ALFRED: Capturing data as it happens

Katrina Stierholz, Director of Library and Information Services
Federal Reserve Bank of St. Louis

The views expressed are not the official positions of the
Federal Reserve Bank of St. Louis or the Federal Reserve System.

“How is the economy doing?”

Depends on when you ask.

Federal Reserve Bank of St. Louis & data

- Long History (Homer Jones)

- FRED is the Flagship
  - Over 22,000 economic time series
  - Aggregates data from many sources, in one convenient location

- ALFRED is bigger than FRED
  - Collection of vintage versions of U.S. economic data available on FRED
  - Captures every iteration of data

Looking for revisions, and then solutions

- Our former Director of Research, Bob Rasche, was looking for the economic data that were released originally—not the revised data that we have now.
- We searched high and low...
  - Philadelphia Fed created a database with important economic series with the data points that were originally released, with monthly or quarterly observations (we wanted a day-by-day history)
  - Libraries removed news releases when the final version is published
  - Agencies historically wrote over the data, as the computing storage costs were high

2nd quarter 2010 real GDP↑2.4%

BEA
BUREAU OF ECONOMIC ANALYSIS
U.S. DEPARTMENT OF COMMERCE

NEWS RELEASE

EMBARGOED UNTIL RELEASE AT 8:30 A.M. EDT, FRIDAY, JULY 30, 2010

Lisa S. Mataloni: (202) 606-5304
Recorded message: (202) 606-5306

Brent Moulton: (202) 606-9606 (Annual Revision)
Carol Moylan: (202) 606-9715

BEA 10-37

NATIONAL INCOME AND PRODUCT ACCOUNTS
GROSS DOMESTIC PRODUCT: SECOND QUARTER 2010 (ADVANCE ESTIMATE)
REVISED ESTIMATES: 2007 THROUGH FIRST QUARTER 2010

Real gross domestic product -- the output of goods and services produced by labor and property located in the United States -- increased at an annual rate of 2.4 percent in the second quarter of 2010, (that is, from the first quarter to the second quarter), according to the "advance" estimate released by the Bureau of Economic Analysis. In the first quarter, real GDP increased 3.7 percent.

2nd quarter 2010 real GDP↑1.6%

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U.S. DEPARTMENT OF COMMERCE

NEWS RELEASE

EMBARGOED UNTIL RELEASE AT 8:30 A.M. EDT, FRIDAY, AUGUST 27, 2010

Lisa Mataloni: (202) 606-5304 (GDP)
Andrew Hodge: (202) 606-5564 (Profits)
Recorded message: (202) 606-5306

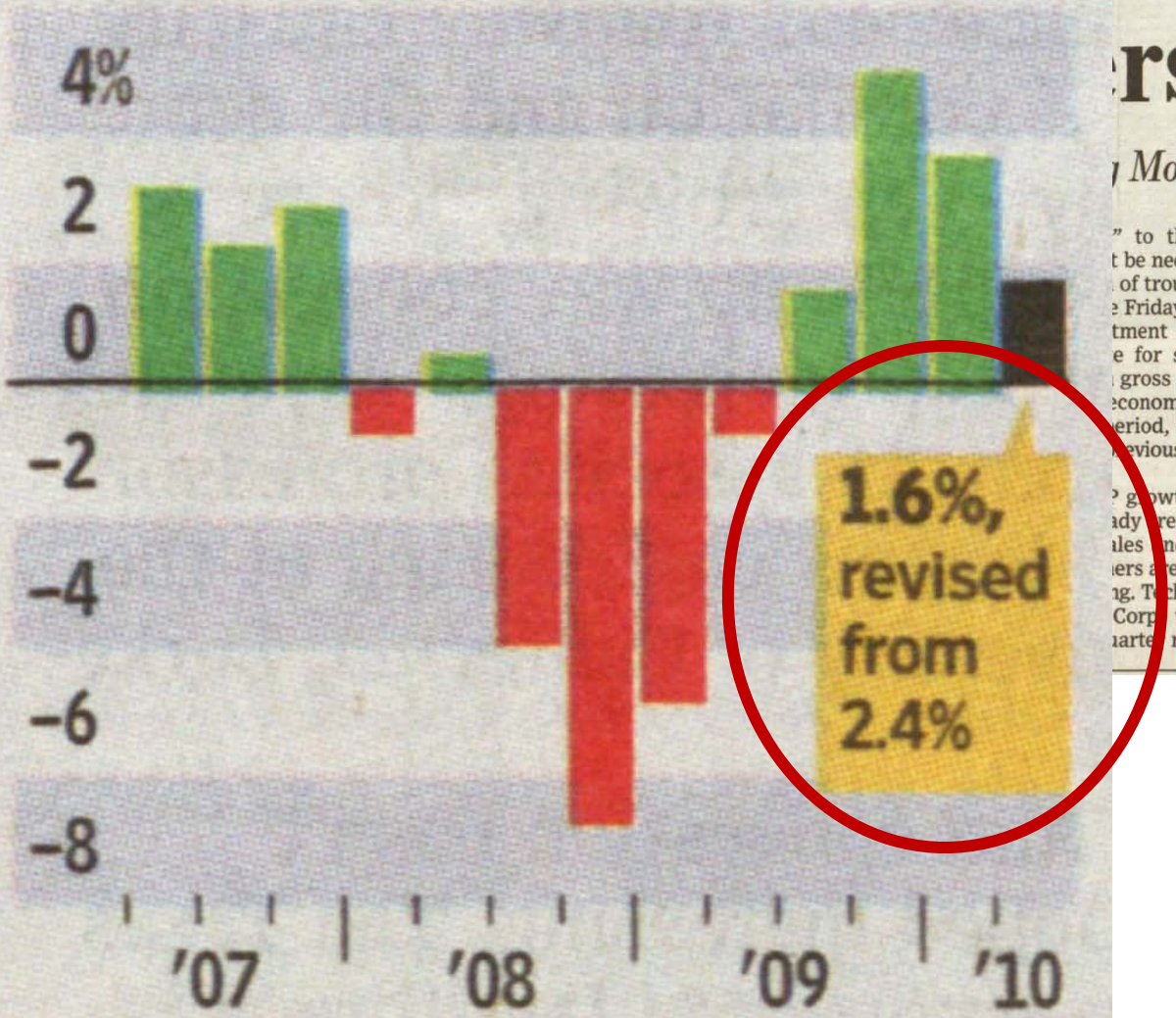
BEA 10-41

GROSS DOMESTIC PRODUCT: SECOND QUARTER 2010 (SECOND ESTIMATE)
CORPORATE PROFITS: SECOND QUARTER 2010 (PRELIMINARY)

Real gross domestic product -- the output of goods and services produced by labor and property located in the United States -- increased at an annual rate of 1.6 percent in the second quarter of 2010, (that is, from the first quarter to the second quarter), according to the "second" estimate released by the Bureau of Economic Analysis. In the first quarter, real GDP increased 3.7 percent.

Slipping Down

Quarterly change at an annual rate in U.S. GDP



Source: Commerce Department

T JOURNAL.
9, 2010
N
★★★★ $2.00
WSJ.com

rs Bolder Moves

More Securities If Economy Falters Further

" to the U.S. t be necessary. of trouble for e Friday as the tment revised e for second- gross domes- economy grew eriod, not the viously esti-

growth adds dy created by les and other ers are shying g. Technology Corp. warned uarter revenue

could fall short of estimates because of weak demand for personal computers.

All of this drives home a grim political reality for the Obama administration and for Democrats facing elections this fall: What many had hoped would be a "summer of recovery" is ending on a dismal note.

"The pace of recovery in output and employment has slowed

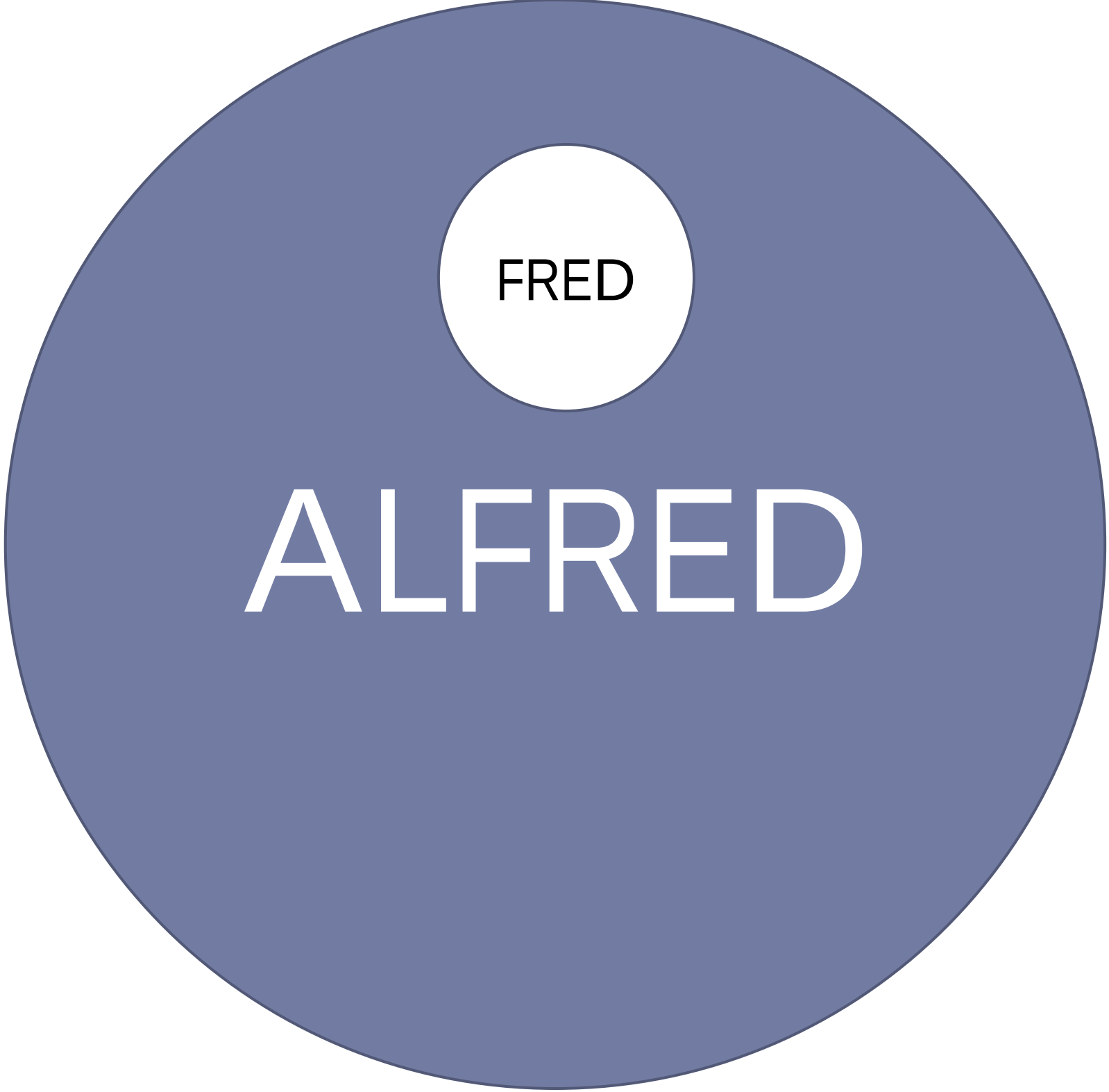
Please turn to page A2

■ Economy will dog Democrats up to November A2
■ For updates from Jackson Hole during the weekend, WSJ.com

Slipping Down
Quarterly change at an annual rate in U.S. GDP
4%
2
0
-2
-4
-6
-8
'07
'08
'09
'10
1.6%, revised from 2.4%
Source: Commerce Department

The value to capturing this history

- Revisions reflect the level of accuracy regarding early estimates
- Allows researchers and analysts to evaluate policy decisions using information available at the time, not what is known in hindsight
- Allows economists to model the economy using data that was actually available


FRED
ALFRED

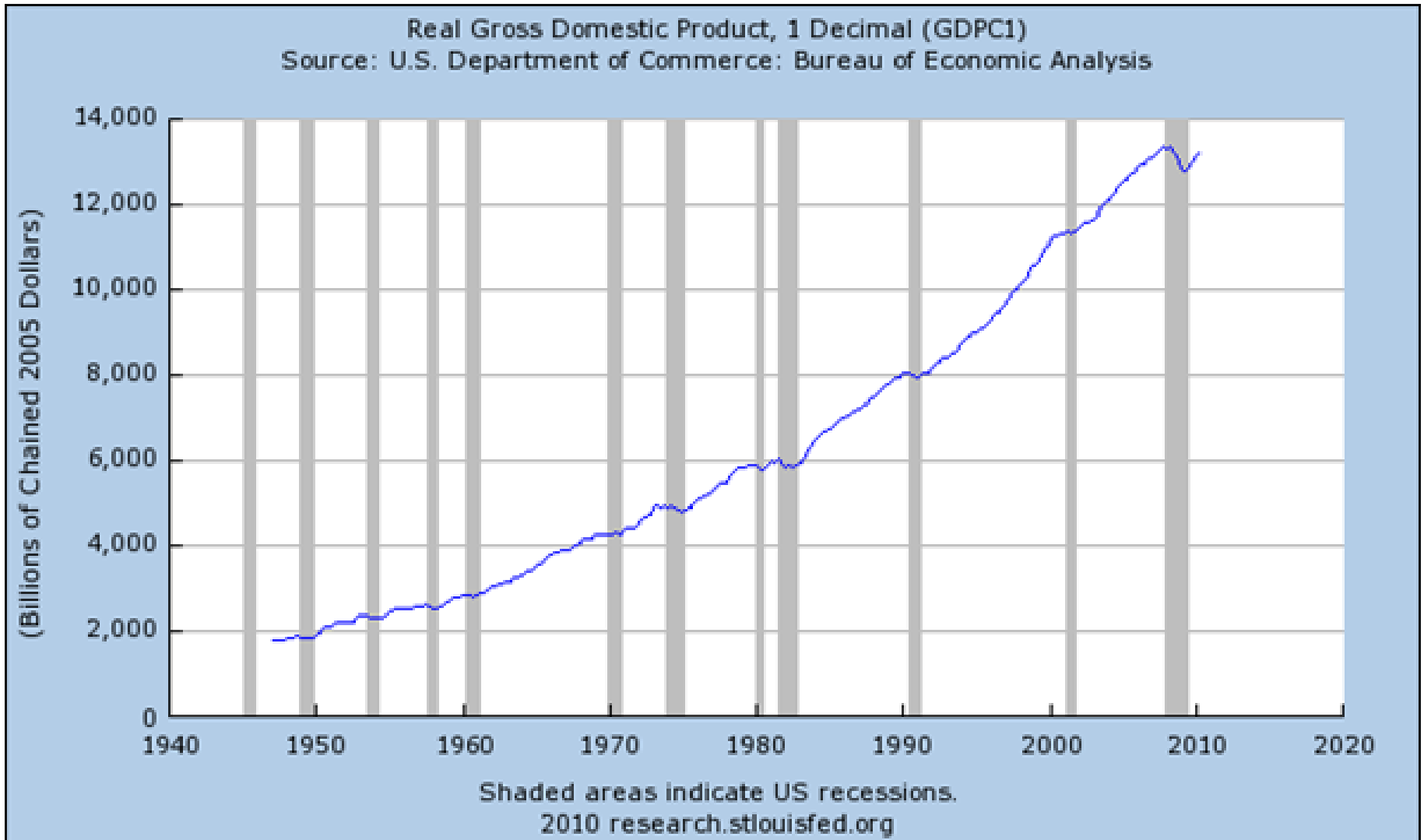
FRED and ALFRED

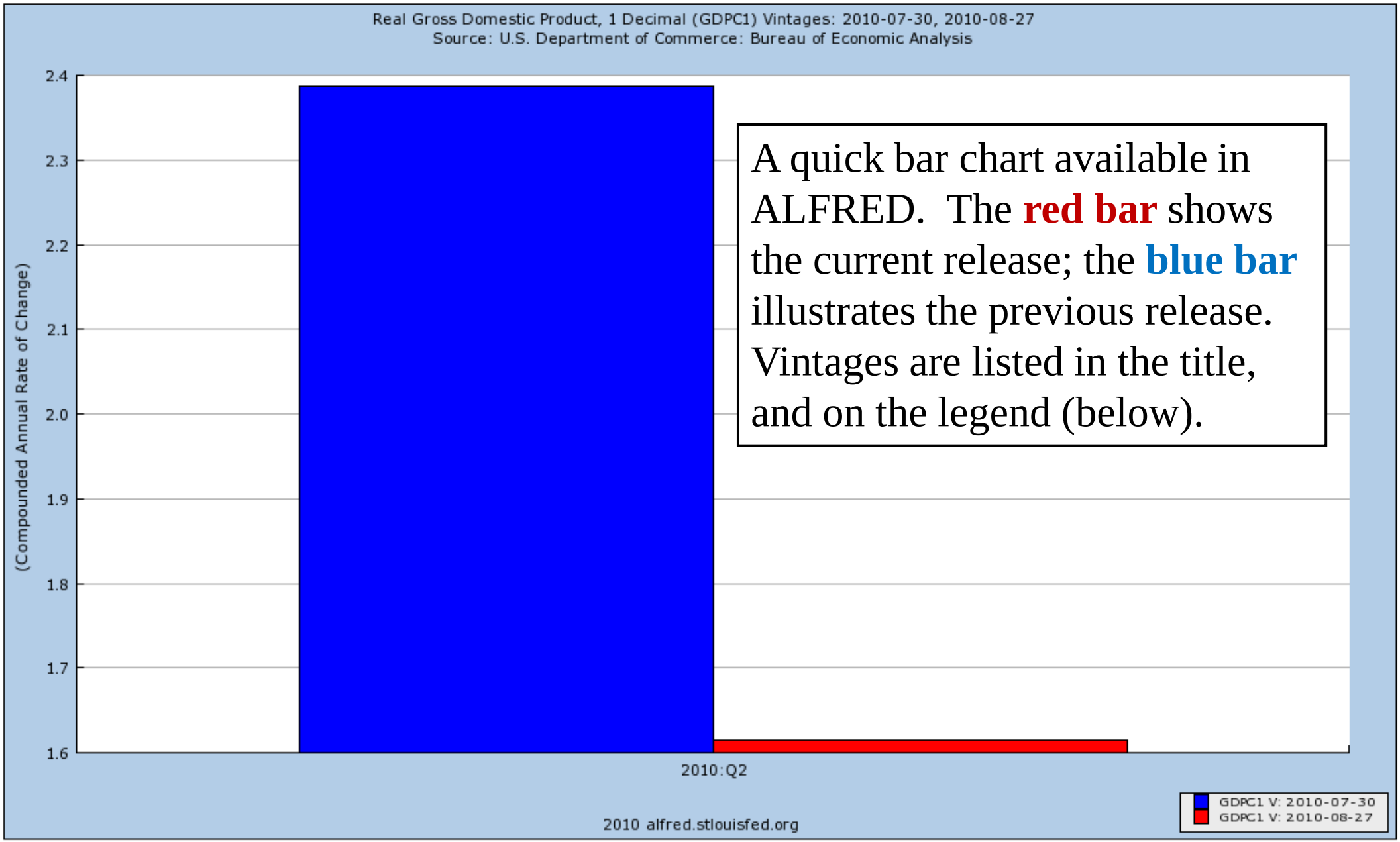
- Underneath the hood, FRED and ALFRED are the same application.
  - ALFRED was populated by collecting historical data for series in FRED, and ALFRED continues to be extended by capturing "expiring" FRED values when new ones are published.
  - ALFRED only contains historical data on series that are in FRED -- it does not go back further than FRED.

FRED graph

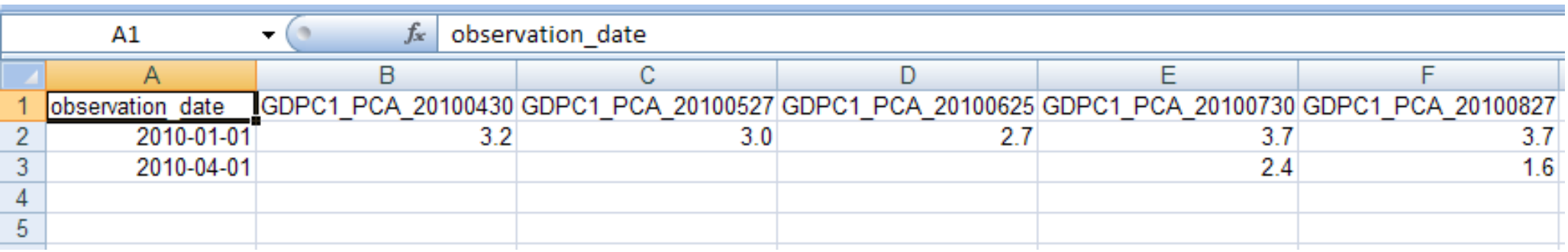
Series: GDPC1, Real Gross Domestic Product, 1 Decimal

View Data | Download Data | Notify Me of Updates | Add to My Data List | Vintage Series in ALFRED




Real Gross Domestic Product, 1 Decimal (GDPC1) Vintages: 2010-07-30, 2010-08-27
Source: U.S. Department of Commerce: Bureau of Economic Analysis
(Compounded Annual Rate of Change)
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
2010:Q2
2010 alfred.stlouisfed.org
GDPC1 V: 2010-07-30
GDPC1 V: 2010-08-27
A quick bar chart available in ALFRED. The red bar shows the current release; the blue bar illustrates the previous release. Vintages are listed in the title, and on the legend (below).

A quick download from ALFRED of the quarterly GDP data released so far this year.



A1 | observation_date

	A	B	C	D	E	F
1	observation_date	GDPC1_PCA_20100430	GDPC1_PCA_20100527	GDPC1_PCA_20100625	GDPC1_PCA_20100730	GDPC1_PCA_20100827
2	2010-01-01	3.2	3.0	2.7	3.7	3.7
3	2010-04-01				2.4	1.6
4						
5						

Users can download the history of the real GDP back to 1991; vintage Gross National Product data are available back to 1947. The earliest vintage available is 1927 for Industrial Production Index.

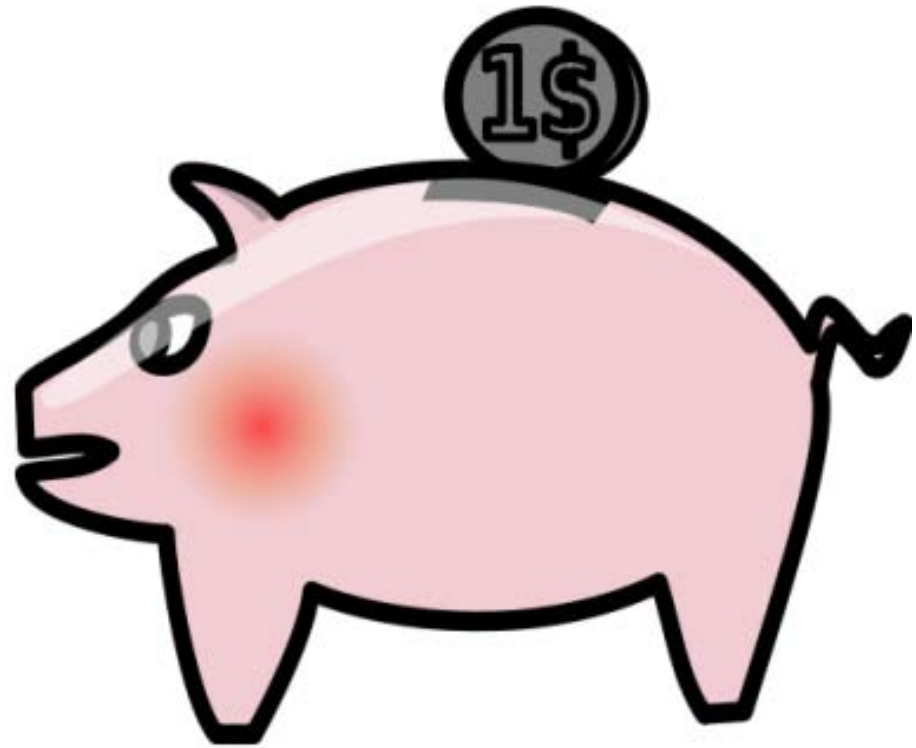
Background

- Our programmer, George Essig, used Richard T. Snodgrass' book Developing Time-Oriented Database Applications in SQL.

- These data are saved only when there are revisions; each data value has three pieces of information
  - The time period it applies to (e.g., 2nd quarter 2010)
  - The time period it is true for (e.g., from July 30th to August 26th)
  - The date that the information was entered into the database to allow for tracking of data entry errors

Negative Saving Rate—or not

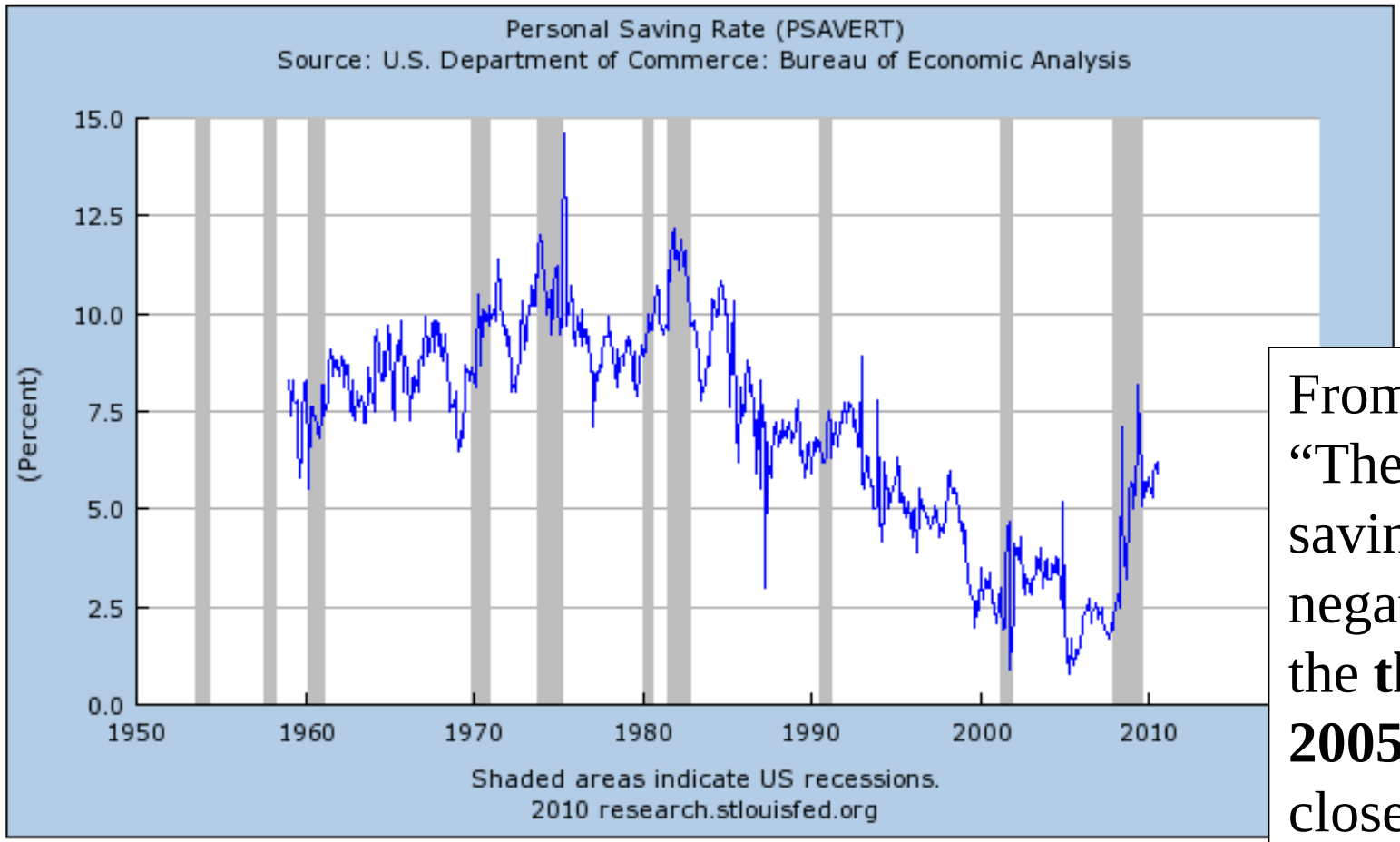
- Remember the negative saving rate? I thought I'd use those data and an article in our librarian newsletter for a talk I was giving to an economic education class.



Home > Economic Data - FRED® > Categories > Gross Domestic Product (GDP) and Components > Saving & Investment > Series: PSAVERT, Personal Saving Rate

Series: PSAVERT, Personal Saving Rate

View Data | Download Data | Notify Me of Updates | Add to My Data List | Vintage Series in ALFRED



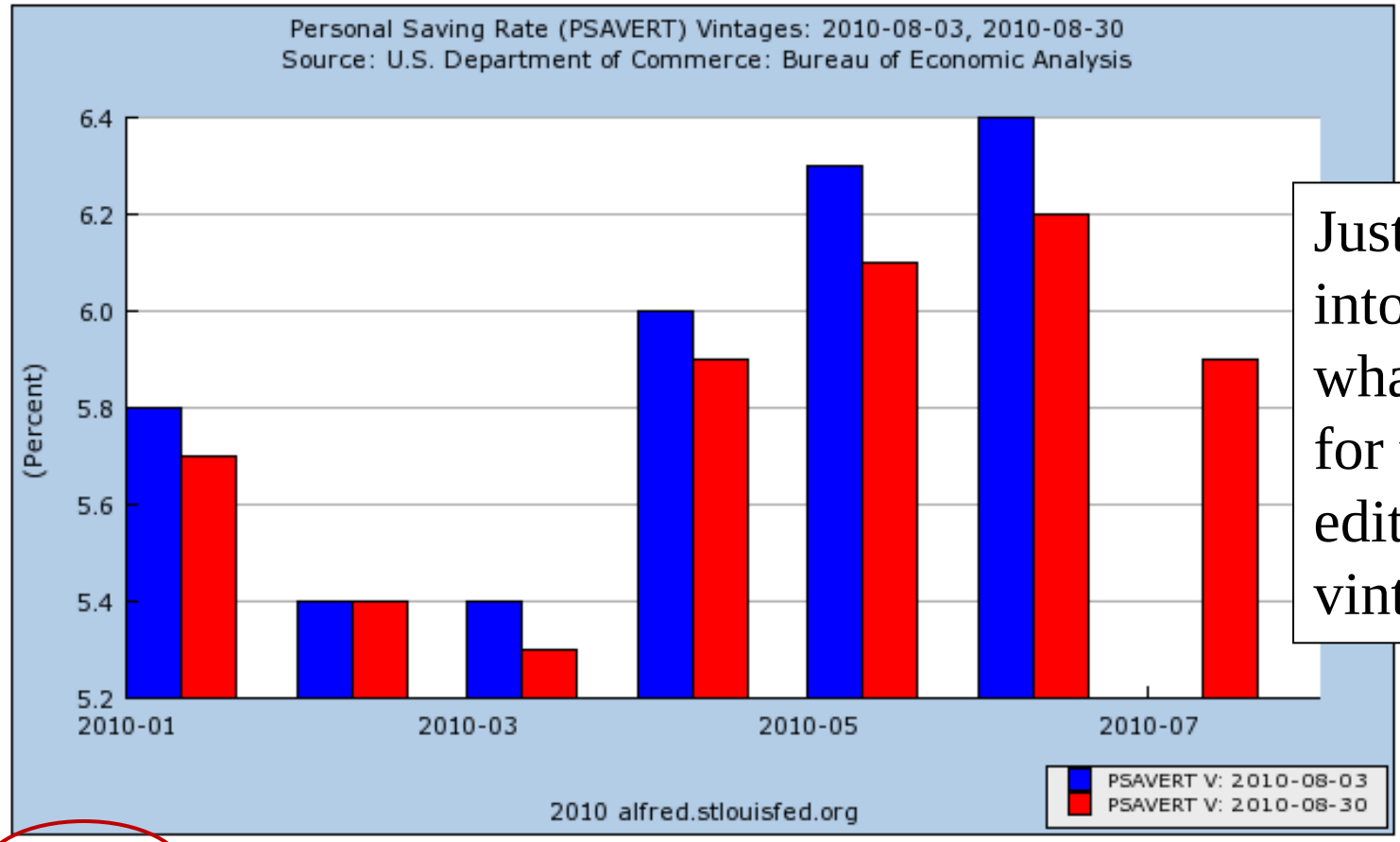
Graph: Edit | Print | PDF | Save

From a *Liber8* article: "The U.S. personal saving rate fell into negative territory during the **third quarter of 2005** and has remained close to zero since then." Here's the data: What's the problem?

Home > Categories > Gross Domestic Product (GDP) and Components > Saving & Investment > Series: PSAVERT, Personal Saving Rate

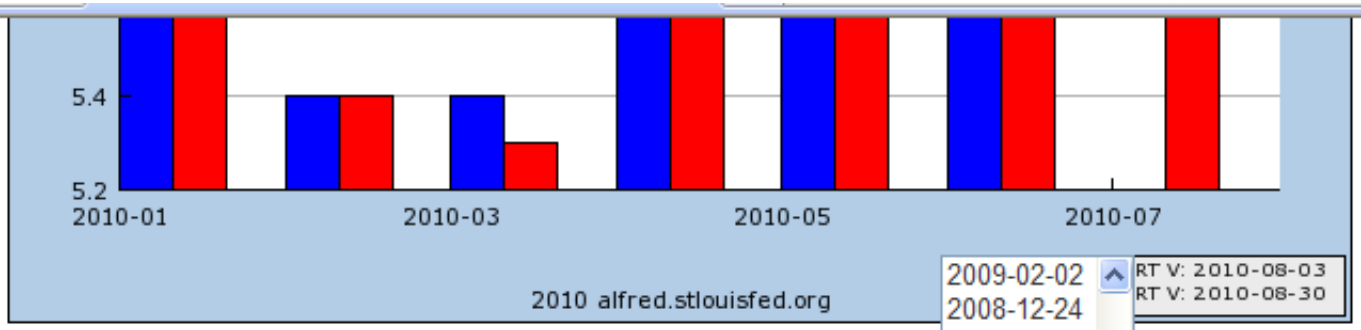
Series: PSAVERT, Personal Saving Rate

Download Data | Add to My Data List | Current Series in FRED



Graph: Edit | Print | PDF | Save

Just a quick check to get into ALFRED and to see what revisions look like for this data. I'm going to edit this to see an earlier vintage.



2009-02-02
2008-12-24
2008-11-26
2008-10-31
2008-09-29
2008-08-29
2008-08-04
2008-06-27
2008-05-30
2008-05-01
2008-03-28
2008-02-29
2008-01-31
2007-12-21
2007-11-30
2007-11-01
2007-09-28
2007-08-31
2007-07-31
2007-06-29
2007-06-01
2007-04-30
2007-03-30
2007-03-01
2007-02-01
2006-12-22
2006-11-30
2006-10-30
2006-09-29
2006-08-31

RT V: 2010-08-03
RT V: 2010-08-30

Settings

Graph

Bar Series 1: Personal Saving Rate (PSAVERT) Vi … 0-08-03, Monthly, Percent, Seasonally Adjusted Annual Rate

Bar Series 2: Personal Saving Rate (PSAVERT) Vi … 0-08-30, Monthly, Percent, Seasonally Adjusted Annual Rate

Scale: Left Color:

Min, Max, and Avg Settings

Observation Date Range: 2005-07-01 to 2010-07-01 Co … Series

Observation Quick Range: Custom 1yr 5yrs 10

(a) Personal Saving Rate (PSAVERT), Monthly, Seasonally Adjus … te

Units: Percent

Enter an as-of Date: 2010-08-30 Or Select a Vintage:

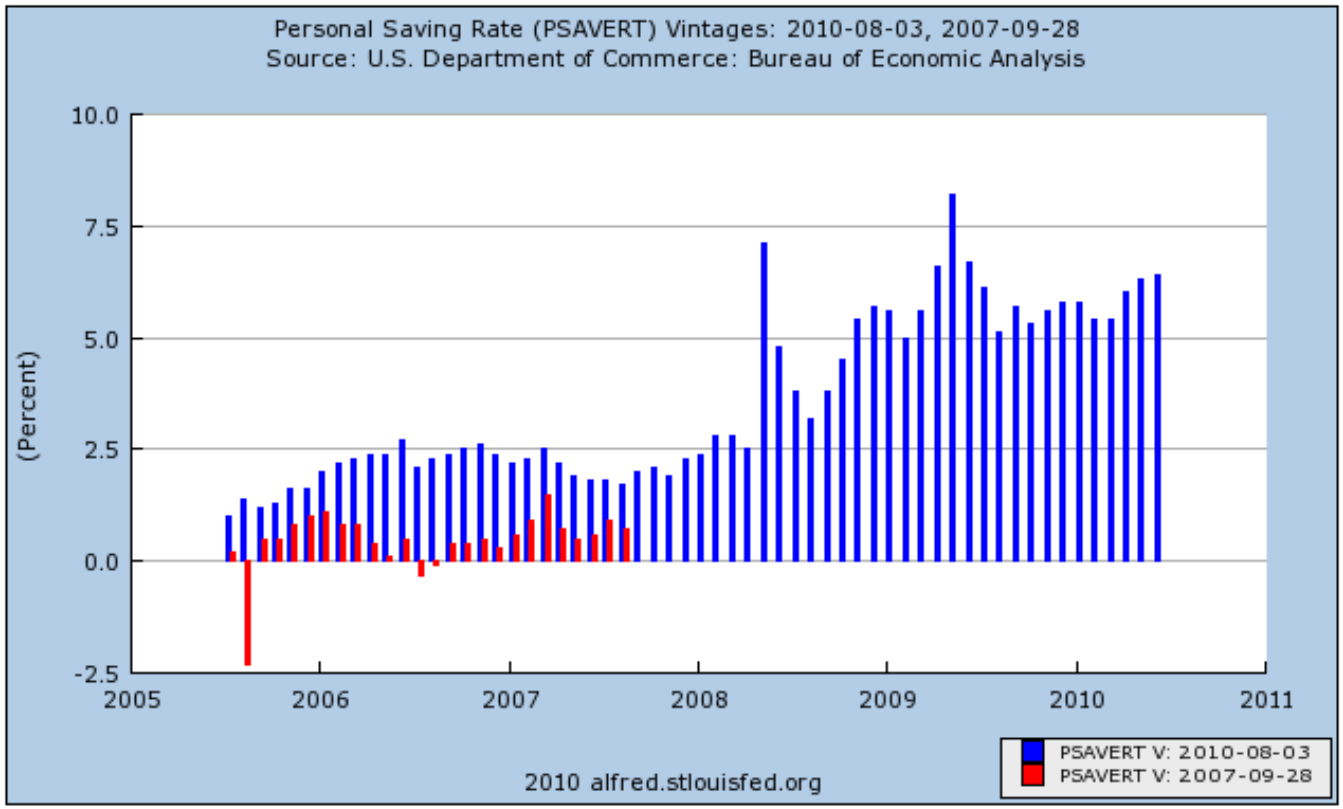
Create Your Own Data Transformation

Redraw Graph | Remove Bar Series | Move Up

I changed the vintage to the vintage just before the publication of our *Liber8* article. The observations date range is the last 5 years.

ALFRED Graph

Download Data in Graph | Print | PDF | Link | View Saved Graphs | Save Graph



Here's the chart with the original series and the revised data. Revisions have moved the saving rate into positive territory.

Settings

- Graph
- Bar Series 1: Personal Saving Rate (PSAVERT) Vintage: 2010-08-03, Monthly, Percent, Seasonally Adjusted Annual Rate
- Bar Series 2: Personal Saving Rate (PSAVERT) Vintage: 2007-09-28, Monthly, Percent, Seasonally Adjusted Annual Rate
- Add Data Series

ALFRED's goals

- ALFRED allows users to see the revisions to a series. Users may also select a particular date and see the data as they were at that point in time.
- Unique information, easily accessed
- Preserving important data for future research
- http://alfred.stlouisfed.org/