

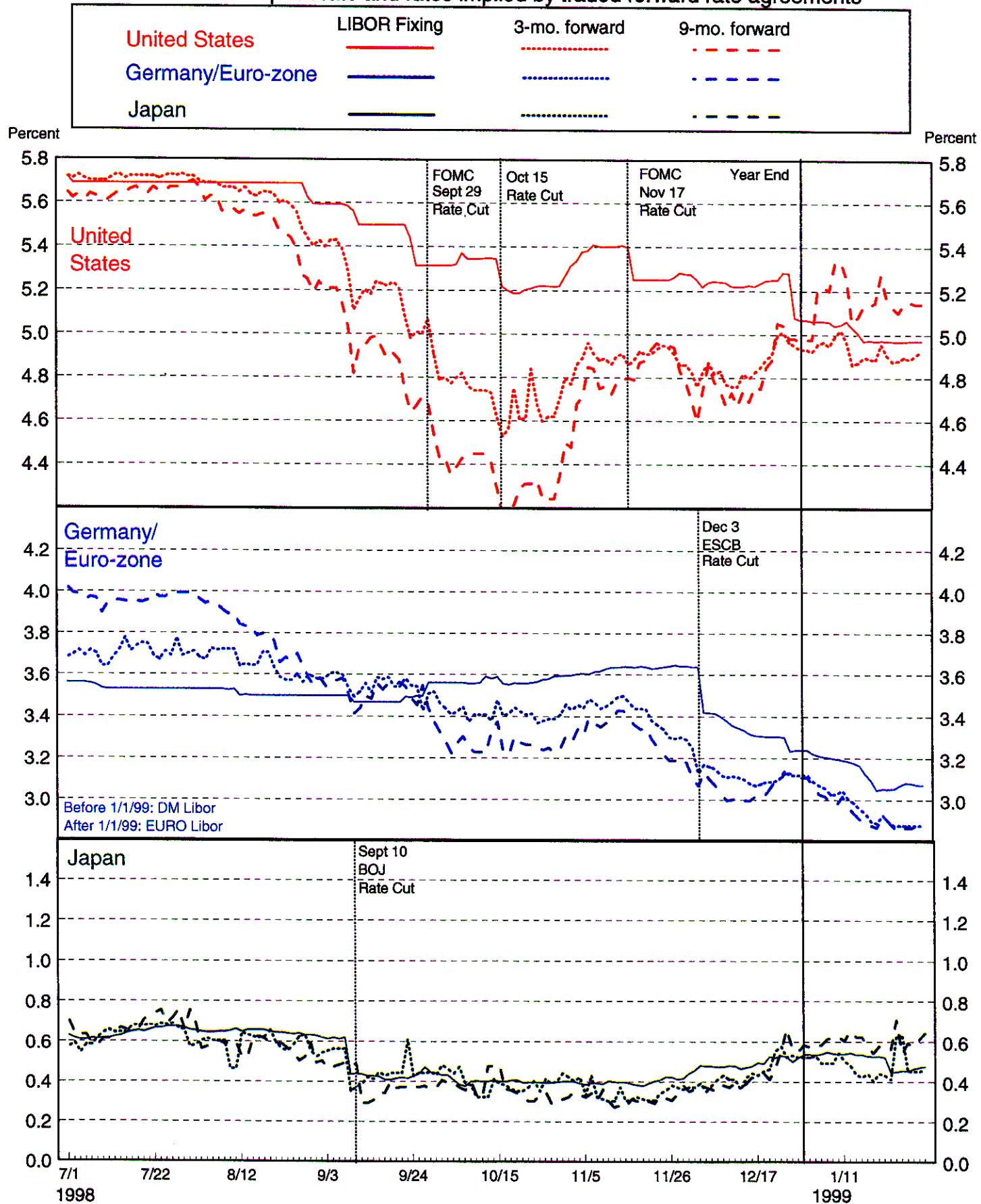
## **APPENDIX 1**

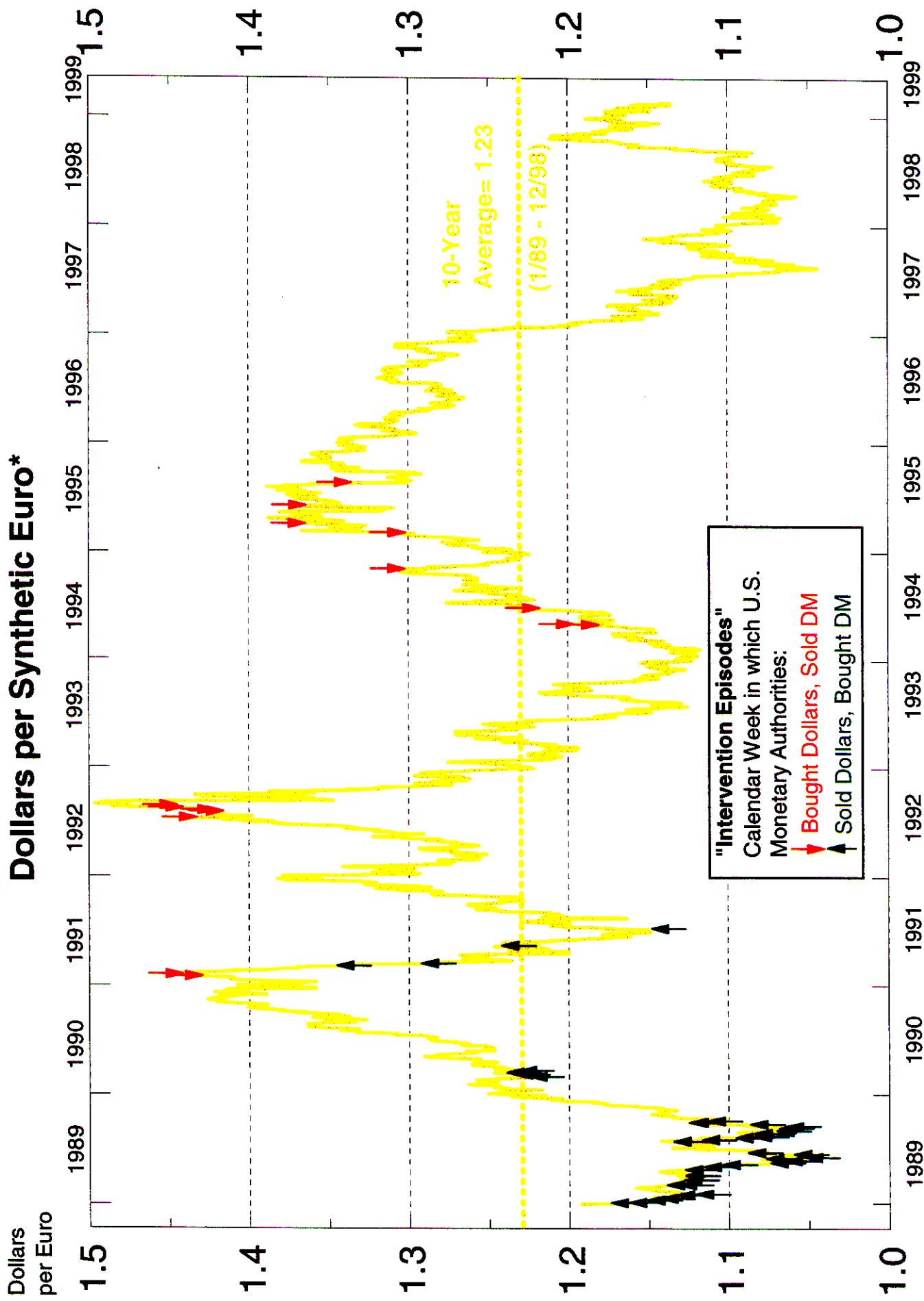
**Material used by Mr. Fisher**

# 3-Month Deposit Rates

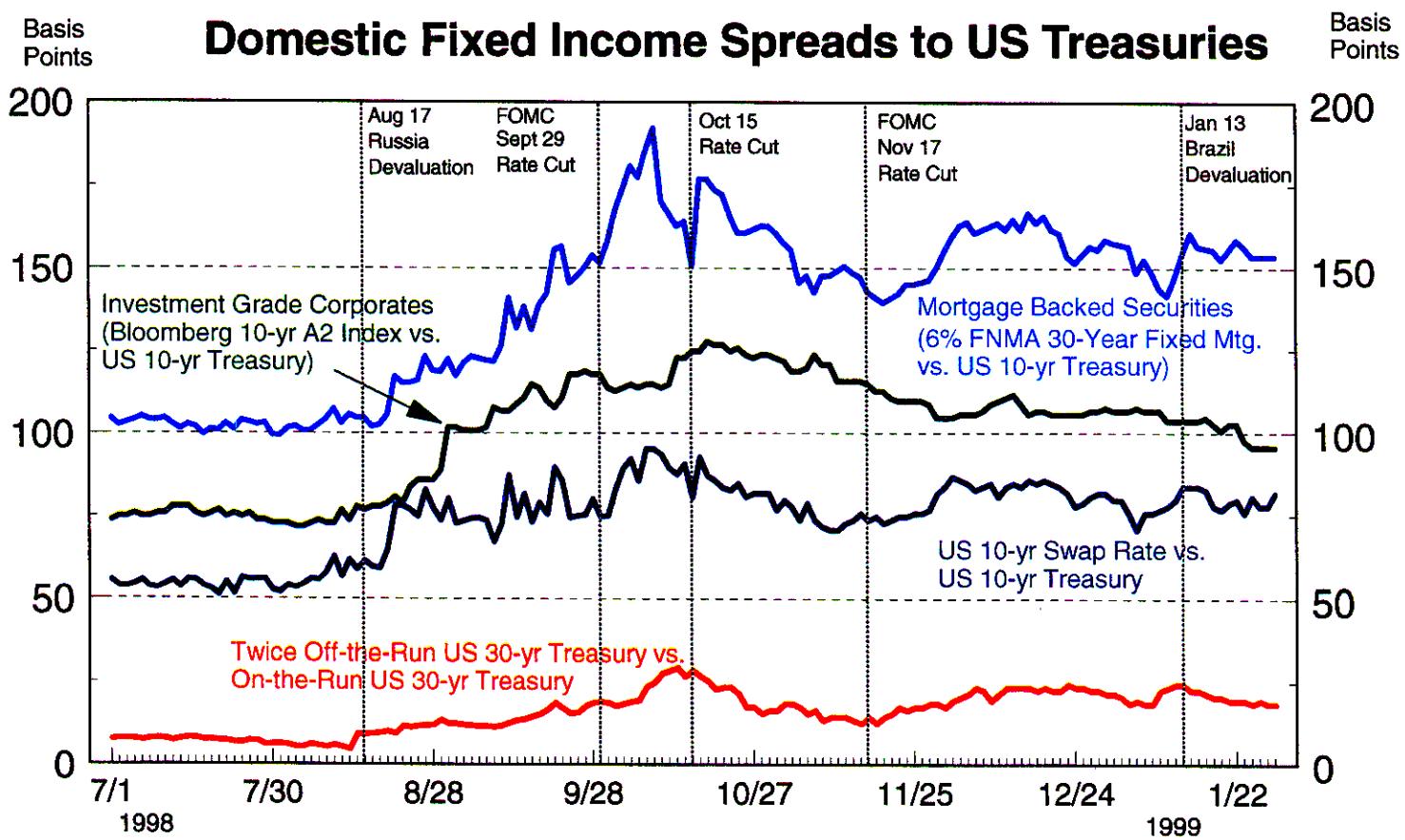
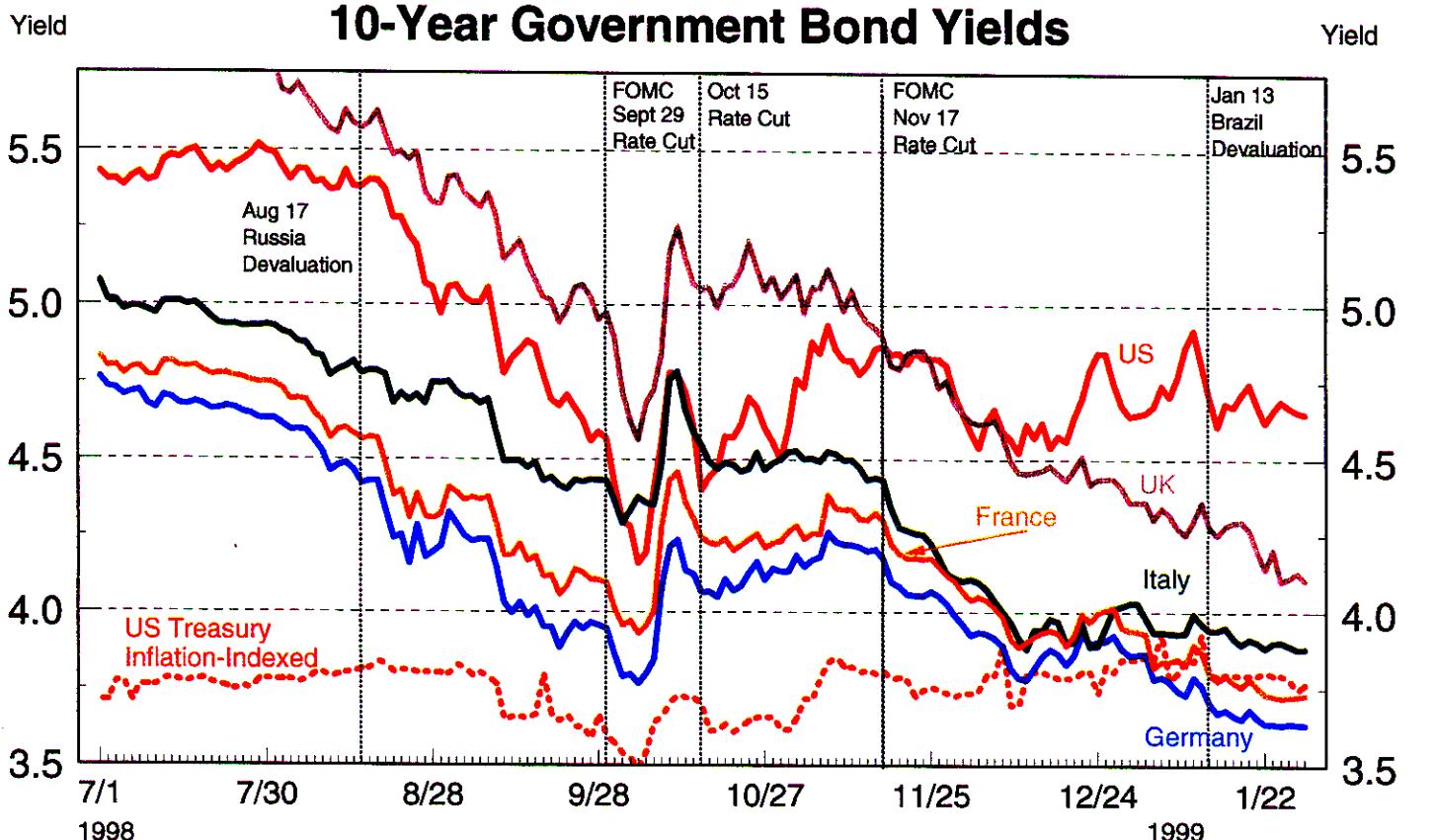
## July 1, 1998 - January 29, 1999

Current euro-deposit rate and rates implied by traded forward rate agreements



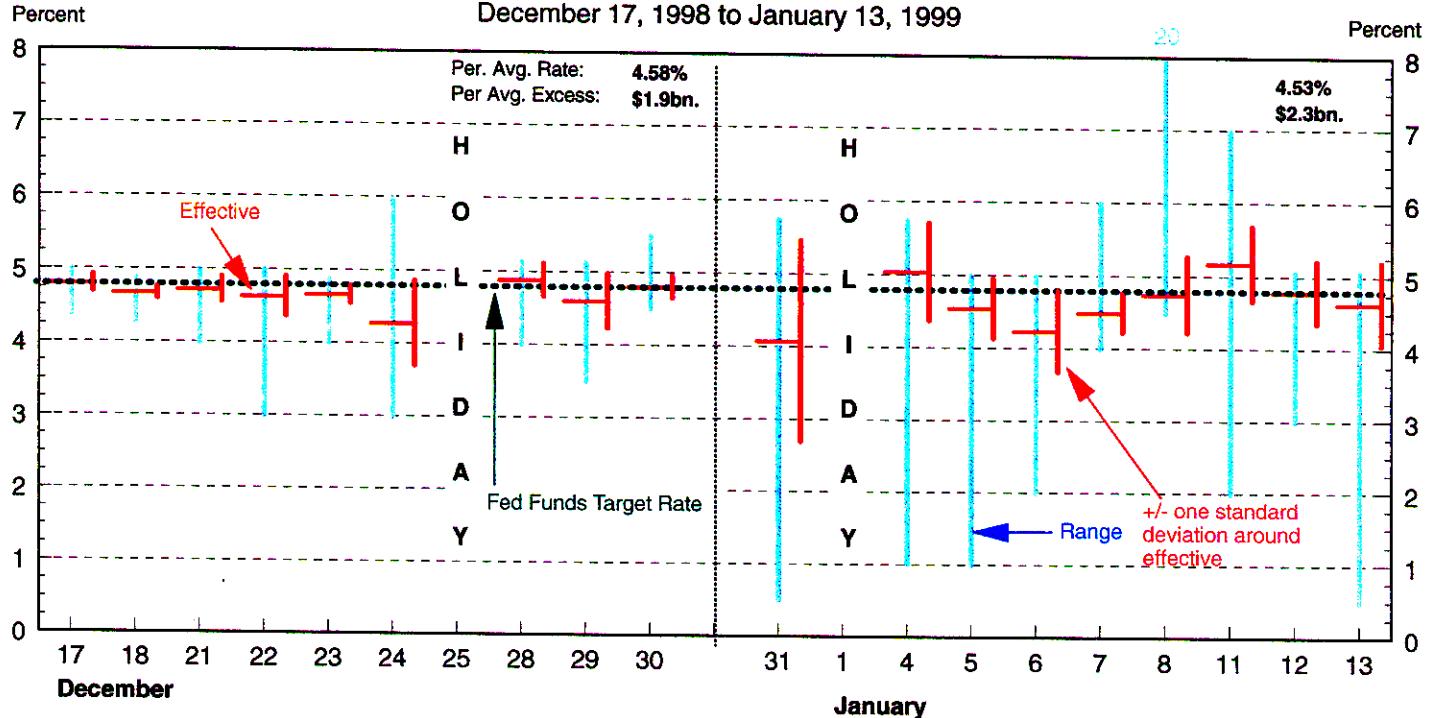


\*Note: The euro's synthetic history is derived from the weighted-average performance of the euro's component currencies and is based on a methodology developed by HSBC Markets. The weights of the component currencies reflect the share of a country's exports and imports as a percentage of total intra-Eurozone exports and imports from 1994 to 1996.

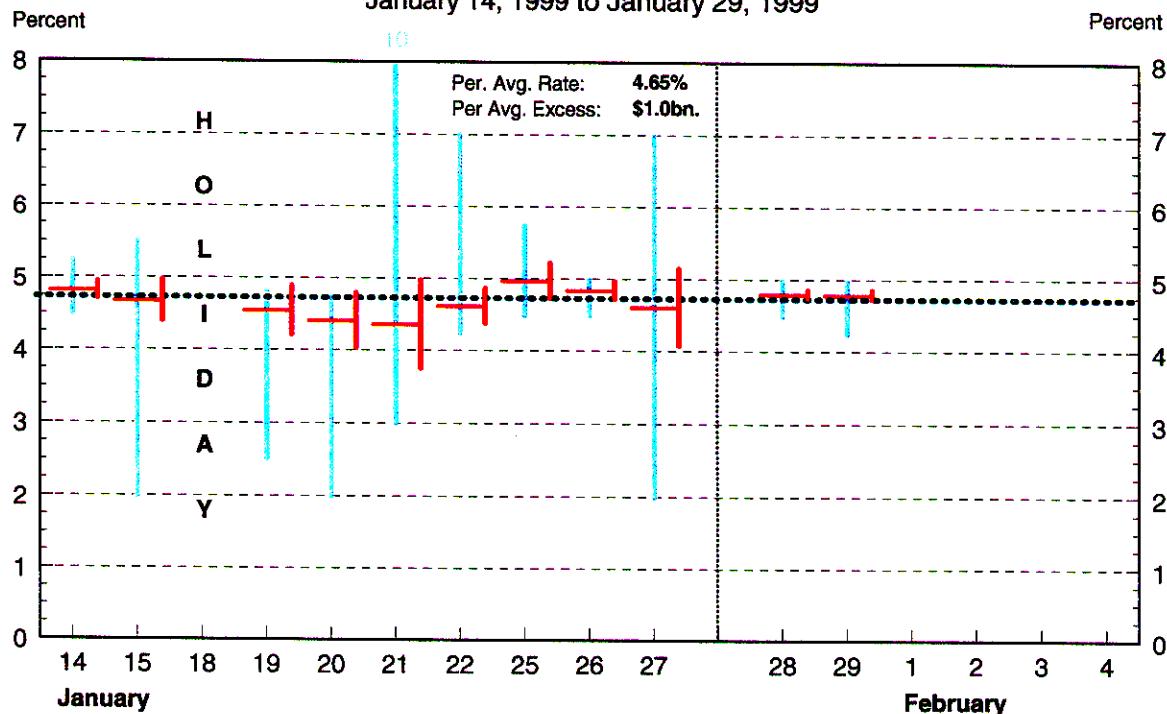


**DAILY FEDERAL FUNDS**  
**TRADING RANGE, EFFECTIVE RATE & +/- ONE STANDARD DEVIATION**

December 17, 1998 to January 13, 1999



January 14, 1999 to January 29, 1999



## APPENDIX 2

Material used by Messrs. Prell, Alexander, and Stockton

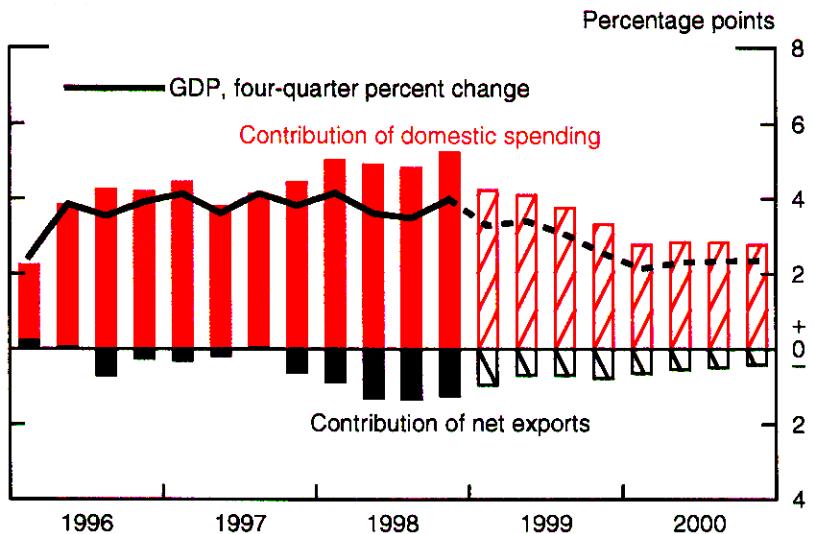
*Material for*

*Staff Presentation on the  
Economic Outlook*

*February 2, 1999*

Chart 1  
**Forecast Summary**

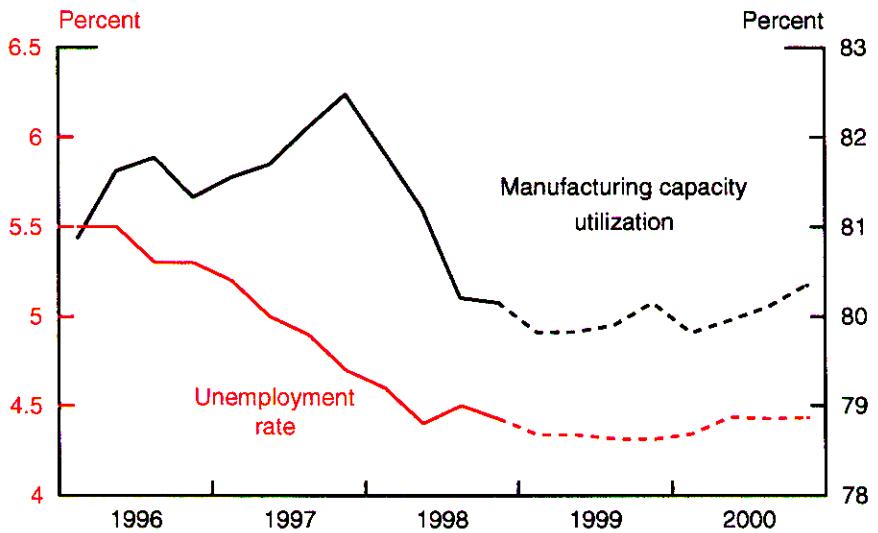
**Real GDP Growth**



GDP Growth  
Q4/Q4 percent change

	3.9
1996	3.9
1997	3.8
1998	4.0
1999	2.6
2000	2.4

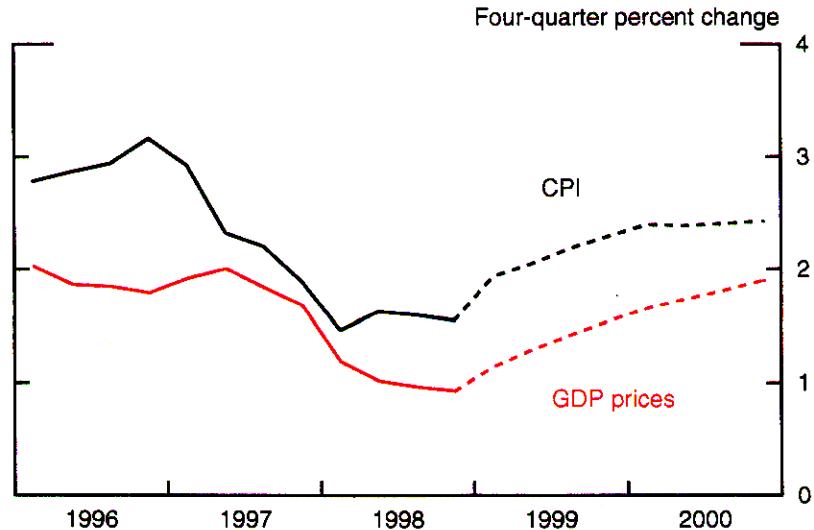
**Resource Utilization**



Q4 average

	U	CU
1996	5.3	81.3
1997	4.7	82.5
1998	4.4	80.2
1999	4.3	80.2
2000	4.4	80.3

**Inflation**

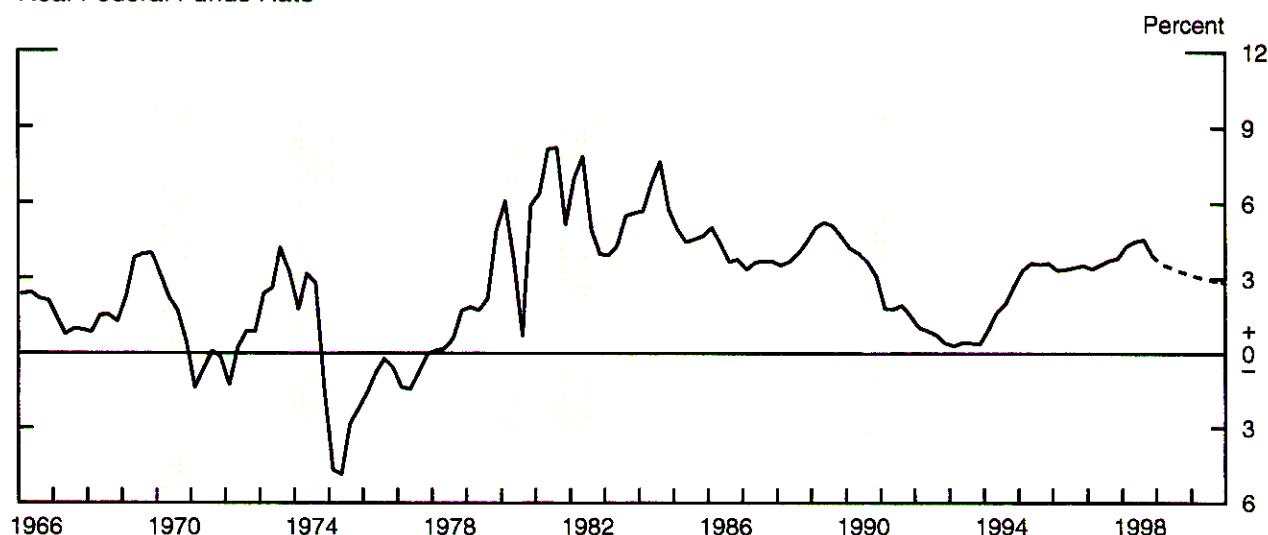


Q4/Q4 percent change

	CPI	GDP Prices
1996	3.2	1.8
1997	1.9	1.7
1998	1.5	.9
1999	2.3	1.5
2000	2.4	1.9

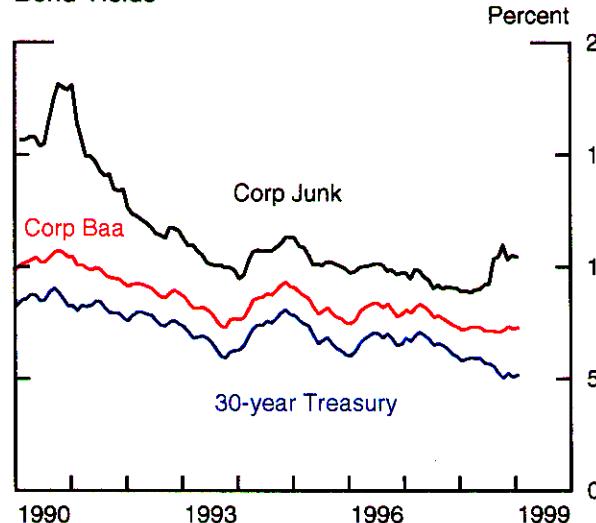
Chart 2  
**Credit Market Conditions**

**Real Federal Funds Rate\***

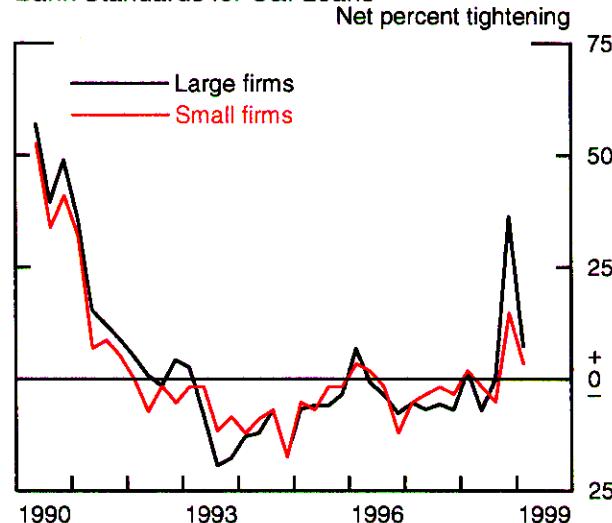


\*Nominal rate minus most recent four-quarter change in GDP prices.

**Bond Yields**



**Bank Standards for C&I Loans**



**Private Debt Growth - Inflation Adjusted**

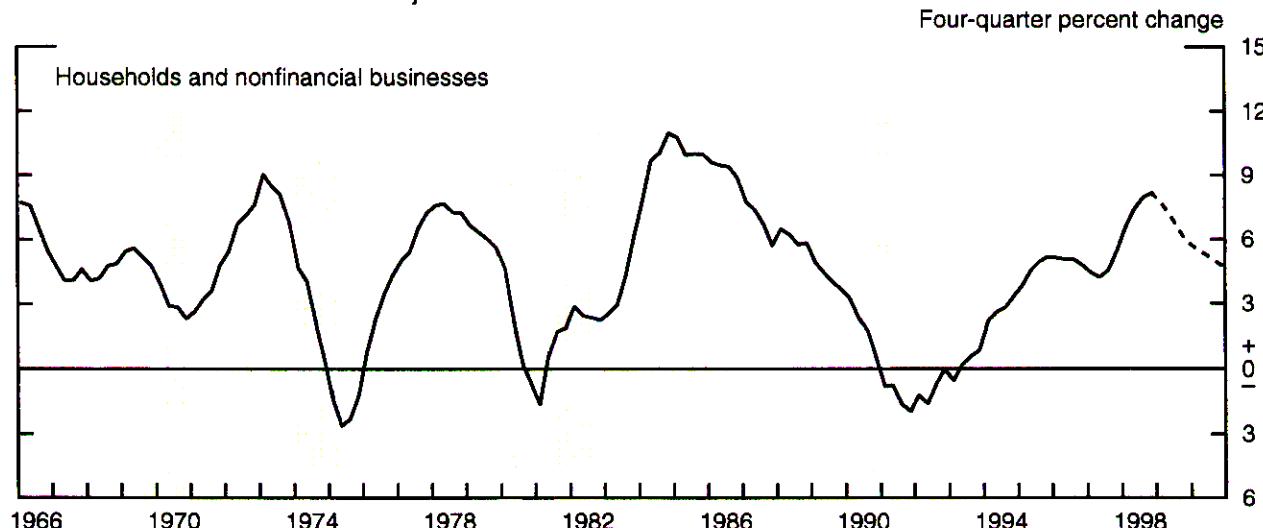
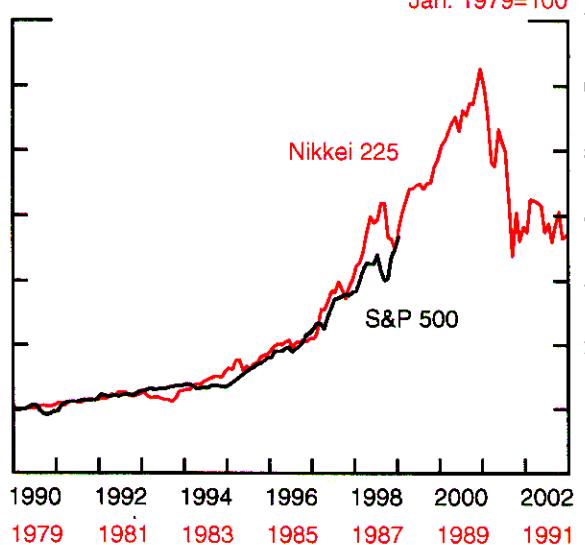


Chart 3

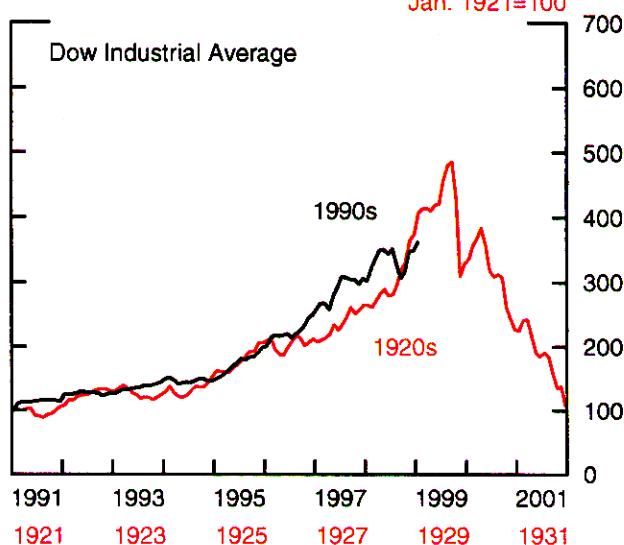
**Stock Market**

Japan, 1980s vs. US, 1990s

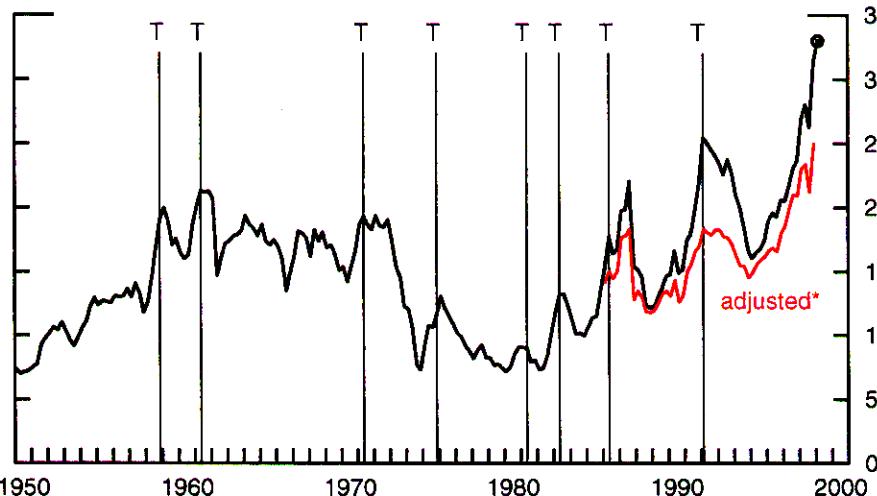
Jan. 1990=100  
Jan. 1979=100

US: 1920s vs. 1990s

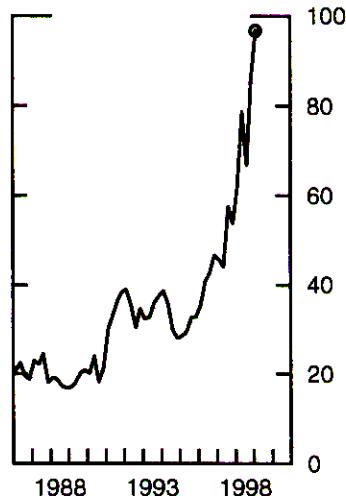
Dow Industrial Average

Jan. 1991=100  
Jan. 1921=100

Price-Earnings Ratio - S&amp;P 500



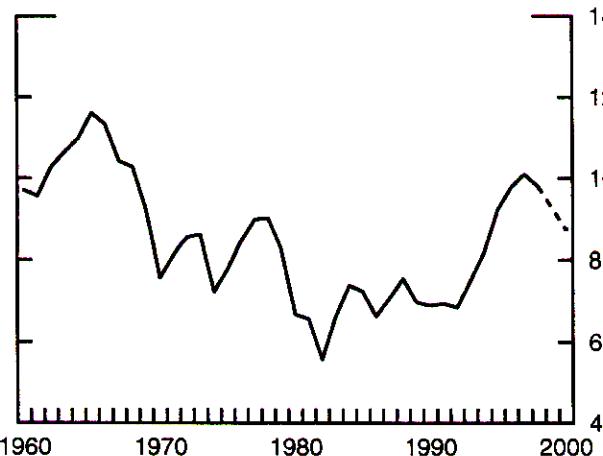
P-E Ratio - NASDAQ



\*Adjusted for special charges by Goldman Sachs. T=Trough in earnings.

Profit Share

Percent of GNP



Earnings Outlook

Percent change from previous year

NIPA after-tax book profits

S&amp;P 500 eps

I/B/E/S strategists

Staff

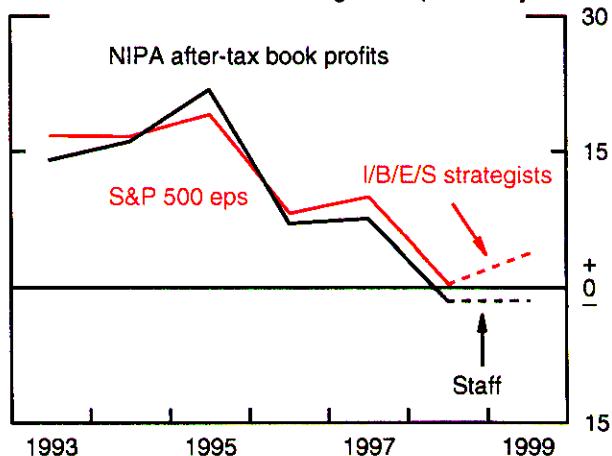
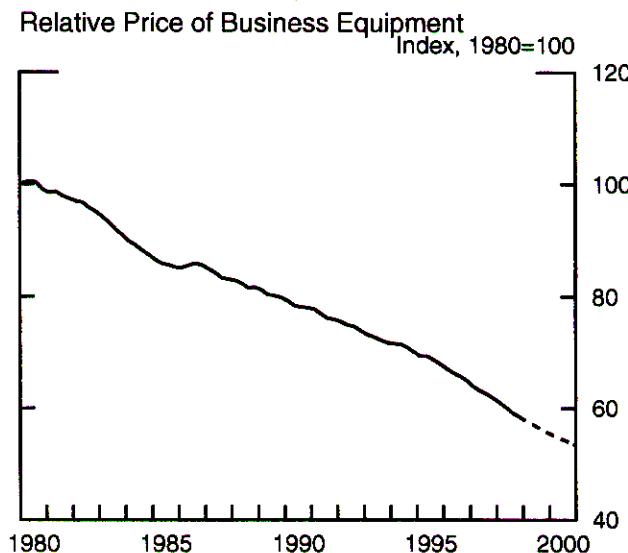
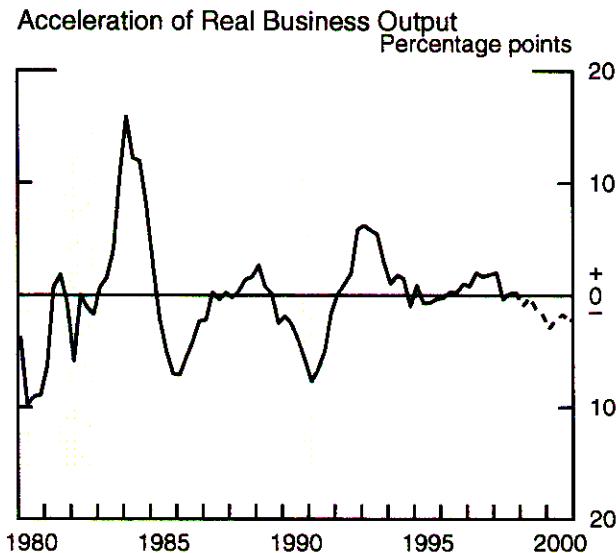
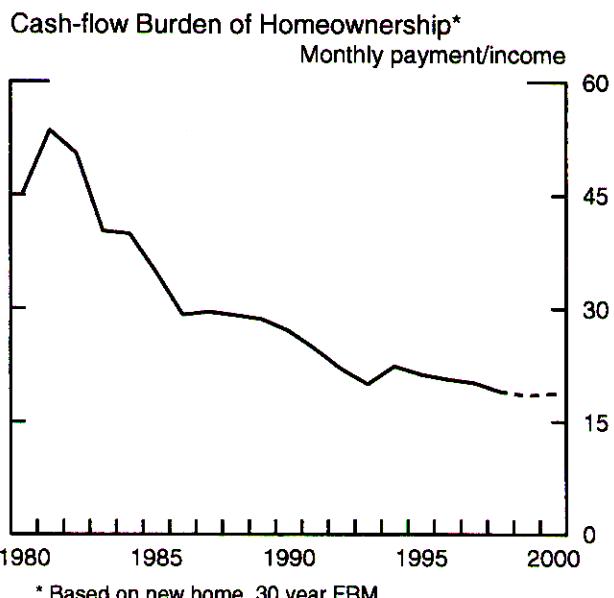
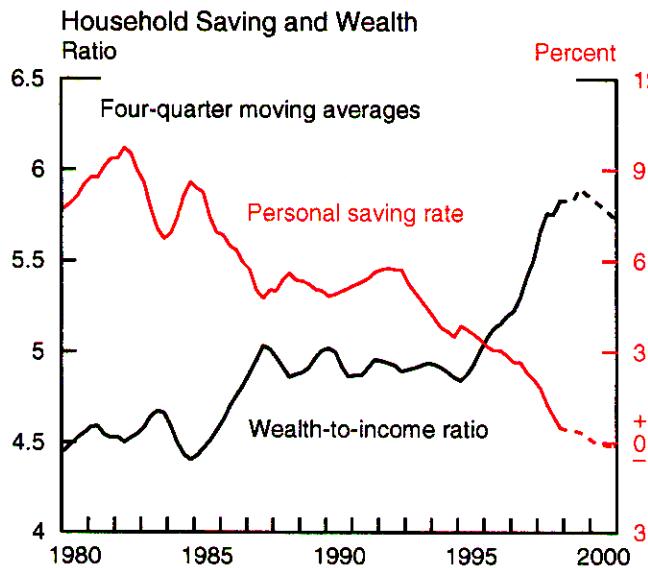


Chart 4

## Outlook for Domestic Demand—Some Key Considerations



Note. Change from year earlier in 8-quarter average growth.

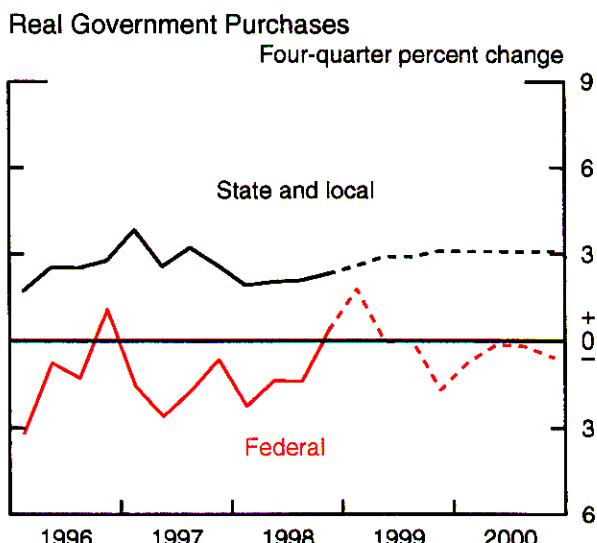
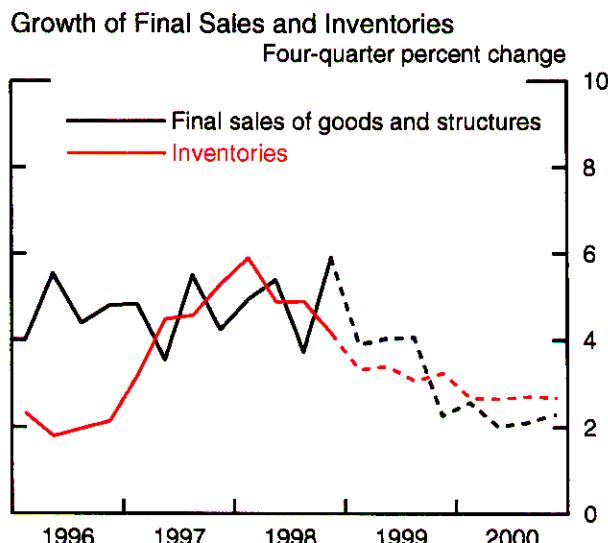


Chart 5

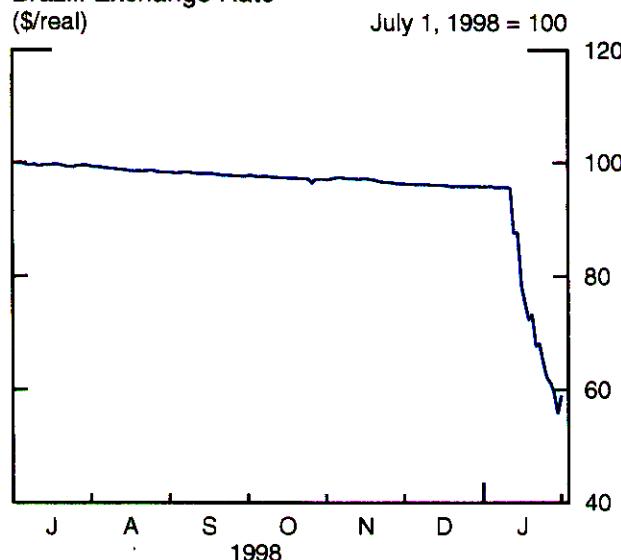
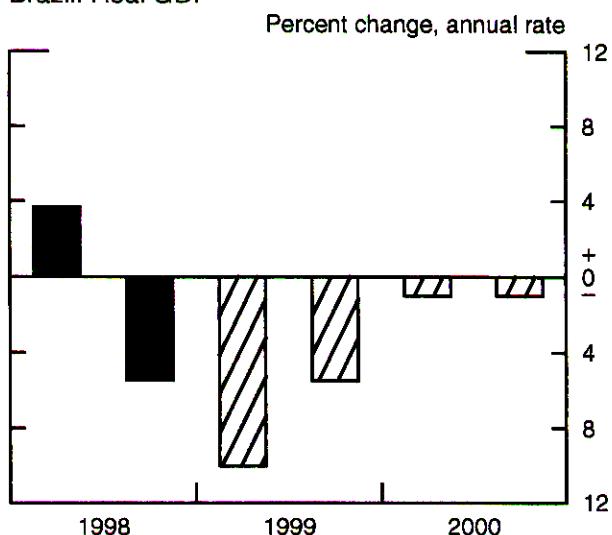
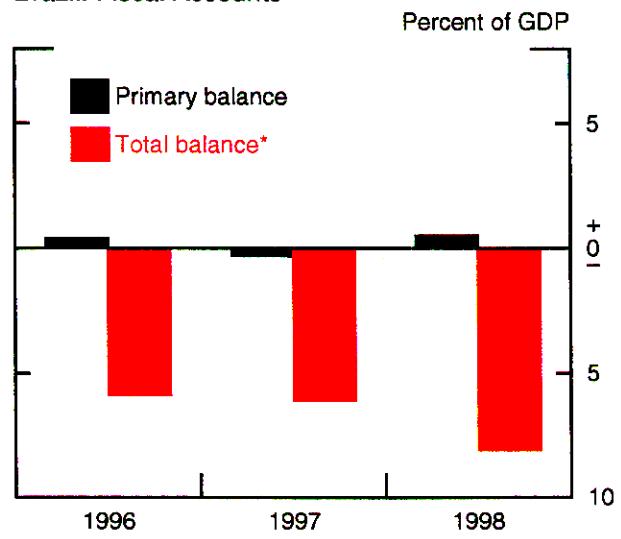
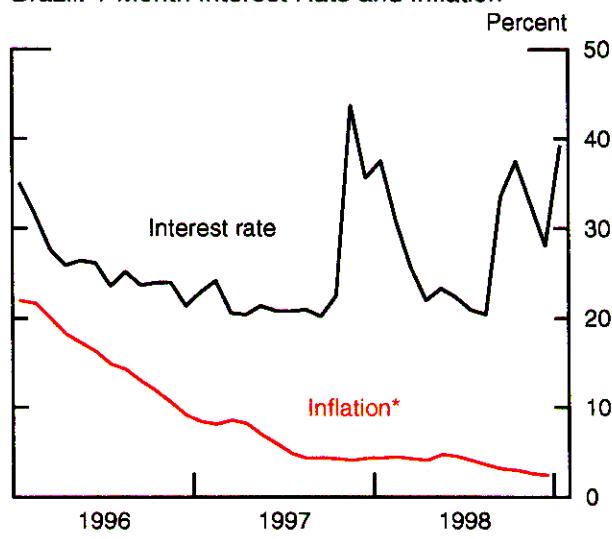
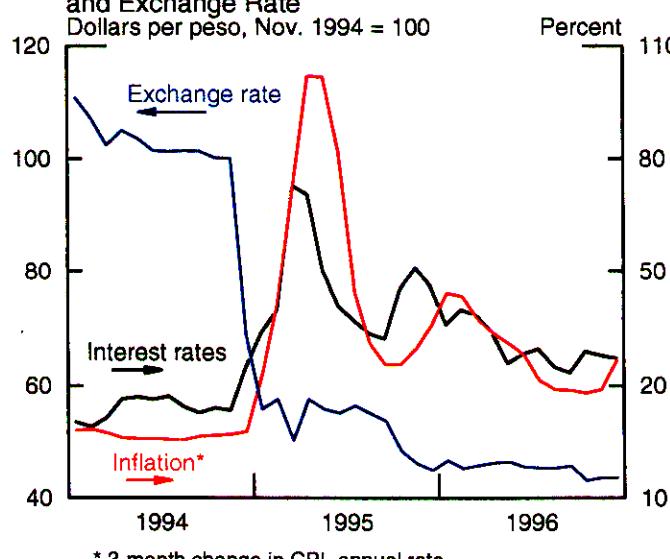
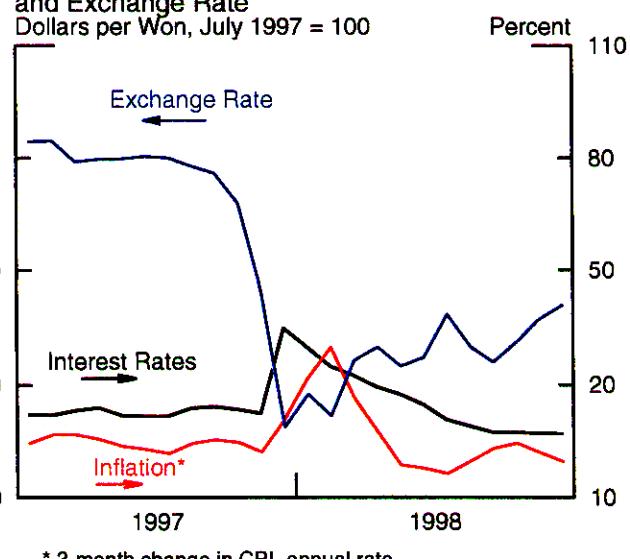
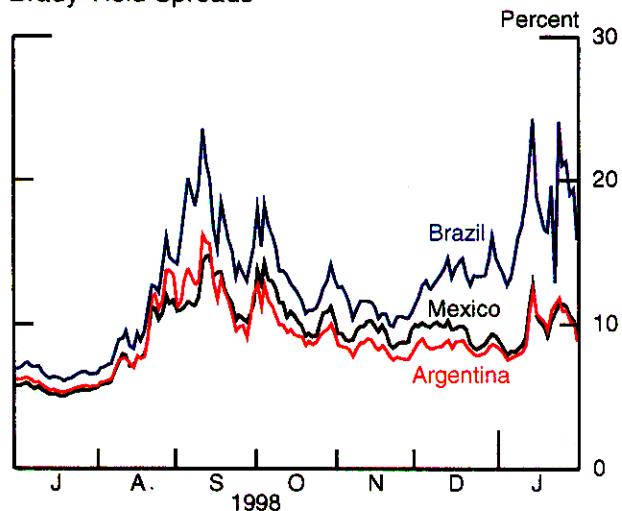
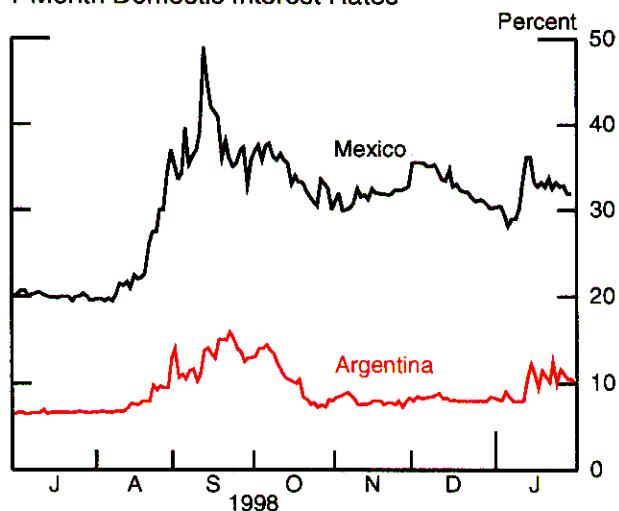
**Brazil, Mexico and Korea****Brazil: Exchange Rate (\$/real)****Brazil: Real GDP****Brazil: Fiscal Accounts****Brazil: 1-Month Interest Rate and Inflation****Mexico: Domestic Interest Rates, Inflation, and Exchange Rate****Korea: Domestic Interest Rates, Inflation, and Exchange Rate**

Chart 6  
**Asia and Latin America**

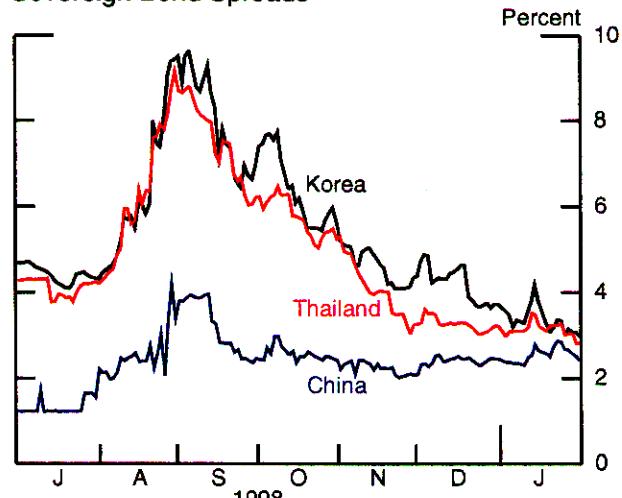
**Brady Yield Spreads**



**1-Month Domestic Interest Rates**

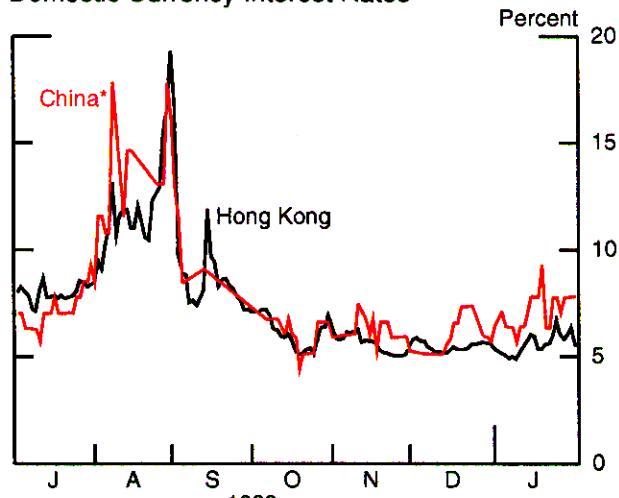


**Sovereign Bond Spreads\***



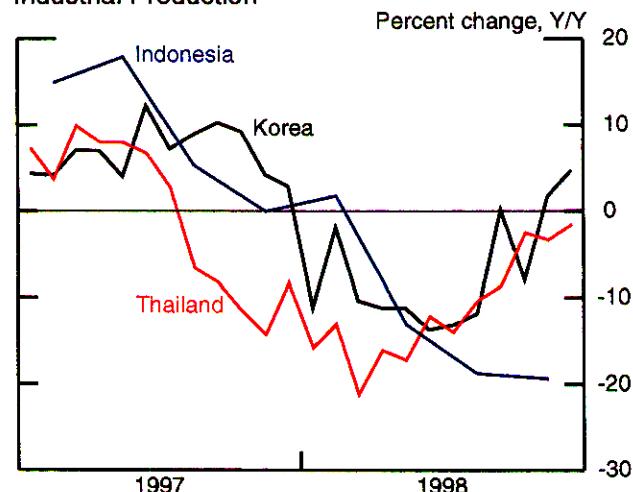
\* Relative to U.S. Treasuries

**Domestic Currency Interest Rates**



\* Offshore market

**Industrial Production**



**Real GDP**

	1998e	1999p	2000p
Latin America* (excluding Brazil)	1.9	-1.4	2.8
Crisis Asia**	-7.8	0.5	2.5
Greater China*** and Singapore	0.7	1.4	3.6

\* Argentina, Chile, Colombia, Mexico and Venezuela

\*\* Indonesia, Korea, Malaysia, Philippines and Thailand

\*\*\* China, Hong Kong and Taiwan

Chart 7

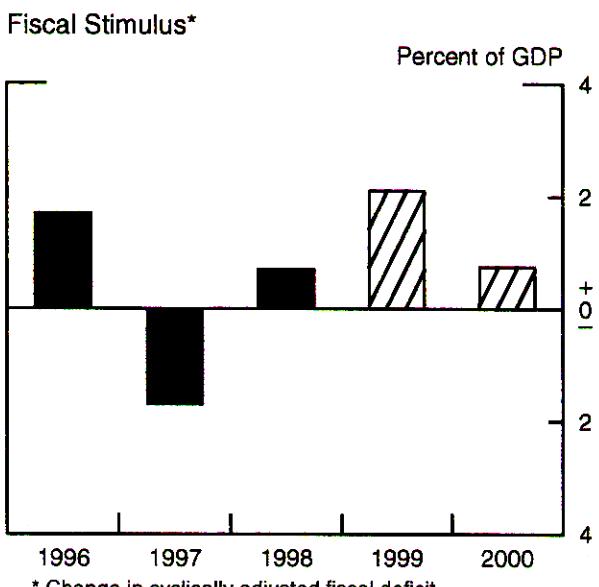
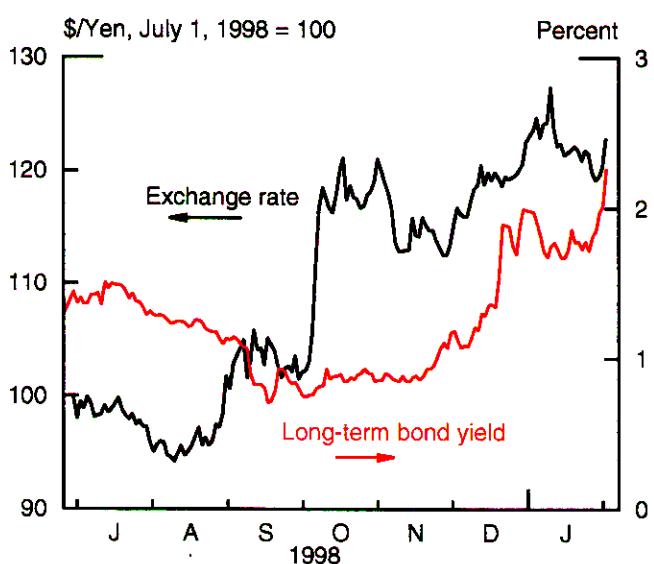
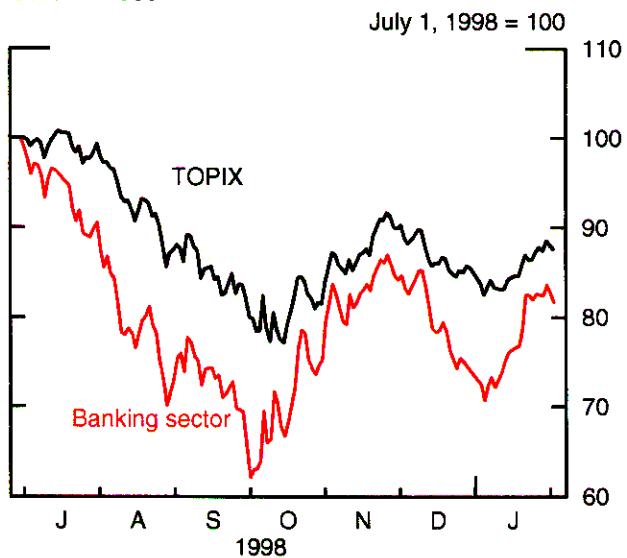
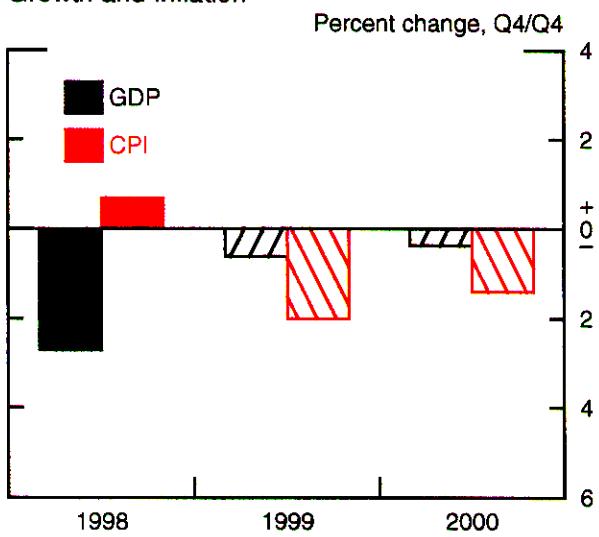
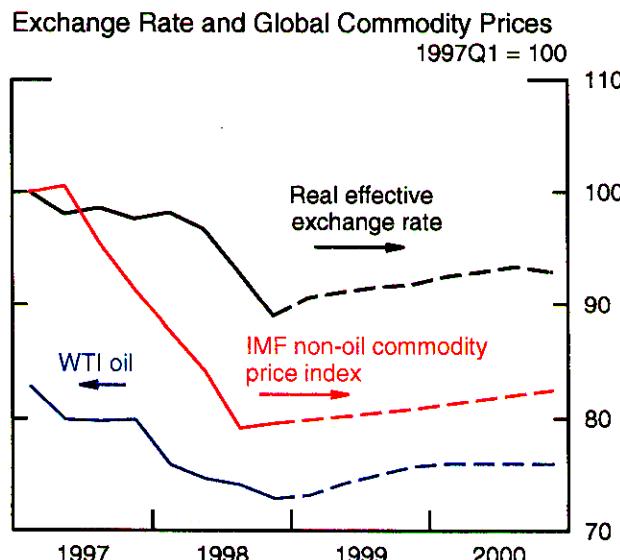
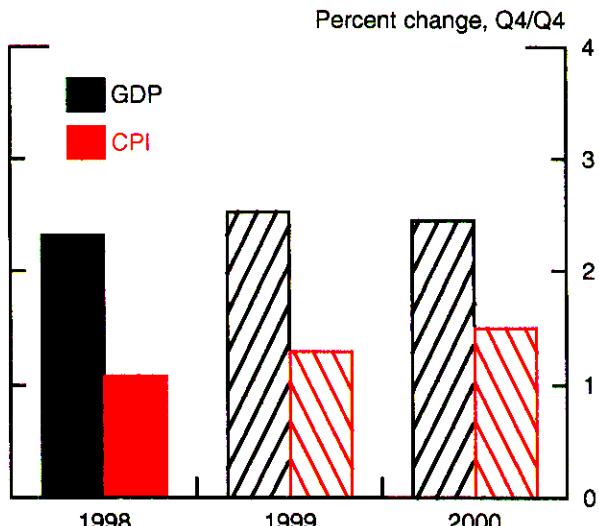
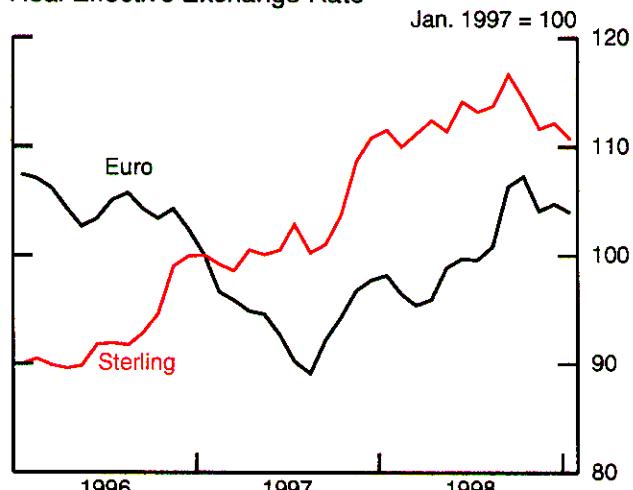
**Japan****Stock Prices****Growth and Inflation****Canada****Growth and Inflation**

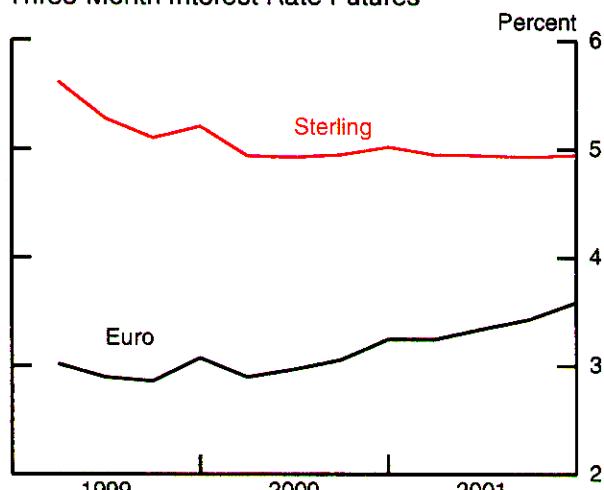
Chart 8  
Europe

Real Effective Exchange Rate\*



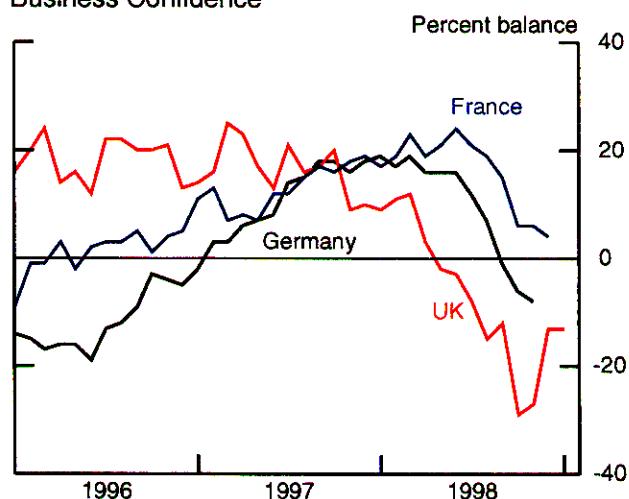
\*Prior to Jan. 1, 1999, historical euro calculated using restated mark and euro area CPI.

Three-Month Interest Rate Futures

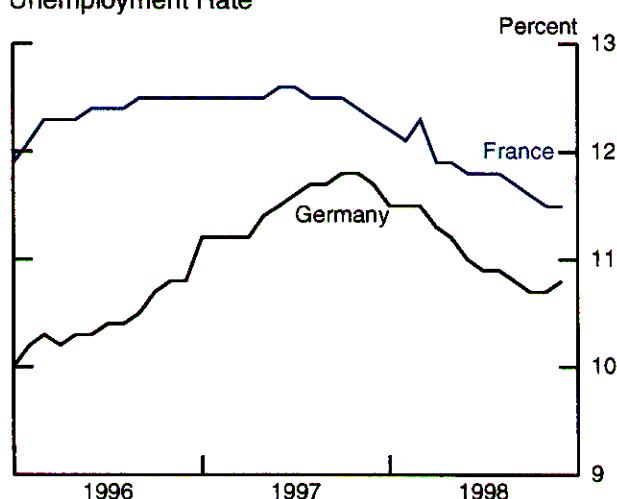


\*February 1, 1999

Business Confidence



Unemployment Rate



GDP

	Percent change, Q4/Q4		
	1998e	1999p	2000p
United Kingdom	1.6	1.0	2.0
EU-11	2.5	2.1	2.2
Germany	2.4	1.9	2.3
France	2.4	1.6	1.7

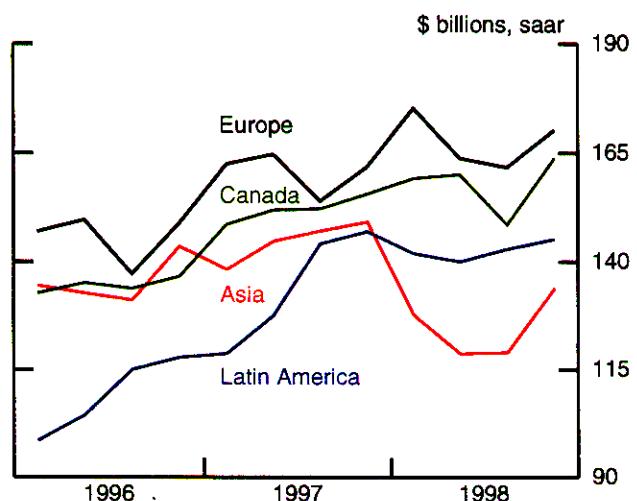
Consumer Prices

	Percent change, Q4/Q4		
	1998e	1999p	2000p
United Kingdom	2.6	2.4	2.5
EU-11	0.9	1.4	1.4
Germany	0.6	1.1	1.2
France	0.3	1.0	1.0

Chart 9

## Foreign Outlook and U.S. External Accounts

### U.S. Exports by Region

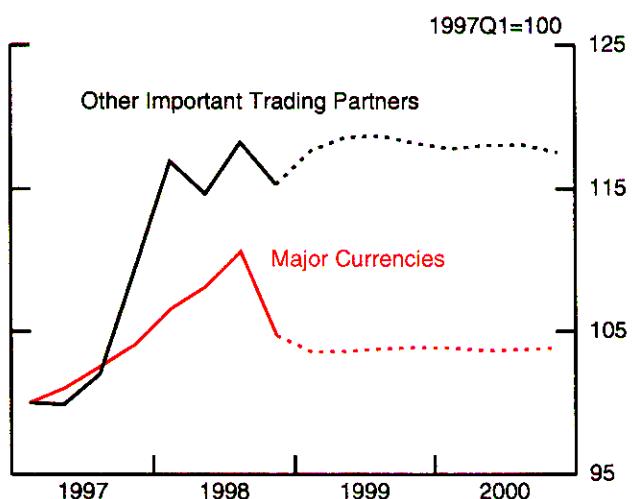


### Foreign Real GDP

Percent change, Q4/Q4

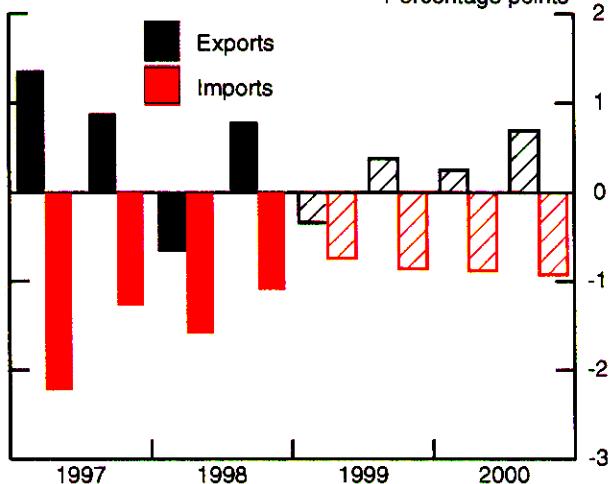
	1998e	1999p	2000p
Total Foreign Industrial Countries	1.6	1.8	1.9
Developing Countries	-1.0	-0.3	2.7
Asia	-3.2	1.0	3.1
Latin America	1.5	-2.4	2.2

### Real Effective Exchange Rates

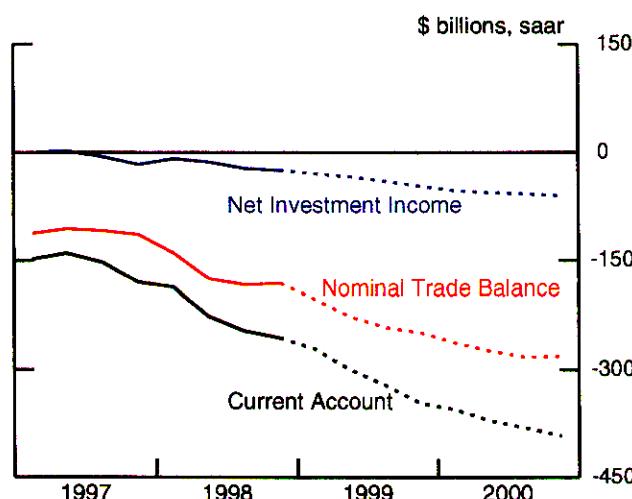


### Contribution to U.S. GDP Growth

Percentage points



### U.S. External Accounts



### Current Account as Percent of GDP

Percentage points

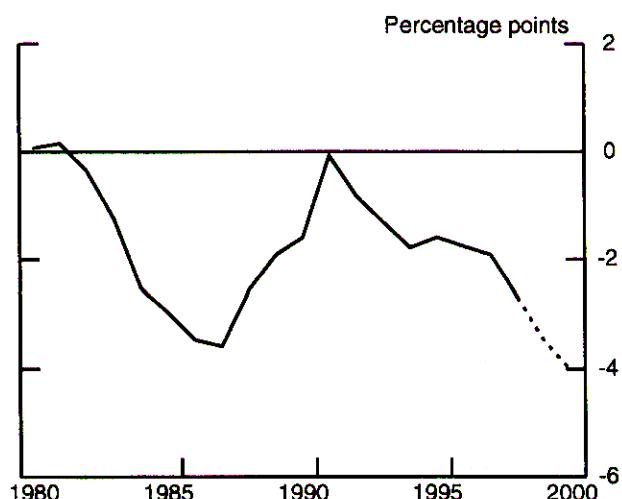
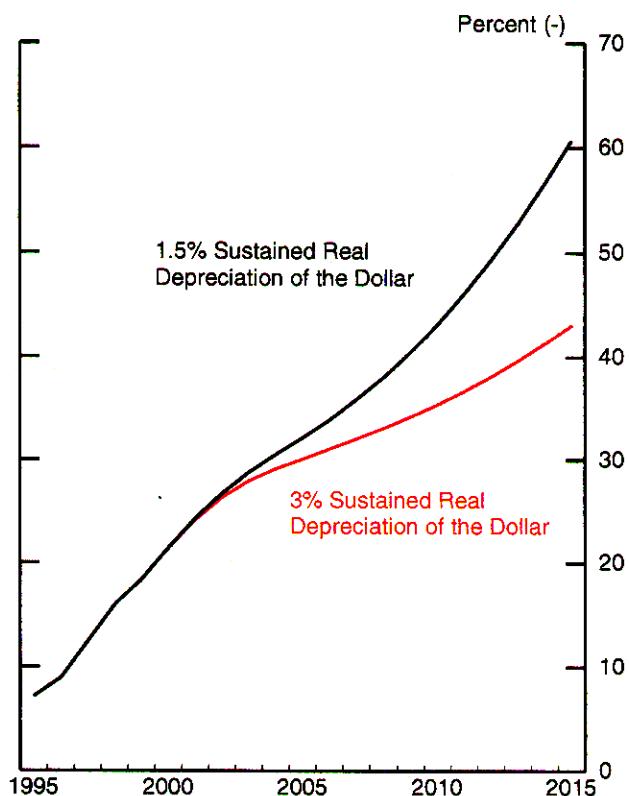


Chart 10

## U.S. Current Account Sustainability

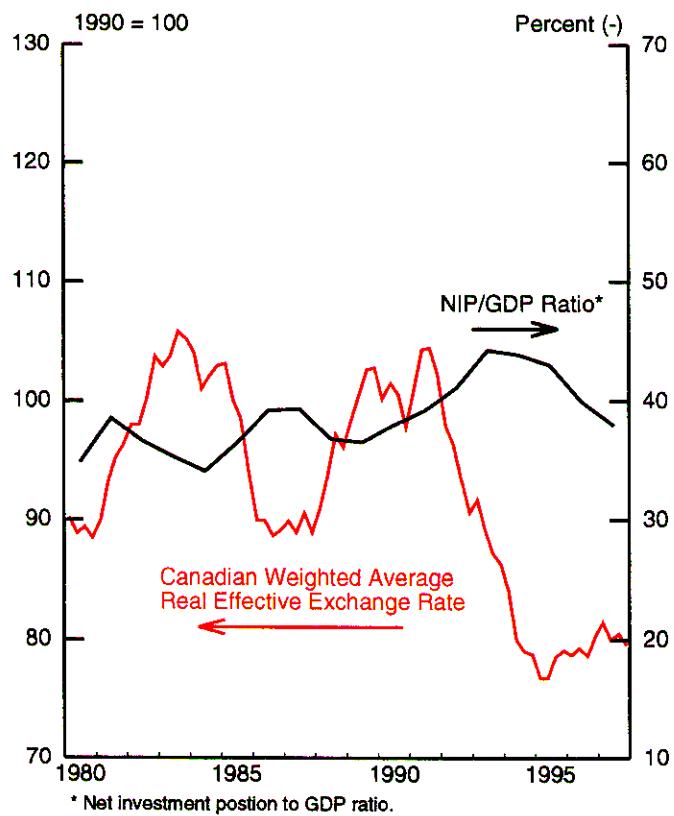
U.S. Net Investment Position to GDP Ratio



**Factors Affecting  
U.S. Current Account  
Sustainability Since 1997**

- Further appreciation of the dollar
- Further deterioration of external accounts
- Higher trend rate of growth of U.S. GDP

Canada



Australia

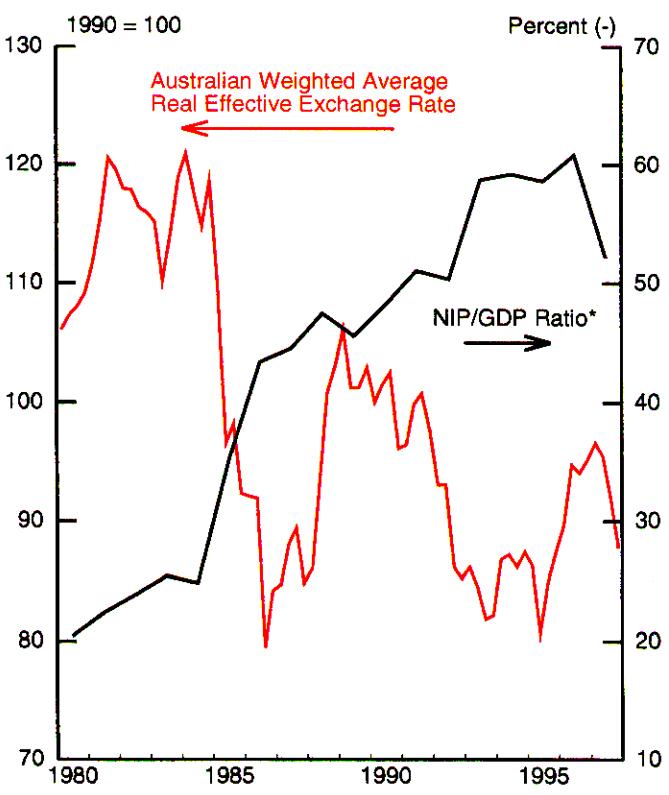
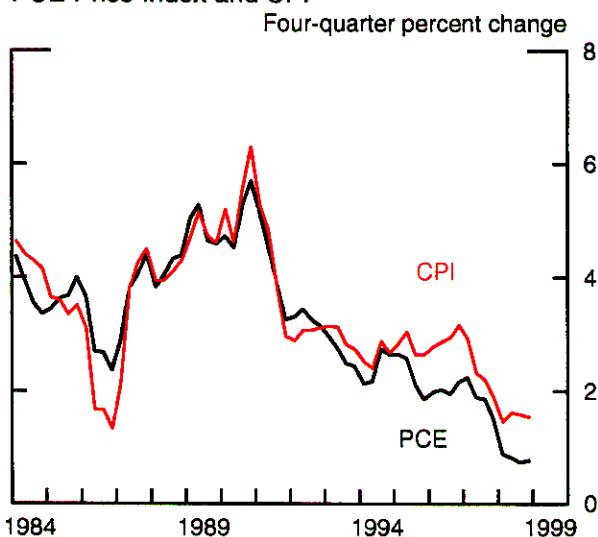


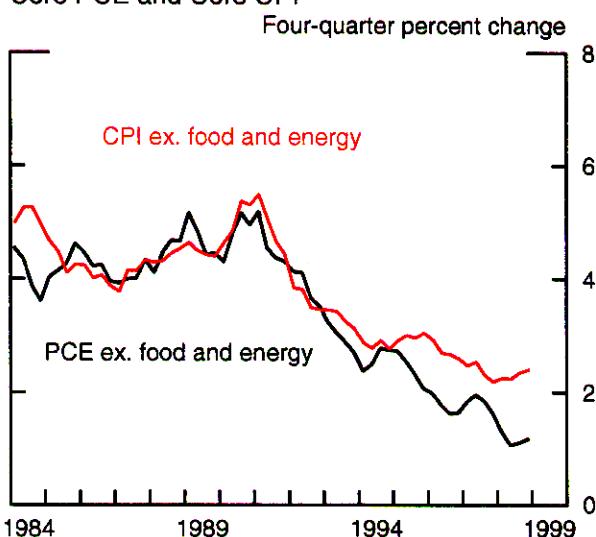
Chart 11

## How Low is Inflation?

PCE Price Index and CPI



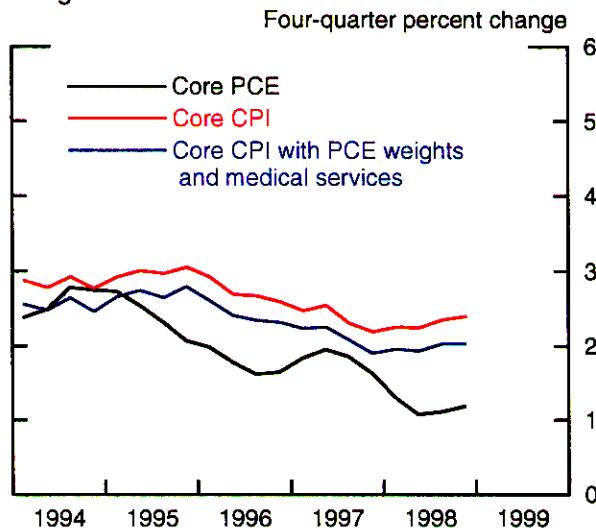
Core PCE and Core CPI



### Sources of Difference

- Aggregation formulas
- Scope
- Prices
- Weights

### Weight and Price Effects



### Pros and Cons of PCE Price Index

#### Pros:

- Chain formula
- Flexibility
- Revisability

#### Con:

- Use of imputed prices

### Effects of Imputed Services

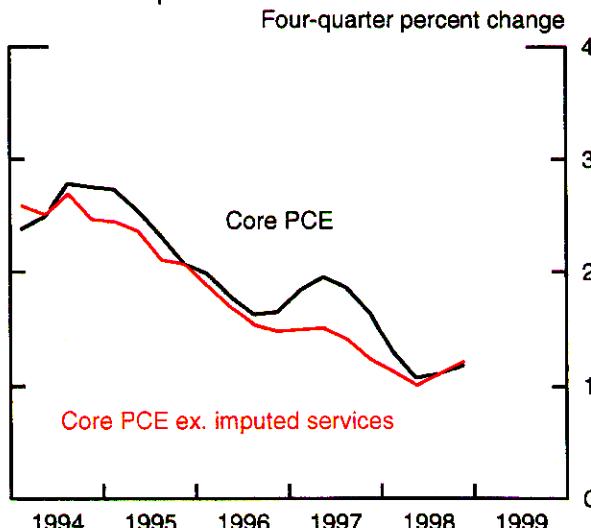
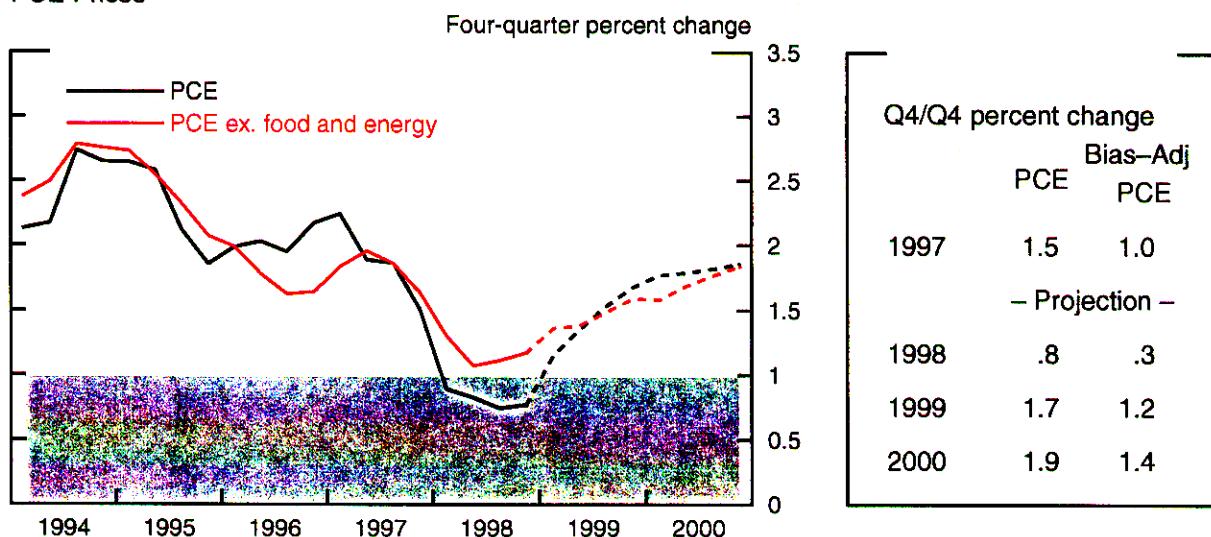
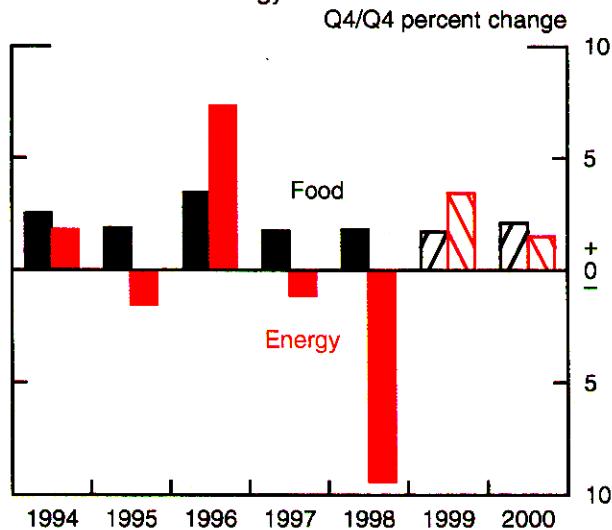


Chart 12  
**Inflation Projection**

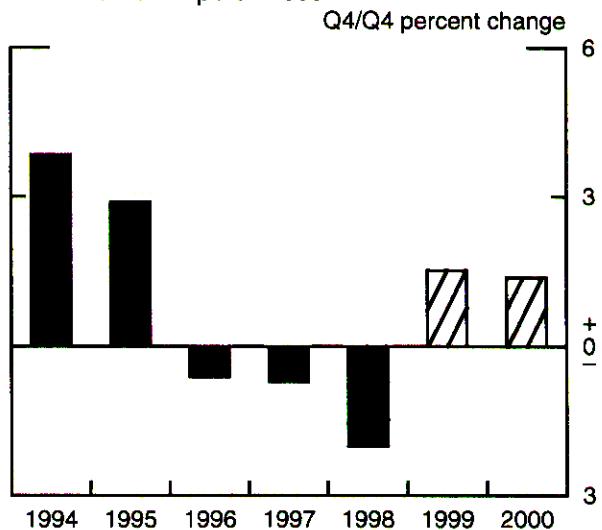
PCE Prices



PCE-Food and Energy

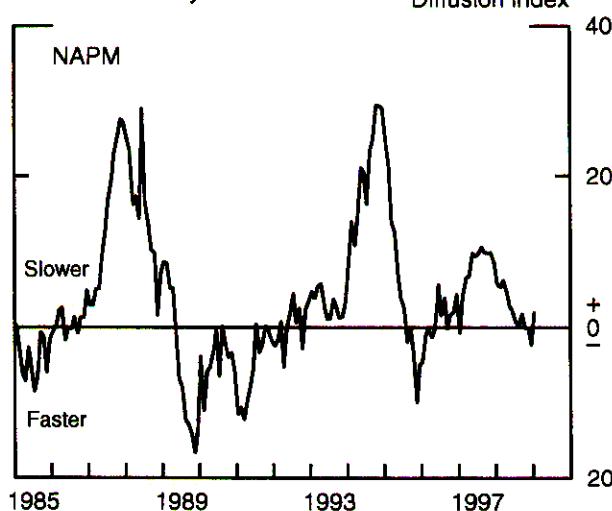


Core Non-oil Import Prices\*



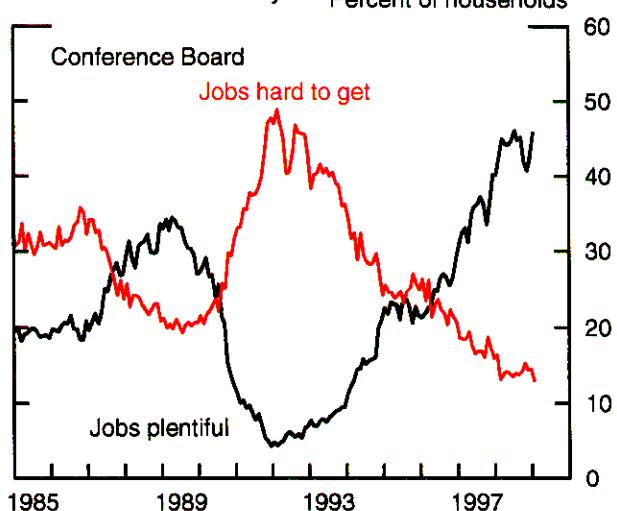
\* Excludes computers and semiconductors.

Vendor Delivery Performance



Diffusion index

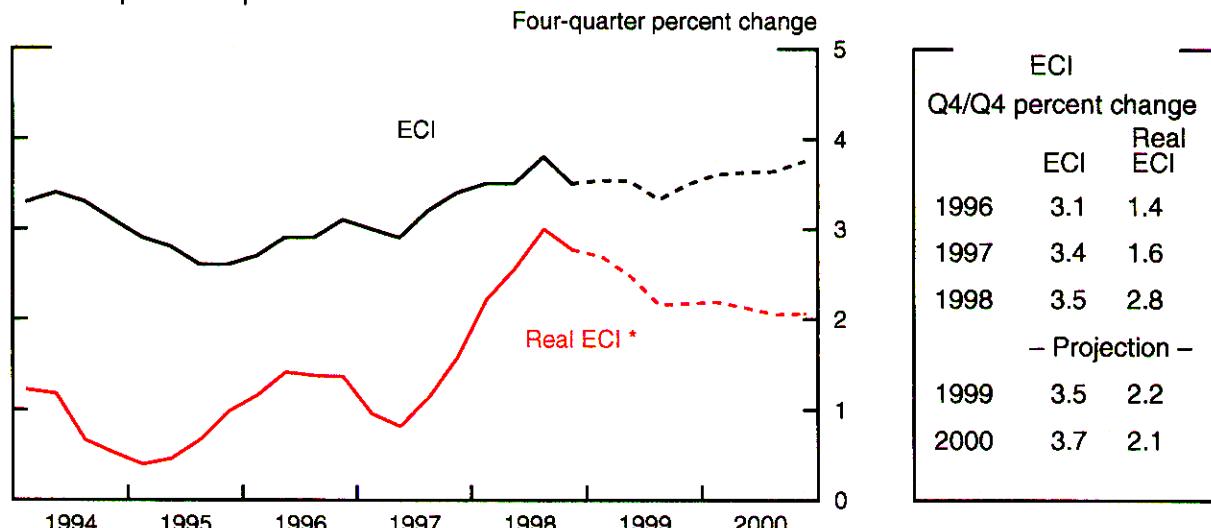
Current Job Availability



Percent of households

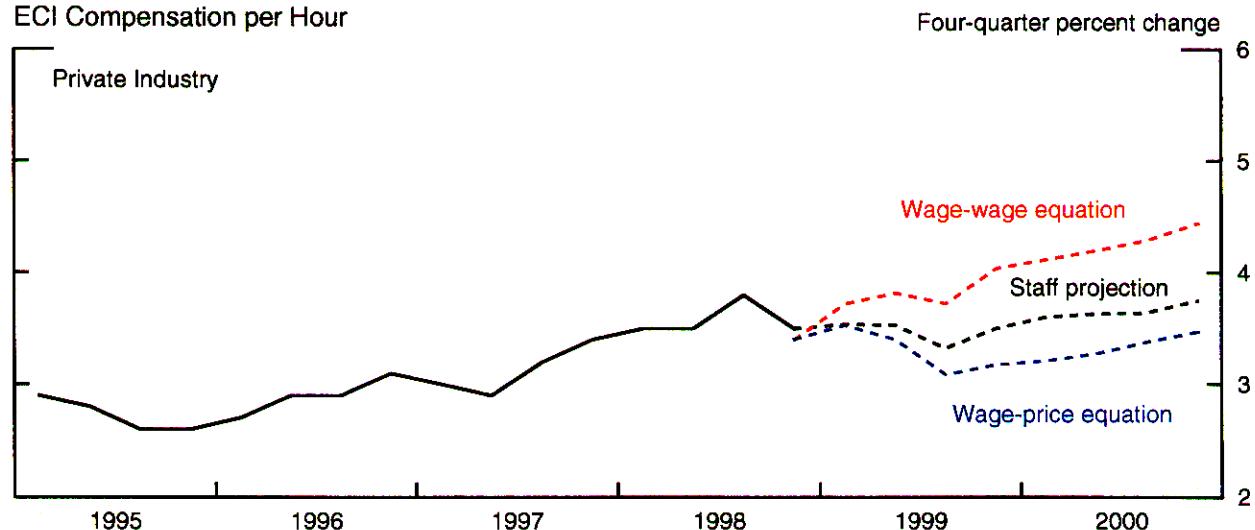
Chart 13  
**Risks to the Inflation Outlook**

ECI Compensation per Hour



\* ECI compensation per hour deflated by nonfarm business prices.

ECI Compensation per Hour



PCE Ex. Food and Energy

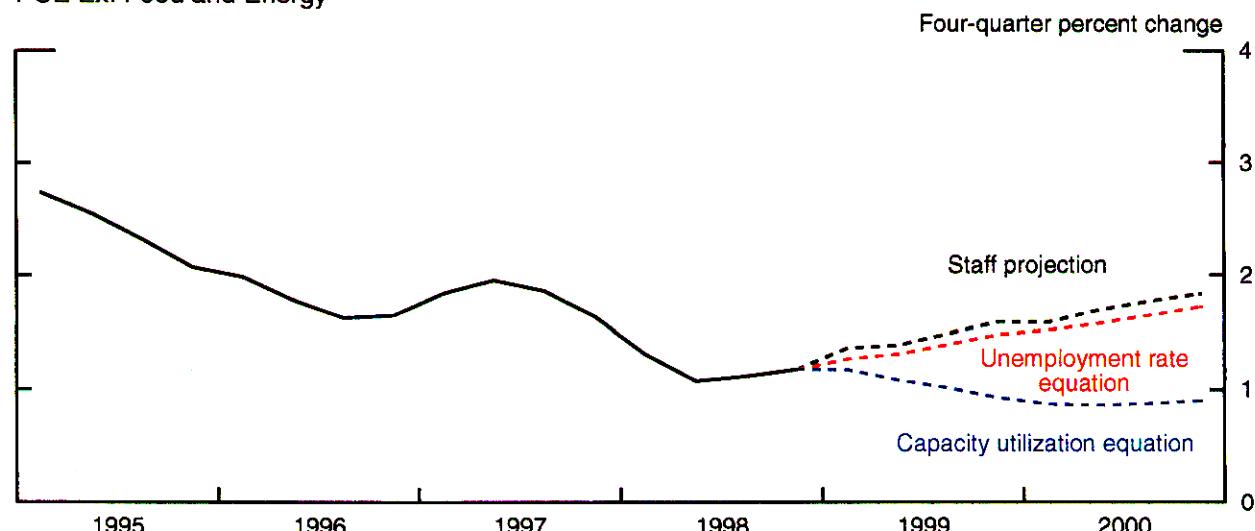


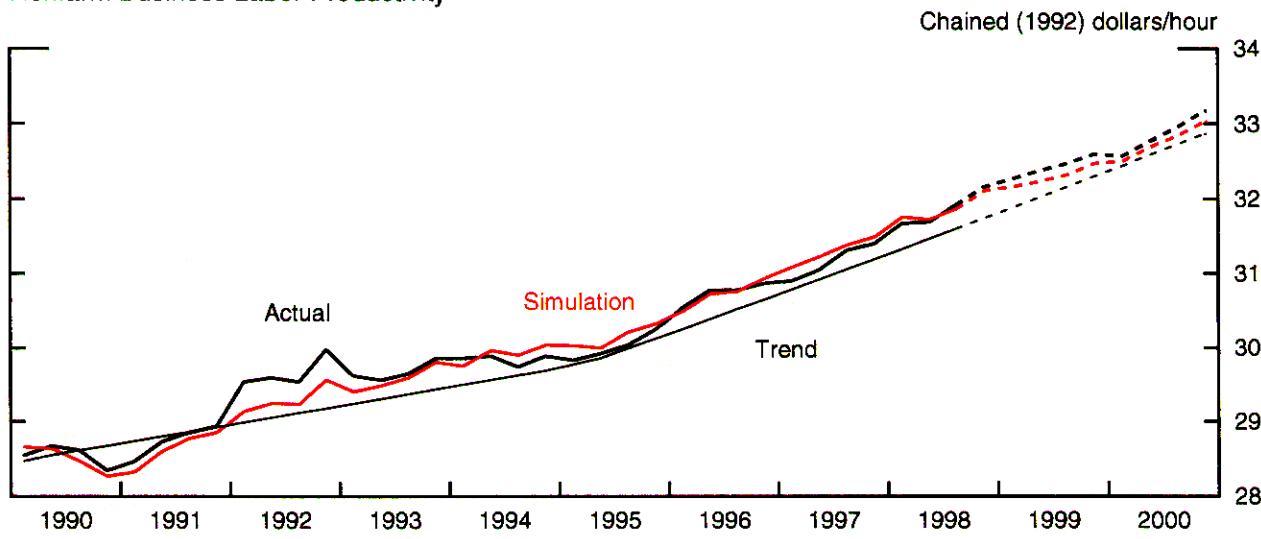
Chart 14

## Supply-Side Components of Potential GDP

	Long-term trends			Projection
	1973–79	1979–90	1990–95	1995–2000
1. Potential GDP	3.5	2.9	2.1	2.8
2. Labor input	2.0	1.6	1.0	1.0
3. Labor productivity	1.3	1.3	1.1	1.8
4. Capital deepening	.6	.6	.4	.9
5. Labor quality	.0	.3	.4	.3
6. Multifactor productivity	.7	.4	.3	.6
7. Technical factors	.2	.0	.0	.0

Note: Adjusted to place on a technically consistent basis.

### Nonfarm Business Labor Productivity



### Unemployment Rate and Okun's Law Simulation

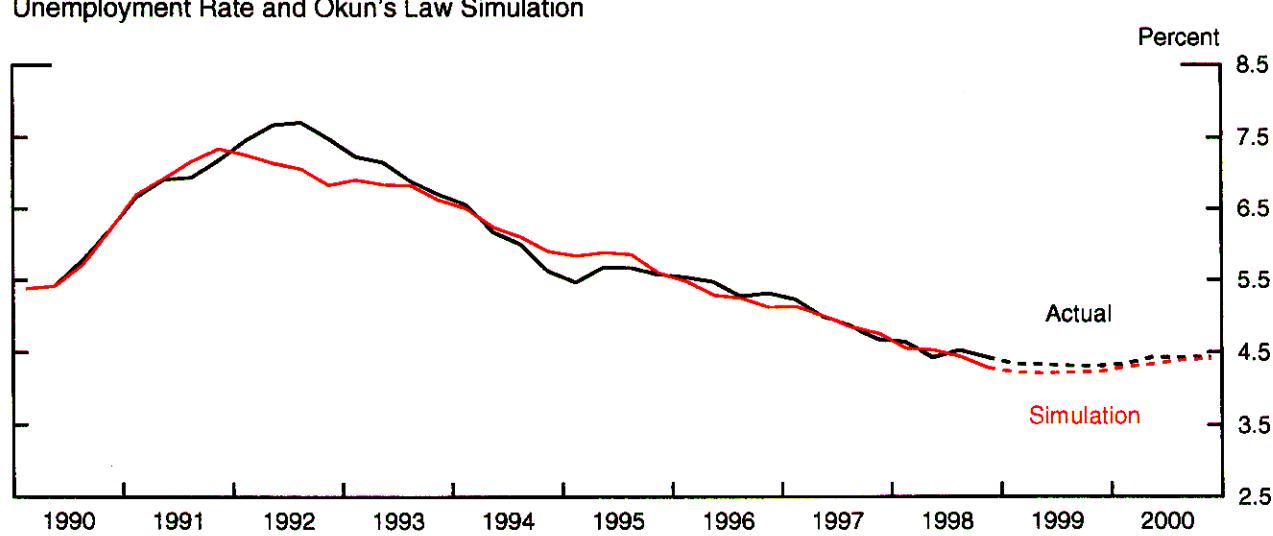


Chart 15  
**Effects of Changes in the Stock Market**

- Boom: Stock market rises about 20 percent in both 1999 and 2000.
- Bust: Stock market falls about 40 percent by 1999:Q3.
- In both alternatives, monetary policy responds according to Taylor rule.

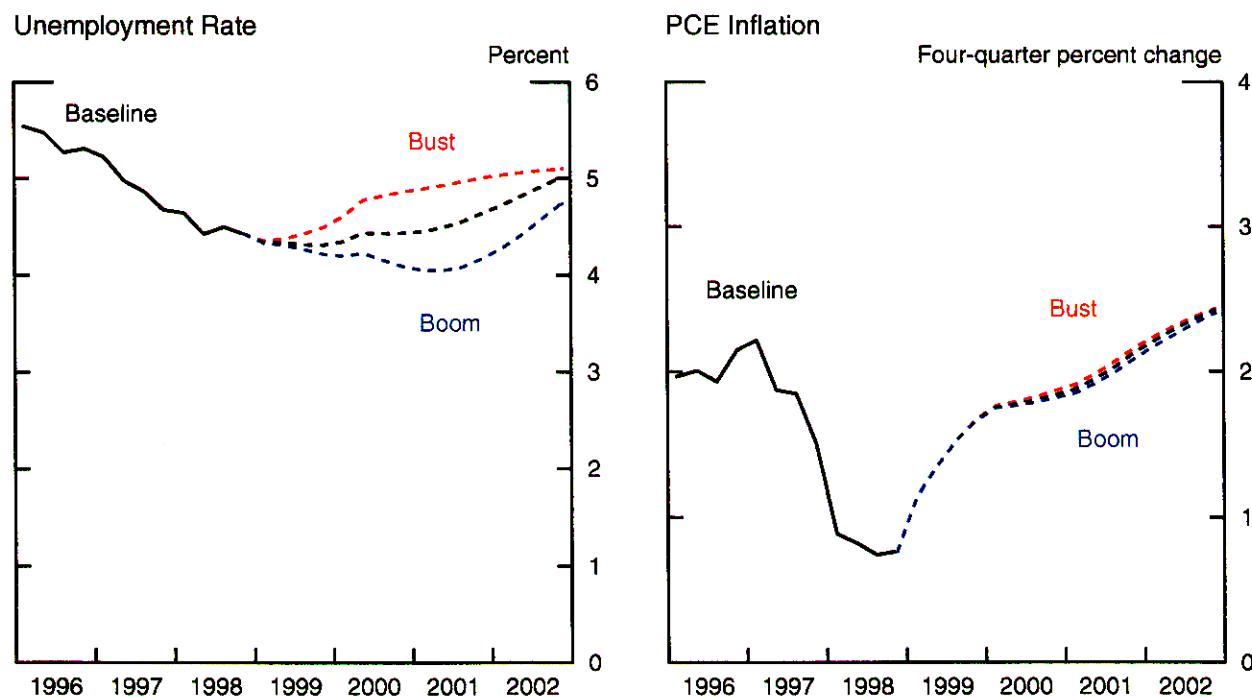
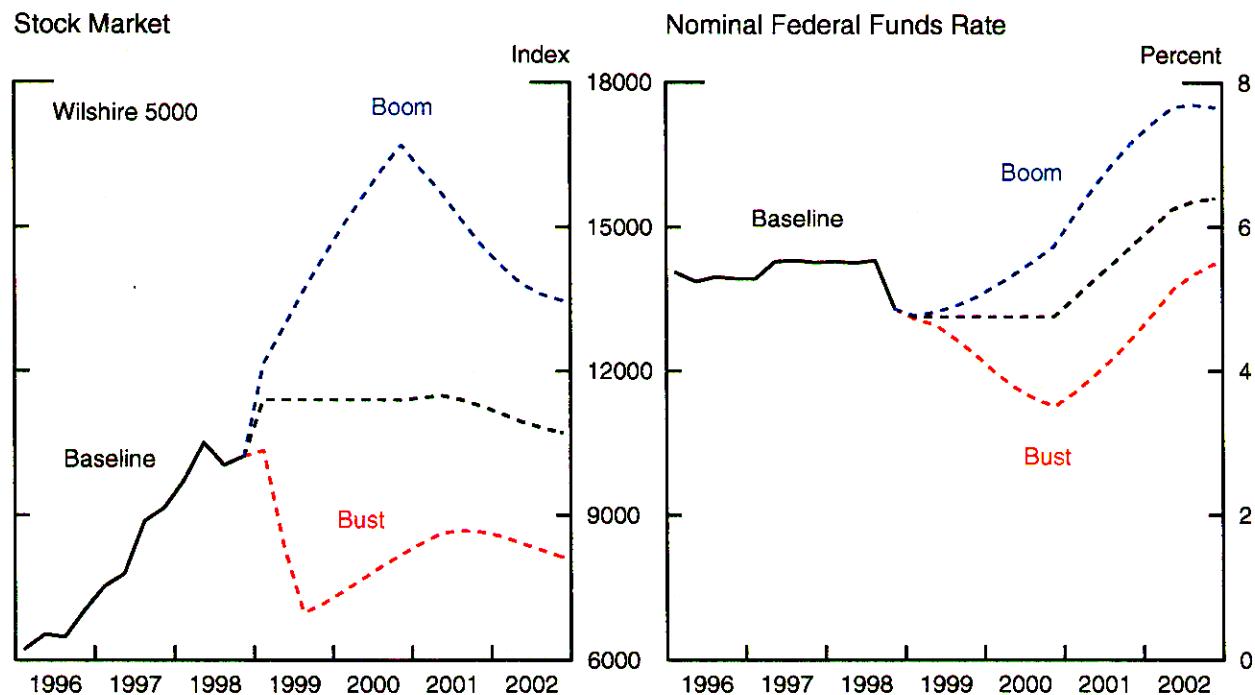


Chart 16

**ECONOMIC PROJECTIONS FOR 1999**

	FOMC			
	Range	Central Tendency	Administration	Staff
Percent change, Q4 to Q4				
Nominal GDP	3 <sup>3</sup> / <sub>4</sub> to 5	4 to 4 <sup>1</sup> / <sub>2</sub>	4.0	4.1
July 1998 H-H	(4 to 5 <sup>1</sup> / <sub>2</sub> )	(4 <sup>1</sup> / <sub>4</sub> to 5)		
Real GDP	2 to 3 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub> to 3	2.0	2.6
July 1998 H-H	(2 to 3)	(2 to 2 <sup>1</sup> / <sub>2</sub> )		
CPI	1 <sup>1</sup> / <sub>2</sub> to 2 <sup>1</sup> / <sub>2</sub>	2 to 2 <sup>1</sup> / <sub>2</sub>	2.3	2.3
July 1998 H-H	(1 <sup>1</sup> / <sub>2</sub> to 3)	(2 to 2 <sup>1</sup> / <sub>2</sub> )		
Average level, Q4, percent				
Unemployment rate	4 <sup>1</sup> / <sub>4</sub> to 4 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub> to 4 <sup>1</sup> / <sub>2</sub>	4.9	4.3
July 1998 H-H	(4 <sup>1</sup> / <sub>4</sub> to 4 <sup>3</sup> / <sub>4</sub> )	(4 <sup>1</sup> / <sub>2</sub> to 4 <sup>3</sup> / <sub>4</sub> )		

## APPENDIX 3

Material used by Mr. Simpson

*Material for*

*Staff Presentation on  
Money and Debt Ranges*

*February 2-3, 1999*

## Exhibit 1

### Money and Debt Growth (In percent)

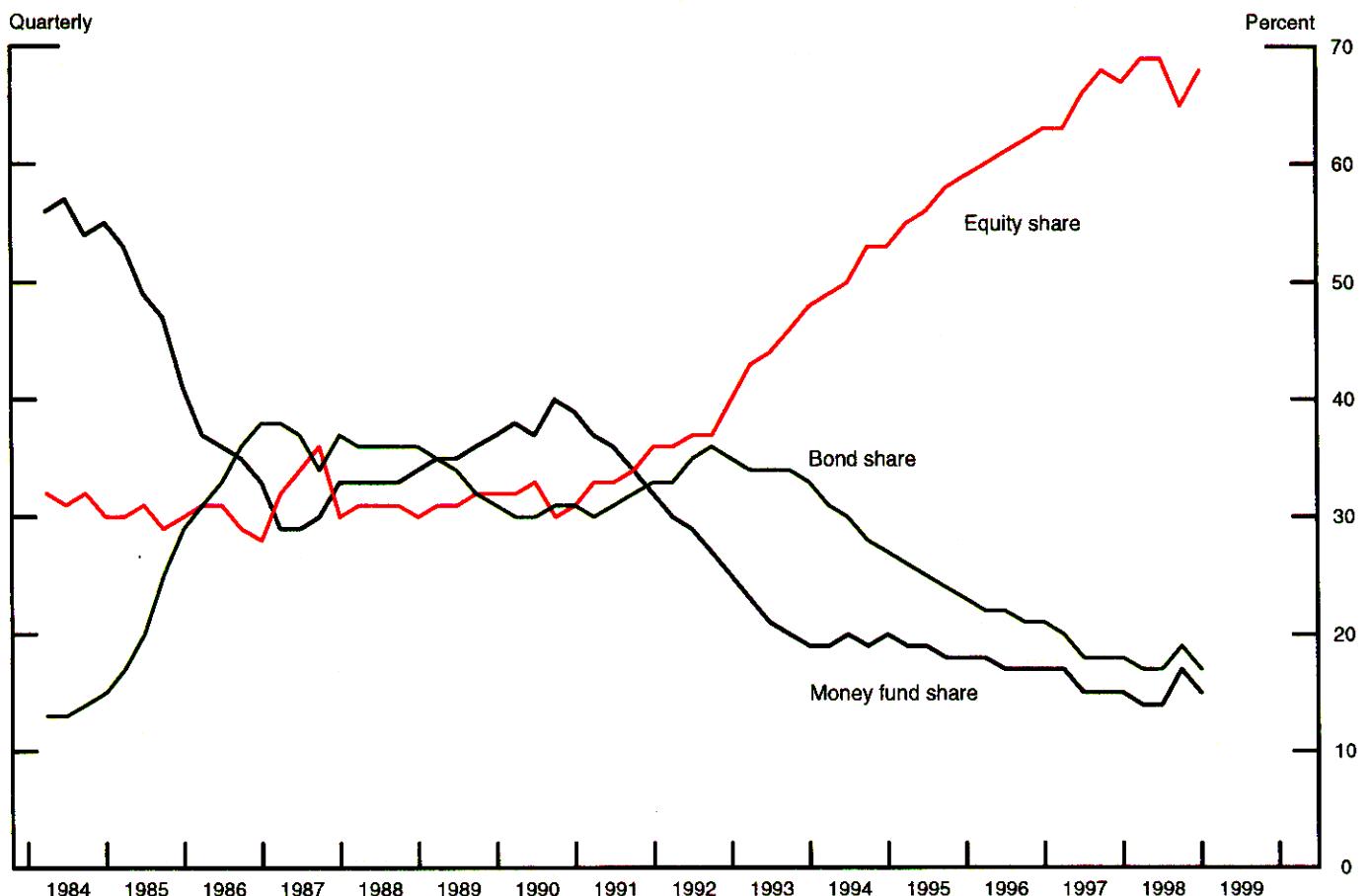
	Provisional 1999 Ranges	1999 (Staff projections)	1998 (actual)
<b>M2</b>	1 to 5	6	8.7
<b>M3</b>	2 to 6	8	11.1
<b>Debt</b>	3 to 7	$5\frac{1}{4}$	6.3
<b>Memo: Nominal GDP</b>			
Staff		4	5.1
FOMC, central tendency		4 to $4\frac{1}{2}$	

### Growth of Money Market Mutual Funds (In percent)

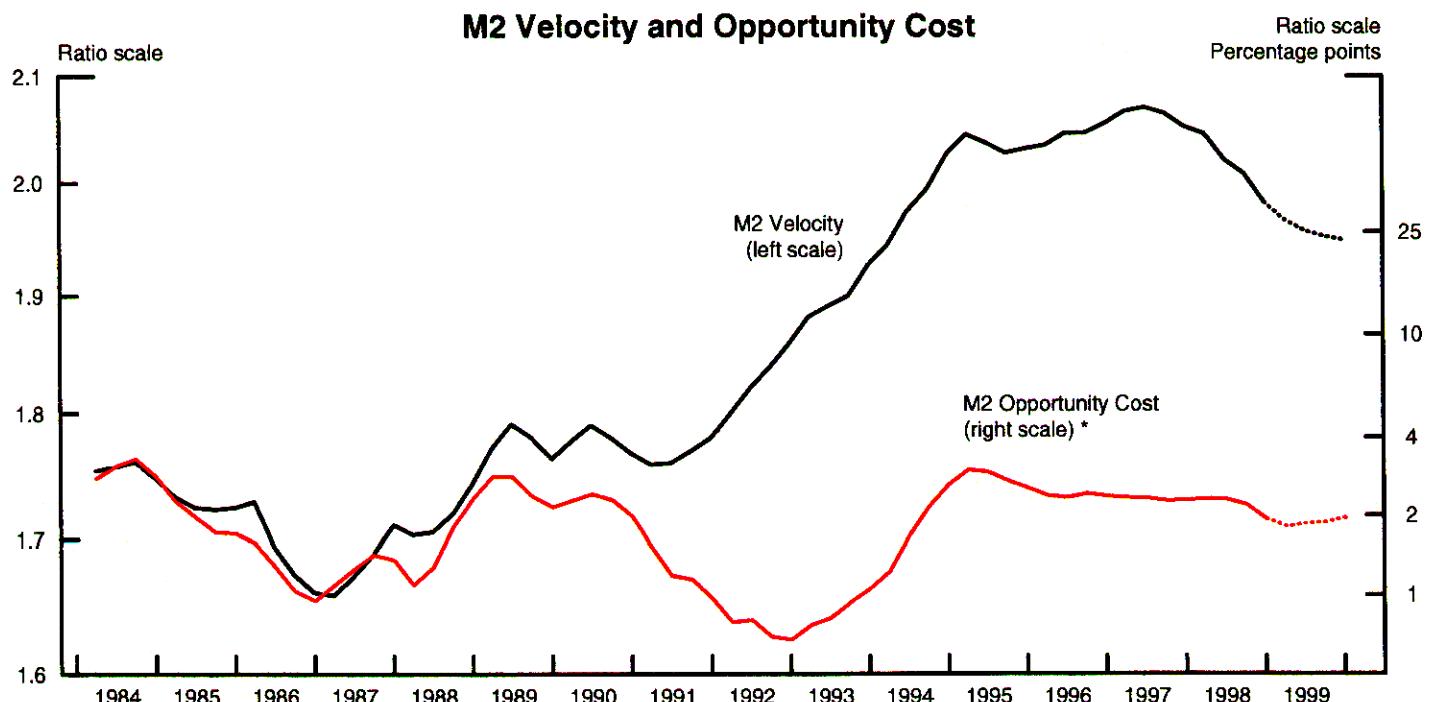
	1995	1996	1997	1998
M2 money funds	$18\frac{1}{4}$	$14\frac{1}{4}$	16	25
Other money funds in M3	$24\frac{3}{4}$	21	$21\frac{1}{2}$	$34\frac{3}{4}$
<b>Memo:</b>				
M2	3.9	4.6	5.8	8.7
M3	6.1	6.8	8.8	11.1

**Exhibit 2**  
**Mutual Funds and M2 Velocity**

**Mutual Fund Shares**



**M2 Velocity and Opportunity Cost**



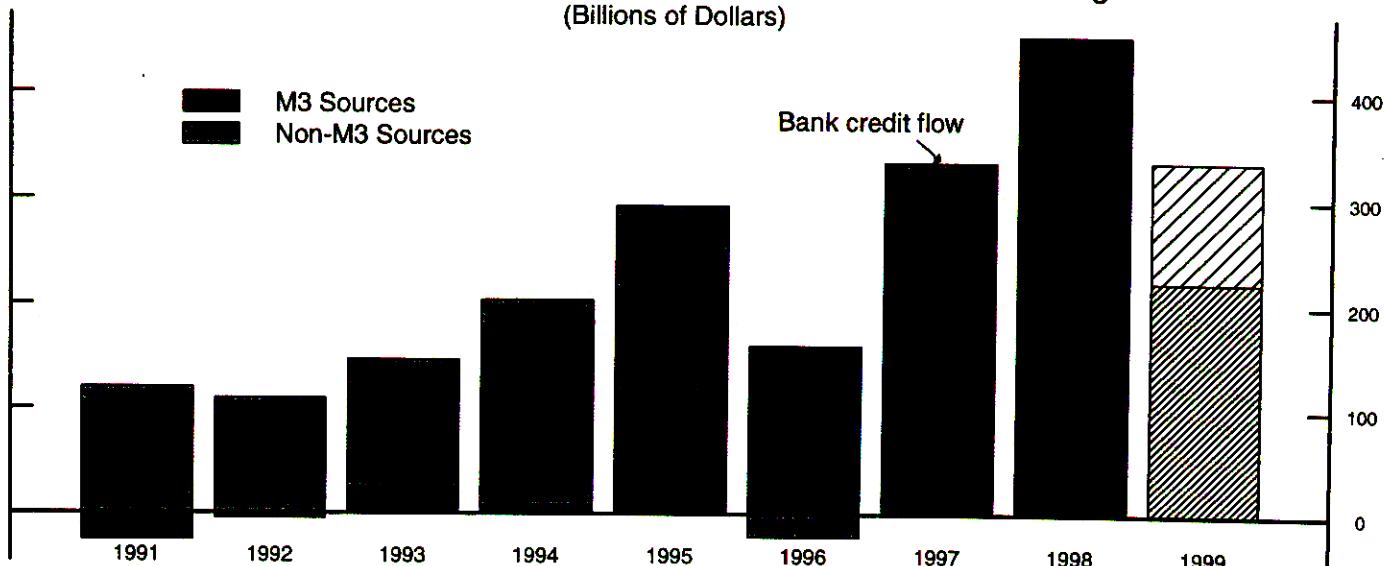
\* Two quarter moving average

### Exhibit 3

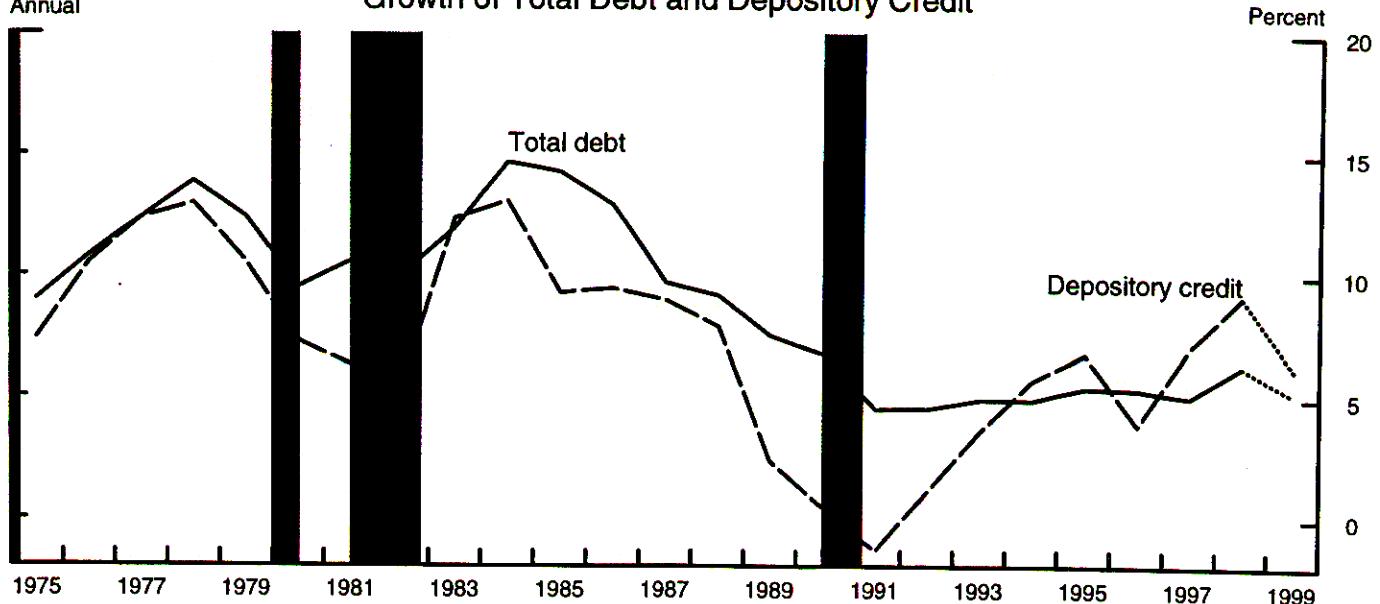
#### Factors Affecting M3

- M3 money funds have been substituting for market instruments as cash management vehicles
- In a stable interest rate environment, growth in M3 money funds should slow
- Growth in bank credit and associated funding needs are projected to moderate

Flow of Bank Credit and M3 and Non-M3 Sources of Funding  
(Billions of Dollars)

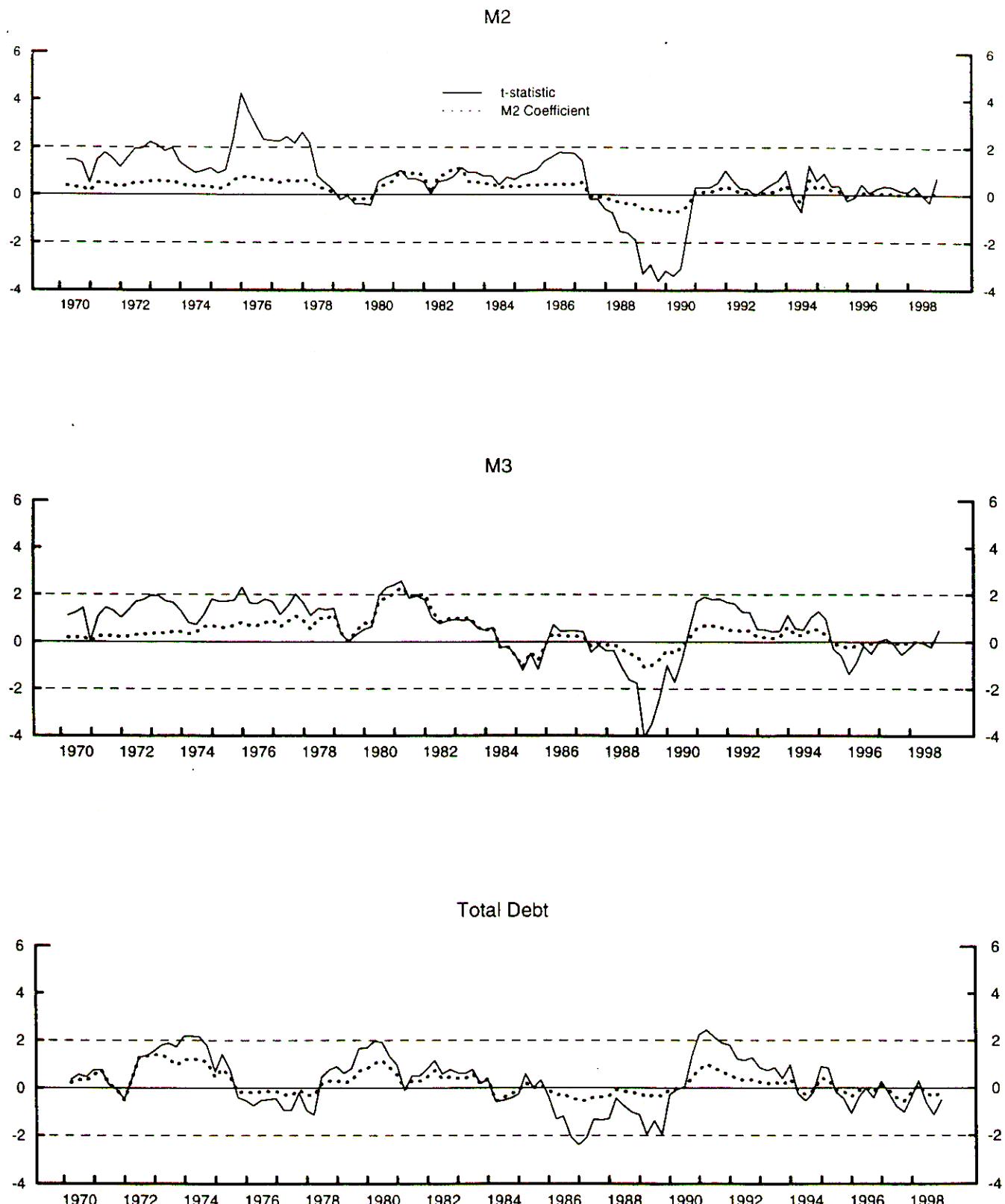


Annual Growth of Total Debt and Depository Credit



**Exhibit 4**  
**Money and Debt as Indicators of Nominal GDP**

(Derived from Rolling Regressions of Nominal GDP Growth on Current and Lagged One Quarter Money or Debt Growth)



1. Based on regressions of  $y_t = A + B_1 y_{t-1} + B_2 m_t + B_3 m_{t-1} + e_t$ , where  $y$  is growth in nominal GDP, and  $m$  is growth in money or debt. Statistics presented are for rolling 16 quarter regressions.