

Modern World History - Factory Town Game - Understanding the Spreadsheet

The spreadsheet program will calculate and track all of the building and financial information as the game happens.

In the game, you will choose how many factories to build each turn and you will enter it on the spreadsheet using the drop-down menu for “New Factories”. The spreadsheet will then calculate the number of worker and manager housing to be built and the cost of the building. The spreadsheet will also track how many factories, worker housing and manager housing built over the course of the game.

At the end of each turn, you will be given the operating costs and rate of return for that turn and you will enter this in the spreadsheet using the drop-down menus for “Operating Costs” and “Rate of Return”. The spreadsheet will calculate your costs and revenue for the turn, the amount of money you have and whether you can stay in business or are bankrupt.

At the end of the turn, you will move to the next turn sheet. The information on new and total buildings and total factory value and ending money will be carried forward on to the next turn.

The screenshot shows a spreadsheet titled "Factory Town - Turn # 1". It is divided into two main sections: "Building Information Column" (left) and "Financial Information Column" (right). The "Building Information Column" includes rows for "New Buildings" (New Factories, New Worker Housing, New Manager Housing) and "Total Buildings" (Total Factories, Total Worker Housing, Total Manager Housing). The "Financial Information Column" includes rows for "Financial Standing" (Starting Money, New Investment Cost, Total Factory Value, Operating Cost, Total Costs, Rate of Return, Total Revenue, Profit/Loss, Borrowing Cost, Ending Money, Keep Operating). The spreadsheet has tabs at the bottom labeled "Turn#1", "Turn#2", "Turn#3", "Turn#4", "Turn#5", "Turn#6", and "Turn#7".

Annotations:

- Buildings Built This Turn:** Points to the "New Factories" row in the "New Buildings" section.
- Total Buildings Built in Game:** Points to the "Total Factories" row in the "Total Buildings" section.
- Tabs for Each Turn Sheet in Game:** Points to the "Turn#1" tab at the bottom.
- Starting Money:** Amount of money available at start of turn.
- New Investment Cost:** Cost of building new factories, worker & manager housing.
- Total Factory Value:** The value of all factories that are owned. Operating costs and total revenue are based on this value.
- Operating Cost:** The cost of running one factory - number is a percentage of the value of the factory.
- Total Costs:** Cost of operating all factories.
- Rate of Return:** The amount of money earned from selling the goods produced in one factory - number is a percentage of the value of the factory.
- Total Revenue:** Total amount of money earned from selling the products of all factories.
- Profit/ Loss:** The amount of money earned from goods produced in factories subtracting the investment and operating costs.
- Borrowing Costs:** The cost of borrowing money if operating at a loss. The interest rate on borrowed money is 20%.
- Ending Money:** The amount of money the business has at the end of the turn - its profit or loss, plus any borrowing costs.
- Keep Operating:** A company can stay in business if it has a profit or loss. A company cannot stay in business if it is bankrupt - has losses greater than money and total factory value.

	Building Information Column			Financial Information Column		
	A	B	C	D	E	F
1	Factory Town - Turn # 1					
2	New Buildings			Financial Standing		
3	New Factories	0		Starting Money	20	
4	New Worker Housing	0		New Investment Cost	0	
5	New Manager Housing	0		Total Factory Value	0	
6				Operating Cost	0	
7	Total Buildings			Total Costs	0	
8	Total Factories	0		Rate of Return	0	
9	Total Worker Housing	0		Total Revenue	0	
10	Total Manager Housing	0		Profit/Loss	20	
11				Borrowing Cost	0	
12				Ending Money	20	
13				Keep Operating	In Business	
14						
15						
16						
17						

Turn#1 Turn#2 Turn#3 Turn#4 Turn#5 Turn#6 Turn#7