

Written by Rafael Nicolas Fermin Cota (email: nfermincota.hba2005@ivey.ca)

Financial Data

The Web_Queries_Templates allows Ivey Students to retrieve historical financial and macro data, financial statements, dynamic stock quotes, currency quotes, bond quotes, and commodities quotes from the AdvFn, MSN Money, Yahoo Finance, and the Federal Reserve Bank of St. Louis web sites. These tools are particularly well suited for Microsoft Excel 2003 and 2007 to easily gather and study the stocks of interest to the students, refresh the quotes when they want, and readily change or modify the quotes gathered.

Note: These templates are meant for educational purposes only. We believe the spreadsheet to be correct, but do not guarantee the results. Please consult your financial advisor or lending institution before making any final financial decisions.

Guidelines

1. Easily getting financial data and comparables from AdvFN

AdvFn is an excellent source for performing fundamental analysis on companies in the United States and Canada. One problem that arises is collecting the data in Excel so that analysis can be applied. The AdvFn Financial Data is an incredible tool that allows the Ivey Community to import financial data from AdvFn into Excel. Please notice for American companies you don't need to use the Stock Exchange prefix, however, for Canadian you do need it (e.g., for TD is the TSE:TD).

✓ ADVFN_NON_FINANCIAL_MODEL

This worksheet allows Ivey students to retrieve 10 years of financial data for non-financial institutions in the United States and Canada, and also allow them to perform a historical analysis. First enter the ticker symbol, then select the currency (e.g., US Dollars(1); British Pounds (2);

Canadian Dollars (3); Euros (4); Japanese Yen (5); Swedish Krona (6). Finally, you can turn off the historical analysis by choosing FALSE in cell D8.

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Created for the Ben Graham Centre for Value Investing

ADVFN III

TICKER	TSE:RIM								
CURRENCY	3								
HISTORICAL ANALYSIS	1 2 3 4 5 6								
STOCK-SPLIT CORRECTION	1 1 1 1 1 1 1 1 1								
HISTORICAL DATA	TA								
	Feb-08K	Feb-07K	Mar-06K	Feb-06K	Feb-05K	Feb-04K	Feb-03K	Feb-02K	Feb-01K
MARKET DATA									
PER SHARE DATA									
VALUATION RATIOS									
MANAGEMENT PERFORMANCE									
RETURN ON INVESTED CAPITAL									
DATA EVOLUTION									
FINANTIAL HEALTH									
EFICIENCY									
PROFITABILITY									
BALANCE SHEET DATA									
INCOME DATA									
CASH FLOW DATA									

RAW FINANCIAL DATA									
	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual
year end date	2/1/2008	2/1/2007	3/1/2006	2/1/2006	2/1/2005	2/1/2004	2/1/2003	2/1/2002	2/1/2001
date preliminary data loaded	4/18/2008	4/19/2007	5/29/2006	5/29/2006	7/7/2005	4/13/2004	1/9/2004	7/15/2002	7/24/2001
earnings period indicator	F	F	F	F	F	F	F	F	F

ADVFN_NON_FINANCIAL_MODEL / ADVFN_STATEMENTS / ADVFN_COMPARABLES / TEST_WSHEET (DELETE ME) / EXAMPLE_COMPARABLES (DELETE ME)

✓ ADVFN_STATEMENTS

This worksheet allows the user to retrieve up to 50 periods of financial data for financial and non-financial institutions in the United States and Canada. Users write the ticker symbol, and then select quarterly (TRUE) or annually (FALSE) data in cell C7, the output will be printed in descending order. Query time for the Balance Sheet, Income Statement, Cash Flow Statement, Ratio Analysis, and Industry Analysis is approximately one second per period.

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TICKER	TSE:RIM
QUARTERLY	FALSE
NO PERIODS	10
CURRENCY	3



**DOWNLOAD ADVEN
STATEMENTS**

REMOVE WSHEETS

RESET ADVFN CACHE

✓ ADVFN_COMPARABLES

In this worksheet students can write up to 1000 ticker symbols and it will take one second per company to retrieve, parse and aggregate company information, key figures – latest twelve months, price info, volume info, growth rates, changes in growth rates, short-term solvency ratios, financial structure ratios, valuation ratios, per share figures, profitability ratios, efficiency ratios, and dividend info. So, if you enter the symbol list for stocks in the S&P 500, it should take at least five minutes. Please visit <http://www.advfn.com/Help/financials-79.html> to read the definition of each element.

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[illegible]

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COMPARABLES**

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RESET ADVFN CACHE



Last but not least, the remove wsheets button is a routine for housekeeping. It deletes all the output worksheets from the workbook. Further, the AdvFn cache reset button erases from the memory all the queries retrieved. This is just in case the user downloads over 100 ticker symbols, and the performance of excel decreases.

2. Federal Reserve Bank of St. Louis Historical Data

This template is an application for retrieving economic and financial data from the Federal Reserve Economic Data, a database of 19,942 U.S. economic time series. The user only needs to enter the symbol and Series ID (e.g., the Series ID for commercial and industrial loans at all commercial banks in the United States is BUSLOANS).

FRED Historical Data

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SYMBOL	DEXCAUS
Download Data	
Remove WSheets	



3. MSN Money Financial Statements

This template allows the students to retrieve financial results from public companies trading in the United States (US), Australia (AU), Belgium (BE), Canada (CA), France (FR), Italy (IT), Germany (DE), United Kingdom (GB), Japan (JP), Netherlands (NL), Spain (ES), and Sweden (SE). Financial statements (IS/BS/CF) in the MSN Money server are prepared in the standard format to allow direct comparisons of all companies and industries across multiple time frames. For the content & data providers attributions in the MSN Money web site please visit <http://moneycentral.msn.com/inc/attributions.asp>.

As we can see from the snapshot we have the Ticker parameter, which can either be a single ticker U.S. symbol, or a colon (":") delimited character for the international symbol. For example, for the LVMH Group in France the ticker is FR:MC {suffix: ticker}. Please refer to

<http://moneycentral.msn.com/investor/common/findsymbol.asp?> for the ticker symbol lookup feature. At the Quarterly Parameter TRUE for the quarterly results and FALSE for the annual results.

MSN Money Financial Statements

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TICKER	FR:MC
QUARTERLY	FALSE



Download Statements

Remove Statements

4. Yahoo Finance Delayed Stock Quote

The following template returns delayed stock quotes and other data from the Yahoo quotes interface. A list of stock markets to get quotes and/or other data for from the Yahoo quotes server: Major U.S. stock markets: NYSE, Amex, Nasdaq National Market (NasdaqNM), Nasdaq Small Cap (NasdaqSC), OTC Bulletin Board, (identified by the extension ".OB") and Pink Sheets (identified by the extension ".PK"). Canadian quotes from the Montreal, Vancouver, and Toronto exchanges as well. Note that Yahoo Finance does not currently provide quotes from the Canadian Dealer Network. It also provides quotes for international stock exchanges such as: Argentina, Australia & NZ, Brazil, China, France, Germany, Hong Kong, India, Italy, Japan, Korea, Mexico, Singapore, Spain, Spanish, Taiwan, and UK & Ireland. For the list of covered exchanges on Yahoo! Finance and their respective delay times please refer to <http://finance.yahoo.com/exchanges>.

You can also use the Delayed Stock Quote template for Mutual Funds and Money Market Funds; Market Indices, such as the Dow Jones Industrial Average; Classes of stock, including preferred. Ticker symbols for these stocks can be found at <http://finance.yahoo.com/q?s>. For example, for a class of stock, add the class to the end of the ticker symbol, such as "BRKa" and "BRKb" for Berkshire Class A and B. For preferred shares (for U.S. equities), add "_p" (underscore "_" followed by the letter "p") and then the class to the end, such as "AA_p" for Alcoa preferred class A. Use the following extensions for other types (for U.S. equities): rights "_r", rights when

issued "_r_w", when distributed "w" (no underscore), warrants "_t", warrants when issued "_t_w", units "_u", and when issued "_w".

Canadian ticker symbols include an extension designating the exchange as follows: Toronto: .TO (example: NT.TO); Canadian Venture Exchange: .V (example: CD.V). Many stocks trade on multiple Canadian markets, and, unfortunately, Yahoo Finance do not have a composite quote available as they do for U.S. markets. Be sure to watch your stock on one of the markets in which it trades most heavily. Quotes from Canadian exchanges are in Canadian dollars.

Remember to insert your own list of ticker symbols to get quotes and/or other data for from the Yahoo quotes server. This parameter must be a cell reference, or a range reference. An optional list of data codes telling the Yahoo quotes server which data elements you want is available as well.

Yahoo Delayed Stock Quotes

YAHOO! FINANCE

Written by Rafael Nicolas Fermin Cota <nfermincota.hba2005@ivey.ca>

Created for The Ben Graham Centre for Value Investing

REFRESH				
Insert Symbols in this row Select financial field in this column				
	XOM	GE	PG	JNJ
Time of Last Trade	1:16pm	1:16pm	1:16pm	
Short Ratio	N/A - 78.97	N/A - 28.41	N/A - 70.34	N/A -
Strike price	105.5	33.5	76.43	
Symbol	86.3623	31.5928	66.5876	
Ticker Trend	80.9403	28.4472	66.4547	
Time of Last Trade	96.12	42.15	75.18	
Trade Date	76.14	25.6	60.05	
Type of option	76.14 - 96.12	25.60 - 42.15	60.05 - 75.18	61.17 -
Volume	N/A - N/A	N/A - N/A	N/A - N/A	N/A -
52-week Low	0	0	0	
52-week Range	N/A	N/A	N/A	
After Hours Change (ECN)	78.98	28.41	70.34	
Annualized Gain	N/A	N/A	N/A	
Ask				
Ask (ECN)				
Ask Size				

With the exception of Market Capitalization and Average Volume (from Reuters) and Target Price Est, EPS Est, and PEG (from Thomson Financial), the quote data fields are provided by independent providers identified on the Yahoo! Finance partner page and updated continuously throughout market hours. When looking at your portfolio, you can control which of the available data points show up by click refresh.

How to read the detailed quote data!

- **1y Target Est:** The 1-year target price estimate represents the median target price as forecast by analysts covering the stock. Data is provided by Thomsonfn.com.

- **Avg Vol:** Average Daily Volume is the monthly average of the cumulative trading volume during the last 3 months divided by 22 days. It is updated weekly and is provided by Market Guide.
- **Bid / Ask:** The Bid price is the price you get if you sell your stock, and the Ask price is the price you have to pay to buy a stock. Note that the New York Stock Exchange (NYSE) does not permit Bid and Ask prices to be reported for delayed quotes, so this field is always reported as "N/A" (Not Available) for NYSE stocks.
- **Bid Size / Ask Size:** Represents the number of shares a buyer is willing to purchase for the bid or ask price.
- **Change:** The change in price for the day. This is the difference between the last trade and the previous day's closing price (Prev Close). The change is reported as "0" if the stock hasn't traded today.
- **Div Date:** Dividend Pay Date. The date on which the dividend was last paid, or the date on which the next one will be paid.
- **Dividend (ttm):** All dividends paid out in the last twelve months are added together to create a "Dividend(ttm)". The trailing dividend is then divided by the most recent closing price to derive the Yield (see Yield). Depending on the dividend history of a particular company, the dividend(ttm) and yield could produce different results compared to the company's forward dividend which is calculated by multiplying the payment frequency by the most recent dividend.
- **EPS Est:** Current year analyst consensus EPS estimate from Thomson/First Call.
- **EPS (ttm):** Earnings Per Share (EPS) is stated for the most recent 12 months (ttm, trailing 12 months). It represents primary earnings from continuing operations attributable to each share of common stock outstanding, and is calculated by dividing the income from continuing operations by the average number of shares outstanding during the period (in accordance with generally accepted accounting principles, GAAP). The income is the income or loss that remains after excluding income or loss from discontinued operations and extraordinary charges or credits that are reported separately (again, per GAAP). Earnings Per Share is adjusted for stock splits and stock dividends. If data is not available for 12 months or more, "N/A" is displayed for EPS.
 - Daily updates are received on quarterly EPS data. Most earnings information is received within 48 hours of the company's earnings announcement. Every time a company declares their earnings, a record is sent for that particular earning figure along with a 12-month rolling EPS.
- **Ex-Div:** The Ex-Dividend Date (without dividend). You need to purchase the stock before this date to receive the current quarter's dividend or stock split.
- **Exchanges:** With detailed quotes, the stock exchange is listed along with the stock, such as (Nasdaq:YHOO).
 - **These abbreviations are used for the exchanges:** NYSE - New York Stock Exchange, AMEX - American Stock Exchange, Nasdaq - National Association of

Securities Dealers Automatic Quotation System, OTC BB - OTC (Over the Counter) Bulletin Board Market, Toronto - Toronto Stock Exchange, Alberta - Alberta Stock Exchange, and Vancouver - Vancouver Stock Exchange.

- **Last Trade:** The time and price of the last trade made for the stock. The date is reported in place of the time if the stock hasn't traded today.
- **Mkt Cap:** The Market Capitalization is calculated by multiplying the Last Trade by the current number of shares outstanding. Shares outstanding are updated weekly and are provided by Market Guide.
- **Open:** Opening price for the day; first trade of the day. This is not always close to the previous day's closing price, especially when company news is released after the stock market closed the previous day.
- **P/E:** Price to Earnings Ratio. This number is the previous closing stock price (see Prev Close) divided by the earnings per share, and reflects the value the market has placed on a stock.
- **PEG:** PEG stands for price/earnings growth and is calculated by dividing the trailing P/E by the projected earnings growth rate (in this case, the 5 year annualized growth rate). The idea behind the PEG Ratio is to relate price to growth.
- **P/S:** Price to Sales Ratio. This number is the previous closing stock price (see Prev Close) divided by the revenue per share.
- **Prev Close:** The closing price for the trading day prior to the last trade reported.
- **Yield:** The dividend(ttm) per share divided by the previous closing stock price (see Prev Close), as a percentage (multiplied by 100).

Note that Yahoo Finance server has a limit on the number of stock symbols you can retrieve; this template allows the student to download data for up to 200 symbols.

5. Yahoo Finance Delayed Options Quotes

This template provides delayed options quote data. To obtain the symbols for the option chain for a particular company, you need to request a quote for the underlying stock in the Yahoo Finance Web site. When the quote result is returned, click the "Options" link under "Quotes" in the left column of the displayed quote.

Yahoo! Inc. (YHOO)

More On YHOO

Quotes

Summary

Real-Time ECN

Options

Historical Prices

Charts

Interactive

Basic Chart

Basic Tech. Analysis

News & Info

100

FREE TRADES

E*TRADE Securities LLC

TD

TF

30 I

YAHOO INC (NasdaqGS: YHOO)

NEW Real-time: 19.84 ↓ 0.06 (0.30%)

Last Trade:

19.79

Trade Time:

10:35AM ET

Change:

↓ 0.11 (0.55%)

This returns the complete option chain for the closest expiration month in a table below the stock quote. Calls are listed on the top half of the page, and Puts are listed on the bottom half.

Yahoo! Inc. (YHOO)

At 10:35AM

MORE ON YHOO

Quotes

Summary

Real-Time ECN

Options

Historical Prices

Charts

Interactive

Basic Chart

Basic Tech. Analysis

News & Info

Headlines

Financial Blogs

Company Events

Message Board

Company

Profile

Key Statistics

SEC Filings

AMERITRADE

No maintenance fees.

GO

E*TRADE

Scottrade

\$7 Online Trades

Options

Get

View By Expiration: Aug 08 | Sep 08 | Oct 08 | Jan 09 | Jan 10

CALL OPTIONS

Expire at close Fri, Aug 15, 2008

Strike	Symbol	Last	Chg	Bid	Ask	Vol	Open Int
10.00	YHQHBX	10.22	0.00	9.80	9.90	0	10
12.50	YHQHVX	7.35	0.00	7.25	7.35	0	8
15.00	YQHCHX	4.80	0.00	4.80	4.90	0	328
16.00	YHQHQX	3.95	0.00	3.80	3.90	0	10
17.50	YHQHWX	2.50	0.00	2.35	2.40	40	13,059
19.00	YHQHTX	1.16	0.00	1.05	1.10	197	2,559
20.00	YHQHDX	0.49	↓ 0.07	0.48	0.51	729	24,564

Note that this template already provides you the list of the available option chain fields.

Web_Queries_Templates.zip

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Yahoo Delayed Options Quotes

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REFRESH

Insert Symbols in this row

	SPYUX.X	QQQUU.X	QQQUV.X	SPYUY.X
Name	SPY Sep 2008 128.	QQQQ Sep 2008 47.	QQQQ Sep 2008 48.	SPY Sep 2008 1
Exchange	OPR	OPR	OPR	
Symbol	SPYUX.X	QQQUU.X	QQQUV.X	SPYU
Change & Percent	0.00 - 0.00%	0.00 - 0.00%	0.00 - 0.00%	0.00 - 0.
Type of option	PUT	PUT	PUT	
Expiration date	Fri 19-Sep-08	Fri 19-Sep-08	Fri 19-Sep-08	Fri 19-Sep
Strike price	128	47	48	
Last Trade	2.13	0.94	1.4	2
Percent Change	0	0	0	
Day's Value Change	- - 0.00%	- - 0.00%	- - 0.00%	- - 0.
Previous Close	2.13	0.94	1.4	2
Bid	0	0	0	

How to read the detailed quote data!

- **Symbol:** A five-character symbol followed by the ".X" extension. The ".X" suffix is the designation used by Yahoo! Finance for U.S. options symbols.
- **Last Trade:** The time and price of the last trade made for option contract. Note: Options quotes do not reflect lot size. A single options contract typically covers 100 shares of the underlying security (this might vary in the case of mergers, splits, and index options). Example: An option contract is quoted at \$25. Actual option would cost \$2500 (\$25 x 100 shares).
- **Change:** The change in price for the day. This is the difference between the last trade and the previous day's closing price (Prev Close). The change is reported as "0" if the option hasn't traded today.
- **Bid/Ask:** The Bid price is the price you get if you were to write (sell) an option. The Ask price is the price you have to pay to purchase an option.
- **Volume:** The volume indicates the number of option contracts that have traded for the current day.
- **Open Interest:** The total number of derivative contracts traded that have not yet been liquidated either by an offsetting derivative transaction or by delivery.
- **Strike Price:** The stated price per share for which underlying stock can be purchased (in the case of a call) or sold (in the case of a put) by the option holder upon exercise of the option contract.
- **Previous Close:** The closing price for the trading day prior to the last trade reported.
- **Open:** Opening price for the day; first trade of the day.
- **Day's Range:** The high and low prices, recorded during the current or most recent trading day.

- **Contract Range:** The high and low prices, over the life of the contract as of the previous trading day.
- **Expiration Date:** Date upon which the option expires. Important note: equity, index, and treasury/interest rate options expire on Saturday. Trading of an option effectively ceases on the most recent trading day prior to the expiration date (which is usually a Friday, but might be a Thursday in the event of a Friday holiday).

6. Yahoo Finance Real Time FX Quotes

The market for foreign exchange is the world's largest financial market. Trading is conducted through a network of traders from major commercial and investment banks linked by phone, computer terminal and other telecommunications devices. Major trading centers include London, New York and Tokyo, with total trading volume in excess of a trillion dollars of foreign currency per day. Participants include importers and exporters, as well as traders, portfolio managers and foreign exchange brokers. This is an extremely liquid market that displays a high degree of market efficiency. This template provides Real Time FX quote data for 150 currencies, and the following quotes for precious metals are currently supported by the Yahoo Finance server: Gold, Palladium, Platinum, and Silver in the respective currency that you select.

Yahoo Real Time FX Quotes

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REFRESH		YAHOO! FINANCE	
Select currency in the drop-down menu			
BASE CURRENCY	U.S. Dollar	U.S. Dollar	U.S. Dol
QUOTE CURRENCY	U.S. Dollar	Canadian Dollar	Euro
Name	Albanian Lek	USD to CAD	USD
Date	Algerian Dinar	12-Aug-08	12-
Last Trade (Real-time)	Aluminium Ounces	7:17am	
Avg. Rate	Argentine Peso	1.0718	
Bid	Aruba Florin	1.0714	
Ask	Australian Dollar	1.0721	
	Bahamian Dollar		

7. Yahoo Finance Historical Stock Data & Yahoo Finance Historical Dividends

These templates offer access to historical quote data in tabular format in several timeframes: Daily, Weekly, Monthly, and Dividends. The historical quotes feature includes notations for all splits and dividend distributions during the date range covered. Open, high, low, and close quotes

are not adjusted for splits or dividends. An additional column, Adjusted Close, is provided that shows the close price adjusted for all splits and dividends.

On both templates, you can choose the date range of the data displayed, change the ticker symbol query, or switch to a different timeframe format. If the data requested is beyond the range of historical quotes available through Yahoo! Finance, all available data within the range is displayed. Historical quotes typically do not go back further than 1970.

Yahoo Historical Stock Data

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SYMBOL	AA
START_DATE	7/13/1970
END_DATE	4/9/2007
FREQUENCY	DAILY

Download

Remove WSheets

YAHOO! FINANCE

Yahoo Historical Dividends

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SYMBOL	C
START_DATE	7/13/1980
END_DATE	4/9/2007

Download Dividends

Remove WSheets

YAHOO! FINANCE

There is currently no restriction on the amount of historical quote data you can request. To see all the data you've requested, click the Download button. Note that dividend information is not included in the Historical Stock Data template. However, dividend data can be downloaded separately from the Historical Dividends template.

- Daily Historical Quotes provide you with the daily open, high, low, close, and volume for each trading day in the chosen date range.

- Weekly Historical Quotes retrieve the open trade from the first trading day for the week, the high and low price quotes of the week, and the closing price on the last trading day of the week. The weekly volume is the average daily volume for all trading days in the reported week.
- Monthly Historical Quotes report the open trade from the first trading day of the month, the high and low price quotes for the month, and the closing price on the last trading day of the month. The monthly volume is the average daily volume for all trading days in the reported month.
- Historical Dividends report the dividend distributed by a company and the ex-dividend date of the distribution.
- Adjusted Close provides the closing price for the requested day, week, or month, adjusted for all applicable splits and dividend distributions. Data is adjusted using appropriate split and dividend multipliers, adhering to Center for Research in Security Prices (CRSP) standards. Split multipliers are determined by the split ratio. For instance, in a 2 for 1 split, the pre-split data is multiplied by 0.5. Dividend multipliers are calculated based on dividend as a percentage of price, primarily to avoid negative historical pricing. For example, when a \$0.08 cash dividend is distributed on Feb 19 (ex-date), and the Feb 18 closing price was 24.96, the pre-dividend data is multiplied by $(1 - 0.08/24.96) = 0.9968$.

Note that international ticker downloads are limited to 200 rows of data due to contractual obligations with the data provider for Yahoo Finance.