3,427	3,223	2,799
14	13,004	12,106	10,563	9,295	8,244	7,367	6,626	6,002	5,724	5,288	4,824	4,485	4,265	3,962	3,695	3,458	3,248	2,814
15	13,865	12,849	11,118	9,712	8,559	7,608	6,811	6,142	5,847	5,375	4,882	4,675	4,315	4,001	3,726	3,483	3,268	2,825
16	14,718	13,578	11,652	10,106	8,851	7,824	6,974	6,265	5,954	5,469	4,948	4,730	4,357	4,033	3,751	3,503	3,283	2,834
17	15,562	14,292	12,166	10,477	9,122	8,022	7,120	6,373	6,047	5,549	5,022	4,775	4,391	4,058	3,771	3,518	3,295	2,840
18	16,398	14,992	12,659	10,828	9,372	8,201	7,250	6,467	6,128	5,618	5,073	4,812	4,419	4,080	3,786	3,529	3,304	2,844
19	17,226	15,678	13,134	11,158	9,604	8,365	7,366	6,550	6,198	5,677	5,116	4,844	4,442	4,097	3,799	3,539	3,311	2,848
20	18,046	16,351	13,590	11,470	9,818	8,514	7,469	6,623	6,259	5,729	5,153	4,870	4,460	4,110	3,808	3,546	3,316	2,850
21	18,857	17,011	14,029	11,764	10,017	8,649	7,562	6,687	6,312	5,773	5,184	4,881	4,476	4,121	3,816	3,551	3,320	2,852
22	19,660	17,658	14,451	12,042	10,201	8,772	7,645	6,743	6,359	5,811	5,210	4,909	4,498	4,130	3,822	3,556	3,323	2,853
23	20,456	18,292	14,857	12,303	10,371	8,883	7,718	6,792	6,399	5,844	5,232	4,925	4,499	4,137	3,827	3,559	3,325	2,854
24	21,243	18,914	15,247	12,550	10,529	8,985	7,784	6,835	6,434	5,873	5,251	4,937	4,507	4,143	3,831	3,562	3,327	2,855
25	22,023	19,523	15,622	12,783	10,675	9,077	7,843	6,873	6,464	5,897	5,267	4,948	4,514	4,147	3,834	3,564	3,329	2,856
26	22,795	20,121	15,983	13,003	10,810	9,161	7,896	6,906	6,491	5,919	5,280	4,956	4,520	4,151	3,837	3,566	3,330	2,856
27	23,560	20,707	16,330	13,211	10,935	9,237	7,943	6,954	6,514	5,936	5,292	4,967	4,524	4,154	3,839	3,567	3,331	2,857
28	24,316	21,281	16,663	13,406	11,051	9,307	7,984	6,961	6,524	5,942	5,302	4,970	4,528	4,157	3,840	3,568	3,331	2,857
29	25,066	21,844	16,984	13,591	11,158	9,370	8,022	6,963	6,551	5,950	5,310	4,975	4,531	4,159	3,841	3,569	3,332	2,857
30	25,808	22,396	17,292	13,765	11,258	9,427	8,055	7,003	6,566	5,957	5,317	4,978	4,534	4,160	3,842	3,569	3,332	2,857
40	32,835	27,355	19,793	15,046	11,925	9,778	8,244	7,105	6,642	6,234	5,548	4,997	4,544	4,168	3,846	3,571	3,333	2,857
50	39,196	31,424	21,482	15,762	12,234	9,915	8,304	7,133	6,681	6,246	5,554	4,999	4,545	4,167	3,846	3,571	3,333	2,857

[TURN OVER]

TABLE C / TABEL C

FUTURE VALUE OF R1 RECEIVED NOW, AFTER N YEARS / TOEKOMSTIGE WAARDE VAN R1 NOU ONTVANG NA N JAAR

Year / Jaar N	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%
1	1,0100	1,0200	1,0300	1,0400	1,0500	1,0600	1,0700	1,0800	1,0900	1,1000	1,1200	1,1400	1,1500	1,1600	1,1800	1,2000
2	1,0201	1,0404	1,0609	1,0816	1,1025	1,1236	1,1449	1,1664	1,1891	1,2100	1,2544	1,2996	1,3225	1,3456	1,3924	1,4400
3	1,0303	1,0612	1,0927	1,1249	1,1576	1,1910	1,2250	1,2597	1,2950	1,3310	1,4049	1,4815	1,5209	1,5608	1,6430	1,7280
4	1,0406	1,0824	1,1255	1,1699	1,2155	1,2625	1,3108	1,3605	1,4116	1,4641	1,5735	1,6890	1,7490	1,8108	1,9386	2,0736
5	1,0510	1,1041	1,1593	1,2167	1,2763	1,3382	1,4026	1,4693	1,5386	1,6105	1,7623	1,9254	2,0114	2,1003	2,2876	2,4883
6	1,0615	1,1262	1,1941	1,2653	1,3401	1,4185	1,5007	1,5869	1,6771	1,7716	1,9738	2,1950	2,3131	2,4364	2,6996	2,9860
7	1,0721	1,1487	1,2289	1,3159	1,4071	1,5036	1,6056	1,7138	1,8280	1,9487	2,2107	2,5023	2,6600	2,8262	3,1855	3,5832
8	1,0829	1,1717	1,2668	1,3686	1,4775	1,5938	1,7182	1,8508	1,9926	2,1436	2,4760	2,8526	3,0590	3,2784	3,7589	4,2998
9	1,0937	1,1951	1,3048	1,4233	1,5513	1,6895	1,8385	1,9990	2,1719	2,3578	2,7731	3,2519	3,5179	3,8030	4,4355	5,1598
10	1,1046	1,2190	1,3439	1,4802	1,6289	1,7908	1,9672	2,1589	2,3674	2,5937	3,1058	3,7072	4,0456	4,4114	5,2338	6,1917
11	1,1157	1,2434	1,3842	1,5395	1,7103	1,8983	2,1049	2,3318	2,5804	2,8531	3,4785	4,2262	4,6524	5,1173	6,1759	7,4301
12	1,1268	1,2682	1,4258	1,6010	1,7959	2,0122	2,2522	2,5182	2,8127	3,1384	3,8960	4,8179	5,3503	5,9360	7,2876	8,9161
13	1,1381	1,2936	1,4685	1,6651	1,8856	2,1329	2,4098	2,7198	3,0858	3,4823	4,3935	5,4924	6,1628	6,8868	8,5994	10,699
14	1,1495	1,3195	1,5128	1,7317	1,9799	2,2609	2,5789	2,9372	3,3417	3,7975	4,8871	6,2613	7,0757	7,9875	10,147	12,839
15	1,1610	1,3459	1,5580	1,8008	2,0789	2,3966	2,7590	3,1722	3,6425	4,1772	5,4736	7,1379	8,1371	9,2655	11,974	16,407
16	1,1726	1,3728	1,6047	1,8730	2,1829	2,5404	2,9522	3,4259	3,9703	4,5950	6,1304	8,1372	9,3576	10,748	14,129	18,488
17	1,1843	1,4002	1,6528	1,9479	2,2920	2,6928	3,1598	3,7000	4,3276	5,0545	6,8660	9,2785	10,761	12,468	16,672	22,186
18	1,1961	1,4282	1,7024	2,0258	2,4066	2,8543	3,3798	3,9960	4,7171	5,5589	7,6900	10,375	12,375	14,463	19,673	26,823
19	1,2081	1,4568	1,7535	2,1068	2,5270	3,0256	3,6165	4,3157	5,1417	6,1159	8,6128	12,056	14,232	16,777	23,214	31,848
20	1,2202	1,4859	1,8061	2,1811	2,6533	3,2071	3,8687	4,6610	5,6044	6,7275	9,8483	13,743	16,367	19,481	27,393	38,338
21	1,2324	1,5157	1,8603	2,2788	2,7850	3,3996	4,1406	5,0338	6,1089	7,4002	10,804	15,668	18,822	22,574	32,324	46,005
22	1,2447	1,5460	1,9161	2,3699	2,9253	3,6035	4,4304	5,4365	6,6586	8,1403	12,100	17,961	21,645	26,186	38,142	55,206
23	1,2572	1,5769	1,9736	2,4647	3,0715	3,8197	4,7405	5,8715	7,2579	8,9543	13,552	20,362	24,691	30,376	45,008	66,247
24	1,2697	1,6084	2,0328	2,5633	3,2251	4,0489	5,0724	6,3412	7,9111	9,8497	15,179	23,212	28,625	35,236	53,109	79,497
25	1,2824	1,6406	2,0938	2,6658	3,3884	4,2819	5,4274	6,8485	8,6231	10,835	17,000	26,462	32,919	40,874	62,669	95,396

[TURN OVER]

TABEL D / TABEL D

**FUTURE VALUE OF R1 PER ANNUM RECEIVED FOR N YEARS AT THE END OF EACH YEAR /
TOEKOMSTIGE WAARDE VAN R1 PER JAAR ONTVANG VIR N JAAR AAN DIE EINDE VAN ELKE JAAR**

Year / Jaar N	1%	2%	3%	4%	5%	6%	7%	8%	8%	10%	12%	14%	15%	16%	16%	20%
1	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000
2	2,0100	2,0200	2,0300	2,0400	2,0500	2,0600	2,0700	2,0800	2,0900	2,1000	2,1200	2,1400	2,1500	2,1600	2,1800	2,2000
3	3,0301	3,0604	3,0908	3,1216	3,1525	3,1836	3,2149	3,2464	3,2781	3,3100	3,3744	3,4396	3,4726	3,5056	3,5724	3,6400
4	4,0604	4,1216	4,1836	4,2465	4,3101	4,3746	4,4399	4,5061	4,5731	4,6410	4,7783	4,9211	4,9934	5,0655	5,2154	5,3680
5	5,1010	5,2040	5,3081	5,4163	5,5256	5,6371	5,7507	5,8666	5,9847	6,1051	6,3528	6,6101	6,7424	6,8771	7,1542	7,4416
6	6,1520	6,3081	6,4684	6,6330	6,8019	6,9753	7,1533	7,3358	7,5233	7,7156	8,1152	8,5355	8,7537	8,9775	9,4420	9,9299
7	7,2135	7,4943	7,8625	8,2283	8,5920	8,9540	9,3149	9,6748	10,0337	10,3916	10,8595	11,3274	11,7953	12,2632	12,8411	13,4190
8	8,2857	8,5830	8,8923	9,2142	9,5491	9,8975	10,2500	10,6075	10,9700	11,3375	11,8050	12,2725	12,7400	13,2075	13,6750	14,2425
9	9,3685	9,7546	10,159	10,583	11,027	11,491	11,978	12,488	13,021	13,579	14,176	14,778	15,385	15,998	16,616	17,239
10	10,462	10,950	11,464	12,006	12,578	13,181	13,816	14,487	15,193	15,937	16,724	17,549	18,418	19,337	20,304	21,321
11	11,567	12,169	12,808	13,486	14,207	14,972	15,784	16,645	17,560	18,531	19,559	20,645	21,790	22,995	24,260	25,585
12	12,683	13,412	14,192	15,026	15,917	16,870	17,888	18,974	20,141	21,384	22,704	24,113	25,612	27,201	28,880	30,659
13	13,809	14,680	15,618	16,627	17,713	18,882	20,141	21,495	22,953	24,523	26,209	27,999	29,894	31,894	33,999	36,219
14	14,947	15,974	17,066	18,292	19,599	21,015	22,550	24,215	26,019	27,975	30,093	32,383	34,856	37,513	40,360	43,009
15	16,097	17,293	18,599	20,024	21,579	23,276	25,129	27,152	29,361	31,772	34,397	37,250	40,342	43,680	47,263	51,001
16	17,258	18,639	20,157	21,825	23,657	25,673	27,888	30,324	33,003	35,950	42,753	50,980	55,717	60,925	67,663	74,942
17	18,430	20,012	21,762	23,698	25,840	28,213	30,840	33,750	36,974	40,545	48,884	59,118	65,075	71,973	79,968	88,116
18	19,615	21,412	23,414	25,645	28,132	30,906	33,999	37,450	41,301	45,599	55,750	68,394	75,836	84,141	93,474	102,963
19	20,811	22,941	25,117	27,671	30,539	33,760	37,379	41,446	46,018	51,159	63,440	78,969	88,212	98,603	110,174	122,063
20	22,019	24,287	26,870	29,778	33,006	36,786	40,995	45,762	51,160	57,275	72,052	89,025	102,44	115,38	129,963	145,316
21	23,239	25,783	28,676	31,989	35,719	39,993	44,885	50,423	56,785	64,002	81,699	104,77	119,81	134,84	151,063	167,563
22	24,472	27,299	30,537	34,248	38,505	43,392	48,006	54,457	62,873	71,403	92,503	120,44	137,63	157,41	174,963	192,263
23	25,716	28,845	32,453	36,918	41,430	46,996	53,436	60,893	69,532	79,943	104,60	138,30	159,28	183,60	204,49	222,063
24	26,973	30,422	34,428	39,083	44,502	50,818	58,177	66,766	76,790	88,487	118,18	168,66	184,17	213,98	239,49	258,48
25	28,243	32,030	36,459	41,646	47,727	54,865	63,249	73,106	84,701	98,347	133,33	181,87	212,79	249,21	292,60	318,88