



Version 2.0

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Generally about the program

„Invest“ is an Excel program for tracking the profit and loss in trading stocks, shares in investment funds or any other type of trading.

Use the program at your own risk, and its authors are not responsible for any trading losses or any other damages resulting from its use.

Since the program includes using macros, in Excel is required to set security settings so that the macros can be performed.

Features of the program are:

- enter, modify, or delete transactions,
- enter, modify, or delete ticker prices that applies to a specific date,
- download the Zagreb Stock Exchange share prices,
- review of the profits, revenues and dividends by ticker,
- history overview and the graphs of the profit, revenues and dividends,
- custom names of the sheets, columns, menus and labels,
- in-out data transfer by use of the standard windows copy+paste functionalities,
- custom data views.

User interface consists of:

- the menu item that opens the „Investments“ menu that was added to Excel toolbar and the corresponding toolbar,
- input sheets „Transactions“ and „Prices“
- output sheets „Tickers“, „Profit“ and „History“
- settings sheets: „Menu“, „Popups“ and „Toolbars“

Input sheets are intended for data entry. Output sheets are intended to review the calculated data, and they are not allowed for data entry.

Depending of the selected sheet, in the menu and toolbar are displayed only those items related to working with that sheet.

Conventions used in formulas: <sheet>!<column>

- <sheet> = sheet name,
- <column> = column mark in Excel (eq. column C),
- if <sheet> isn't mentioned it means that it refers to the those that current chapter describes.

Conventions for navigation through the menus: <menu>/<submenu>/<item>.

Import and export data

Import and export data it is possible to do with standard copy + paste features into sheets "Prices" (except in the column "Amount"), "Transactions" and elsewhere where it is allowed to enter data.

Since the program does not work correctly when run multiple instances at the same time, when import data from an older version you need to do so the data is first copied into a blank excel and close the source instance. Recommended for "paste" is to use "Paste special / Values" option.

Minimum System Requirements

- Windows XP,
- Office 2003 SP3.

Program Capacity

- Number of transactions: 65534
- Number of prices: 65534
- Number of tickers: 65533
- History, the number of days: 65535
- Dates: >1.1.2005 , <1.1.2020

Known issues

- The program does not work properly if run multiple instances at once.

We thank everyone who made aviable VBA code embedded in this program, as well as those who contributed to its development in any way.

Sheets

Sheet „Transactions“

Sheet „transactions“ is used to enter transactions. Right-click on a row opens a menu with items for entering, copying, and deleting transactions.

Entering a new transaction adds a row with the date of the selected row above the selected row. If you choose more than one line, there will be addad as many as is the number of chosen

lines. The date of the added rows is equal to the date of the first row that is selected. If you click on the last (turquoise), you can add one or more rows with the current date.

Copy the transaction adds a line with the contents of the selected row above the selected row. If you choose more than one line, there will be added as many as is the number of chosen lines.

Deleting the transaction deletes the selected rows.

Changes of data is done directly by entering a value or formulas in cells, where it is allowed (all columns except G (Amount)). Changes can be monitored with standard Excel function „Track Changes“.

Copying data from other applications is possible with the copy/paste of the columns: Date, Ticker, Type, Quantity, Price, Provision, in the previously added rows.

Sheet „Transactions“, columns description			
<i>Mark</i>	<i>Column name</i>	<i>Description</i>	<i>Formula/Note</i>
A	Date	Date and Time of the transaction	
B	Ticker	Ticker mark	Capital letters (except for the B=„cache“)
C	Type	Type of the transaction	buy (B) (except for the B=„cache“) sell (S) (except for the B=„cache“) dividend (D) (except for the B=„cache“) pay-in (I) (only for the B=„cache“) pay-out (O) (only for the B=„cache“)
D	Quantity	The amount of the ticker	
E	Price	Unit price of the ticker	
F	Provision	Provision (transaction price)	Formula or number.
G	Amount	The total transaction amount	For transactions of the type „buy“, „pay-out“: -D*E-F. For transactions of the type „sell“, „dividend“, „pay-in“: D*E-F.

Sheet „Prices“

Sheet „Prices“ is used for entering the market prices for a specific date.

Entry is done in the same way as in the sheet „Transactions“.

It is possible to download prices (Investments/Download data) that are momentarily at the <http://fly.cc.fer.hr/~jandric/>.

Prices can be changed and deleted.

Sheet „Prices“, column description			
<i>Mark</i>	<i>Column name</i>	<i>Description</i>	<i>Formula/Note</i>
A	Ticker	Ticker mark	

B	Date	Date and time of the unit price (C)	
C	Price	Ticker unit price on a date (B)	
D	Source	Source of the data	Stock = downloaded price Other = manually entered price

Sheet „Tickers“

Sheet „Tickers“ presents data of the tickers. Entry is possible only in the column „Type“, that in this and other sheets is used for grouping by type of the ticker.

Sheet „Tickers“, column description			
Mark	Column name	Description	Note
A	Ticker	Ticker mark	
B	Date	Date and time of the newest price for specified ticker	Date from the sheet „Prices“ or date from the sheet „Transakcions“, depends on the newer date
C	Price	Ticker unit price	on a date (B)
D	Source	Source of the data for last price	Transactions Stock Other
E	Type	Ticker type	share fund other

Sheet „Profit“

Sheet „Profit“ shows profits, income, dividend and ROI+D (*Return of Investment + dividend*) through tickers at the date of the last known price.

Profit is the difference between the market and the pondered buy price of the ticker. Income is realised profits from buying and selling. ROI+D (Return of Investment + dividend) is overall earnings; the sum of profits, incomes and dividends.

Sheet „Profit“, column description by tickers (except for „cache“)			
Mark	Column name	Description	Formula/Note
A	Ticker	Ticker mark	
B	Ticker type	Ticker type	share fund other
C	Quantity	Quantity on the date (G)	$\sum_{Transactions!C="B"} Transactions!D - \sum_{Transactions!C="S"} Transactions!D$
D	Date from	Date of the last transaction after which C=0	

E	Buy price	Pondered price of all buyings (transaction type B) with provisions from (D) to (G)	$\frac{\sum_{D}^{G} \text{Transactions!G}}{\sum_{D}^{G} \text{Transactions!D}}$ $\text{Transactions!C="B"}$
F	Buy value	Total buy value (quantity*price)	C*E
G	Date to	Date of the last entered transaction or price	
H	Market price	Value of the last entered transaction or last entered price on a date (G)	
I	Market value	Market value (quantity*unit market value)	C*H
J	Profit	The difference of the market value and the buy value	I-F
K	Share	Share of the ticker's market value in the total value of the portfolio in %	I/100*ΣI
L	Duration	Number of days from (D) to (G)	G-D
M	Buyings	Sum of all buyings (transaction type B) with the provision	$\sum_{\text{Transactions!C="B"}} \text{Transactions!G}$
N	Sellings	Sum of all sellings (transaction type S) with the provision	$\sum_{\text{Transactions!C="S"}} \text{Transactions!G}$
O	Income	Money earned untill (D)	N-M+F
P	Provision	Sum of the all provisions	$\sum \text{Transactions!F}$
Q	Dividend	Sum of all dividends (transaction type D)	$\sum_{\text{Transactions!C="D"}} \text{Transactions!G}$
R	ROI	„Profit“ + „Income“	J+O
S	ROI+D	„Profit“ + „Income“ + „Dividend“	R+Q
T	ROI+D%	„ROI+D“ in relation to „Buyings“ in %	S/M*100

Sheet „Profit“, column description for „cache“			
Mark	Column name	Description	Formula
A	Ticker	cache	
F	Buy value.	Sum of pay-ins and pay-outs, buyings and sellings without dividends	$\sum_{\text{Transactions!C="I","O","B","S"}} \text{Transactions!G}$
I	Market value	Sum of pay-ins and pay-outs, buyings and sellings without dividends	F
K	Share	Share in portfolio value in %	I/100*ΣI

Sheet „Profit“, description of the totals by columns			
<i>Mark</i>	<i>Column name</i>	<i>Description</i>	<i>Formula</i>
A	Ticker	„Total“	
D	Date from	Earliest date of buy price	MIN(D)
F	Buy value	Total buy value of all tickers and „cache“	$\sum J$
G	Date to	Date of the latest market price	MAX(H)
I	Market value	Total market value of all tickers and „cache“	$\sum I$
J	Profit	Total value of the profit	$\sum J$
K	Share	The total value of „Share“ in percentages	100
L	Duration	Number of days from the earliest „Date from“ until the latest „Date to“	G-D
M	Buyings	Sum of all buyings (transaction type B) with provision	$\sum M$
N	Sellings	Sum of all sellings (transaction type S) with provision	$\sum N$
O	Income	Money earned untill D	$\sum O$
P	Provision	Sum of the all provisions	$\sum P$
Q	Dividend	Sum of all dividends (transaction type D)	$\sum Q$
R	ROI	Sum of ROI	$\sum R$
S	ROI+D	Sum of ROI+D	$\sum S$
T	ROI+D%	Sum of ROI+D%	$\sum T$

Sheet „Profit“, comparison with the Completeline's e-trade program				
<i>Invest</i>		<i>Completeline</i>		<i>Note</i>
<i>Mark</i>	<i>Column name</i>	<i>Table</i>	<i>Column name</i>	
A	Ticker	Portfolio (=Stanje) Profit (=Pregled dobiti)	Share (=Vrijednosnica) Share (=Vrijednosnica)	
B	Ticker type			
C	Quantity	Portfolio Profit	Quantity (=Količina) Quantity (=Količina)	
D	Date from			n/a in Completeline
E	Buy price	Portfolio	Buy price (=Kup. cijena)	differences in formula!
F	Buy value	Portfolio Profit	Buy value (=Kup. vrij.) Buy value (=Kup. vrij.)	
G	Date to			n/a in Completeline
H	Market price	Portfolio	Market price (=Trž. Cijena)	

I	Market value	Portfolio Profit	Market value (=Trž. vrij.) Market value (=Trž. vrij.)	
J	Profit	Portfolio	Profit (=Dobit)	
K	Share	Portfolio Profit	Share (=Udio) Share (=Udio)	
L	Duration			n/a in Completeline
M	Buyings	Profit	Buyings (=Kupnje)	
N	Sellings	Profit	Sellings (=Prodaje)	
O	Income			n/a in Completeline (=Profit![Profit/Loss] - Portfolio!Profit)
P	Provision			n/a in Completeline
R	Dividend			n/a in Completeline
Q	ROI	Profit	Profit/Loss (=Dobit/Gubitak)	
S	ROI+D			n/a in Completeline
T	ROI+D%	Profit	ROI%	Invest includes dividend
		Portfolio	Yeld % (=Prinos %)	n/a in Invest

Sheet „History“

Sheet „History“ shows the movement of ROI+D from sheet „Profit“ through time.

Sheet „History“, column description			
Mark	Column name	Description	Formula
A	Date	Dates from the first transaction entered until today	
B	Payed-in	Sum of all pay-ins until the date A	$\sum_{\text{Transactions!C}="I"} \text{Transactions!G}$
C	Payed-out	Sum of all pay-outs until the date A	$-\sum_{\text{Transactions!C}="O"} \text{Transactions!G}$
D	Invested	Monay invested until the date A	B-C
E	Market value	Market value of the portfolio on the date A	$\sum \text{Profit!I}$
F	ROI+D	Profit + income + dividend on	$\sum \text{Profit!T}$

		the date A	
G	I-O	Difference of the payed-in and payed-out on the date A	C-B

Graphs are displayed in time interval from „Date from“ until „Date to“. „Date from“ is entered in the cell (J1), and „Date until“ in the cell (N1).

Sheet „History“, description of the graphs			
<i>Graph</i>	<i>X</i>	<i>Y</i>	<i>Description</i>
Invested, Market value	Date (A)	Invested (D) Market value (E)	Invested and marked value of the portfolio in time interval from „Date from“ until „Date to“
Payed-in, Payed-out	Date (A)	Payed-out (C) Payed-in (B)	Payed-in and payed-out in time interval from „Date from“ until „Date to“
ROI+D	Date (A)	ROI+D (F)	ROI+D in time interval from „Date from“ until „Date to“
I-O	Date (A)	I-O (G)	Difference of the payed-in and payed-out in time interval from „Date from“ until „Date to“

Sheets „Menus“, „Popups“ and „Toolbars“

This three sheets are used to set user settings. They are initially hidden, and can be shown by selecting Investments/Show settings.

It is possible to change text labels and icons on the menu „Investments“ (sheet „Menus“), corresponding toolbars (sheet „Toolbars“) and popup menus (sheet „Popups“). Icons codes can be viewed by opening the window by pressing the „FaceId“ button.

At the input and output sheets itself is possible to change the column names, data can be marked with the font and color, some permanently, some temporarily.

Settings can be returned to the initial state (Investment/Restore default settings).

Glossary

Profit	The total monetary value of the portfolio (value of the ticker + cache).
Portfolio	All bought tickers and cache.
Income	Income received until the last transaction, after which quantity = 0.
ROI	Return of investment (profit + income).
ROI+D	ROI + dividend.
Ticker	Mark of what is traded.
Transaction	Buy or sell of the specified quantity of the ticker, pay-in/pay-out if the cache cache-a or dividend.

References

- <http://fly.cc.fer.hr/~jandric/>
- <http://www.comlinebrokers.com>