

The Lazy Practitioner's Guide to Exploiting the Fed's Data Resources

*Bob Rasche
Director of Research
Federal Reserve Bank of
St. Louis
February 25, 2004*

1 Where to get prepared materials?

- National Economic Trends

- [<http://research.stlouisfed.org/net/>](http://research.stlouisfed.org/net/)

- Monetary Trends

- [<http://research.stlouisfed.org/mt/>](http://research.stlouisfed.org/mt/)

- International Economic Trends

- [<http://research.stlouisfed.org/iet/>](http://research.stlouisfed.org/iet/)

- US Financial Data (weekly)

- [<http://research.stlouisfed.org/usfd/>](http://research.stlouisfed.org/usfd/)

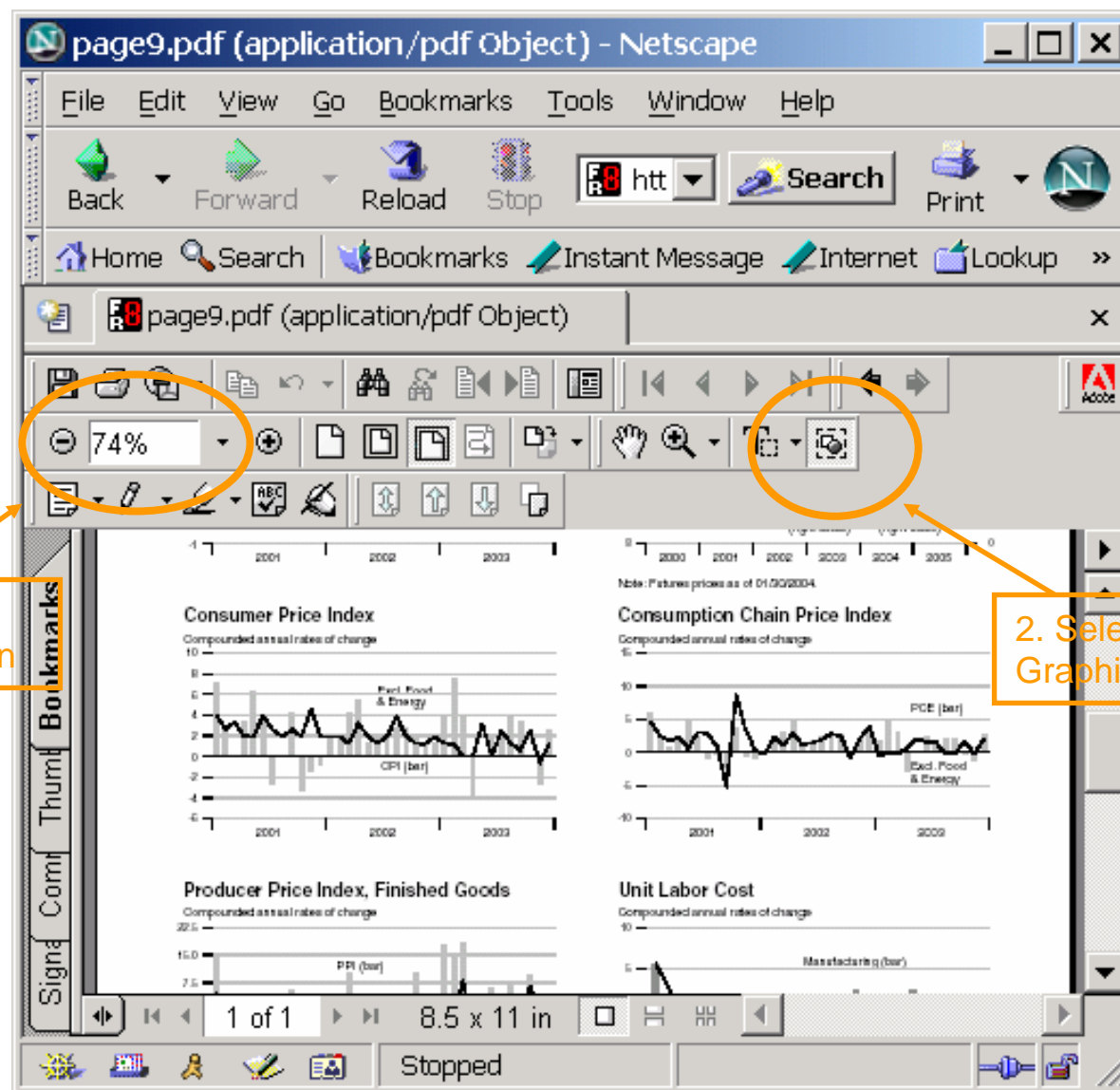
2 Where to get data? -- FRED

- [<http://research.stlouisfed.org/fred2/>](http://research.stlouisfed.org/fred2/)

3 How to convert data into your own pictures, slides or presentations

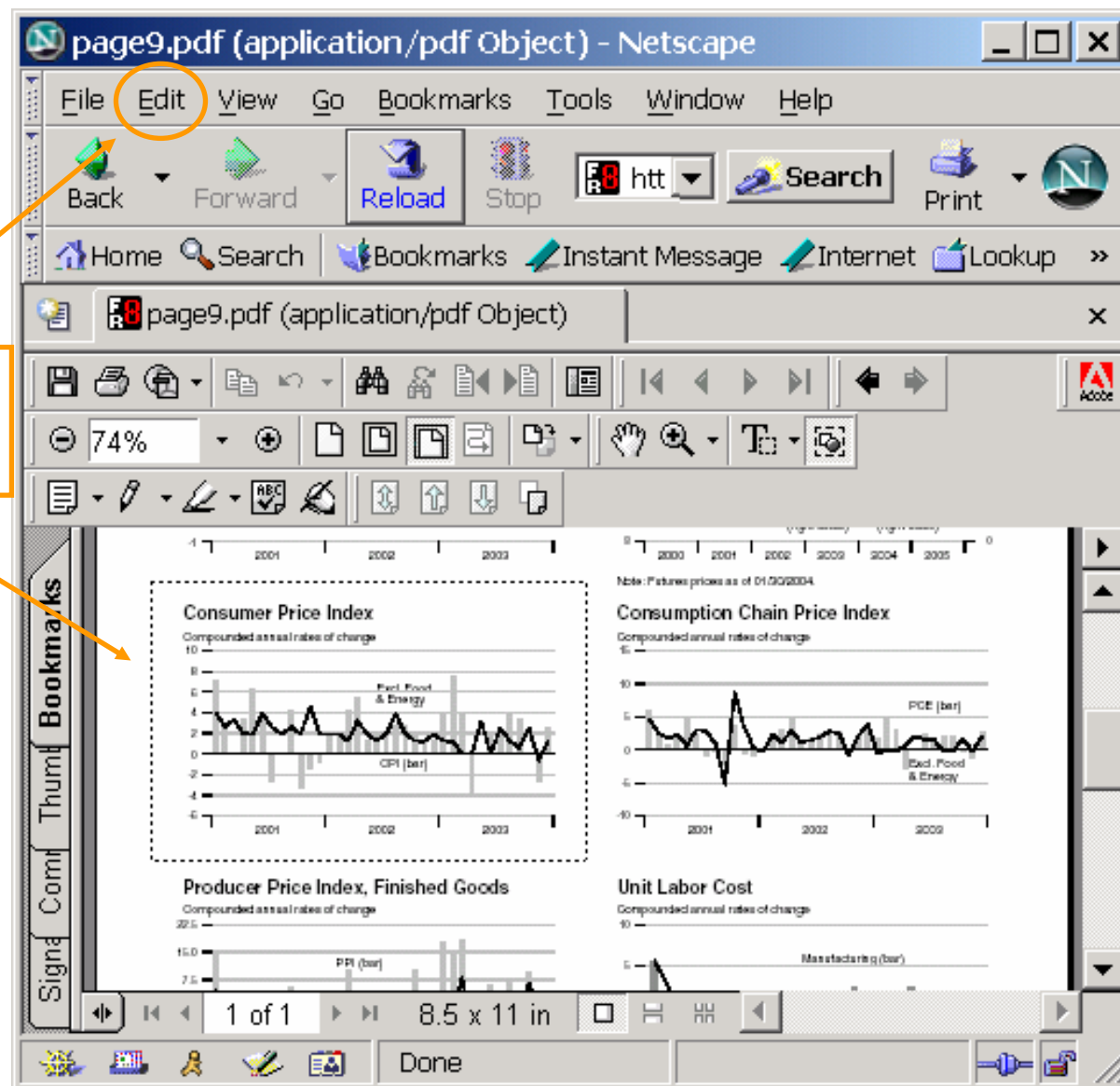
Part 1

Retrieving Prepared Materials



- Magnification in Acrobat should be set prior to using the graphics tool
- Magnification should be chosen to produce the graphic you want without much change in size. For full PowerPoint slides:
 - IET, NET, MT 1/2 width graphs ~ 300%
 - USFD (full page) ~ 100%

3. Copy the
selected area to
the clipboard

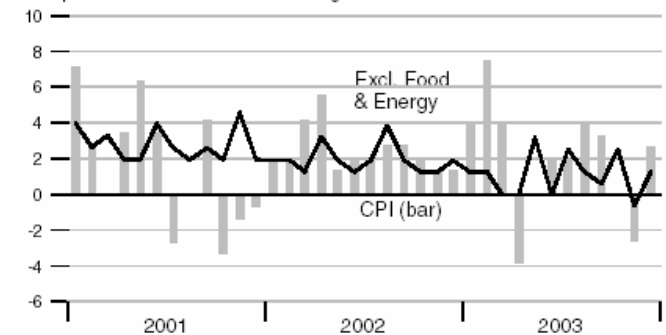


- Inflation and Prices
 - Page 9 (PDF 45k) --
Short-run View (175
% magnification
- Use Graphics Select
Tool from Acrobat to
define image
- Edit/copy on Acrobat
Menu
- Go to Powerpoint slide
- Edit/Paste

4. Paste Selection into
Powerpoint slide

Consumer Price Index

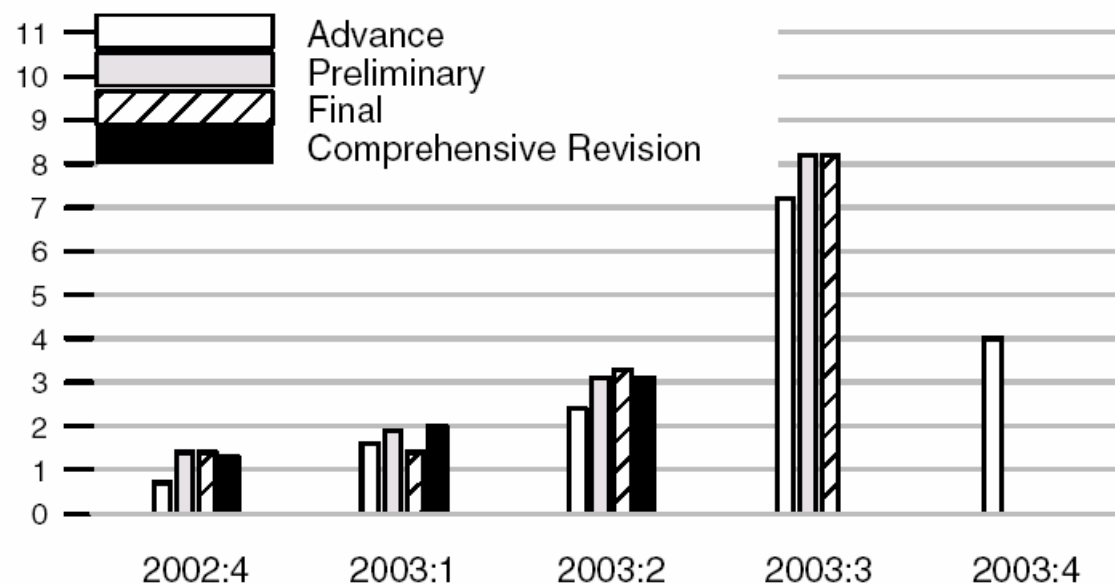
Compounded annual rates of change



Example: NET @ 300%

Real GDP Revisions

Compounded annual rates of change

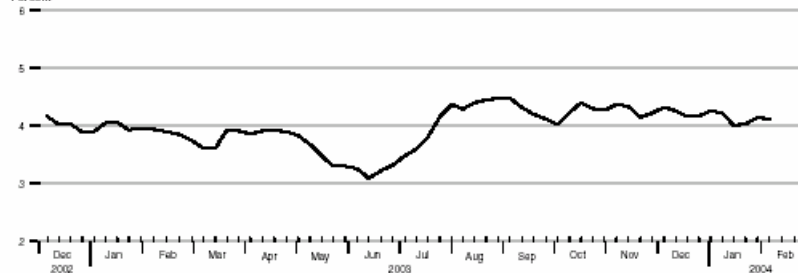


Example: USFD @ 125%

10-Year Treasury Note Yield

Averages of Daily Figures

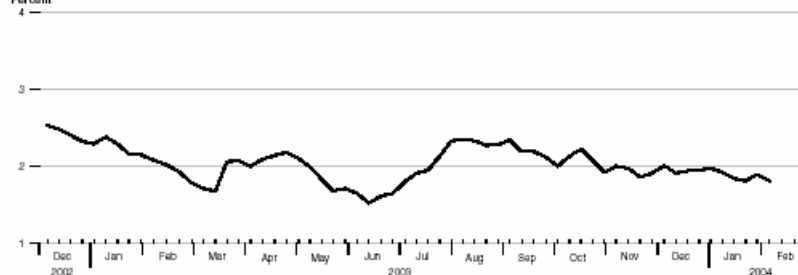
Percent



10-Year Inflation-Indexed Treasury Yield

Averages of Daily Figures

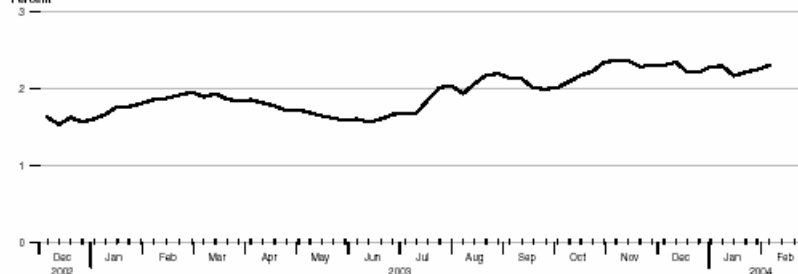
Percent



10-Year Inflation-Indexed Treasury Yield Spread

Averages of Daily Figures

Percent

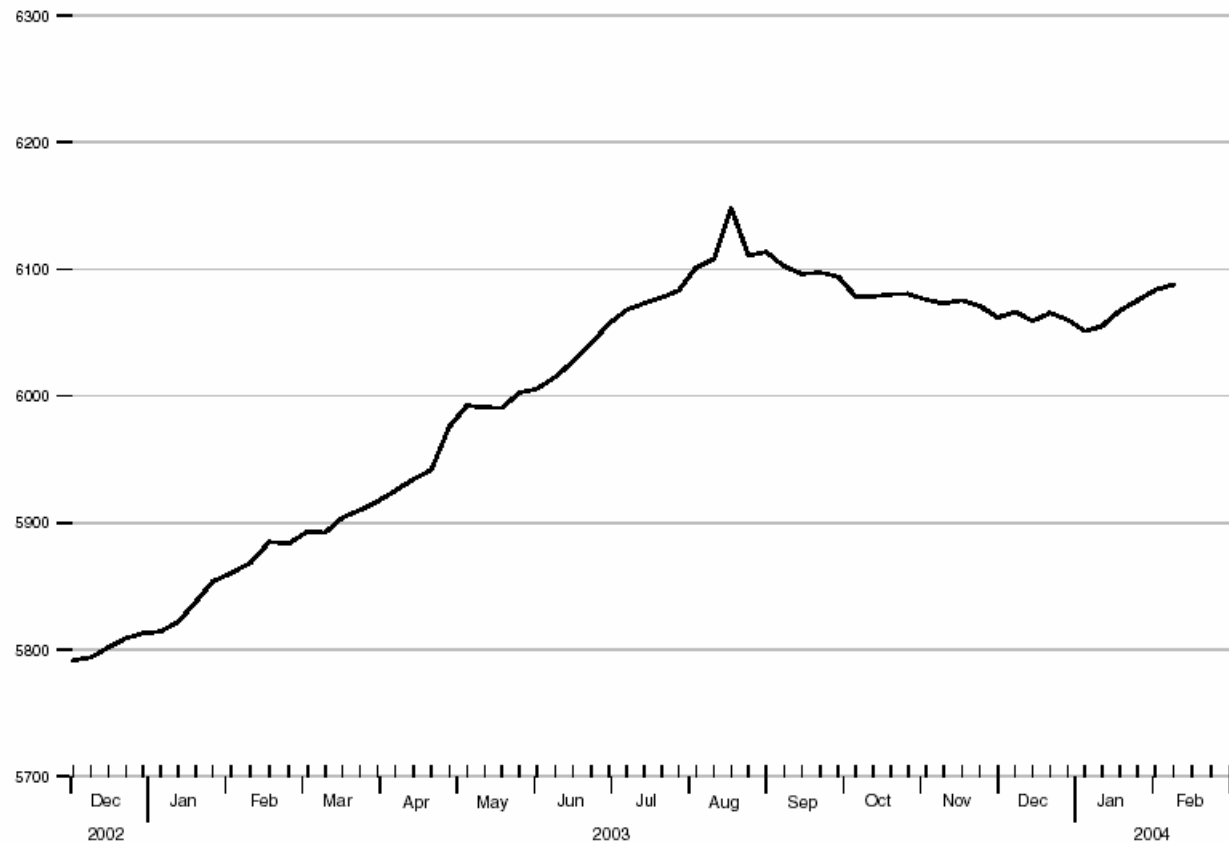


Example: USFD @ 150%

M2

Averages of Daily Figures, Seasonally Adjusted

Billions of dollars

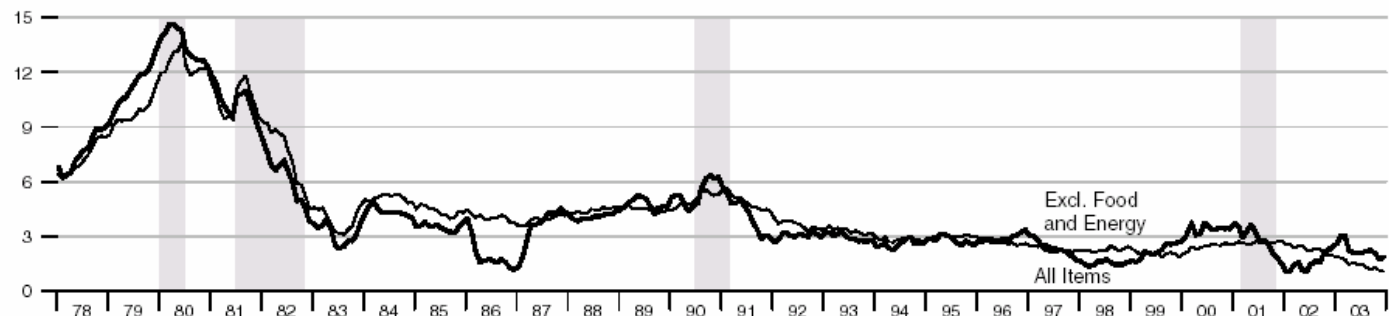


Example: NET @ 125%

- National Economic Trends
 - Inflation and Prices
 - Page 8 (PDF 113k) -- Long-run View (175% magnification)

Consumer Price Index

Percent change from year ago



Part 2

Where to get Data?

St. Louis Fed: Economic Data - FRED II - Netscape

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NEW FEATURE! Introducing 'My Data Lists'. With a user account, you can now store lists of economic data series. Data lists can be used to download series cross-tabulated by date or save links to series pages. [More ...](#) (2004-02-01)

Categories

Business/Fiscal	Interest Rates
Commercial Banking	Monetary Aggregates
Consumer Price Indexes (CPI)	Producer Price Indexes (PPI)
Employment and Population	Regional, including Employment and Banking Data
Exchange Rate, Balance of Payments, and Trade Data	Reserves
Gross Domestic Product (GDP) and Components	U.S. Financial Data

Updates

- [Industrial Production Index](#) (2004-02-18)
- [Consumer Price Index for All Urban Consumers: All Items Less Food](#) (2004-02-18)
- [Consumer Price Index for All Urban Consumers: Food](#) (2004-02-18)
- [Consumer Price Index for All Urban Consumers: All Items Less Food & Energy](#) (2004-02-18)
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St. Louis Fed: Federal Government Surplus or Deficit [-], NIPA, Bil. of \$, Quarterly, SAAR - Netscape

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Federal Government Surplus or Deficit [-], NIPA

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Federal Government Surplus or Deficit [-], NIPA
(Billions of Dollars)

Chart Range: 5yrs | [10yrs](#) | [Max](#)

Latest Observations:

Date	2002-07-01	2002-10-01	2003-01-01	2003-04-01	2003-07-01
Value	-242.9	-296.3	-320.4	-424.7	-499.4

Series Properties:

Series ID:	FGDEF
Source:	U.S. Department of Commerce: Bureau of Economic Analysis
Release:	Not Applicable
Seasonal Adjustment:	Seasonally Adjusted Annual Rate

St. Louis Fed: Federal Government Surplus or Deficit [-], NIPA, Bil. of \$, Quarterly, SAAR: Download Data - Nets...

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Download Data

Download a data file for the following series:

Federal Government Surplus or Deficit [-], NIPA

Series ID:	FGDEF
Source:	U.S. Department of Commerce: Bureau of Economic Analysis
Release:	Not Applicable
Seasonal Adjustment:	Seasonally Adjusted Annual Rate
Frequency:	Quarterly
Units:	Billions of Dollars
Date Range:	1947-01-01 to 2003-07-01
Last Updated:	2003-12-23
Notes:	A Guide to the National Income and Product Accounts of the United States (NIPA) - (http://www.bea.doc.gov/bea/an/nipaguid.pdf)

File Name	Data Series	Format	Size
FGDEF.xls		Excel	12k
FGDEF.txt		Text	5k

Two Choices of Data Format

Part 3

*From Data to your own Pictures,
Slides or Presentations*

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- [Consumer Price Index for All Urban Consumers: All Items Less Energy](#) (2004-02-18)
- [Consumer Price Index for All Urban Consumers: Energy](#) (2004-02-18)
- [Consumer Price Index For All Urban Consumers: All Items](#) (2004-02-18)

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Data Lists

[Add New Data List](#)

Store lists of economic data series. Data lists can be used to download series cross-tabulated by date or save links to series pages. See '[How to Use My Data Lists](#)' for a step-by-step tutorial with screenshots.

2 data lists:

Name	# of Data Series	Data Updated
employment data	2	2004-02-06
m2velocity	4	2004-02-13

Note: You may add up to **25 data series to a single data list**, and you may create up to **25 different data lists**.

*Caution: Data Lists are downloaded
in Zipped format -- requires Winzip
utility*

Microsoft Excel - m2velocity.xls

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Arial 10 B Paste

A1 = My Data List: m2velocity

	A	B	C	D	E	F	G	H
1	My Data List: m2velocity							
2	Data Updated: 2004-02-13							
3	FRED II (Federal Reserve Economic Data)							
4	Link: http://research.stlouisfed.org/fred2							
5	Economic Research Division							
6	Federal Reserve Bank of St. Louis							
7								
8	Title:	Gross Domestic Product, 1 Decimal						
9	Series ID:	GDP						
10	Source:	U.S. Department of Commerce: Bureau of Economic Analysis						
11	Release:	Not Applicable						
12	Seasonal Adjustment:	Seasonally Adjusted Annual Rate						
13	Frequency:	Quarterly						
14	Period Description:							
15	Units:	Billions of Dollars						
16	Date Range:	1947-01-01 to 2003-10-01						
17	Last Updated:	2004-01-30 12:35 PM CT						
18	Notes:	A Guide to the National Income and Product Accounts of the United States (NIPA) - (http://www.bea.doc.gov/bea/an/nipaguid.pdf)						
19								
20								
21	Title:	M2 Minus Own Rate						
22	Series ID:	M2MOWN						
23	Source:	Federal Reserve Bank of St. Louis						
24	Release:							

◀ ▶ 🔍 README / Monthly / Quarterly /

Draw AutoShapes

Ready NUM

Microsoft Excel - m2velocity.xls

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Arial 10 B I U \$ % , %0 %00

A1 =

	A	B	C	D	E	F	G	H	I
1		M2 Minus C	M2 Minus, Bill	3-Month Treasury Bill: Secondary Market Rate, Percent, Monthly					
2	DATE	M2MOWN	M2MSL	TB3MS					
3	1934-01-01			0.72					
4	1934-02-01			0.62					
5	1934-03-01			0.24					
6	1934-04-01			0.15					
7	1934-05-01			0.16					
8	1934-06-01			0.15					
9	1934-07-01			0.15					
10	1934-08-01			0.19					
11	1934-09-01			0.21					
12	1934-10-01			0.27					
13	1934-11-01			0.25					
14	1934-12-01			0.23					
15	1935-01-01			0.20					
16	1935-02-01			0.19					
17	1935-03-01			0.15					
18	1935-04-01			0.15					
19	1935-05-01			0.15					
20	1935-06-01			0.15					
21	1935-07-01			0.15					
22	1935-08-01			0.16					
23	1935-09-01			0.20					
24	1935-10-01			0.20					

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Tip of the Month Archive

2004:

February
[How to Use 'My Data Lists'](#)

2003:

March
[Using Excel to Dynamically Aggregate Data Series at Monthly Frequency to Quarterly Averages and Merge with Data Series at Quarterly Frequency](#)

April
[Using Adobe Acrobat or Acrobat Reader to import Monetary Trends, International Economic Trends and National Economic Trends Graphics into Powerpoint presentations](#)

May
[Getting the Most Out of Thumbnails in Adobe Acrobat](#)

June
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St. Louis Fed: Tip of the Month: Ma...

3. Copy the data labels from the monthly worksheet into row 1 of the quarterly worksheet.

Microsoft Excel - Book1

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Arial 10 B I U

C2 =AVERAGE(OFFSET(Monthly!B\$1,(ROW()-1)*3-2,0,3,1))

	A	B	C	D	E	F	G	H
1	Date	GDP	M2					
2	2002-1	10313.1	5490.156					
3	2002-2	10376.9	5545.955					
4	2002-3	10506.2	5672.860					
5	2002-4	10572.3	5770.702					
6								
7								
8								
9								
10								
11								
12								
13								
14								

Monthly Quarterly Sheet3

Draw AutoShapes

Ready NUM

4. Enter the formula "=Average(Offset(Monthly!B\$1, (row()-1)*3-2,0,3,1))" in row 2 under the label of the first monthly frequency data series in the quarterly worksheet. **Note that Monthly must be the name that appears on the tab of the worksheet in which the monthly frequency data are stored.**

5. Drag the above formula to all the columns and rows for which quarterly averages of monthly data are available.

With this setup, any revisions to the monthly data series will automatically update the quarterly average data in the quarterly worksheet. When additional observations on the monthly data become available, the sample of quarterly averages can be extended by dragging the formula in these data columns on the quarterly worksheet down over additional rows.

Done

Microsoft Excel - m2velocity.xls

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Arial 10 B I U \$ % , %0 %00

F3 = =LN(B3/D3)

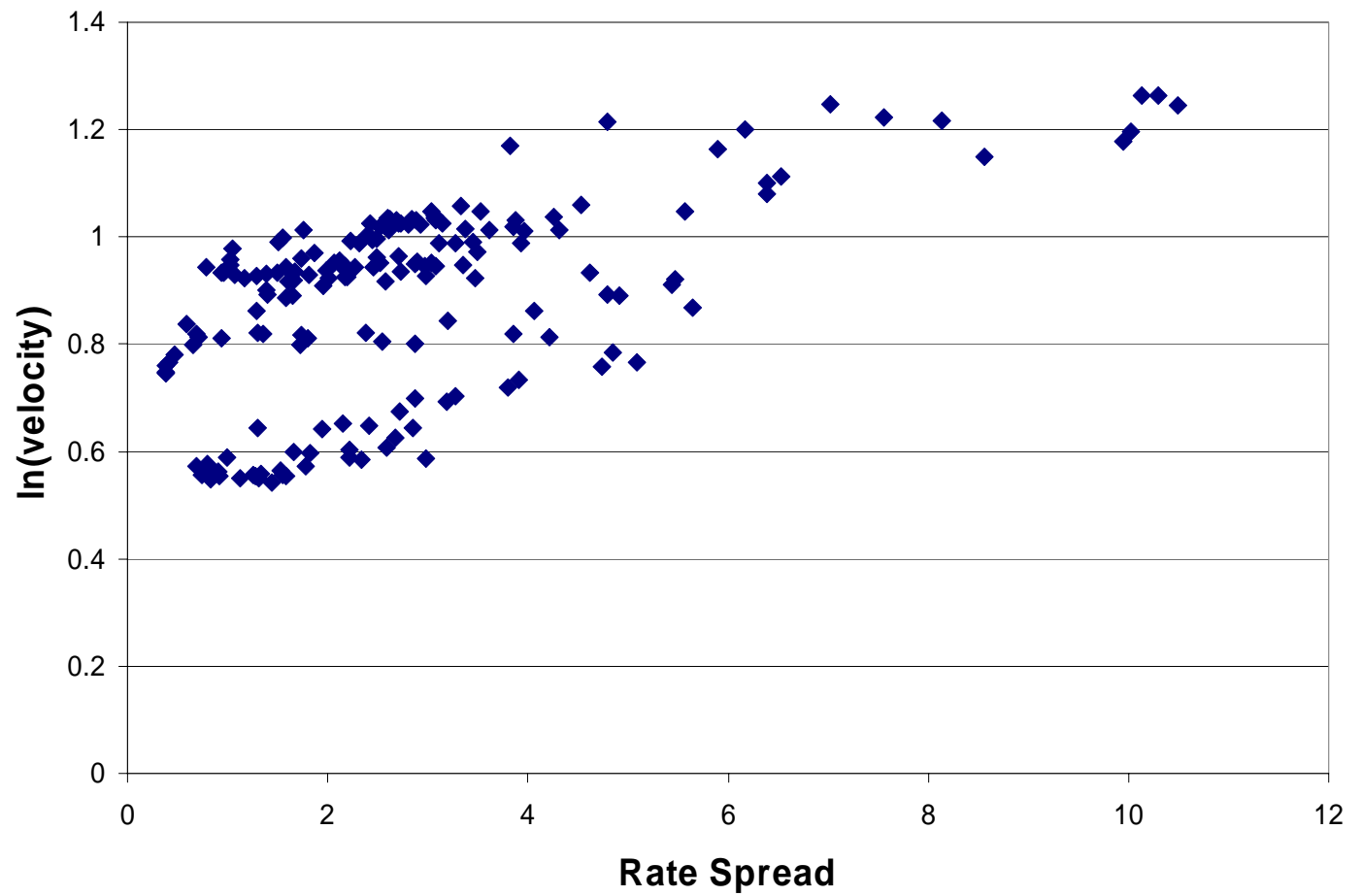
	A	B	C	D	E	F	G	H	I
1	DATE	GDP	M2MOWN	M2MSL	TB3MS	ln(Vel)	Spread		
2	1959-01-01	495.4	0	276.054	2.773333				
3	1959-04-01	508.4	1.173667	280.0367	3	0.596348	1.826333		
4	1959-07-01	509.3	1.206333	283.8847	3.54	0.584469	2.333667		
5	1959-10-01	513.2	1.249333	285.3473	4.23	0.586958	2.980667		
6	1960-01-01	526.9	1.287333	287.1247	3.873333	0.607094	2.586		
7	1960-04-01	526.1	1.329	289.2067	2.993333	0.59835	1.664333		
8	1960-07-01	528.9	1.363667	293.7923	2.36	0.587926	0.996333		
9	1960-10-01	523.6	1.404	298.1557	2.306667	0.563112	0.902667		
10	1961-01-01	527.9	1.435667	303.309	2.35	0.554155	0.914333		
11	1961-04-01	539.0	1.464	308.1817	2.303333	0.559026	0.839333		
12	1961-07-01	549.4	1.533667	312.5197	2.303333	0.564159	0.769667		
13	1961-10-01	562.5	1.634	318.2547	2.46	0.569539	0.826		
14	1962-01-01	576.0	1.925333	323.703	2.723333	0.576281	0.798		
15	1962-04-01	583.2	2.023333	329.0937	2.716667	0.572188	0.693333		
16	1962-07-01	590.0	2.053	333.5527	2.84	0.570322	0.787		
17	1962-10-01	593.3	2.074	339.8653	2.813333	0.557151	0.739333		
18	1963-01-01	602.4	2.090333	346.9337	2.906667	0.551788	0.816333		
19	1963-04-01	611.2	2.112	353.5467	2.94	0.547409	0.828		
20	1963-07-01	623.9	2.169333	359.657	3.293333	0.550839	1.124		
21	1963-10-01	633.5	2.186667	365.6067	3.496667	0.549702	1.31		
22	1964-01-01	649.6	2.201	371.3997	3.53	0.559078	1.329		
23	1964-04-01	658.8	2.215667	377.4043	3.476667	0.557103	1.261		
24	1964-07-01	670.5	2.221667	385.2127	3.496667	0.554228	1.275		

README Monthly Sheet1 Quarterly

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Ln(M2minus Velocity) vs Interest Rate Spread



M1 Velocity vs 100/Aaa Rate US: Annual 1895-2000

