

# Class 3

Econ 402

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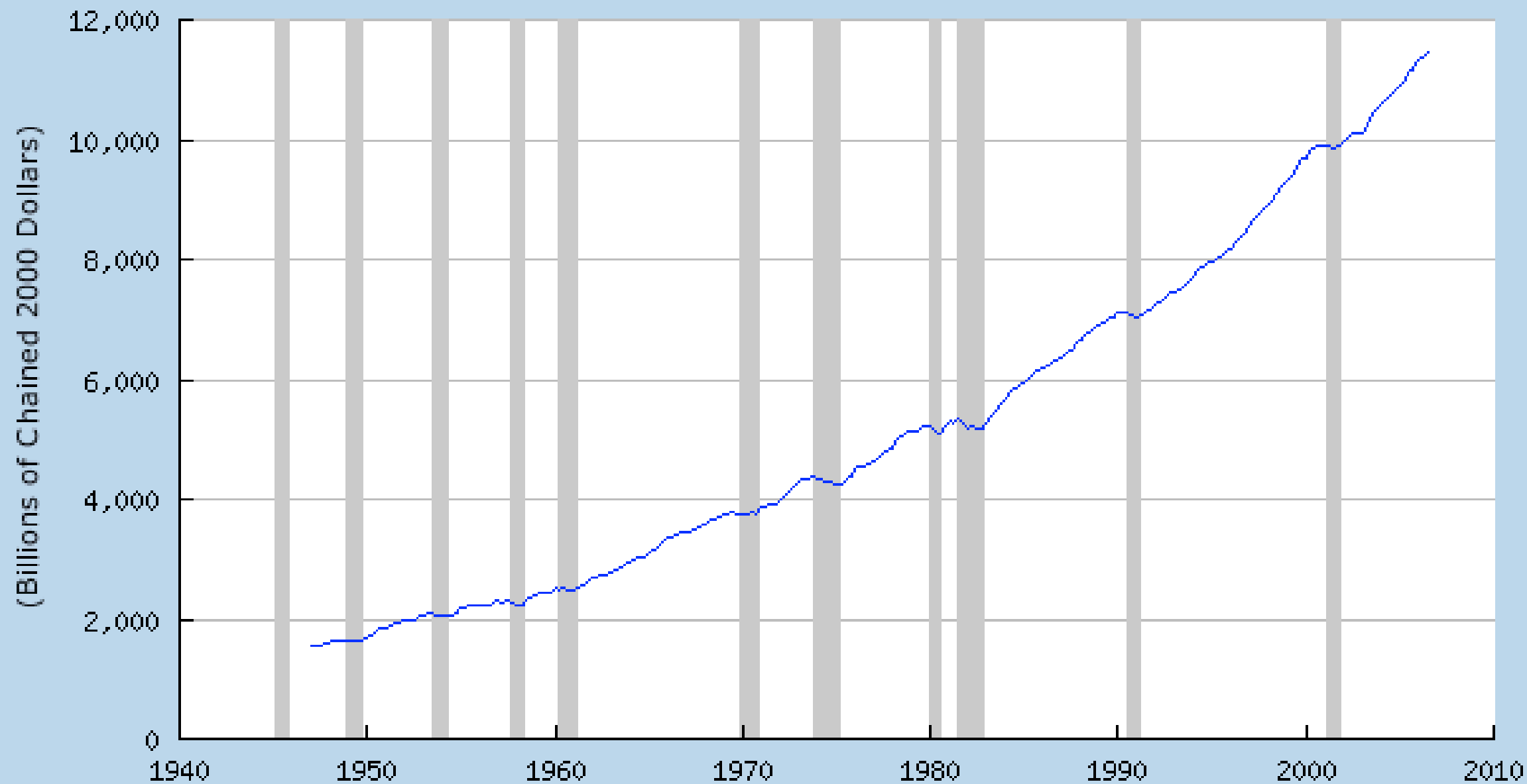
# Class 3 Outline

- More on the Data of Macroeconomics
  - Consumption and Investment
  - Data in Different Countries
  - The Yield Curve
  - Seasonality
  - Data Revisions
- The Great Moderation



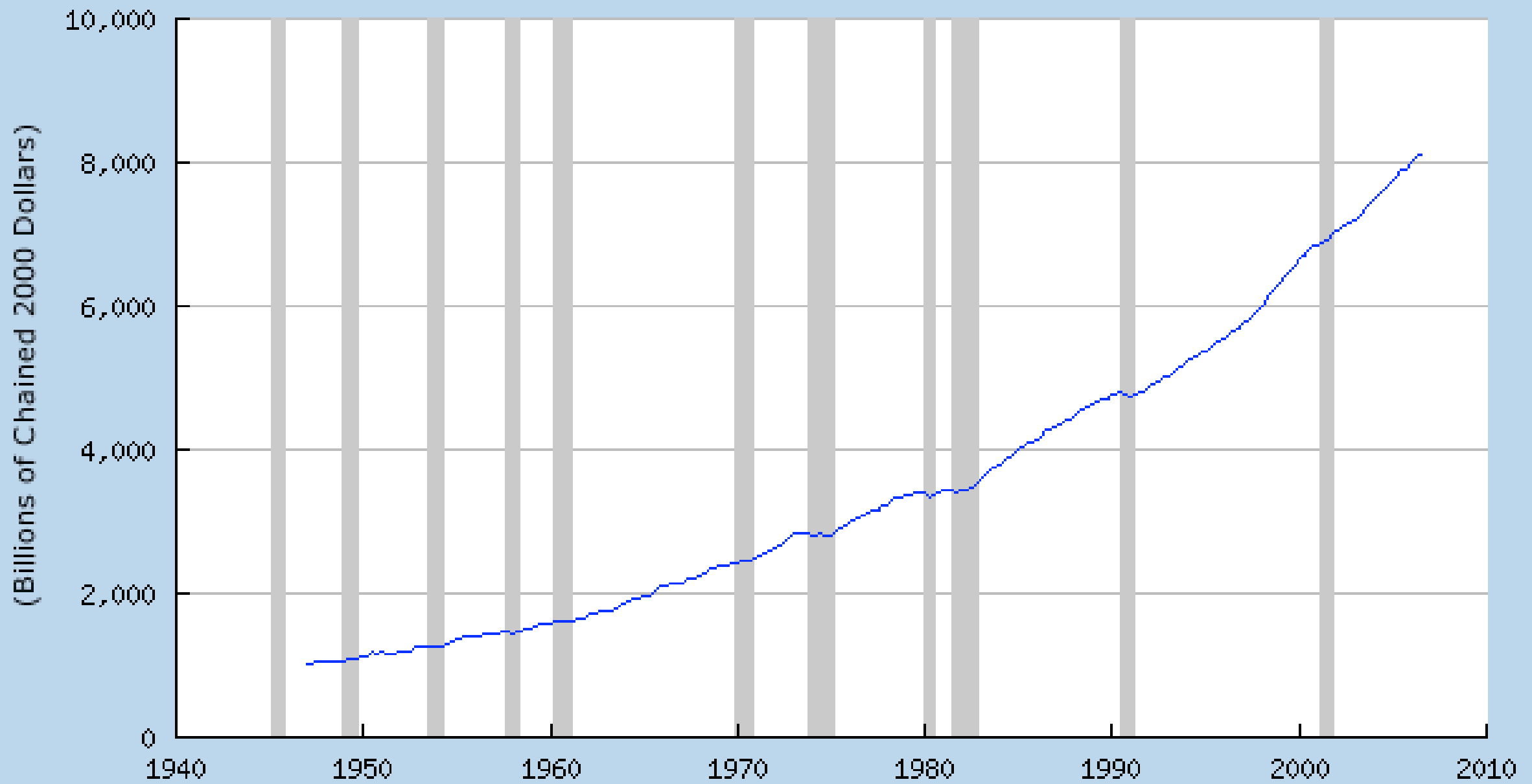
### Real Gross Domestic Product, 1 Decimal (GDPC1)

Source: U.S. Department of Commerce: Bureau of Economic Analysis



Shaded areas indicate recessions as determined by the NBER.  
2006 Federal Reserve Bank of St. Louis: [research.stlouisfed.org](http://research.stlouisfed.org)

Real Personal Consumption Expenditures (PCECC96)  
Source: U.S. Department of Commerce: Bureau of Economic Analysis

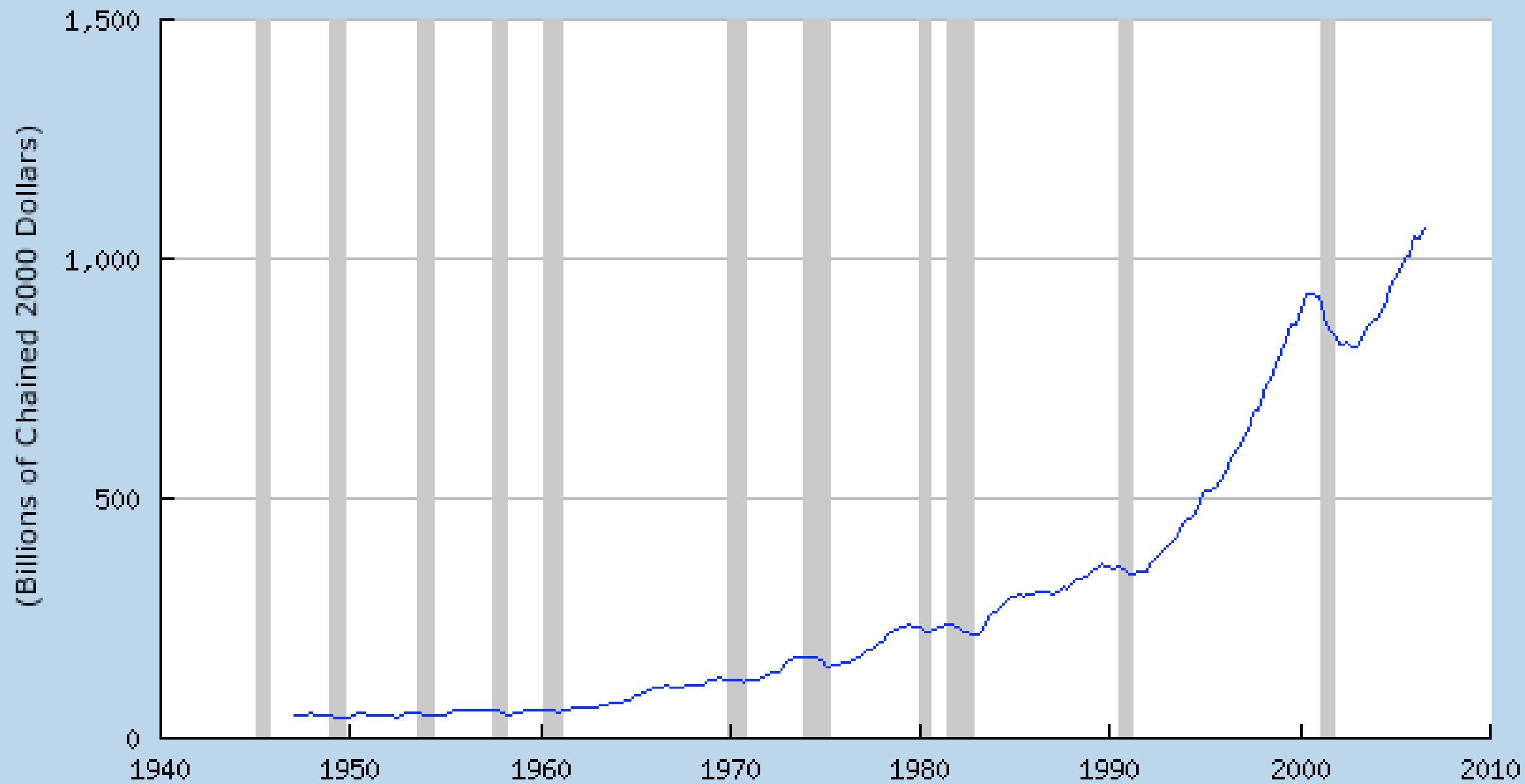


Shaded areas indicate recessions as determined by the NBER.  
2007 Federal Reserve Bank of St. Louis: [research.stlouisfed.org](http://research.stlouisfed.org)



# Real Nonresidential Investment: Equipment & Software, 1 Decimal (NRIPDC1)

Source: U.S. Department of Commerce: Bureau of Economic Analysis



Shaded areas indicate recessions as determined by the NBER.  
2006 Federal Reserve Bank of St. Louis: [research.stlouisfed.org](http://research.stlouisfed.org)



## Output, prices and jobs

% change on year ago

	Gross domestic product				Industrial production latest	Consumer prices			Unemployment rate <sup>†</sup> , %
	latest	qtr*	2008 <sup>†</sup>	2009 <sup>†</sup>		latest	year ago	2008 <sup>†</sup>	
United States	+2.8 Q3	+4.9	+1.8	+2.6	+2.1 Nov	+4.3 Nov	+2.0	+2.8	5.0 Dec
Japan	+1.9 Q3	+1.5	+1.4	+1.9	+2.9 Nov	+0.6 Nov	+0.3	+0.3	3.8 Nov
China	+11.5 Q3	na	+10.1	+9.6	+17.3 Nov	+6.9 Nov	+1.9	+3.5	9.5 2007
Britain	+3.3 Q3	+2.7	+1.9	+2.2	+1.0 Oct	+2.1 Nov <sup>§</sup>	+2.7	+2.1	5.3 Oct <sup>††</sup>
Canada	+2.9 Q3	+2.9	+1.9	+2.5	+0.8 Oct	+2.5 Nov	+1.4	+1.9	5.9 Nov
Euro area	+2.7 Q3	+2.8	+1.8	+2.0	+3.8 Oct	+3.1 Dec	+1.9	+2.3	7.2 Nov
Austria	+3.3 Q3	+3.0	+2.6	+2.6	-0.8 Oct	+3.1 Nov	+1.6	+2.1	4.3 Nov
Belgium	+2.6 Q3	+2.2	+2.0	+2.0	+0.6 Oct	+3.1 Dec	+1.6	+2.0	10.7 Nov <sup>††</sup>
France	+2.2 Q3	+3.2	+1.8	+2.0	+2.5 Nov	+2.4 Nov	+1.4	+2.0	7.9 Q3 <sup>§§</sup>
Germany	+2.5 Q3	+2.8	+1.9	+2.1	+3.5 Nov	+2.8 Dec	+1.4	+2.1	8.4 Dec
Greece	+3.8 Q3	+3.6	+2.9	+2.5	+3.6 Nov	+3.9 Nov	+2.9	+3.0	8.3 Sep
Italy	+1.9 Q3	+1.7	+1.3	+1.5	-1.5 Oct	+2.6 Dec	+1.9	+2.3	5.9 Q3
Netherlands	+4.2 Q3	+7.5	+2.1	+2.2	+2.3 Oct	+1.9 Dec	+1.3	+2.0	4.2 Nov <sup>††</sup>
Spain	+3.8 Q3	+2.9	+2.4	+2.3	-0.6 Nov	+4.3 Dec	+2.7	+3.1	8.2 Nov

[http://www.economist.com/  
markets/indicators/](http://www.economist.com/markets/indicators/)



# Yield Curve

- [http://online.wsj.com/mdc/public/page/mdc\\_bonds.html?mod=mdc\\_h\\_bndsctnhd](http://online.wsj.com/mdc/public/page/mdc_bonds.html?mod=mdc_h_bndsctnhd)

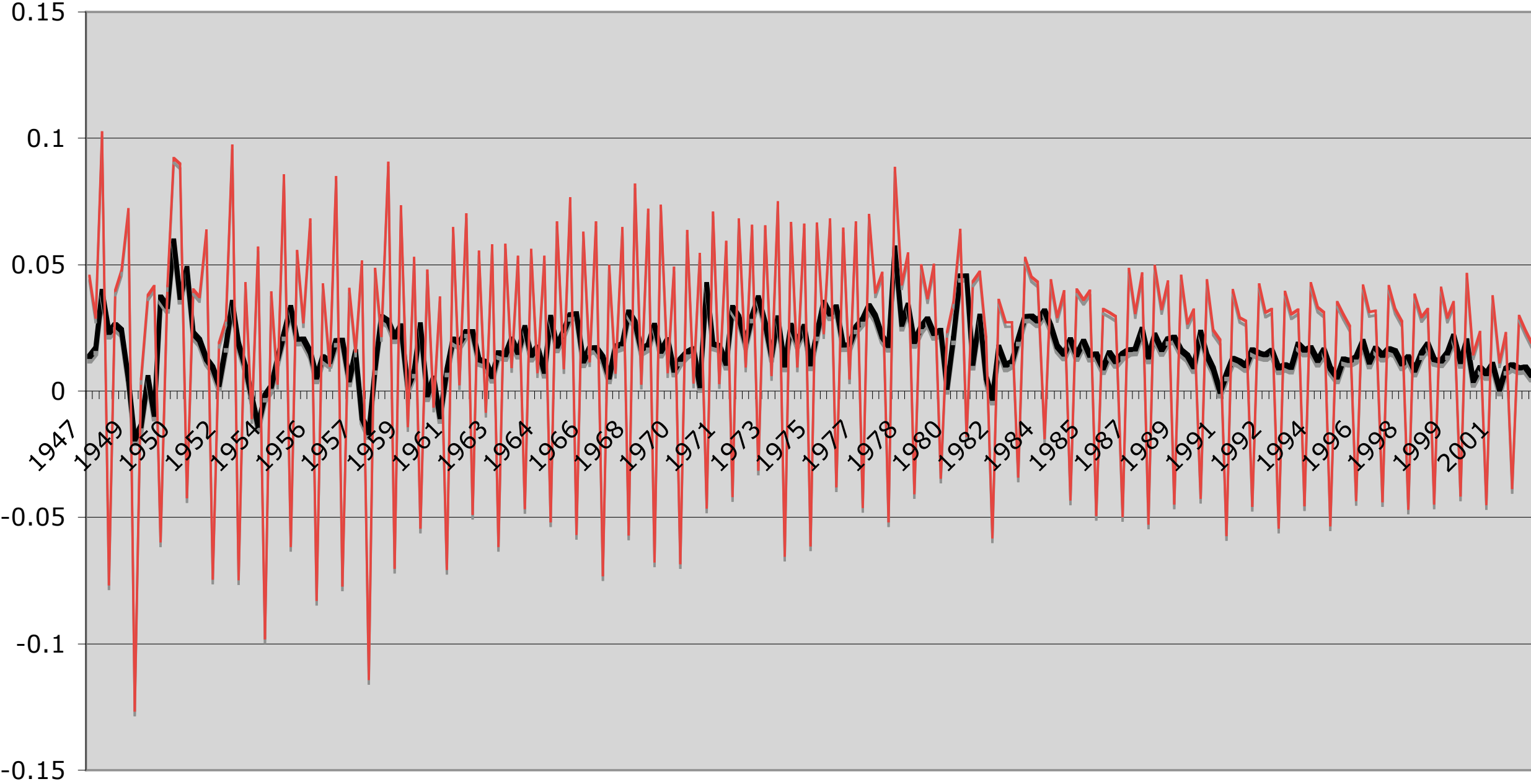


# Seasonality

- Most macroeconomic variables are subject to huge seasonal fluctuations
- Do these matter?



# Nominal GDP Growth (quarterly)



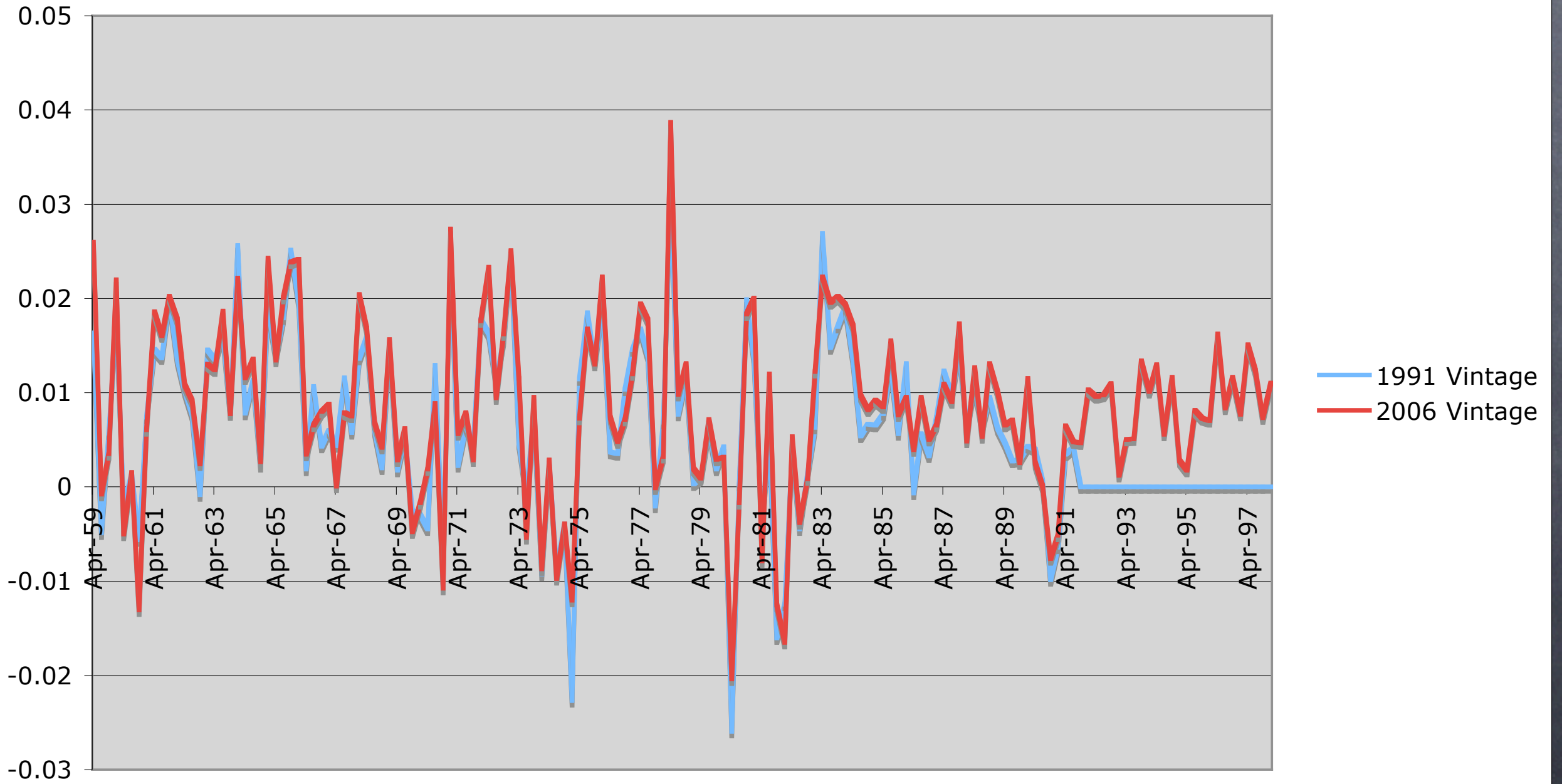


# Data Revisions

- Except for the CPI, most macroeconomic variables are revised over time, sometimes dramatically
- Are revisions predictable?



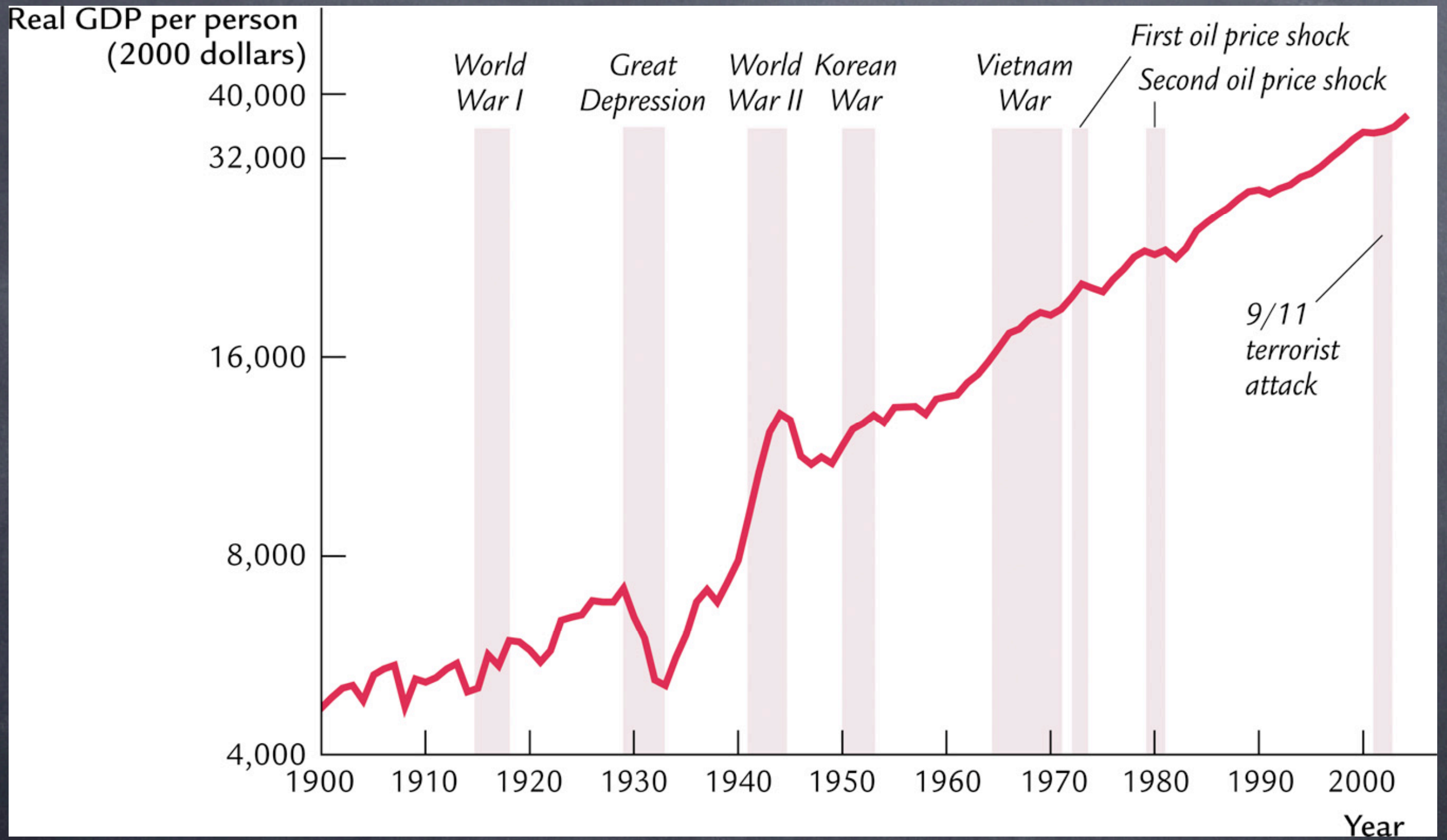
# Real GDP Growth





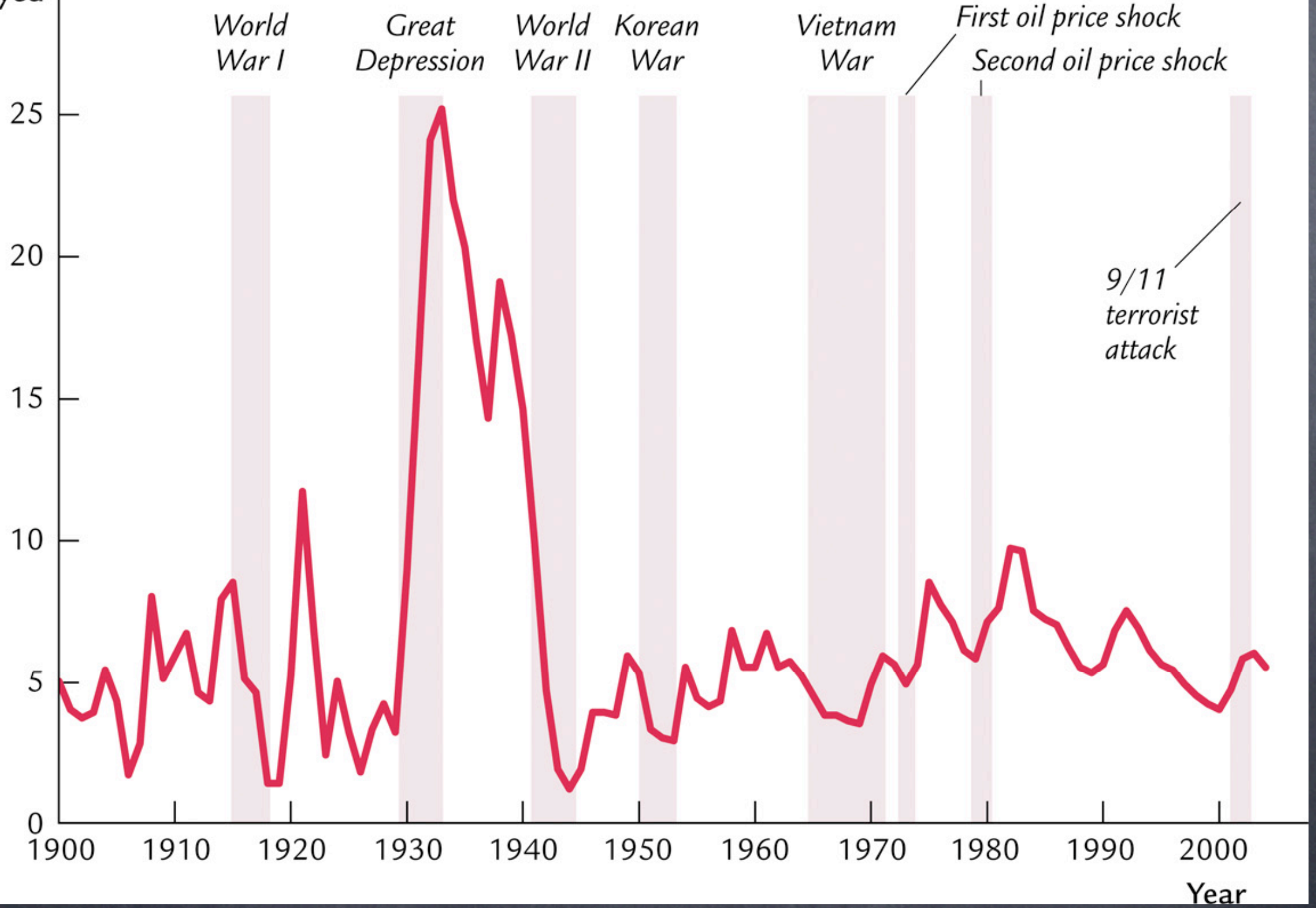
• What is the "Great Moderation"?



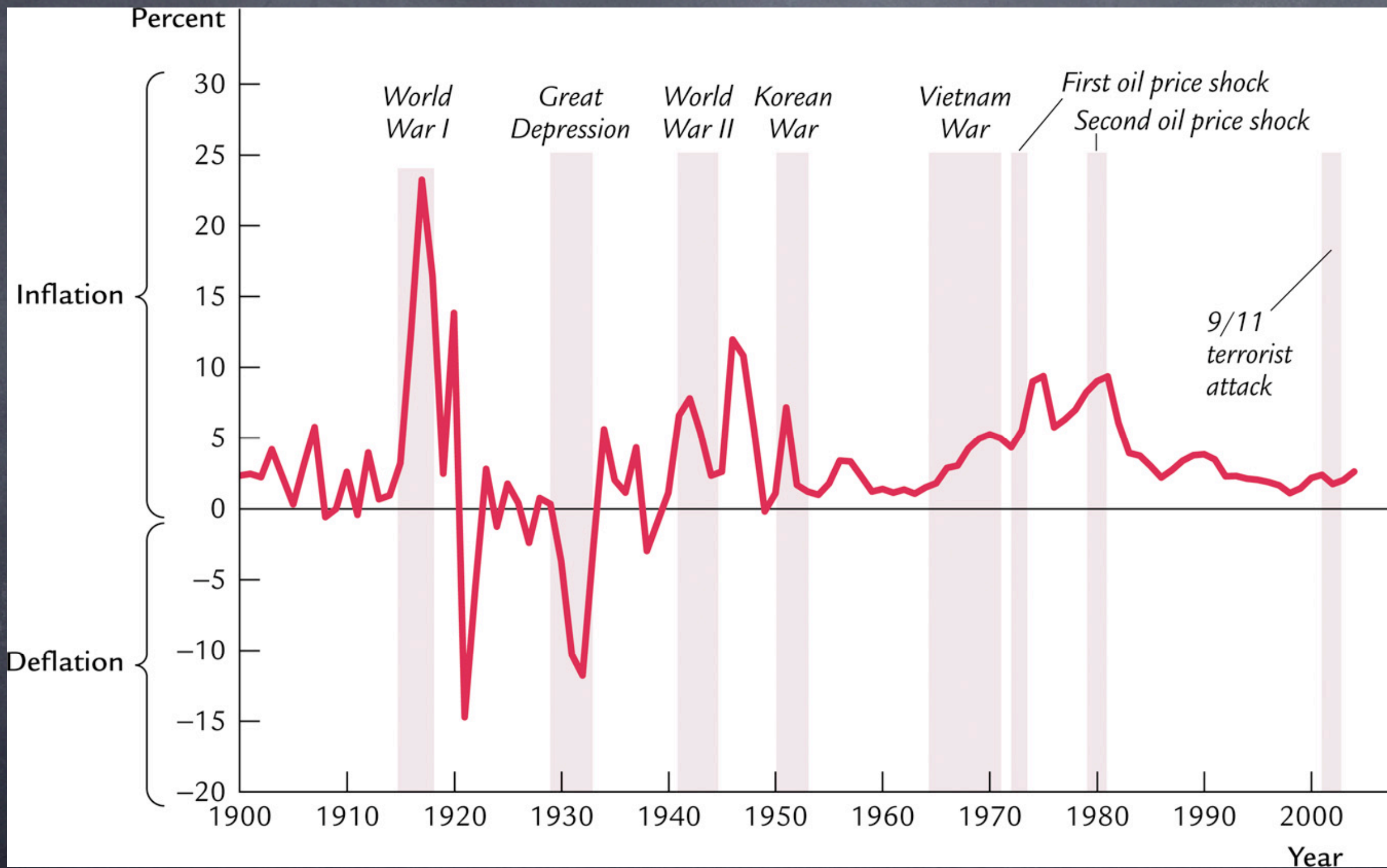




Percent unemployed

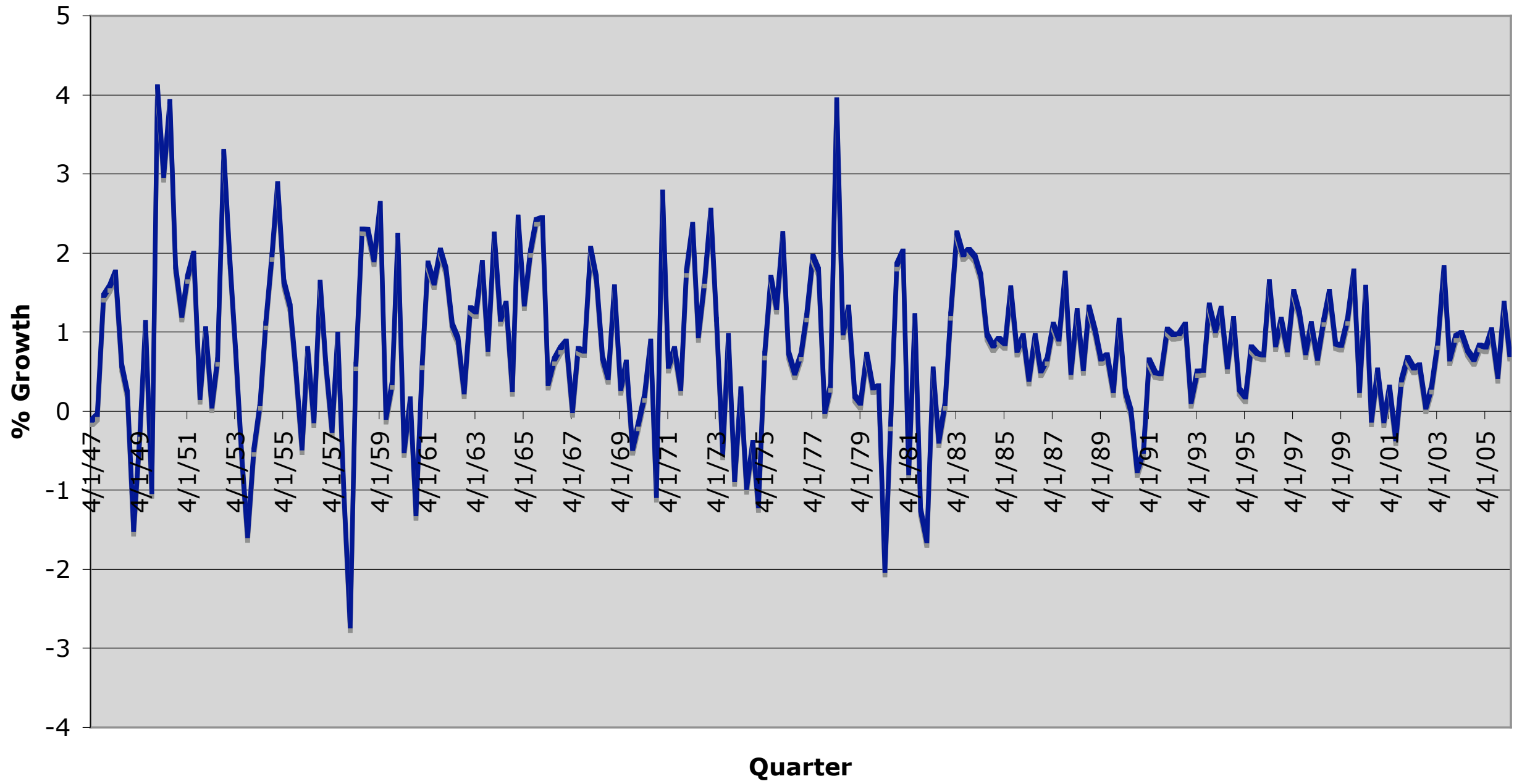








# Postwar US Real GDP Growth





- What are possible reasons for the Great Moderation?



# Reasons

- Information/Inventory Management
- Monetary Policy
- Changing structure to service-based economy
- Globalization
- Good luck (smaller supply shocks)



- Are you surprised by the Great Moderation?  
Why?



- Next time: The "Classical" Model (Chapter 3 of Mankiw)