## An Introduction to St. Louis Fed Data Services

- Publications with graphics
- FRED data base of national and regional economic series.
- Step 1: Open a blank Power Point presentation and minimize the window.
- Step 2 Open Internet Explorer (or any other Web browser) to: http://research.stlouisfed.org

The objective of this presentation is 1) to show how to retrieve into Powerpoint presentations, high quality graphics from statistical publications on the Web site of the research department of the Federal Reserve Bank of St. Louis and 2) to show how to create your own high quality Powerpoint graphics from data available on FRED.

To follow the exercises in this presentation on your own PC it is necessary to first open a blank Powerpoint presentation and minimize the window (click on the minus sign in the upper right hand corner of the window.)

Next you should open a browser window (e.g. Internet Explorer) and go to the St. Louis Fed research department web site: research.stlouisfed.org



We will first demonstrate how to retrieve graphics from the on-line statistical publications.

On the research department home page, note the "Publications" tab on the left hand side of the toolbar. Left click your mouse on this tab get to the publications page.



The research department has a number of publications available on line. These include the Federal Reserve Bank of St. Louis *Review*; a new publication, *Regional Economic Development*, that focuses on regional economy issues, particularly those of interest in the 8<sup>th</sup> Federal Reserve District; and the *Regional Economist*.

Scroll down this page and you will find links to several statistical publications.



Our statistical publications include U.S. Financial Data, Monetary Trends, National Economic Trends, and International Economic Trends.

*U.S. Financial Data (USFD)* is published weekly with an advanced edition available late on Thursday and the final edition available late on Friday. The final edition contains updated survey forecasts of major economic statistical releases forthcoming in the following week.

*Monetary Trends (MT)* and *National Economic Trends (NET)* are published monthly; *International Economic Trends (IET)* is published quarterly and an enlarged annual edition that appears each May.

Since January 2005 these statistical publication are only available on-line.

To proceed with this demonstration, left click your mouse on National Economic Trends.



You should now be on the home page for National Economic Trends.

Note that there is a link provided on this page that directs you to "how to copy text and images from .pdf files." The techniques used in this demonstration are illustrated and documented on that link.

Note that there are two different versions of *NET* available: one in 8.5 x 11 inch format and one in 11 x 17 inch booklet format. The latter is particularly useful if you wish to make a hard copy of the publication in booklet form. All that is required is a printer that will accept 11 x 17 paper and print in duplex mode.

For this demonstration, left click your mouse on the link to the  $8.5 \times 11$  inch published issue.



You should now see an image of the cover page of *NET*. The image is in .pdf format. Depending on how your computer is configured, this may appear within the browser window, or it may appear in a standalone Adobe Acrobat window.

On the left-hand side of the window you will see bookmarks to the major sections of *NET*. Left click your mouse on the "Economy at a Glance" section.



The "Economy at a Glance" page contains a graph of the annualized growth rate of real GDP for each quarter over the past several years. This is the graph that we will insert into a Powerpoint presentation.

Note the magnification factor that appears in the toolbar above the page image. In this example the magnification factor is 67%; your browser may default to a different value.

The secret to creating impressive graphics within Powerpoint slides is avoid enlarging the images after they have been inserted into the Powerpoint presentation. You will want to increase the magnification of the .pdf image before you try to copy it.

To enlarge the image, left click your mouse on the increase magnification (+) button immediately to the right of the magnification factor.

A magnification factor of 150% to 200% is recommended.



Once you have a suitable magnification factor you will need to scroll the page image up or down, right or left until you have the graph you want to insert into the Powerpoint presentation fully visible in the window.

When the graphic you want is properly centered, left click on the graphic select button on the Acrobat toolbar. This button has an image that looks like a small camera surrounded by a dotted rectangle.

Release the mouse button and move your cursor onto the graphic image. You should see a crosshair. Move the mouse so that the cross hair appears at the upper left hand corner of the image that you wish to copy. Hold down the left mouse button and drag the cross hair to the lower right hand corner of the image. You should see the image that will be copied outlined with a rectangle.

Release the mouse button – the outlined area will be copied to the clipboard! At this point you may see a message window appear that tells you that data have been placed on the clipboard. If this appears, close the message window (you can suppress this message window if it annoys you.)

Now maximize your Powerpoint window and paste the copied image. (Ctrl\_V or Paste from the dropdown Edit menu.)



Your graphic should appear on the Power point slide.

If the graphic is too large for the page, right click your mouse on the graphic. A menu window will appear with an option (towards the bottom of the list) to "Format Picture". Left click on this option and another menu will appear. Among the tabs on this second menu is "Size". Click on this tab and then adjust the size of the graphic to a smaller percentage. (It is generally a good idea to keep the aspect ratio locked as you are making such adjustments.)

## Creating a graph in Powerpoint

- Use the graphic select cursor to draw a box around the graph in the .pdf file that you want to insert into a Powerpoint presentation.
- Switch your active window to a blank Powerpoint slide
- Use Ctrl-V to paste the graph image into the Powerpoint show

Remember there are three simple steps to transferring the graphic:

Use the graphic select cursor to draw a box around the graph in the .pdf file that you want to insert into a Powerpoint presentation.

Switch your active window to a blank Powerpoint slide

Use Ctrl\_V to paste the graph image into the Powerpoint show.

Now return to the Acrobat window.



We will now repeat the copy and paste exercise with a second example. Left click your mouse on the "Labor Market" bookmark on the left hand side of the window.

The labor market data cover two pages in *NET*. Acrobat will jump to page 10 as indicated in the center of the bottom toolbar. You will want to go to page 11. You can move backward and forward among the pages in *NET* using the left and right arrows adjacent to the page number indicator.

Once you are on page 11, find and center the graphic for "Change in Nonfarm Payrolls."

Again, left click on the graphic select button on the top toolbar (the small camera image.)

Release the mouse button and move your cursor onto the graphic image. You should see a crosshair. Move the mouse so that the cross hair appears at the upper left hand corner of the image that you wish to copy. Hold down the left mouse button and drag the cross hair to the lower right hand corner of the image. You should see the image that will be copied outlined with a rectangle. Release the mouse button and the outlined image will be copied to the clipboard.



Switch to the Powerpoint window and insert a new slide by clicking on the "new slide" tab at the top right of the window. Generally it is a good idea to choose the blank slide format to insert the graphic.

Paste the graphic onto the Powerpoint slide using Ctrl-V or "Paste" from the dropdown Edit menu.

## Creating a graph in Powerpoint

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Remember there are three simple steps to transferring the graphic:

Use the graphic select cursor to draw a box around the graph in the .pdf file that you want to insert into a Powerpoint presentation.

Switch your active window to a blank Powerpoint slide.

Use Ctrl\_V to paste the graph image into the Powerpoint show.



We will now demonstrate how to create your own customized graphs from the data in the FRED database.



Return to the Research Division home page: research.stlouisfed.org

Note the "Economic Data – FRED" tab on the toolbar on the top of the page. Left click your mouse on this tab.



You should now be on the FRED home page.

There are over 2800 economic data series stored on FRED. One way to find a series is to search under "Categories".

Find the "Category" tab under the Economic Data – FRED header and left click your mouse on the tab.



In this demonstration we will create a graph of the trade-weighted US dollar exchange rate.

Scroll down the window until you reach the Exchange Rate category.



Note the subcategory "Trade-Weighted Indexes".

Left click your mouse on the "Trade-Weighted Indexes" subcategory.



To obtain the data for the demonstration graph, left click your mouse on the series "trade-weighted exchange index – major currencies.

Note that there are three series available – at daily (D), weekly average (W) and monthly average (M) frequencies. Click on the monthly data.



You should now see a page with a graph of five years of monthly exchange rate data. This is not the graph that you want – it will not transport to Powerpoint nicely.

Instead, left click your mouse on the "Download Data" tab that appears above the graphic.



There are two formats in which data can be downloaded to your computer: Excel (.xls) format and Text (.txt) format

Left click your mouse on the Excel (.xls) format.

Your computer will open a message window that asks you what you want to do with the downloaded file. Left click your mouse on the "open with default application (Excel)" option.



Your computer will open an Excel window with a worksheet that shows information on the data series in the first few rows and then gives two columns with dates and data. Left click your mouse on the 1973-01-01 (January 1973) date [column A, row 15] and drag the cursor down to the last data observation.

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Next choose Chart from the Insert drop-down menu.



Excel will open a chart page in your workbook.

Left click your mouse anywhere on the chart. You should see small black rectangles appear on the perimeter of the chart.

Now copy the chart to the clipboard using either Ctrl-C or Copy from the Edit drop-down menu.

Switch from the Excel window to the window with your Powerpoint presentation.



In the Powerpoint window open a blank slide and Paste your Excel graphic using either Ctrl-V or Paste from the dropdown Edit menu.

## Moving Graphics from Excel to Powerpoint

- Ctrl-C to copy the Excel Graphic
- Switch to blank Power Point slide
- Ctrl-V (or Paste on the dropdown Edit menu) to paste the graphic into the Power Point slide.

Remember there are three simple steps to transferring the chart from Excel to Powerpoint:

Use Ctrl-C or Copy from the dropdown Edit menu to copy the Excel Graphic to the clipboard.

Switch your active window to a blank Powerpoint slide.

Use Ctrl\_V (or Paste on the dropdown Edit menu) to paste the graph image into the Powerpoint show.