

Creating Graphs in Microsoft Excel

The Martial Law Museum comes equipped with an economic database before, during, and after the Martial Law Era with 3,518 data points, 152 economic indicators, and counting! In this module, we'll learn how to create a basic graph with Microsoft Excel.

MATERIALS NEEDED

- Laptop/ Computer
- Microsoft Excel Program

Creating graphs from the economic database is as easy as four steps! All you have to do is:

1. Download the database,
2. Locate chosen economic indicator and corresponding data,
3. Copy data to separate MS Excel file, and
4. Insert a graph from the data!

STEPS

① DOWNLOAD THE DATABASE

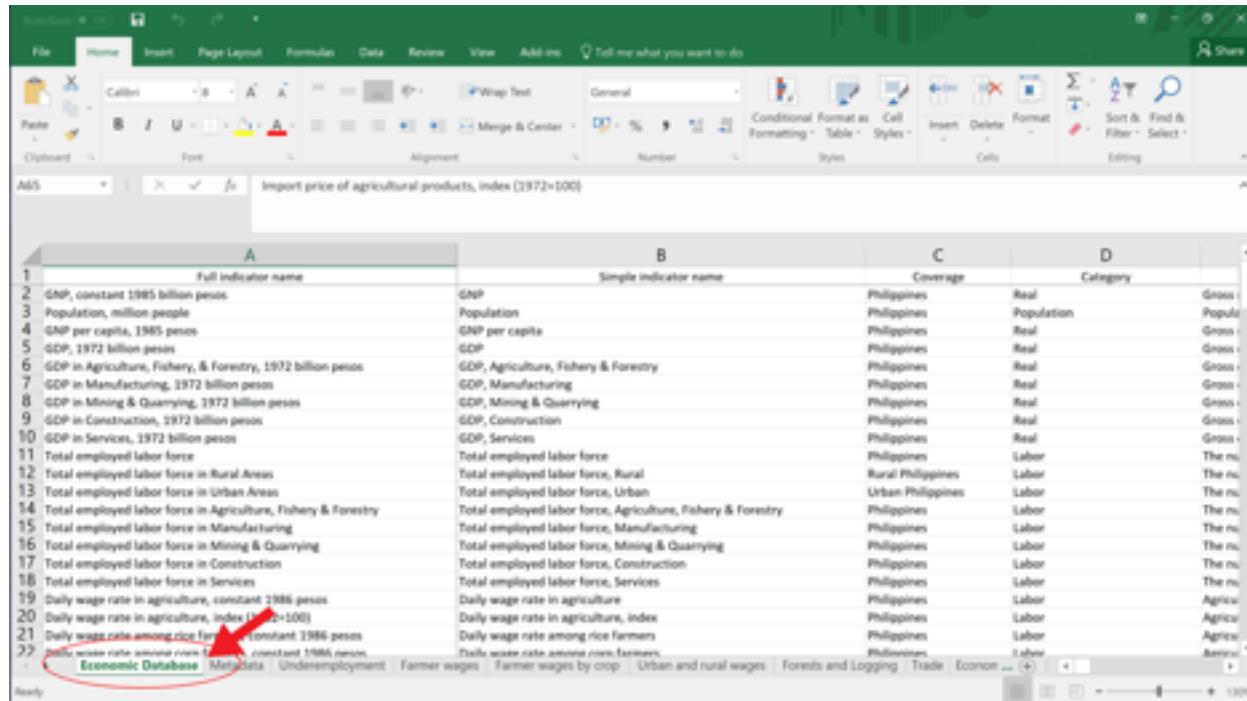
Go to MartialLawMuseum.ph and download the Martial Law Open Data here:
<http://martiallawmuseum.ph/magturo/martial-law-in-numbers/>

② LOCATE CHOSEN ECONOMIC INDICATOR AND CORRESPONDING DATA

A. Upon opening the economic database, it should look like this:

The tabs at the bottom of the spreadsheet are called "sheets".

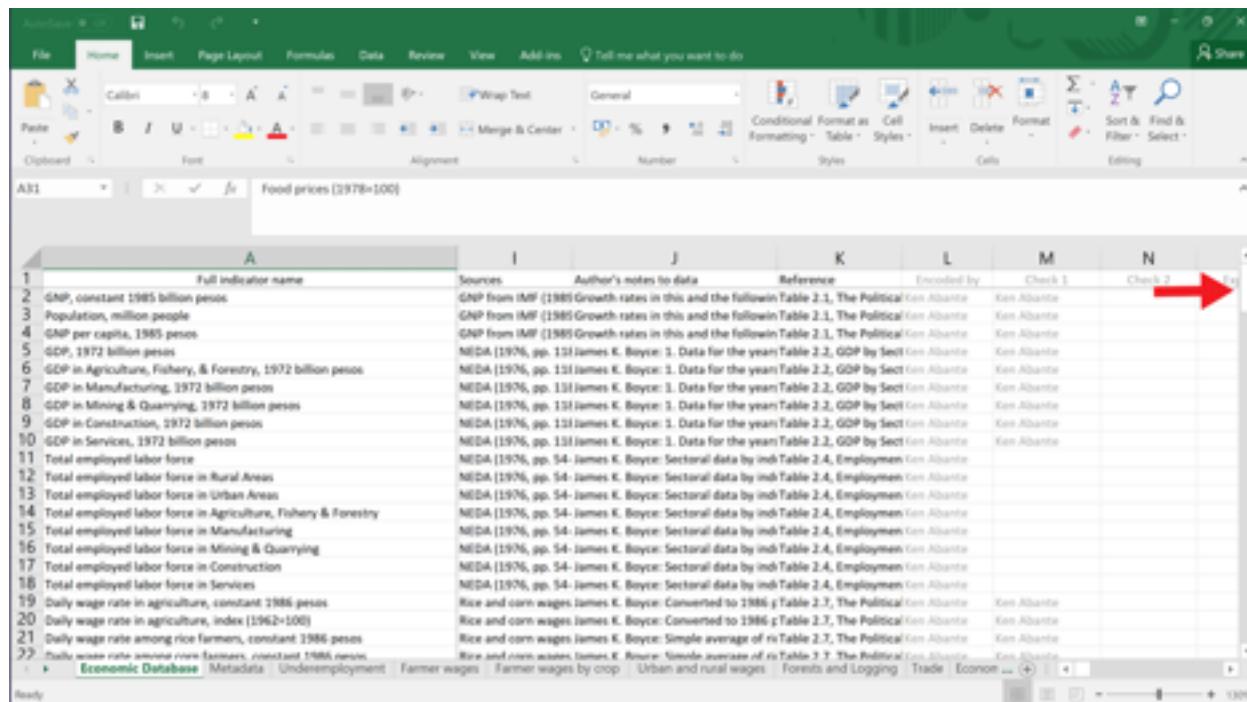
B. Click the first sheet labelled “Economic Database”



A	B	C	D
Full indicator name	Simple indicator name	Coverage	Category
1 GNP, constant 1985 billion pesos.	GNP	Philippines	Gross
2 Population, million people	Population	Philippines	Population
3 GNP per capita, 1985 pesos	GNP per capita	Philippines	Gross
4 GDP, 1972 billion pesos	GDP	Philippines	Gross
5 GDP in Agriculture, Fishery, & Forestry, 1972 billion pesos	GDP, Agriculture, Fishery & Forestry	Philippines	Gross
6 GDP in Manufacturing, 1972 billion pesos	GDP, Manufacturing	Philippines	Gross
7 GDP in Mining & Quarrying, 1972 billion pesos	GDP, Mining & Quarrying	Philippines	Gross
8 GDP in Construction, 1972 billion pesos	GDP, Construction	Philippines	Gross
9 GDP in Services, 1972 billion pesos	GDP, Services	Philippines	Gross
10 Total employed labor force	Total employed labor force	Philippines	Labor
11 Total employed labor force in Rural Areas	Total employed labor force, Rural	Rural Philippines	The no.
12 Total employed labor force in Urban Areas	Total employed labor force, Urban	Urban Philippines	The no.
13 Total employed labor force in Agriculture, Fishery & Forestry	Total employed labor force, Agriculture, Fishery & Forestry	Philippines	The no.
14 Total employed labor force in Manufacturing	Total employed labor force, Manufacturing	Philippines	The no.
15 Total employed labor force in Mining & Quarrying	Total employed labor force, Mining & Quarrying	Philippines	The no.
16 Total employed labor force in Construction	Total employed labor force, Construction	Philippines	The no.
17 Total employed labor force in Services	Total employed labor force, Services	Philippines	The no.
18 Daily wage rate in agriculture, constant 1986 pesos	Daily wage rate in agriculture	Philippines	Agric.
19 Daily wage rate in agriculture, index (1962=100)	Daily wage rate in agriculture, index	Philippines	Agric.
20 Daily wage rate among rice farmers, constant 1986 pesos	Daily wage rate among rice farmers	Philippines	Agric.
21 Daily wage rate among rice farmers, constant 1986 pesos	Daily wage rate among rice farmers	Philippines	Agric.
22 Daily wage rate among rice farmers, constant 1986 pesos	Daily wage rate among rice farmers	Philippines	Agric.

C. Locate the chosen economic indicator from the first column labelled “Full indicator name”

For example, let's graph the Food prices and Non-food prices during the regime.
To find this, you might need to scroll down the file.



A	I	J	K	L	M	N
Full indicator name	Sources	Author's notes to data	Reference	Encoded by	Check 1	Check 2
1 GNP, constant 1985 billion pesos.	GNP from IMF (1985 Growth rates in this and the followin Table 2.1, The Political			Ken Albante		
2 Population, million people	GNP from IMF (1985 Growth rates in this and the followin Table 2.1, The Political			Ken Albante		
3 GNP per capita, 1985 pesos	GNP from IMF (1985 Growth rates in this and the followin Table 2.1, The Political			Ken Albante		
4 GDP, 1972 billion pesos	NEDA (1976, pp. 13)James K. Boyce: 3. Data for the year in Table 2.2, GDP by Secti			Ken Albante		
5 GDP in Agriculture, Fishery, & Forestry, 1972 billion pesos	NEDA (1976, pp. 13)James K. Boyce: 3. Data for the year in Table 2.2, GDP by Secti			Ken Albante		
6 GDP in Manufacturing, 1972 billion pesos	NEDA (1976, pp. 13)James K. Boyce: 3. Data for the year in Table 2.2, GDP by Secti			Ken Albante		
7 GDP in Mining & Quarrying, 1972 billion pesos	NEDA (1976, pp. 13)James K. Boyce: 3. Data for the year in Table 2.2, GDP by Secti			Ken Albante		
8 GDP in Construction, 1972 billion pesos	NEDA (1976, pp. 13)James K. Boyce: 3. Data for the year in Table 2.2, GDP by Secti			Ken Albante		
9 GDP in Services, 1972 billion pesos	NEDA (1976, pp. 13)James K. Boyce: 3. Data for the year in Table 2.2, GDP by Secti			Ken Albante		
10 Total employed labor force	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
11 Total employed labor force in Rural Areas	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
12 Total employed labor force in Urban Areas	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
13 Total employed labor force in Agriculture, Fishery & Forestry	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
14 Total employed labor force in Manufacturing	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
15 Total employed labor force in Mining & Quarrying	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
16 Total employed labor force in Construction	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
17 Total employed labor force in Services	NEDA (1976, pp. 54)James K. Boyce: Sectoral data by indTable 2.4, Employment			Ken Albante		
18 Daily wage rate in agriculture, constant 1986 pesos	Rice and corn wages James K. Boyce: Converted to 1986 g Table 2.7, The Political			Ken Albante		
19 Daily wage rate in agriculture, index (1962=100)	Rice and corn wages James K. Boyce: Converted to 1986 g Table 2.7, The Political			Ken Albante		
20 Daily wage rate among rice farmers, constant 1986 pesos	Rice and corn wages James K. Boyce: Simple average of in Table 2.7, The Political			Ken Albante		
21 Daily wage rate among rice farmers, constant 1986 pesos	Rice and corn wages James K. Boyce: Simple average of in Table 2.7, The Political			Ken Albante		
22 Daily wage rate among rice farmers, constant 1986 pesos	Rice and corn wages James K. Boyce: Simple average of in Table 2.7, The Political			Ken Albante		

D. The row for the chosen economic indicator should have the data you'll need! Check out the cells to its right to see the data.

	A	C	D	E	F
1	Full indicator name	Coverage	Category	Description	What is the indicator used for?
20	Daily wage rate in agriculture, index (1962=100)	Philippines	Labor	Agricultural wage rate of a worker in agri	indexes are used to compare a starting
21	Daily wage rate among rice farmers, constant 1986 pesos	Philippines	Labor	Agricultural wage rate of a rice farmer, v	Daily wage rate is used to measure ho
22	Daily wage rate among corn farmers, constant 1986 pesos	Philippines	Labor	Agricultural wage rate of a corn farmer, Daily wage rate is used to measure ho	re
23	Daily wage rate among sugarcane farmers, constant 1986 pesos	Philippines	Labor	Agricultural wage rate of a sugarcane fa	Daily wage rate is used to measure ho
24	Daily wage rate among coconut farmers, constant 1986 pesos	Philippines	Labor	Agricultural wage rate of a coconut farm Daily wage rate is used to measure ho	re
25	Daily wage rate among urban unskilled workers, constant 1986 pesos	Philippines	Labor	Daily wage rate among urban unskilled workers Daily wage rate is used to measure ho	re
26	Daily wage rate among urban skilled workers, constant 1986 pesos	Philippines	Labor	Daily wage rate among urban skilled wo	Daily wage rate is used to measure ho
27	Daily wage rate among urban unskilled workers, index (1962=100)	Philippines	Labor	Daily wage rate among urban unskilled workers indexes are used to compare a starting	re
28	Daily wage rate among urban skilled workers, index (1962=100)	Philippines	Labor	Daily wage rate among urban skilled wo	Daily wage rate is used to compare a starting
29	Consumer price index, according to IMF (1980=100)	Philippines	Prices	Get standard definition. The consumer p	The consumer price index is used to co
30	Consumer price index, according to NEDA (1978=100)	Philippines	Prices	Get standard definition. The consumer p	The consumer price index is used to co
31	Food prices (1978=100)	Philippines	Prices	Get standard definition. The consumer p	The consumer price index is used to co
32	Non-food prices (1978=100)	Philippines	Prices	Get standard definition. The consumer p	The consumer price index is used to co
33	Infant mortality rate, deaths per 1,000 live births	Philippines	Health	The infant mortality rate is the number c	The infant mortality rate is an indicato
34	Infant mortality rate in rural areas, deaths per 1,000 live births	Rural Philippines	Health	The infant mortality rate in rural areas i	The infant mortality rate is an indicato
35	Infant mortality rate in urban areas, deaths per 1,000 live births	Urban Philippines	Health	The infant mortality rate in urban areas The infant mortality rate is an indicato	
36	Poverty rate in the Philippines [WB, 1980], % of families	Philippines	Poverty	The poverty rate is the percent of famili	The poverty rate is used to measure w
37	Poverty rate in the Philippines [WB, 1985], % of families	Philippines	Poverty	The poverty rate is the percent of famili	The poverty rate is used to measure w
38	Poverty rate in the Philippines [WB, 1988], % of families	Philippines	Poverty	The poverty rate is the percent of famili	The poverty rate is used to measure w
39	Poverty rate in the Philippines [Various, 1990], % of families	Philippines	Poverty	The poverty rate is the percent of famili	The poverty rate is used to measure w
40	Poverty rate in Manila and Suburbs, % of families	Manila and Suburbs	Poverty	The poverty rate is the percent of famili	The poverty rate is used to measure w

③ COPY THE DATA TO A SEPARATE MS EXCEL FILE

A. Click the number of the **first row** and the **rows of your chosen indicator** while **holding the Ctrl button**. Upon opening the economic database, it should look like this:

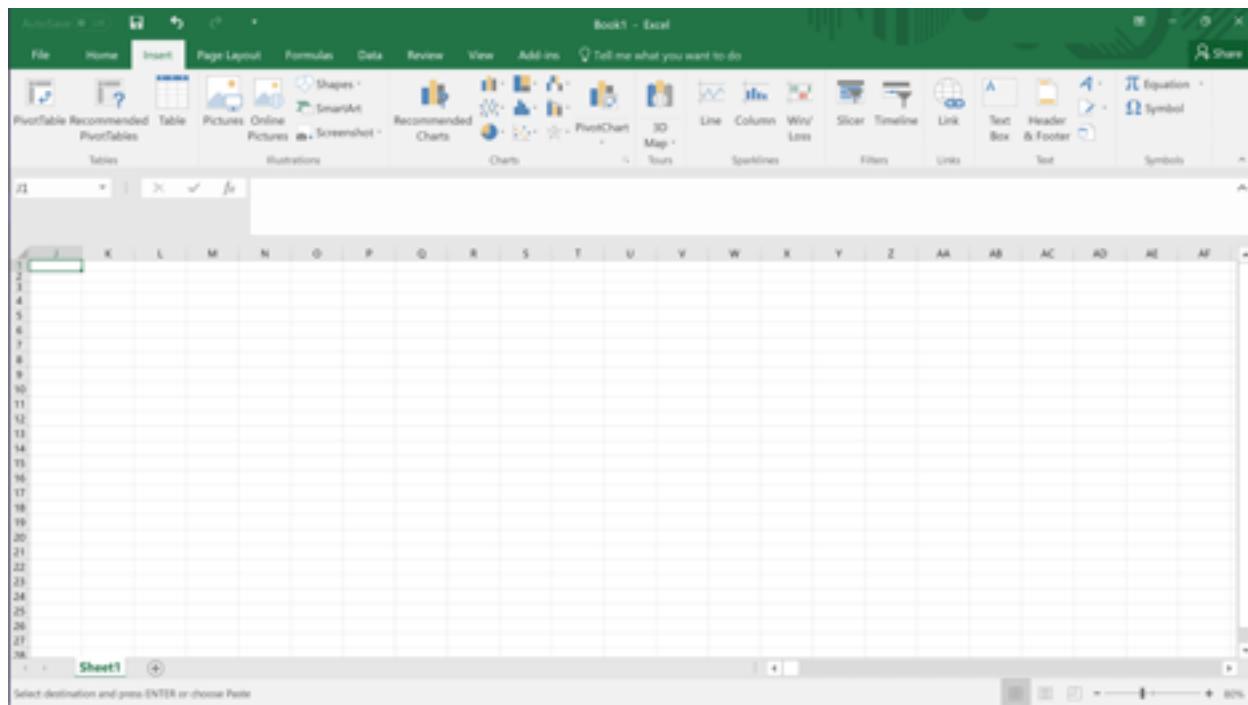
	A	B	C	D
1	Full indicator name	Simple indicator name	Coverage	Category
28	Daily wage rate among urban skilled workers, index (1962=100)	Daily wage rate among urban skilled workers	Philippines	Labor
29	Consumer price index, according to IMF (1980=100)	Consumer price index, according to IMF	Philippines	Prices
30	Consumer price index, according to NEDA (1978=100)	Consumer price index, according to NEDA	Philippines	Prices
31	Food prices (1978=100)	Food prices	Philippines	Prices
32	Non-food prices (1978=100)	Non-food prices	Philippines	Prices
33	Infant mortality rate, deaths per 1,000 live births	Infant mortality rate	Philippines	Health
34	Infant mortality rate in rural areas, deaths per 1,000 live births	Infant mortality rate in rural areas	Rural Philippines	Health
35	Infant mortality rate in urban areas, deaths per 1,000 live births	Infant mortality rate in urban areas	Urban Philippines	Health
36	Poverty rate in the Philippines [WB, 1980], % of families	Poverty rate, % of families	Philippines	Poverty
37	Poverty rate in the Philippines [WB, 1985], % of families	Poverty rate, % of families	Philippines	Poverty
38	Poverty rate in the Philippines [WB, 1988], % of families	Poverty rate, % of families	Philippines	Poverty
39	Poverty rate in the Philippines [Various, 1990], % of families	Poverty rate, % of families	Philippines	Poverty
40	Poverty rate in Manila and Suburbs, % of families	Poverty rate, % of families	Manila and Suburbs	Poverty
41	Poverty rate in Ilocos, % of families	Poverty rate, % of families	Ilocos	Poverty
42	Poverty rate in Cagayan Valley, % of families	Poverty rate, % of families	Cagayan Valley	Poverty
43	Poverty rate in Central Luzon, % of families	Poverty rate, % of families	Central Luzon	Poverty
44	Poverty rate in Southern Tagalog, % of families	Poverty rate, % of families	Southern Tagalog	Poverty
45	Poverty rate in Bicol, % of families	Poverty rate, % of families	Bicol	Poverty
46	Poverty rate in Western Visayas, % of families	Poverty rate, % of families	Western Visayas	Poverty
47	Poverty rate in Eastern Visayas, % of families	Poverty rate, % of families	Eastern Visayas	Poverty
48	Poverty rate in Central Visayas, % of families	Poverty rate, % of families	Central Visayas	Poverty

B. Copy the rows then paste it onto a new spreadsheet.

④ INSERT A GRAPH FROM THE DATA

To create a graph on MS Excel, you can choose graphs from the Chart area under the Insert tab.

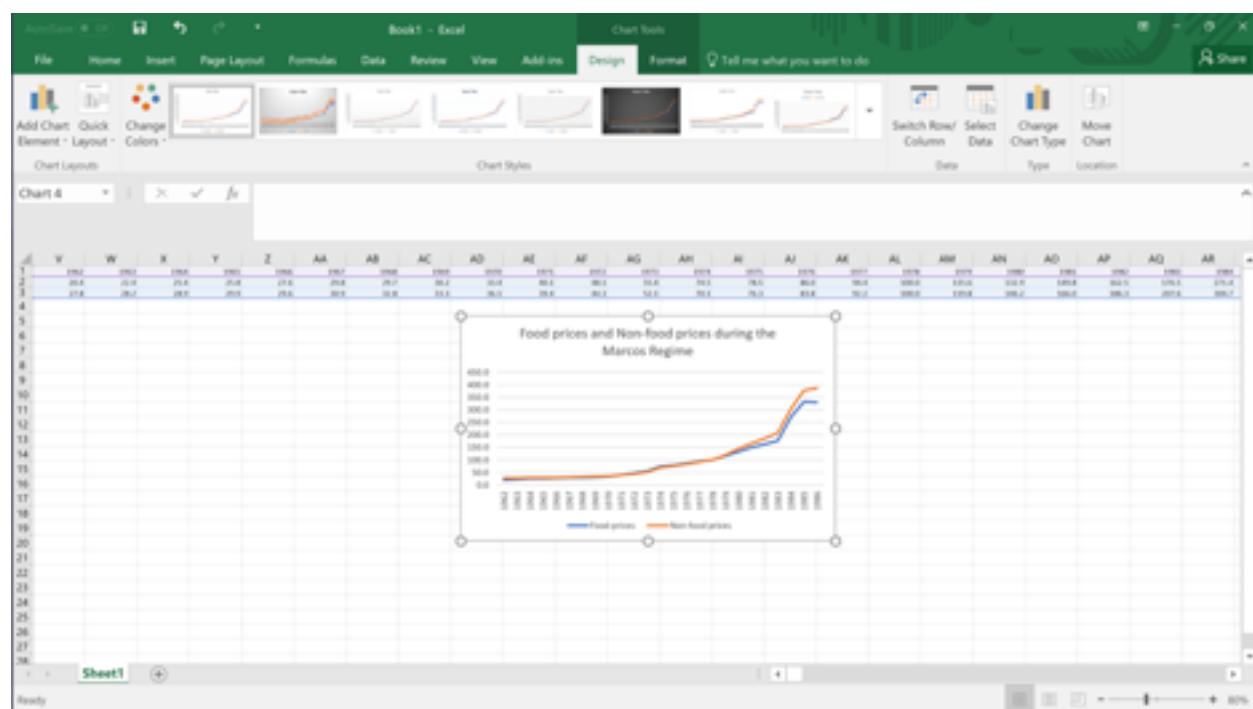
A. Highlight the data points you wish to graph then choose which chart you want to use



B. Try and experiment with the different graphs available!

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The "Insert" tab is active in the ribbon. A dropdown menu for "Recommended Charts" is open, showing categories like "2-D Line", "2-D Area", and "3-D Area". Below these categories are preview images of the charts. A tooltip box titled "See More Line Charts..." provides instructions on how to open the Insert Chart dialog to view more chart types. The main worksheet area contains a table of data with columns labeled Y through AR.

B. Don't forget to label the chart and the axes! Also remember to cite the source wherever you intend to use this graph. (The sources and the author's notes are also in the economic database.)



Here are the basic elements of a chart:



1. Chart Area
2. Plot Area
3. Data points plotted
4. Horizontal and Vertical Axes
5. Legend
6. Chart and Axis Title
7. Data label

Source: Microsoft Support

Aside from these, you can also change the style of your chart, change the layout of the elements manually, add and remove titles and data labels, show or hide legends, display or hide gridlines, and more! Visit the Microsoft Support Page referenced below for a more detailed account of creating and editing graphs.

REFERENCES

(n.d.). *Create a chart from start to finish*. Retrieved from https://support.office.com/en-us/article/Create-a-chart-from-start-to-finish-0baf399e-dd61-4e18-8a73-b3fd5d5680c2?ui=en-US&rs=en-US&ad=US#_toc255902069