

## Detailed Table of Contents

|                                                                                                |        |
|------------------------------------------------------------------------------------------------|--------|
| <i>Preface</i> .....                                                                           | iii    |
| <i>About the Author and Contributors</i> .....                                                 | vii    |
| <i>Contents</i> .....                                                                          | ix     |
| <br><i>Chapter 1</i> <b>FOLLOW THE MONEY: CASH AND TREASURY<br/>MANAGEMENT</b> .....           | <br>1  |
| Following the Money .....                                                                      | 1      |
| Cash and treasury .....                                                                        | 2      |
| Role and objectives .....                                                                      | 4      |
| Measuring and Evaluating Performance .....                                                     | 7      |
| Treasury Operations Checklist .....                                                            | 9      |
| <br><i>Chapter 2</i> <b>WHERE IS THE MONEY: RISK MANAGEMENT<br/>AND INTERNAL CONTROL</b> ..... | <br>19 |
| Seizing Opportunity and Reducing Risk .....                                                    | 19     |
| Treasurer's View of Risk Management .....                                                      | 26     |
| Steps to Manage Risk .....                                                                     | 28     |
| Financial market risk .....                                                                    | 28     |
| Effect of exposure on strategies .....                                                         | 33     |
| Select risk management products .....                                                          | 34     |
| Credit risk .....                                                                              | 36     |
| Business risk .....                                                                            | 40     |
| Operational risk .....                                                                         | 42     |
| Other risks .....                                                                              | 44     |
| Quantifying Risk .....                                                                         | 45     |
| Internal Control .....                                                                         | 46     |
| Control environment – Tone at the top .....                                                    | 48     |
| Risk Assessment – Connects to Objectives .....                                                 | 49     |
| Control activities – What should we do? .....                                                  | 52     |
| Information and communication .....                                                            | 56     |
| Monitoring .....                                                                               | 56     |
| Budget process .....                                                                           | 57     |
| Appendix – Internal Control Checklist .....                                                    | 60     |

## CANADIAN CASH AND TREASURY MANAGEMENT

|                                                          |                                       |     |
|----------------------------------------------------------|---------------------------------------|-----|
| <i>Chapter 3</i>                                         | <b>MANAGING CASH</b>                  | 63  |
| Why is Cash King?                                        |                                       | 63  |
| Objectives                                               |                                       | 64  |
| Cash on Hand                                             |                                       | 64  |
| What is Cash?                                            |                                       | 65  |
| Cash Flow Cycle                                          |                                       | 66  |
| Managing Corporate Cash                                  |                                       | 67  |
| Cash inflows                                             |                                       | 68  |
| Information Systems                                      |                                       | 69  |
| Budgets                                                  |                                       | 70  |
| Operations Management                                    |                                       | 70  |
| Working Capital                                          |                                       | 71  |
| Sundry Cash Disbursements                                |                                       | 72  |
| Cash Forecasts and Cash Budgets                          |                                       | 72  |
| Importance of Forecasts and Budgets                      |                                       | 74  |
| Preparing Cash Forecasts                                 |                                       | 76  |
| 1. Sales forecast                                        |                                       | 76  |
| 2. Forecast expenses                                     |                                       | 79  |
| 3. Turning sales and expenses into cash flow equivalents |                                       | 81  |
| 4. Sources other than operating activities               |                                       | 83  |
| 5. Investing cash flows (including capital expenditures) |                                       | 83  |
| 6. Excess or deficiency of cash before financings        |                                       | 84  |
| 7. Planned financing activities                          |                                       | 84  |
| 8. Compile the cash forecast                             |                                       | 86  |
| 9. Revise the cash forecast for new information          |                                       | 86  |
| Preparing Cash Budgets                                   |                                       | 86  |
| Improving the Accuracy of Cash Forecasts and Budgets     |                                       | 87  |
| Appendix 3A – Cash Management Checklist                  |                                       | 89  |
| Appendix 3B – Cash Forecast Example                      |                                       | 93  |
| <i>Chapter 4</i>                                         | <b>BANKING AND FINANCIAL SERVICES</b> | 103 |
| Introduction                                             |                                       | 103 |
| The Bank Relationship                                    |                                       | 104 |
| Small business                                           |                                       | 104 |

## DETAILED TABLE OF CONTENTS

|                                             |     |
|---------------------------------------------|-----|
| Commercial .....                            | 105 |
| Corporate .....                             | 106 |
| Cash Management Relationship .....          | 107 |
| Cash Management Services .....              | 109 |
| Collections .....                           | 110 |
| Paper collections.....                      | 111 |
| Cash .....                                  | 111 |
| Cheque settlement in Canada .....           | 112 |
| Branch deposits (cash & cheques).....       | 114 |
| Lockbox .....                               | 115 |
| Remote deposit capture .....                | 116 |
| Electronic collections.....                 | 116 |
| Wire transfers .....                        | 117 |
| Electronic funds transfer.....              | 117 |
| Bill payment receiver service .....         | 118 |
| EDI payment receiver service.....           | 119 |
| Credit and debit cards .....                | 119 |
| Disbursements.....                          | 120 |
| Paper disbursements: cheques.....           | 120 |
| Cheque fraud protection.....                | 121 |
| Electronic disbursements .....              | 122 |
| Wires.....                                  | 123 |
| Electronic funds transfers (credit) .....   | 124 |
| Electronic data interchange (EDI).....      | 125 |
| Automated clearinghouse (ACH) payments..... | 126 |
| SWIFT – MT101 .....                         | 126 |
| Payment disbursement services .....         | 127 |
| Credit cards.....                           | 128 |
| Tax payments .....                          | 129 |
| Bill payments (via on-line channels).....   | 129 |
| Information and Control Systems .....       | 129 |
| Account activity via paper statements.....  | 130 |
| Online web-based account activity .....     | 130 |

## CANADIAN CASH AND TREASURY MANAGEMENT

|                                                                        |     |
|------------------------------------------------------------------------|-----|
| Account activity via file transmissions . . . . .                      | 131 |
| Billing for cash management . . . . .                                  | 133 |
| Communication security protocols . . . . .                             | 133 |
| Treasury workstations . . . . .                                        | 134 |
| Liquidity Management . . . . .                                         | 134 |
| Compliance and Logistics . . . . .                                     | 136 |
| FATCA compliance . . . . .                                             | 138 |
| Future regulatory considerations . . . . .                             | 138 |
| International Operations . . . . .                                     | 139 |
| <br><i>Chapter 5</i> <b>THE CANADIAN FINANCIAL SYSTEM</b> . . . . .    | 141 |
| Functions of the Financial System . . . . .                            | 145 |
| <br><i>Chapter 6</i> <b>FINANCIAL INSTITUTIONS IN CANADA</b> . . . . . | 151 |
| Overview . . . . .                                                     | 151 |
| Characteristics of Financial Institutions . . . . .                    | 152 |
| Banks . . . . .                                                        | 155 |
| Trust and mortgage companies . . . . .                                 | 156 |
| Insurance companies . . . . .                                          | 156 |
| Securities firms . . . . .                                             | 157 |
| Sales finance and consumer loan companies . . . . .                    | 159 |
| Credit unions and caisses populaires . . . . .                         | 160 |
| Pension funds . . . . .                                                | 160 |
| Investment funds . . . . .                                             | 161 |
| Venture capital companies . . . . .                                    | 161 |
| Mortgage investment corporations and REITs . . . . .                   | 162 |
| Regulation of Financial Institutions . . . . .                         | 162 |
| Office of the Superintendent of Financial Institutions . . . . .       | 163 |
| Canada Deposit Insurance Corporation . . . . .                         | 164 |
| Bank of Canada . . . . .                                               | 165 |
| Financial Institutions Supervisory Committee . . . . .                 | 166 |
| Regulation of Trust and Loan Companies . . . . .                       | 168 |
| Regulation of Insurance Companies . . . . .                            | 169 |
| Regulation of Securities and Investment Dealers . . . . .              | 170 |

## DETAILED TABLE OF CONTENTS

|                                                                |     |
|----------------------------------------------------------------|-----|
| Pension Funds . . . . .                                        | 171 |
| Government Oversight. . . . .                                  | 172 |
| <i>Chapter 7</i> <b>INVESTOR AND DEPOSITOR PROTECTION</b> . .  | 175 |
| Deposit Insurance . . . . .                                    | 175 |
| Securities. . . . .                                            | 179 |
| Life Insurance . . . . .                                       | 182 |
| <i>Chapter 8</i> <b>CREDIT AND COLLECTIONS</b> . . . . .       | 185 |
| The 5 Cs . . . . .                                             | 185 |
| Credit Policy . . . . .                                        | 186 |
| Opening Credit Accounts . . . . .                              | 192 |
| Extending Credit . . . . .                                     | 193 |
| Credit information . . . . .                                   | 194 |
| Financial statement analysis. . . . .                          | 197 |
| Working capital analysis. . . . .                              | 197 |
| Setting Credit Limits . . . . .                                | 198 |
| Collection Practices . . . . .                                 | 199 |
| Collection Agencies . . . . .                                  | 203 |
| Court Action . . . . .                                         | 204 |
| Appendix 8A – Example Application for Credit. . . . .          | 205 |
| Appendix 8B – Internal Procedures Checklist. . . . .           | 206 |
| <i>Chapter 9</i> <b>FINANCIAL STATEMENT ANALYSIS</b> . . . . . | 209 |
| Overview. . . . .                                              | 209 |
| Limitations of Financial Statement Analysis. . . . .           | 211 |
| Types of Financial Statement Analysis. . . . .                 | 212 |
| Horizontal analysis (trend percentages). . . . .               | 212 |
| Vertical analysis (common size analysis) . . . . .             | 213 |
| Ratio analysis . . . . .                                       | 215 |
| Measuring ability to pay current debts. . . . .                | 215 |
| Current (working capital) ratio . . . . .                      | 215 |
| Acid-test (quick) ratio . . . . .                              | 216 |
| Measuring ability to pay long-term debts. . . . .              | 217 |

## CANADIAN CASH AND TREASURY MANAGEMENT

|                                                                |     |
|----------------------------------------------------------------|-----|
| Debt ratio . . . . .                                           | 217 |
| Debt-to-equity ratio . . . . .                                 | 218 |
| Net tangible assets to total debt ratio . . . . .              | 219 |
| Cash flow to total debt ratio. . . . .                         | 220 |
| Interest coverage (times-interest-earned) ratio . . . . .      | 220 |
| Preferred dividend coverage (times-dividends-earned) ratio . . | 221 |
| Measuring operating efficiency. . . . .                        | 222 |
| Inventory turnover ratio. . . . .                              | 222 |
| Days-in-inventory (inventory supply) . . . . .                 | 223 |
| Accounts receivable turnover ratio . . . . .                   | 224 |
| Days-sales-in-receivables . . . . .                            | 225 |
| Average days payable ratio . . . . .                           | 226 |
| Working capital turnover ratio. . . . .                        | 227 |
| Measuring profitability . . . . .                              | 228 |
| Return on sales ratio. . . . .                                 | 228 |
| Gross margin ratio . . . . .                                   | 228 |
| Return on assets ratio . . . . .                               | 229 |
| Return on invested capital ratio. . . . .                      | 230 |
| Return on total equity ratio . . . . .                         | 231 |
| Return on common (shareholders') equity ratio . . . . .        | 232 |
| Financial leverage ratio . . . . .                             | 233 |
| Earnings per common share . . . . .                            | 234 |
| Analyzing investment quality. . . . .                          | 235 |
| Price/earnings ratio. . . . .                                  | 235 |
| Dividend yield . . . . .                                       | 235 |
| Book value per share. . . . .                                  | 236 |
| Other ratios. . . . .                                          | 237 |
| Words of Caution . . . . .                                     | 238 |
| Standards of Comparison . . . . .                              | 238 |
| Sources of External Information. . . . .                       | 240 |
| Illustrative Financial Statements — ABC Limited . . . . .      | 241 |
| <i>Chapter 10</i> <b>INVESTMENT STRATEGY.</b> . . . .          | 243 |
| Overview. . . . .                                              | 243 |

## DETAILED TABLE OF CONTENTS

|                                                                     |     |
|---------------------------------------------------------------------|-----|
| Strategic Framework . . . . .                                       | 243 |
| Investment Objectives . . . . .                                     | 244 |
| Short-term investment strategy checklist . . . . .                  | 246 |
| Investment Criteria . . . . .                                       | 248 |
| Safety and quality . . . . .                                        | 248 |
| Liquidity . . . . .                                                 | 248 |
| Rate of return . . . . .                                            | 249 |
| Taxation . . . . .                                                  | 250 |
| Management Controls and Reporting . . . . .                         | 251 |
| Investment Policy Checklist. . . . .                                | 252 |
| <br><i>Chapter 11</i> <b>SECURITIES ANALYSIS AND PORTFOLIO</b>      |     |
| <b>MANAGEMENT</b> . . . . .                                         | 255 |
| Overview. . . . .                                                   | 255 |
| Structuring a Portfolio . . . . .                                   | 256 |
| Investment objectives, risk tolerance and time horizon . . . . .    | 256 |
| Diversification alternatives . . . . .                              | 261 |
| Selecting the portfolio . . . . .                                   | 262 |
| Duration . . . . .                                                  | 263 |
| Income tax considerations . . . . .                                 | 265 |
| Sources of information regarding securities . . . . .               | 266 |
| Investment valuation . . . . .                                      | 266 |
| Monitoring the Portfolio . . . . .                                  | 269 |
| Evaluating portfolio performance. . . . .                           | 269 |
| Basis of evaluation . . . . .                                       | 270 |
| Calculating return . . . . .                                        | 271 |
| Real rate of return. . . . .                                        | 273 |
| Risk-adjusted performance measures . . . . .                        | 274 |
| Portfolios with foreign securities . . . . .                        | 275 |
| Expected return . . . . .                                           | 276 |
| <br><i>Chapter 12</i> <b>MANAGING INTEREST RATE RISK.</b> . . . . . | 279 |
| Overview. . . . .                                                   | 279 |
| Exposure Management . . . . .                                       | 279 |

## CANADIAN CASH AND TREASURY MANAGEMENT

|                                                                   |     |
|-------------------------------------------------------------------|-----|
| Managing Interest Rate Risk . . . . .                             | 281 |
| Identifying Interest Rate Exposure . . . . .                      | 282 |
| Strategies and Policies . . . . .                                 | 284 |
| Characteristics of Interest Rate Management Products . . . . .    | 284 |
| Custom or generic . . . . .                                       | 284 |
| Certainty or insurance . . . . .                                  | 285 |
| Fixed or floating rates . . . . .                                 | 286 |
| Yield curve and term structure . . . . .                          | 286 |
| Short-term or long-term products . . . . .                        | 287 |
| Types of Interest Rate Management Products . . . . .              | 288 |
| Interest rate futures . . . . .                                   | 288 |
| Forward rate agreements . . . . .                                 | 289 |
| Interest rate options . . . . .                                   | 290 |
| Interest rate caps . . . . .                                      | 290 |
| Interest rate floors . . . . .                                    | 290 |
| Interest rate collars . . . . .                                   | 290 |
| Interest rate swaps . . . . .                                     | 291 |
| Vanilla interest rate swaps . . . . .                             | 291 |
| Example . . . . .                                                 | 292 |
| Asset swaps . . . . .                                             | 295 |
| Delayed start swap . . . . .                                      | 295 |
| Other variations . . . . .                                        | 295 |
| <i>Chapter 13</i> <b>MANAGING FOREIGN EXCHANGE RISK</b> . . . . . | 297 |
| Overview . . . . .                                                | 297 |
| Foreign Exchange Management . . . . .                             | 297 |
| Spot and Forward Transactions . . . . .                           | 299 |
| Interest rate differential . . . . .                              | 300 |
| What is Foreign Exchange Risk? . . . . .                          | 301 |
| Transaction or trading exposure . . . . .                         | 302 |
| Translation or balance sheet exposure . . . . .                   | 303 |
| Economic or strategic exposure . . . . .                          | 304 |
| Derivatives . . . . .                                             | 306 |
| Foreign Exchange Exposure Models . . . . .                        | 307 |



## DETAILED TABLE OF CONTENTS

|                                                                                                        |            |
|--------------------------------------------------------------------------------------------------------|------------|
| Accounting exposure . . . . .                                                                          | 307        |
| Cash flow exposure . . . . .                                                                           | 308        |
| Strategic exposure . . . . .                                                                           | 308        |
| Market value of equity exposure . . . . .                                                              | 308        |
| Corporate objectives and systems . . . . .                                                             | 309        |
| Identifying Exposure . . . . .                                                                         | 309        |
| Hedging . . . . .                                                                                      | 311        |
| Strategies and Policies . . . . .                                                                      | 313        |
| Characteristics of Foreign Exchange Management Products . . . . .                                      | 313        |
| Custom or generic . . . . .                                                                            | 313        |
| Certainty or insurance . . . . .                                                                       | 315        |
| Foreign Exchange Management Products . . . . .                                                         | 315        |
| Spot and forward foreign exchange . . . . .                                                            | 315        |
| Forward foreign exchange contracts . . . . .                                                           | 316        |
| Currency futures . . . . .                                                                             | 318        |
| Foreign exchange derivatives . . . . .                                                                 | 319        |
| Currency swaps . . . . .                                                                               | 319        |
| Cross currency interest rate swaps . . . . .                                                           | 319        |
| Foreign currency options . . . . .                                                                     | 322        |
| <b>Chapter 14 SHORT-TERM INVESTMENTS . . . . .</b>                                                     | <b>323</b> |
| Overview . . . . .                                                                                     | 323        |
| Canadian Money Market . . . . .                                                                        | 324        |
| Canadian Money Market Instruments . . . . .                                                            | 324        |
| Government paper . . . . .                                                                             | 325        |
| Government of Canada treasury bills . . . . .                                                          | 325        |
| Provincial and municipal short-term paper . . . . .                                                    | 326        |
| Chartered bank paper . . . . .                                                                         | 327        |
| Bearer deposit notes . . . . .                                                                         | 327        |
| Term notes, certificates of deposit, guaranteed investment<br>certificates and term deposits . . . . . | 327        |
| Other demand deposits . . . . .                                                                        | 328        |
| Money market funds . . . . .                                                                           | 328        |
| Virtual savings accounts . . . . .                                                                     | 329        |

## CANADIAN CASH AND TREASURY MANAGEMENT

|                                                                           |            |
|---------------------------------------------------------------------------|------------|
| Finance and consumer loan company paper . . . . .                         | 329        |
| Trust and mortgage company deposit receipts . . . . .                     | 329        |
| Investments in other financial institutions . . . . .                     | 330        |
| Repurchase agreements or “buy-backs” . . . . .                            | 330        |
| Bankers’ acceptances . . . . .                                            | 331        |
| Commercial paper . . . . .                                                | 331        |
| Foreign currency money market instruments. . . . .                        | 332        |
| Foreign currency deposits . . . . .                                       | 333        |
| Swap deposits and split swap deposits . . . . .                           | 333        |
| The Money Market in Other Countries. . . . .                              | 334        |
| United States money market investment vehicles . . . . .                  | 334        |
| Euro-currency investments outside North America . . . . .                 | 335        |
| Calculating Price and Yield . . . . .                                     | 337        |
| <b>Chapter 15 LONG-TERM INVESTMENTS</b> . . . . .                         | <b>341</b> |
| Overview. . . . .                                                         | 341        |
| Instruments Available. . . . .                                            | 342        |
| Government of Canada bonds due in more than one year . . . . .            | 342        |
| Chartered bank paper due in more than one year . . . . .                  | 343        |
| Long-term U.S. government bonds . . . . .                                 | 343        |
| Longer-term euro-currency deposits. . . . .                               | 343        |
| Euro-currency certificates of deposit due in more than one year . . . . . | 344        |
| The Canadian Bond Market. . . . .                                         | 344        |
| Canadian Bond Market Instruments . . . . .                                | 345        |
| Introduction . . . . .                                                    | 345        |
| Unsecured debt (debentures) . . . . .                                     | 345        |
| Secured debt . . . . .                                                    | 346        |
| Mortgage bonds . . . . .                                                  | 346        |
| Mortgage-backed securities . . . . .                                      | 347        |
| Other asset-backed securities . . . . .                                   | 347        |
| Subordinated debt . . . . .                                               | 348        |
| Other Features of Long-Term Debt Instruments . . . . .                    | 348        |
| Sinking funds and purchase funds . . . . .                                | 348        |
| Callable (redeemable) debt . . . . .                                      | 349        |

## DETAILED TABLE OF CONTENTS

|                                                                       |     |
|-----------------------------------------------------------------------|-----|
| Extendible debt . . . . .                                             | 350 |
| Retractable debt . . . . .                                            | 351 |
| Convertible debt . . . . .                                            | 351 |
| Floating interest rates . . . . .                                     | 352 |
| Zero-coupon bonds . . . . .                                           | 352 |
| Other features . . . . .                                              | 354 |
| Foreign Currency and Foreign Entity Bond Issues . . . . .             | 354 |
| Analysis of Debt Instruments . . . . .                                | 356 |
| Accrued interest . . . . .                                            | 356 |
| Fixed rate debt . . . . .                                             | 357 |
| Calculating bond yields . . . . .                                     | 358 |
| Floating rate debt . . . . .                                          | 360 |
| Other Long-Term Investments . . . . .                                 | 362 |
| Preferred shares . . . . .                                            | 362 |
| Calculating the yield on preferred shares . . . . .                   | 363 |
| <i>Chapter 16</i> <b>LEGAL ISSUES IN TREASURY MANAGEMENT.</b> . . . . | 365 |
| Dealing with Customers . . . . .                                      | 365 |
| Identifying customers . . . . .                                       | 365 |
| Corporate authority . . . . .                                         | 366 |
| Billing and invoicing . . . . .                                       | 367 |
| Securing receivables . . . . .                                        | 367 |
| Dealing with Lenders . . . . .                                        | 369 |
| Bank accounts . . . . .                                               | 369 |
| Borrowing from banks . . . . .                                        | 369 |
| Commitment letters . . . . .                                          | 370 |
| Loan agreements . . . . .                                             | 370 |
| Unsecured Creditor . . . . .                                          | 372 |
| Court action . . . . .                                                | 372 |
| Bankruptcy petition . . . . .                                         | 373 |
| Secured Creditor . . . . .                                            | 373 |
| Notice of intention to enforce security . . . . .                     | 373 |
| Sale of debtor's property and appointment of receiver . . . . .       | 374 |
| Foreclosure . . . . .                                                 | 375 |
| Bankruptcy petition . . . . .                                         | 376 |

## CANADIAN CASH AND TREASURY MANAGEMENT

|                                             |     |
|---------------------------------------------|-----|
| Rights and Remedies of a Debtor . . . . .   | 376 |
| Reorganization or Restructuring . . . . .   | 377 |
| Informal proceedings . . . . .              | 377 |
| Bankruptcy . . . . .                        | 378 |
| <i>Chapter 17</i> <b>GLOSSARY</b> . . . . . | 383 |
| <i>Index</i> . . . . .                      | 425 |