



BANKROLL

The Investment Game

in EXTENDED BASIC

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A Not-Polyoptics Author Co-op Program

2, 3 OR 4 PLAYER GAME

EXTENDED BASIC

Welcome to **BANKROLL**, The Investment Game! Two, three, or four investors can play. The object of this game is to be the first person to achieve financial success by reaching a level of personal assets agreed upon at the beginning of the game. The length of the game depends on how high this financial goal is set. For example, a goal of \$20,000 may only last a few turns, whereas a \$999,000 goal may draw the game out for a considerable period. A limit of six-digit amounts is built into the game, so there is no point in trying to become a millionaire. Each player starts out with \$10,000 earning the present interest rate.

Ten different kinds of investments, described in detail below, serve as the mechanism by which money is made or lost. Winning the game requires careful management of holdings, income, and expenses.

Sources of income

- Dividends paid by several investments.
- Capital gains realized when sale price is higher than purchase price.
- Interest received for uninvested cash.

Expenses

- Commissions paid on purchase or sale.
- Capital loss realized when sale price is lower than purchase price.
- Interest charged on any debt.
- Taxes.

Directions For Play

Game play begins by answering several questions on the parameters for this game. Number of players: 2, 3, or 4. Names should be no longer than 8 letters. Financial goal should be between \$20,000 and \$990,000. With this out of the way, the yearly cycle of play begins. On the upper half of the screen a list of investment possibilities (names slightly abbreviated) will appear, together with the following information:

TAX SHELTER The number of dollars of your income that will be sheltered from taxes for each unit (share) that you own.

DIVIDENDS The number of dollars income each unit will pay for this year. Example: If dividend = 5 and you own 100 units, you will receive \$500 income from this investment this year.

PREVIOUS PRICE The selling price last year (last turn).

PRICE NOW The amount you must pay for each unit if you buy it this turn. Also, the amount you will receive if you sell this turn. Example: if you buy 100 units of a stock selling for \$50 per unit, your cash account will be debited \$5000 plus brokerage commission.

Each player's name in random order will appear in the upper left hand corner of the screen. The numbers of units owned by the player will appear to the left of each investment. At the beginning of the game none will appear because none have been purchased. The blinking "?" in the box half-way down the left side of the screen indicates the computer is ready to take a command to buy or sell. If you wish to buy and the screen says "SELL" or vice-versa, you can change by typing "B" or "S". In a similar way the investment listed in this box can be changed by typing the first letter of its name. Do not press the "ENTER" key. Note: Keep the "ALPHA LOCK" key in the depressed position for this game. Only capital (upper-case) letters will be accepted.

No purchase or sale will be made for you if the amount to the left of the blinking "?" is 0. This amount represents the number of units involved in the transaction. Immediately upon receiving complete information on a transaction, the purchase or sale will be made. It is important that you specify correctly both the investment type and whether you wish to buy or sell before entering an amount. Each number key (1-9) represents ten times that number. For example, type 3 to purchase 30 units. Large purchases or sales are managed by the following keys:

0 (zero) key = one hundred units
= (equals) key = five hundred units
T key = one thousand units

When you are satisfied with your investment portfolio, and wish to end your turn, press the space bar. Play will pass to the next investor. When each player has had a turn for the year, a table displaying each person's income and expenses for the year will be displayed. After a pause, the message "ANY KEY TO CONTINUE" signals that the computer is ready to begin a new turn at your pleasure.

Information Needed to Invest Wisely

Two rows of small boxes along the bottom of the screen display information that is crucial to wise investment. They are continually updated during play. These are:

CAPITAL GAINS

A number will be displayed in this box only after you have completed a sale. If you sell an investment for more than you paid, your profit will be shown. A negative number represents a loss on the sale.

CASH

This is similar to your bank balance. It represents the amount of money you have free to invest. If this is a negative figure it represents what you owe to the bank. You may spend more for your investments than you have in cash (in effect, taking a loan from the bank). In this case you will pay yearly interest rather than receive it. Note the warning below about borrowing excessively.

ASSETS

This represents your current net worth, the total value of your investments plus (or minus) your cash on hand. It is this figure that determines who wins the game. Note that the formula by which assets are computed ignores any capital gain tax that would be incurred on the sale of a property.

INTEREST RATE

Each year you earn or pay interest on your cash balance. The interest rate remains unchanged throughout each turn but may change dramatically between turns. The bank charges a higher interest rate than it pays. If you have surplus cash this box shows what you are earning. If you owe money it shows the rate you pay.

CAPITAL GAIN TAX

If you sell an investment for more than you paid, only part of your profit is taxed. This figure represents the percentage of your profit that is included in taxable income.

INCOME TAX

This is the percentage of your taxable income that will be taken by the government at the end of the year. When tax rates are high it may be sensible to buy investments with good tax shelter or to delay selling until rates decline.

BROKERAGE COMMISSION

Each purchase and each sale is charged 1% or more of the price. This figure fluctuates according to a variety of economic variables.

News Headlines and Special Events

The real investment world is not a static one. As conditions change some investments grow in value while others decline. For this reason, "headlines" will appear in the large box at the right of the screen. Investments will react in reasonable and logical ways to the news reported. Sometimes the reaction will be great. Other times there will be no discernible effect.

In the real world the news is often reflected in market prices before the individual investor has an opportunity to adjust his portfolio. A "headline" may change the prices on the screen as you watch, before one has had a chance to buy or sell. However, the effect may be expected to persist through the turn and affect future prices. The effects of a "headline" can increase or diminish with time.

The degree to which given news affects prices often depends on who makes the news, or who reports it. Thus, you may expect that a report confirmed by the President will usually make a greater difference in prices than an event hinted at by Time magazine. In the same way, an assassination of a general will cause a greater reaction than the jailing of a clergyman.

Some news events have a direct impact on prices; others are important in an indirect way: they increase (or in some cases decrease) the likelihood of war. Wars last from one to several turns. They usually have strong effects on prices during each turn. However, wars are not frequent. You may play several games without one. If you encounter several headlines that appear threatening (for example, the threat of a Middle Eastern blockade), you should prepare yourself.

There are three kinds of war, each with its own effects: 1) War in the Middle East, 2) The US fighting an unspecified war, and 3) The US involved in a Middle Eastern War.

Normally headlines appear approximately every other turn. You can change this frequency during play by responding to the message "ANY KEY TO CONTINUE" with "M" for more headlines and "F" for fewer. These are gradual adjustments.

How Prices Change

News headlines often play a significant part in determining price changes. However, prices will change a good deal without news events because of the high degree of interlocking variables within the game. Perhaps the single most important variable is the interest rate. Interest rates are determined primarily by the money supply (the aggregate cash balance of all players). Thus, if all the players have a comfortable cash surplus, interest rates will be rock bottom, but if all or most investors are heavily in debt, interest rates can be expected to soar. When interest rates are low, the economy (and various investments) are likely to prosper. But under conditions of high interest rates it becomes much harder to make money. Bond prices and utilities are especially likely to fare better when interest rates are low. As you gain experience you will undoubtedly discover other linkages between and among variables. Be aware that, in most cases, a chance variable is also at work.

Other BANKROLL Features

Some investments, under some conditions, become highly volatile. Drilling oil may even decline to zero in which case it disappears from the board and from the players' portfolios. This is signaled by a downward arrow shown between the previous and present price columns. Your shares are gone forever. They will not reappear, even if Drilling Oil eventually recovers. The capital loss you suffer will be deducted from this year's taxable income, but any surplus loss does not carry over to another year.

If the price of an investment reaches 100 it splits. You receive two units for each one you had before and the new price is half of the "above one hundred" price. Dividends are also cut in half. An upward pointing arrow indicates a split.

A player will be charged normal interest rates as long as his total debt remains less than his assets. You become a high risk debtor if your debt exceeds your assets and must pay interest three times the normal rate. If you are so foolish as to borrow twice your assets, you then pay six times the normal interest rate. It is rarely, if ever, wise to borrow more than is secured by your assets. If you borrow too much you will be declared broke and removed from the game.

MUNICIPAL BONDS

All income free from taxes. Dividends do not vary, but price responds moderately to interest rates. An excellent choice for high tax situations.

CORPORATE BONDS

Higher dividends than Municipals, but fully taxed. Dividends are stable, but price responds to much the same forces that affect Municipals. Hold these when the yield looks good compared to other investments.

UTILITY STOCKS

These tend to have quite good dividends. Utilities flourish under the right conditions, but can be hurt by a number of factors (e.g. oil shortages, pollution control regulations, high interest rates, etc.).

INDUSTRIAL STOCKS

Both dividends and price depend very much on the state of the economy. Moderately volatile.

HIGH TECH STOCKS

These are much like industrials, but represent greater specialization and more volatility.

PETROLEUM RESERVES

You are investing in proven oil and gas reserves, sitting in the ground, waiting to be pumped. The risk associated with drilling is absent, but so are the spectacular gains. Often some tax shelter. Slightly more volatile than average.

REAL ESTATE PARTNERSHIPS

Investments in land and buildings used for a wide variety of purposes in many parts of the country. More responsive to domestic than international news. Dividends may be quite high, and include some tax shelter. More volatile than average.

DRILLING OIL

The most speculative investment in the game! It is possible to win the game on the first turn with this, but you are just as likely to go bankrupt. Less influenced by market conditions and crises than other investments, and thus not very predictable. Some tax shelter. Investing in drilling is little more than gambling.

GOLD

The second most volatile investment, but far more predictable than drilling oil in that it responds to the market and news events. Fluctuations tend to last several turns but can surprise the most experienced. Appreciation potential only - no dividends.