Computer Foreign Exchange

AVALON HILL'S TRADEMARK NAME FOR ITS INTERNATIONAL MONEY GAME

The International Money Game

The Deutschmark is up, the Yen is down, and the Pound Sterling is mixed in international financial markets. The fortunes of multinational companies rise and fall with the tides of foreign exchange rates, gaining and losing millions. This game realistically simulates the exciting world of international high finance, giving the player the same levers of power controlled by leaders of major financial empires. Foreign investments, international loans, currency hedges—all must be managed and risks overcome to dominate world markets and achieve vast wealth.

This game is for two, three, or four international financial executives (players) whose companies compete against each other to maximize profits.* Operating through the world banking system (the computer), and using sophisticated management information systems and financial advisory services, the players attempt winning strategies of foreign investment, borrowing, and currency hedging.

At the outset each player has one sales office in each city controlled by his firm.

The game begins with a high-powered trading session during which the executives seek to consolidate their companies' market positions in some countries by swapping the right to do business in cities initially assigned to them by the computer.

Because a player can establish manufacturing subsidiaries and increase his profits only if he controls all of the cities within a country, each player tries to acquire all of the cities in as many countries as possible. All of the cities within a country are called a "SET".

Try to keep trading until all players hold only sets. It is not essential for winning the game to hold only countries with three cities or to acquire cities with the highest purchase costs.

To trade cities type 'T' (and press the 'ENTER' key), the computer will prompt you with—"WHICH TWO CITIES ARE TO BE TRADED". Enter the name of the first city to be traded and press the 'ENTER' key. Then enter the name of the second city (and press the 'ENTER' key). When you have finished trading cities type 'Q' and press the 'ENTER' key.

**The U.S. dollar is assumed to be the base currency for all players. Throughout the game all foreign currency amounts are expressed in terms of U.S. dollars.*

After the trading phase the computer will prompt you for the level of difficulty (1-9). The higher the level of difficulty the more net worth required to win and hence the longer the game.

At the beginning of each turn *Fiscal Year* (except for the first turn in level 1 play) the players will be given the opportunity to plan their strategies for the coming fiscal year. The players will be given several options to select from:

(P)—PURCHASE SALES OFFICES OR MANUFACTURING SUBSIDIARIES. To generate additional profits when other players land in his cities, a player may open a second sales office in any city in which he has an initial sales office, even if he does not hold a complete SET of cities. A player who has a complete SET of cities within a country may acquire a manufacturing subsidiary in each of those cities.

(H)—HEDGE FOREIGN ASSETS (see GLOSSARY). You may only hedge in countries that you own cities.

(B)—BORROW A FOREIGN CURRENCY. A player can borrow foreign currencies to pay penalties, to pay profits to other players or when the annual expense of borrowing is less than the expense of hedging. Disadvantages of borrowing are that a player must pay interest on the debt and forego the possibility of a gain, or even incur a loss, if the value of the foreign currency should rise rather than fall against the dollar.

(C)—CASH MANAGEMENT CONSULTING SERVICE. Allows the player to review the financial status of his firm.

(S)—SELL SALES OFFICES AND/OR MANUFACTURING SUBSIDIARIES. During the planning session a player can obtain cash by disposing of his sales offices and manufacturing subsidiaries at half of their purchase cost.

(F)—FOREIGN EXCHANGE ADVISORY SERVICE. Is used by the player to gain insight into possible future exchange rate of a country by reviewing its past currency fluctuations.

(L)—LIST OWNERSHIP AND ASSETS OF EACH CITY.

(Q)—QUIT. Passes control on to the next player or if all players have had the opportunity to plan their strategies will end the planning session and go into the next phase of the game.

After the players have planned their strategies for the coming Fiscal Year the executives board their private business jets for a round of globe circling high finance. With deft adjustment of the fuel level, the executives fly, subject to the vagaries of weather and air traffic control, to distant cities.

Play continues until the first executive accumulates sufficient net worth to meet the target (i.e., difficulty) level set at the start of the game.

Selected Glossary

Appreciation—A rise in the value of a currency in relation to another currency.

Assets—All things owned by a company that have monetary value: for example, cash, receivables, inventory, equipment and plant. In this game, cash, sales offices and manufacturing subsidiaries represent the assets of each company.

Cost of Borrowing—The annual cost of borrowing each foreign currency is displayed on the monitors. These percentages represent the difference between the cost of borrowing the foreign currency and the cost of borrowing the domestic currency of the parent company, which is the U.S. dollar for all players. As in the real world, once a company has definitely decided to borrow, the financial officer needs to consider only the differences in the costs of his borrowing alternatives. This is called his "opportunity cost." This game assumes that borrowing costs in all foreign countries, except Switzerland, are higher than the costs in the U.S. For example, it costs 4% more each year to borrow Canadian dollars than to borrow U.S. dollars. Borrowing costs in Switzerland are 2% below those in the U.S., so players realize an opportunity gain when borrowing Swiss francs.

Depreciation—A decline in the value of a currency in relation to another currency.

Discount—See "Forward Rate."

Exchange Rate—The price of one currency expressed in terms of another currency.

Exposure—A foreign asset or liability with a local currency value that will increase or decrease in terms of the currency of the parent company when exchange rates change. In this game, a company's net exposure is represented by the value of all unhedged sales offices and manufacturing subsidiaries less the amount hedged in the foreign exchange markets and the liabilities in the same currency. In the real world, there are many ways to define net exposure, depending on the accounting conventions of the various countries.

Exposure Management—The process of buying and selling currencies in the foreign exchange markets or adjusting assets and liabilities to minimize the risk of incurring a loss if currency values change.

Foreign Exchange—A currency other than the one used in a given country.

Forward Contract—An agreement to purchase or sell a currency at a specified exchange rate on a specified future date. When the contract matures, the actual exchange rate may be above or below the exchange rate agreed upon in the contract.

Forward Rate—The exchange rate at which a currency is to be delivered or received at a future date. This rate may be higher or lower than the current exchange rate. If higher, the forward rate is at a premium; if lower, it is at a discount.

Hedging—Protecting assets denominated in a foreign currency against the risk of loss if currency values change. If a foreign exchange transaction is used for hedging, the company agrees to sell a specified amount of foreign currency to a bank on a specified future date. The obligation to sell the currency on a future date constitutes a liability for the company. This liability can reduce or eliminate the company's Net Exposed Assets. Protection continues until the maturity date. At that time the agreement to sell is fulfilled and the liability is terminated.

Although it may seem strange to people not familiar with the process of hedging, a financial officer does not have to own a foreign currency when he agrees to sell it to a bank on a future date. When the maturity date arrives, the company can fulfill its agreement by purchasing the currency from the bank at the exchange rate for that day and immediately selling the purchased currency back to the bank at the previously determined contract rate. If the value of the currency has declined since the day the obligation was incurred, the company can often purchase the foreign currency at an exchange rate that is below the contractual forward rate at which the currency was sold. This produces a gain on the exchange transaction which can offset the loss in the value of the assets. The only net cost or gain related to the hedging transaction is the discount or premium: the amount by which the forward rate varies from the exchange rate on the day the agreement was initiated.

The following example assumes that a foreign currency's present exchange rate is the equivalent of 10 U.S. cents. Its forward rate for one year hence is the equivalent of 9 U.S. cents. The discount is 1: 10 minus 9. Over the year the currency's value declines to the equivalent of 6 U.S. cents. The company has 100 units of exposed assets and enters into a hedging transaction by agreeing to sell 100 units of the foreign currency in the exchange markets in exactly one year.

	In Local Currency	Exchange Rate in terms of the U.S. Dollar	In U.S. Dollars
Value of Assets			
Beginning of Year	100	.10	10
End of Year	100	.06	6
Loss On Assets			4
Amount Sold Forward for One Year	100	.09	9
Exchange Rate at End of Year		.06	6
Gain on Foreign Exchange Transaction			3
Net Loss (Equals the Discount)			1

Players can work through other examples to see what happens if the value of the foreign currency declines, or rises by different amounts, or if the forward rate is at a premium.

Liabilities—Obligations to make payments. A debt that must be paid immediately or in the future.

A liability in a foreign currency reduces a company's exposure by offsetting assets in the same currency. If an exchange rate declines between the day the foreign currency is borrowed and the day the loan must be repaid, the loss on the value of assets is exactly offset by a gain on the liabilities. It requires less of the company's domestic currency (the U.S. dollar in this game) to repay the foreign currency debt.

If the player has a net liability position in a foreign currency and the value of the foreign currency declines, the player experiences a gain. For example, if a player has borrowed French francs and the French franc depreciates against the dollar, the player gains because it takes fewer dollars to acquire French francs to pay back the debt. The opposite is also true. If the French franc appreciates against the dollar, the player requires more dollars to repay his debt.

Net Worth—The owners' investment in a company as measured by the company's assets less liabilities. A player wins the game when his net worth reaches the amount indicated in the overview.

Premium—See "Forward Rate."

Revalue—An official act which increases the exchange rate of one currency in relation to one or more other currencies. The opposite is devalue.

Unhedged—To leave a company's assets exposed to the risks associated with changing currency values.

TRS-80 Models I & III Cassette Loading Instructions

Rewind your cassette and check that the volume control is set to the proper level (between 5 and 6 is normal). Press 'PLAY' on the recorder, type:

CLOAD
(For Mod III only, enter: L after CASS?, then CLOAD

and press the 'ENTER' key on the keyboard. The recorder should start to move and your program will be loaded. This will be indicated by the flashing asterisk at the upper right corner of the screen. This program is not short, and will take several minutes to load. When the tape stops and the TRS-80 prints 'READY' on the screen, type:

RUN

and press 'ENTER' to play the game.

QUESTIONS ON PLAY

The clarity of these rules has been verified by *Software Testers of Universal Microcomputer Programmers (STUMP)* and deemed "*complete*" in all facets of instruction. Please re-read them in areas that seem unclear at first reading. Questions on play can be answered by the factory *only* upon receipt of a self-addressed envelope bearing first-class postage.

IF YOU CANNOT LOAD THE PROGRAM

1. Check your equipment carefully to be sure that all cables and connections are correct.

2. Re-read the section in your computer's manual that tells you how to load software. Try to load software again.

3. If you can adjust the volume on your recorder, try different settings, both higher and lower.

4. If possible, load another program from a tape or disk you know works on your computer. This will prove that your equipment works. Try once more to load your game.

5. The normal reason software will not load is tape recorder or disk drive head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to read software made on a different recorder for this reason. Be sure your recorder heads are correctly aligned. Your local computer store or dealer can help you with this.

7. If the program still cannot be loaded, send the software, with a complete description of the problem (what type of computer you have, what the computer says, if anything, when you try to load the software or play the game, and what you did to try to get it to load.) to:

Avalon Hill Microcomputer Games
4517 Harford Road
Baltimore, Maryland 21214

Defective software will be replaced.

After the program is loaded

Once you have your program loaded, it is a good idea to make a backup copy (for your own use). Follow the normal procedure for saving a program in your computer's manual.

DESIGN CREDITS:
GAME DESIGN: THE AVALON HILL GAME CO.
COMPUTER PROGRAM: Brent Gregory

 1/82
V-6255