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The demand for data analysis/science and data management are increasing in the field of management accounting. In this article, you learn how to get data for management accounting with the balance sheet and income statement in R. Furthermore you learn how to prepare the balance sheet and income statement in R and how to export it to Excel, which is a highly used tool in the management accounting field.

**Load packages into R**

First we read data pacakages into our R library:

# Management accounting & getting data

library(finreportr)

# Dat management

library(reshape2)

library(xlsx)

# Data tables

library(htmlTable)

**Get data for financial statements in R**

Now it is time to get data for financial statements. You can get data in XRL format for any company from US through the package finreportr.

First let us get data for the balance sheet of 2017 from Google:

# Get balance sheet statement

balance\_sheet2017\_goo <- GetBalanceSheet("goog", 2017)

head(balance\_sheet2017\_goo)

*Metric Units Amount startDate endDate*

*1 Cash and Cash Equivalents, at Carrying Value usd 18898000000 2013-12-31*

*2 Cash and Cash Equivalents, at Carrying Value usd 18347000000 2014-12-31*

*3 Cash and Cash Equivalents, at Carrying Value usd 16549000000 2015-12-31*

*4 Cash and Cash Equivalents, at Carrying Value usd 12918000000 2016-12-31*

*5 Available-for-sale Securities, Current usd 56517000000 2015-12-31*

*6 Available-for-sale Securities, Current usd 73415000000 2016-12-31*

Now let us get data for the income statement of Google for the year 2017:

# Get income statement

Income2017\_goo <- GetIncome("goog", 2017)

head(Income2017\_goo)

*Metric Units Amount startDate endDate*

*1 Revenues usd 66001000000 2014-01-01 2014-12-31*

*2 Revenues usd 74989000000 2015-01-01 2015-12-31*

*3 Revenues usd 90272000000 2016-01-01 2016-12-31*

*4 Cost of Revenue usd 25691000000 2014-01-01 2014-12-31*

*5 Cost of Revenue usd 28164000000 2015-01-01 2015-12-31*

*6 Cost of Revenue usd 35138000000 2016-01-01 2016-12-31*

**Do Data management – prepare the financial statements for wide format**

In order to analyze the balance sheet and the income statement in a HTML table, we need to make the dataset in wide format and do some data management. Let us start with the balance sheet:

# Data management and prepare the balance sheet for a html table

balance\_sheet2017\_goo.W <- dcast(balance\_sheet2017\_goo, Metric + Units ~ endDate, value.var="Amount")

balance\_sheet2017\_goo.W <- balance\_sheet2017\_goo.W[c(1,5:6)]

balance\_sheet2017\_goo.W

*31 2016-12-31*

*1 Accounts Payable, Current 1931000000 2041000000*

*2 Accounts Receivable, Net, Current 11556000000 14137000000*

*3 Accrued Income Taxes, Current 302000000 554000000*

*4 Accrued Liabilities, Current 4768000000 6144000000*

*5 Accrued Revenue Share 2329000000 2942000000*

*6 Accumulated Other Comprehensive Income (Loss), Net of Tax -1874000000 -2402000000*

*7 Assets 147461000000 167497000000*

*8 Assets, Current 90114000000 105408000000*

*9 Available-for-sale Securities, Current 56517000000 73415000000*

*10 Cash and Cash Equivalents, at Carrying Value 16549000000 12918000000*

*11 Cash, Cash Equivalents, and Short-term Investments 73066000000 86333000000*

*12 Commitments and Contingencies*

*13 Common Stocks, Including Additional Paid in Capital 32982000000 36307000000*

*14 Convertible Preferred Stock, Nonredeemable or Redeemable, Issuer Option, Value 0 0*

*15 Debt, Current 3225000000 0*

*16 Deferred Revenue, Current 788000000 1099000000*

*17 Deferred Revenue, Noncurrent 151000000 202000000*

*18 Deferred Tax Assets, Net, Noncurrent 251000000 383000000*

*19 Deferred Tax Liabilities, Net, Noncurrent 189000000 226000000*

*20 Deposits Received for Securities Loaned, at Carrying Value 2428000000 0*

*21 Employee-related Liabilities, Current 3539000000 3976000000*

*22 Goodwill 15869000000 16468000000*

*23 Income Taxes Receivable, Current 1903000000 95000000*

*24 Intangible Assets, Net (Excluding Goodwill) 3847000000 3307000000*

*25 Inventory, Net 491000000 268000000*

*26 Liabilities 27130000000 28461000000*

*27 Liabilities and Equity 147461000000 167497000000*

*28 Liabilities, Current 19310000000 16756000000*

*29 Liability for Uncertain Tax Positions, Noncurrent 3663000000 4677000000*

*30 Long-term Debt and Capital Lease Obligations 1995000000 3935000000*

*31 Other Liabilities, Noncurrent 1822000000 2665000000*

*32 Other Long-term Investments 5183000000 5878000000*

*33 Prepaid Revenue Share Expenses And Other Assets Current 2648000000 4575000000*

*34 Prepaid Revenue Share Expenses And Other Assets Noncurrent 3181000000 1819000000*

*35 Property, Plant and Equipment, Net 29016000000 34234000000*

*36 Receivable Under Reverse Repurchase Agreements 450000000 0*

*37 Retained Earnings (Accumulated Deficit) 89223000000 105131000000*

*38 Stockholders' Equity Attributable to Parent 120331000000 139036000000*

Let us do the same thing for the income statement:

# Data management and prepare the income statement for a html table

Income2017\_goo.W <- dcast(Income2017\_goo , Metric + Units ~ endDate, value.var="Amount")

Income2017\_goo.W <- Income2017\_goo.W[c(1,3:5)]

Income2017\_goo.W

*Metric 2014-12-31 2015-12-31 2016-12-31*

*1 Cost of Revenue 25691000000 28164000000 35138000000*

*2 Costs and Expenses 49505000000 55629000000 66556000000*

*3 General and Administrative Expense 5851000000 6136000000 6985000000*

*4 Income (Loss) from Continuing Operations Attributable to Parent 13620000000 16348000000 19478000000*

*5 Income (Loss) from Continuing Operations before Equity Method Investments, Income Taxes, Extraordinary Items, Noncontrolling Interest 17259000000 19651000000 24150000000*

*6 Income (Loss) from Discontinued Operations, Net of Tax, Including Portion Attributable to Noncontrolling Interest 516000000 0 0*

*7 Income Tax Expense (Benefit) 3639000000 3303000000 4672000000*

*8 Net Income (Loss) Attributable to Parent 14136000000 16348000000 19478000000*

*9 Net Income (Loss) Available to Common Stockholders, Basic 14136000000 15826000000 19478000000*

*10 Nonoperating Income (Expense) 763000000 291000000 434000000*

*11 Operating Income (Loss) 16496000000 19360000000 23716000000*

*12 Preferred Stock Dividends and Other Adjustments 0 522000000 0*

*13 Research and Development Expense 9832000000 12282000000 13948000000*

*14 Revenues 66001000000 74989000000 90272000000*

*15 Selling and Marketing Expense 8131000000 9047000000 10485000000*

**HTML table of balance sheet and income statement**

Now we can make a HTML table of the balance sheet and the income statement. Let us start with the balance sheet:

# Balance sheet HTML table

htmlTable(balance\_sheet2017\_goo.W)

Let us do the same coding for HTML table of the income statement:

# Income statement HTML table

htmlTable(Income2017\_goo.W)

**Export balance sheet and income statement to Excel**

It is also possible to export the balance sheet and income statement to Excel. Let us start with exporting the balance sheet to excel:

# Export balance sheet to Excel

write.xlsx(balance\_sheet2017\_goo.W), "/BaanceSheet.xlsx") # write sheet

Let us also export the income statement to Excel:

# Export income statement to Excel

write.xlsx(Income2017\_goo.W), "/IncomeStatementSheet.xlsx") # write sheet

**References**

1. [Using xlsx in R – CRAN.R-project.org](https://cran.r-project.org/web/packages/xlsx/xlsx.pdf)
2. [Using htmlTable in R – CRAN.R-project.org](https://cran.r-project.org/web/packages/htmlTable/vignettes/general.html)
3. [Using finreportr in R – CRAN.R-project.org](https://cran.r-project.org/web/packages/finreportr/finreportr.pdf)
4. [Using reshape2 in R – CRAN.R-project.org](https://cran.r-project.org/web/packages/reshape2/reshape2.pdf)