

# Consensus Forecast for GDP and Autos— 2002 and 2003

**Ninth Annual  
Auto Outlook Symposium**  
Detroit, Michigan  
May 31, 2002

William A. Strauss  
Senior Economist and Economic Advisor  
Federal Reserve Bank of Chicago

## 2001 Automotive Outlook Symposium Forecast Winners

Overall	Consensus Revenue Agreement - Michgan Department of Treasury, Senate and House Fiscal Agency
Current Dollar GDP	Bernard J. Paniak - BJP Economics
GDP Price Index, Chain-Type	Ken Mayland - ClearView Economics, LLC Jim Stansell - House Fiscal Agency - Michigan House of Representatives
Real GDP	Consensus Revenue Agreement - Michigan Department of Treasury, Senate and House Fiscal Agency
Personal Consumption Expenditures	David Berson/Orawin Velz - Fannie Mae
Business Fixed Investment	Jack Bishop - Kingsbury International, Ltd.
Residential Construction	Laura Spingola - Trade Resources LTD.
Change In Private Inventories	Herb Neil - Financial and Economic Strategies
Net Exports	Tim Brown - NTN Bearing
Government Consumption Expenditures	Jack Bishop - Kingsbury International, Ltd.
Industrial Production	Ken Mayland - ClearView Economics, LLC
Car & Light Truck Sales	Diane Swonk - Bank One
Housing Starts	Jim Coons - Huntington Bank Bernard Lashinsky - Consulting Economist Herb Neil - Financial and Economic Strategies Jim Stansell - House Fiscal Agency - Michigan House of Representatives
Unemployment Rate	Consensus Revenue Agreement - Michigan Department of Treasury, Senate and House Fiscal Agency Van Jolissaint - DaimlerChrysler Bernard Lashinsky - Consulting Economist Jim Stansell - House Fiscal Agency - Michigan House of Representatives
Inflation Rate (CPI)	Carlos Gomes - Scotiabank Bob Schnorbus - JDPA
Treasury Constant Maturity One-Year Rate	Van Jolissaint - DaimlerChrysler
Treasury Constant Maturity Ten-Year Rate	Jack Bishop - Kingsbury International, Ltd. James R. Hendren - Dana Corporation Ellen Hughes-Cromwick - Ford Motor Company David L. Littmann - Comerica Bank Herb Neil - Financial and Economic Strategies Kenny Vieth - A.C.T. Research Co.
J.P. Morgan Trade Weighted OECD Dollar	Ken Mayland - ClearView Economics, LLC

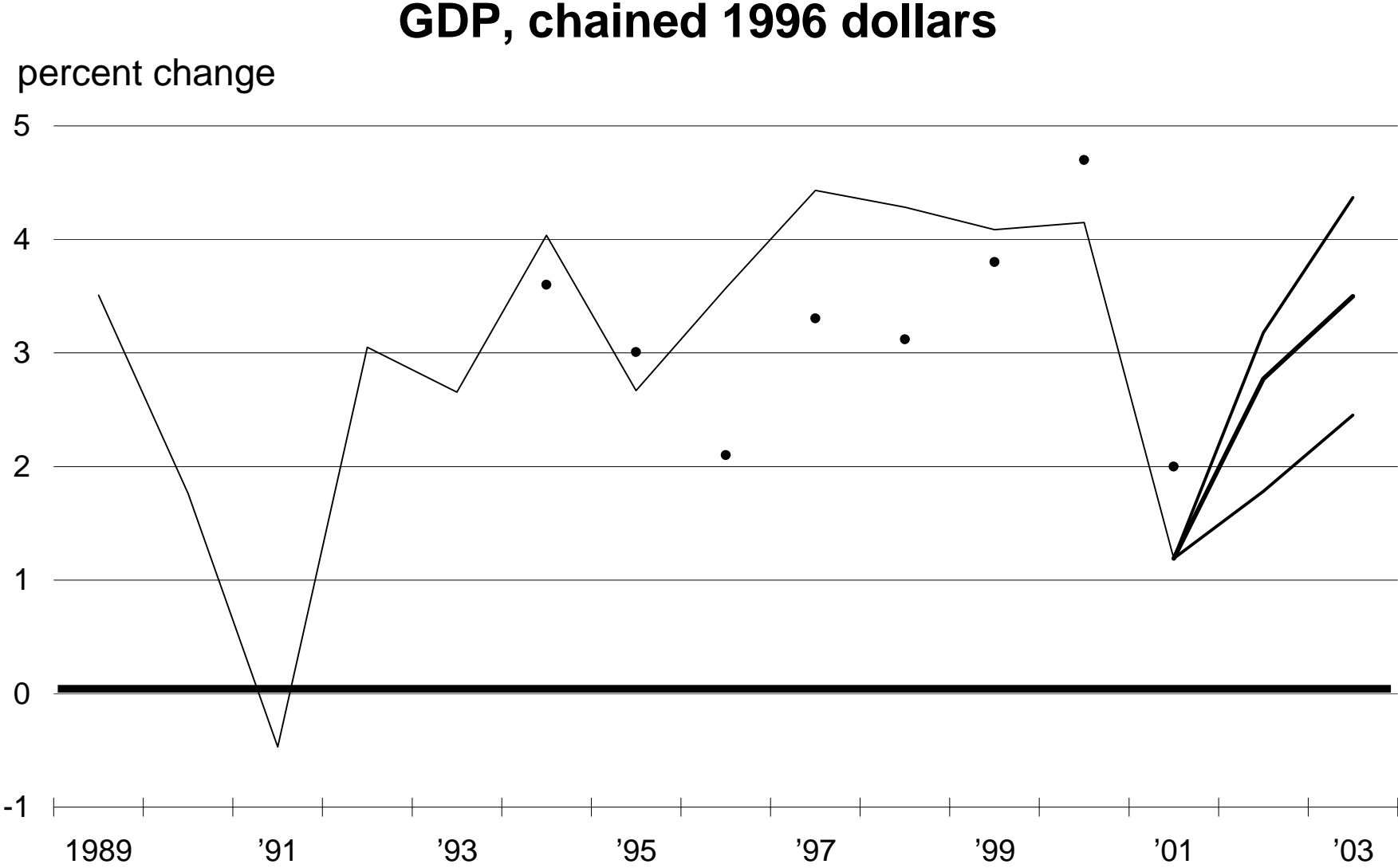
## Table 1 - Median forecast of GDP and related items

	2001	2002	2003
GDP, current dollars	3.4%	<b>3.9%</b>	<b>5.5%</b>
Chain-type price index	2.2%	<b>1.1%</b>	<b>1.9%</b>
GDP, chained 1996 dollars	1.2%	<b>2.8%</b>	<b>3.5%</b>
Personal consumption expenditures	3.1%	<b>3.4%</b>	<b>3.2%</b>
Fixed - Nonresidential Investment	-3.2%	<b>-4.4%</b>	<b>6.9%</b>
Fixed - Residential Investment	1.5%	<b>1.9%</b>	<b>0.3%</b>
Change in business inventories	-\$61.7	<b>\$10.4</b>	<b>\$40.0</b>
Net exports of goods and services	-\$408.7	<b>-\$469.0</b>	<b>-\$499.4</b>
Government Consumption Expenditures and Gross Investment	3.6%	<b>5.0%</b>	<b>2.8%</b>
Industrial production	-3.8%	<b>0.7%</b>	<b>4.6%</b>
Car & light truck sales (millions - calendar year including imports)	17.0	<b>16.5</b>	<b>16.6</b>
Housing starts (millions)	1.60	<b>1.60</b>	<b>1.59</b>
Oil Price (Dollars per Barrel of West Texas Intermediate)	\$25.92	<b>\$25.03</b>	<b>\$25.25</b>
Unemployment rate	4.8%	<b>5.8%</b>	<b>5.4%</b>
Inflation rate (consumer price index)	2.8%	<b>1.7%</b>	<b>2.5%</b>
Treasury Constant Maturity 1-Year Rate	3.48%	<b>2.84%</b>	<b>4.08%</b>
Treasury Constant Maturity 10-Year Rate	5.02%	<b>5.30%</b>	<b>5.80%</b>
Change in J.P. Morgan Trade Weighted OECD Dollar Index	6.5%	<b>2.2%</b>	<b>0.7%</b>

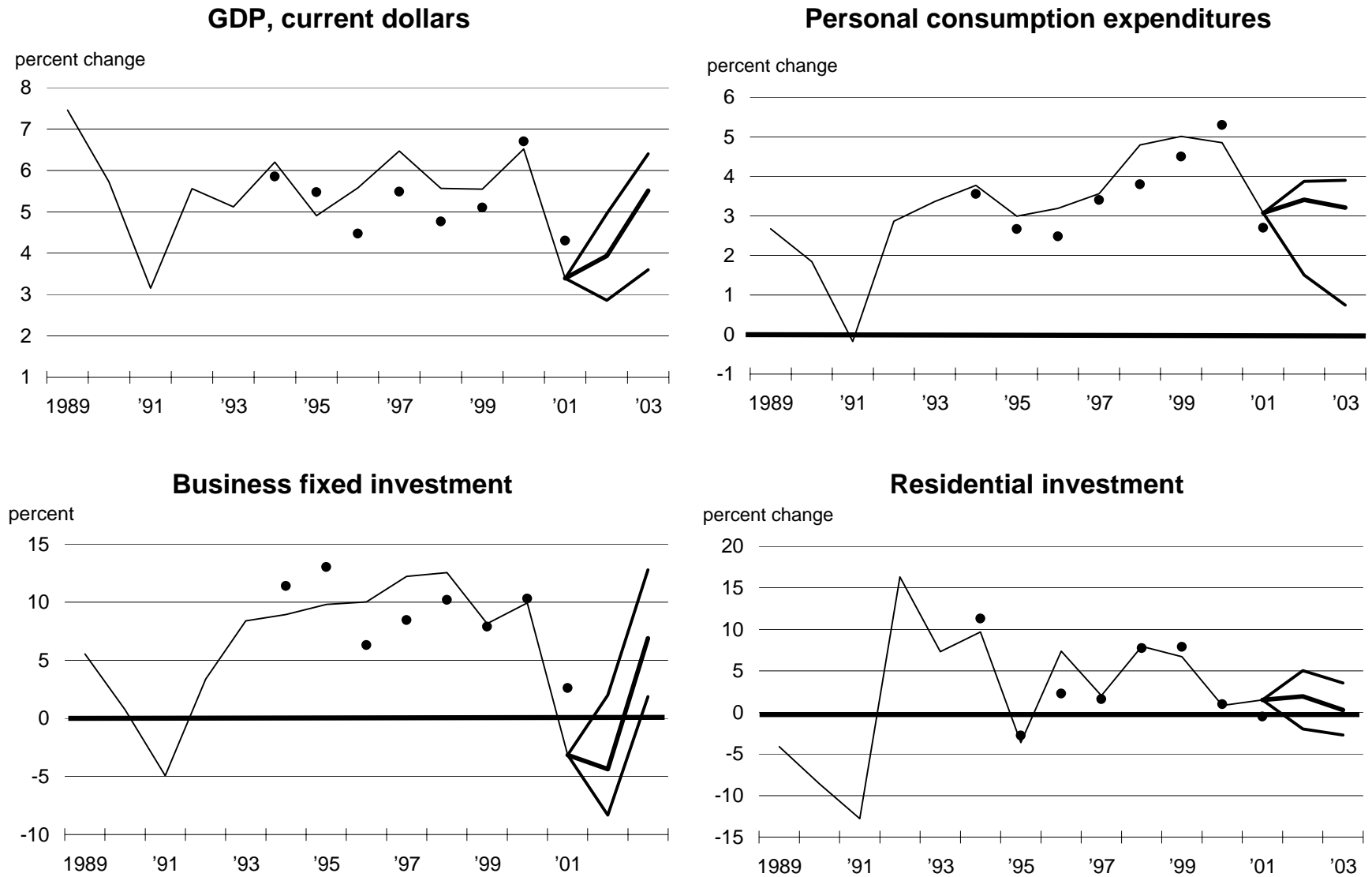
## Table 2 - Mean forecast of GDP and related items

	2001	2002	2003
GDP, current dollars	3.4%	<b>3.9%</b>	<b>5.4%</b>
Chain-type price index	2.2%	<b>1.2%</b>	<b>1.8%</b>
GDP, chained 1996 dollars	1.2%	<b>2.7%</b>	<b>3.5%</b>
Personal consumption expenditures	3.1%	<b>3.2%</b>	<b>2.9%</b>
Fixed - Nonresidential Investment	-3.2%	<b>-4.2%</b>	<b>6.7%</b>
Fixed - Residential Investment	1.5%	<b>1.8%</b>	<b>0.1%</b>
Change in business inventories	-\$61.7	<b>\$12.5</b>	<b>\$38.5</b>
Net exports of goods and services	-\$408.7	<b>-\$465.9</b>	<b>-\$483.3</b>
Government Consumption Expenditures and Gross Investment	3.6%	<b>5.2%</b>	<b>3.0%</b>
Industrial production	-3.8%	<b>1.4%</b>	<b>4.5%</b>
Car & light truck sales (millions - calendar year including imports)	17.0	<b>16.4</b>	<b>16.5</b>
Housing starts (millions)	1.60	<b>1.60</b>	<b>1.58</b>
Oil Price (Dollars per Barrel of West Texas Intermediate)	\$25.92	<b>\$25.78</b>	<b>\$25.68</b>
Unemployment rate	4.8%	<b>5.8%</b>	<b>5.4%</b>
Inflation rate (consumer price index)	2.8%	<b>1.9%</b>	<b>2.6%</b>
Treasury Constant Maturity 1-Year Rate	3.48%	<b>3.12%</b>	<b>4.22%</b>
Treasury Constant Maturity 10-Year Rate	5.02%	<b>5.35%</b>	<b>5.80%</b>
Change in J.P. Morgan Trade Weighted OECD Dollar Index	6.5%	<b>1.7%</b>	<b>1.5%</b>

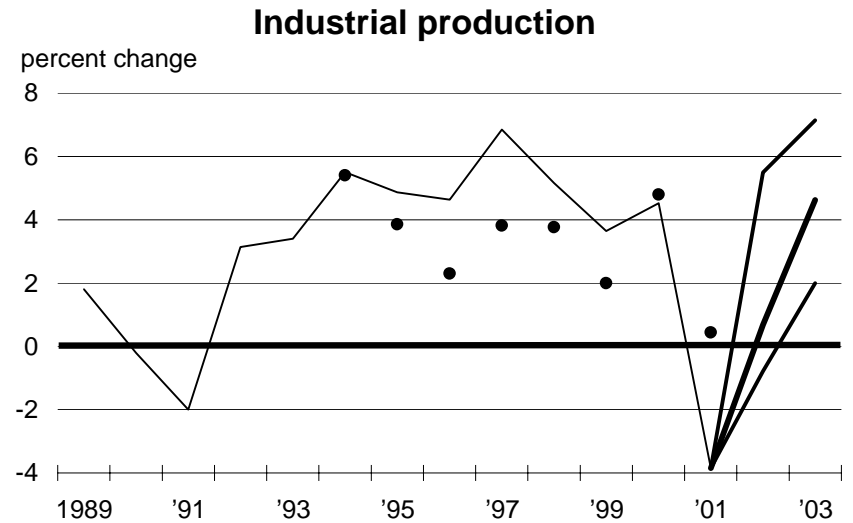
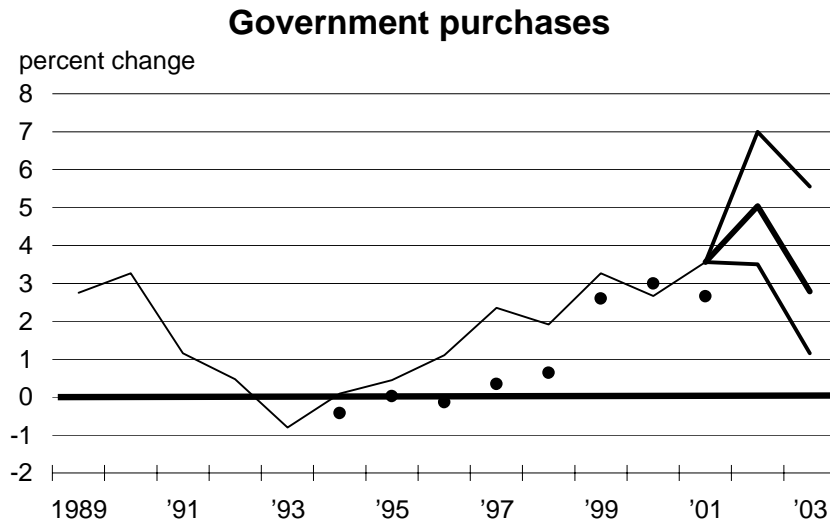
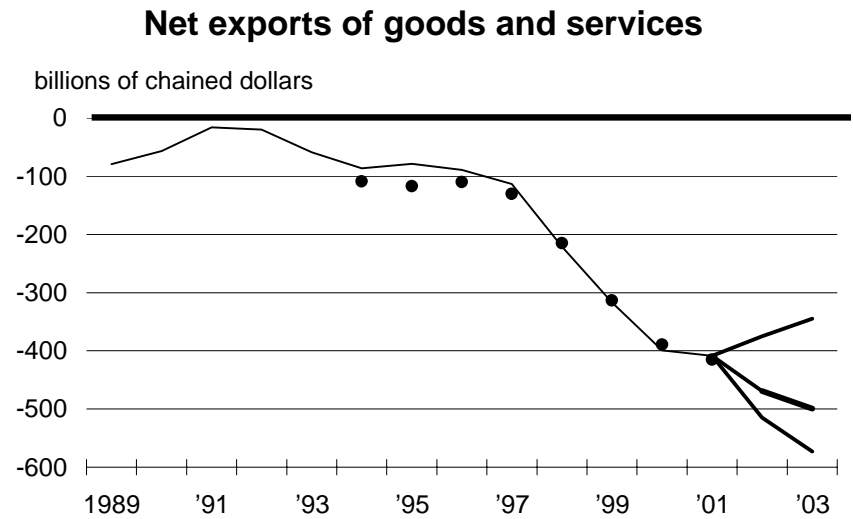
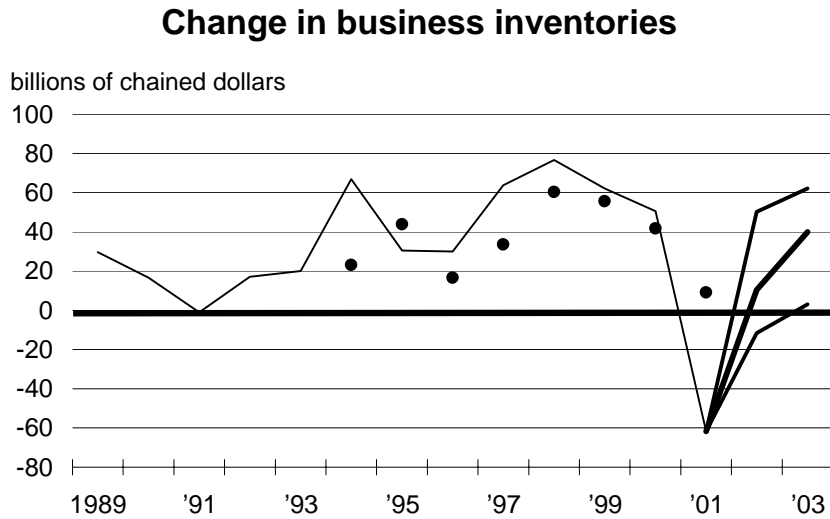
Figure 1a - Forecast of GDP and related items



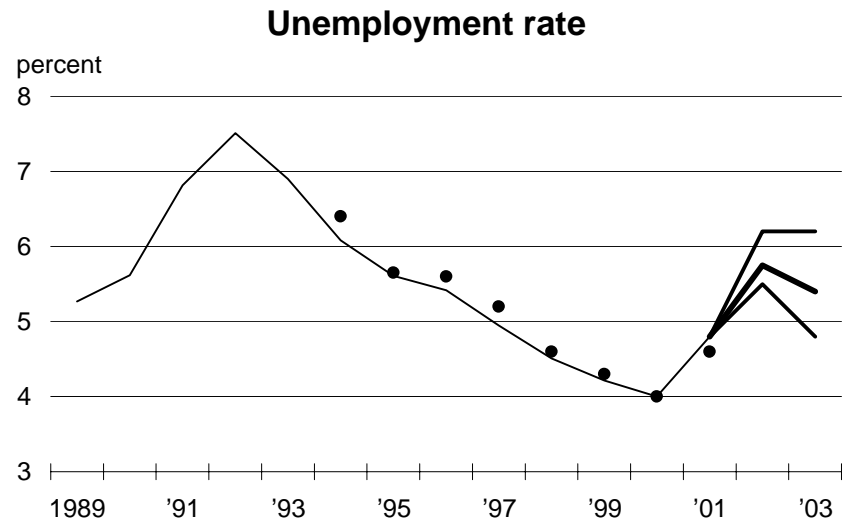
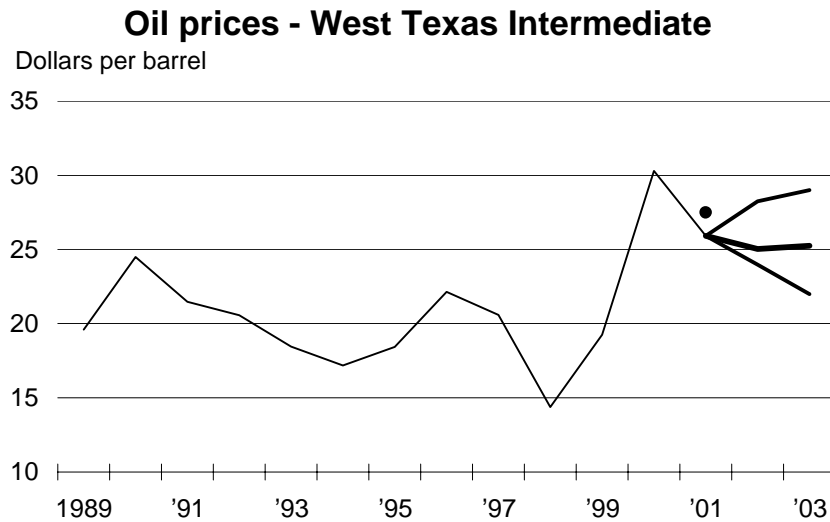
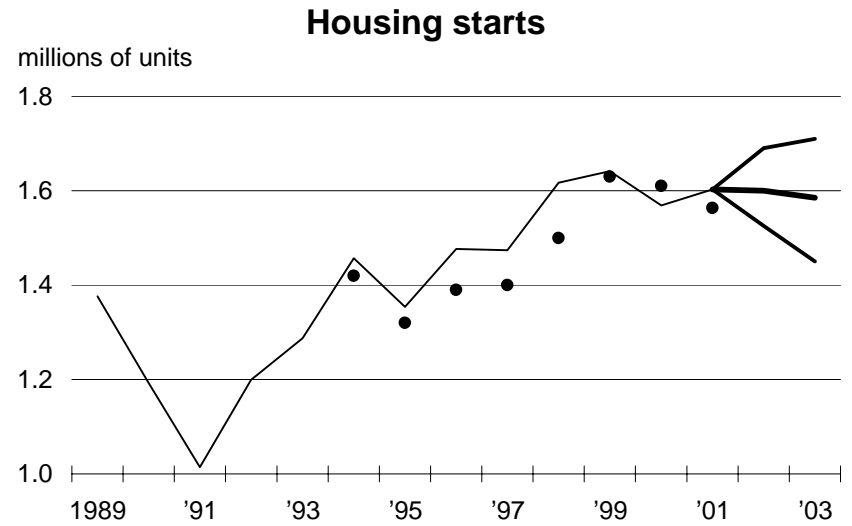
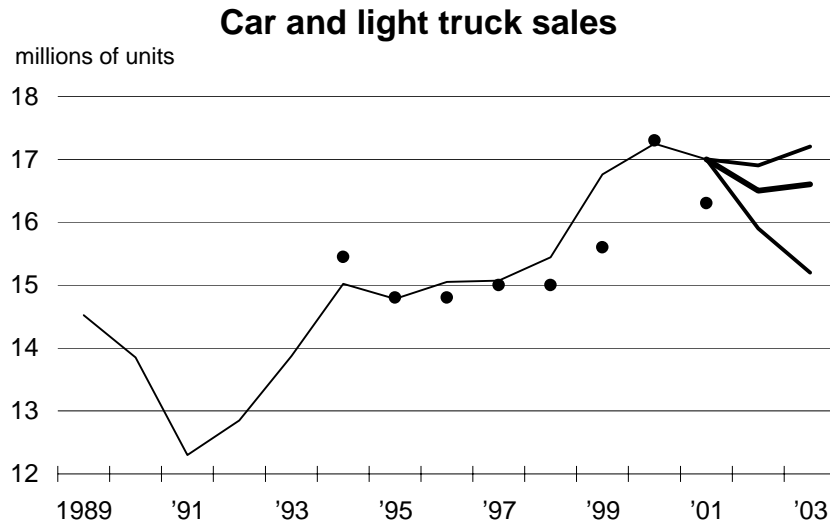
**Figure 1b - Forecast of GDP and related items**



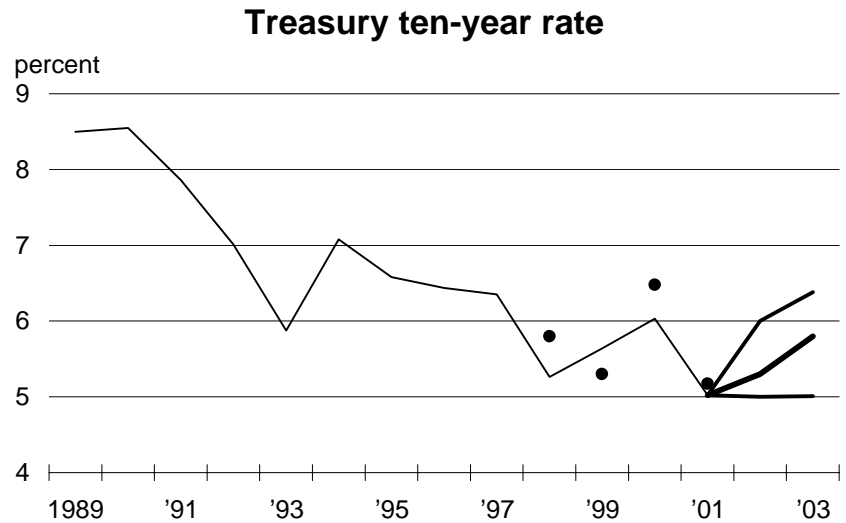
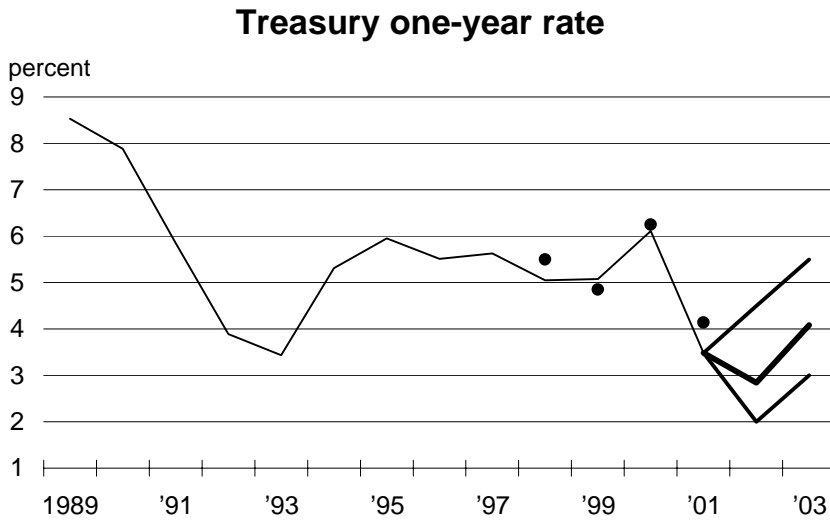
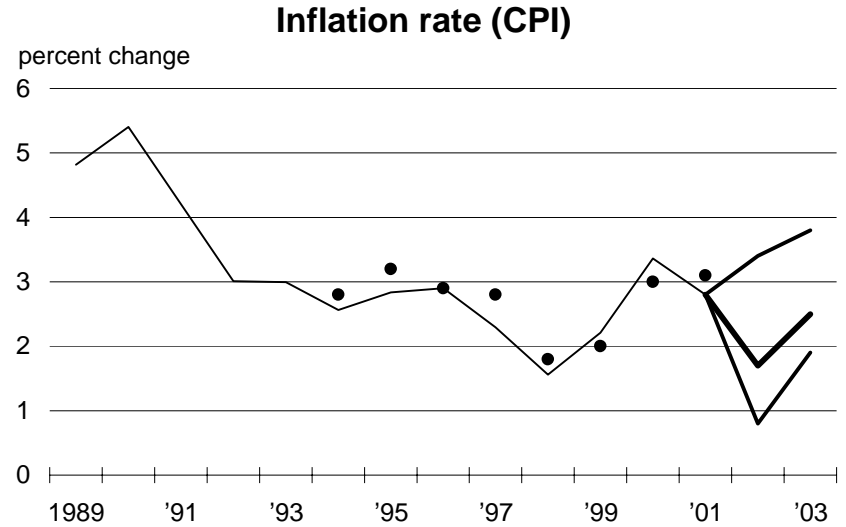
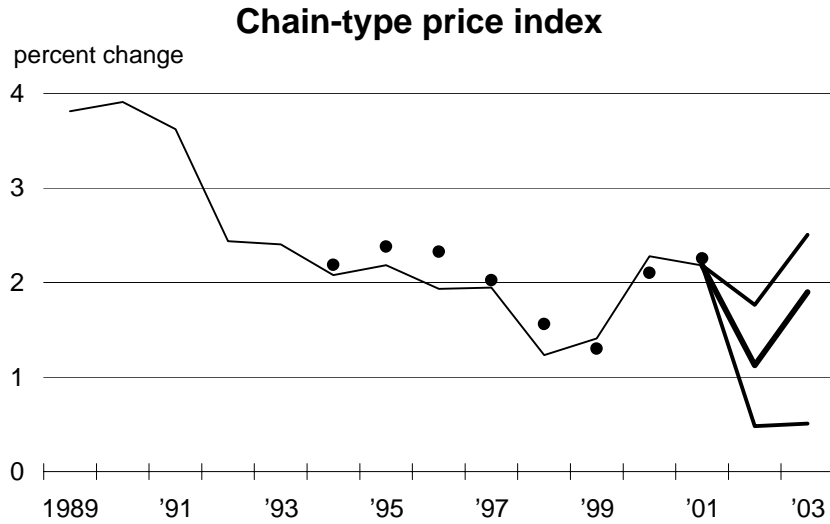
**Figure 1c - Forecast of GDP and related items**



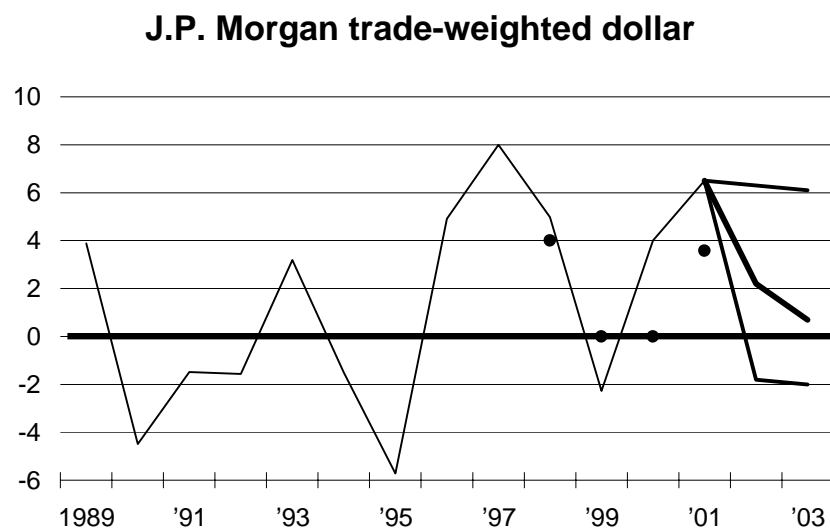
**Figure 1d - Forecast of GDP and related items**



**Figure 1e - Forecast of GDP and related items**



**Figure 1e - Forecast of GDP and related items**



**Table 3 - GDP, current dollars**

Individual	2001	2002	2003
	3.4%		
1		5.2%	5.9%
2		5.0%	6.3%
9		4.7%	5.7%
3		4.7%	
8		4.5%	5.2%
18		4.3%	5.5%
4		4.3%	5.4%
11		4.2%	5.8%
5		4.2%	6.4%
12		4.1%	5.4%
14		4.1%	5.4%
31		4.1%	6.1%
13		4.1%	5.5%
21		4.1%	6.3%
26		4.0%	4.8%
16		4.0%	5.6%
17		3.9%	5.7%
30		3.9%	6.2%
25		3.9%	5.7%
24		3.9%	6.0%
19		3.9%	5.9%
20		3.9%	5.9%
22		3.8%	4.8%
23		3.7%	4.8%
29		3.6%	5.5%
7		3.6%	2.6%
28		3.6%	5.2%
6		3.6%	4.3%
27		3.5%	4.1%
32		3.2%	3.7%
15		2.9%	3.6%
33		2.9%	4.8%
34		1.4%	7.7%
MEAN		3.9%	5.4%
MEDIAN		3.9%	5.5%
STD DEV		0.7%	1.0%
HIGH		5.2%	7.7%
LOW		1.4%	2.6%

**Table 4 - Chain-type price index**

Individual	2001	2002	2003
	2.2%		
31		2.6%	2.5%
9		1.8%	2.2%
2		1.8%	1.8%
18		1.5%	2.0%
30		1.5%	2.3%
1		1.5%	2.3%
26		1.5%	2.0%
3		1.5%	
8		1.4%	1.7%
25		1.4%	0.8%
21		1.3%	2.5%
29		1.3%	2.0%
24		1.2%	2.3%
11		1.2%	2.2%
12		1.2%	2.0%
5		1.1%	2.5%
14		1.1%	2.0%
17		1.1%	1.9%
19		1.1%	1.9%
4		1.1%	1.8%
16		1.1%	1.8%
20		1.1%	1.8%
28		1.1%	1.8%
13		1.1%	1.6%
33		1.0%	2.1%
22		1.0%	1.4%
23		0.9%	1.4%
32		0.9%	0.5%
7		0.6%	0.6%
6		0.5%	1.7%
34		0.3%	0.3%
MEAN		1.2%	1.8%
MEDIAN		1.1%	1.9%
STD DEV		0.4%	0.6%
HIGH		2.6%	2.5%
LOW		0.3%	0.3%

**Table 5 - GDP, chained 1996 dollars**

Individual	2001	2002	2003
	1.2%		
1		3.7%	3.6%
2		3.2%	4.4%
3		3.1%	
4		3.1%	3.4%
5		3.1%	3.8%
6		3.1%	2.5%
7		3.1%	2.0%
8		3.0%	3.4%
9		3.0%	3.5%
10		3.0%	3.6%
11		3.0%	3.6%
12		2.9%	3.4%
13		2.9%	3.8%
14		2.9%	3.4%
15		2.9%	3.6%
16		2.8%	3.7%
17		2.8%	3.7%
18		2.8%	3.5%
19		2.7%	3.9%
20		2.7%	3.9%
21		2.7%	3.7%
22		2.7%	3.4%
23		2.6%	3.4%
24		2.6%	3.5%
25		2.5%	3.5%
26		2.5%	2.8%
27		2.5%	2.6%
28		2.4%	3.3%
29		2.4%	3.7%
30		2.3%	3.8%
31		2.2%	2.7%
32		2.2%	3.2%
33		1.8%	2.6%
34		1.1%	7.1%
MEAN		2.7%	3.5%
MEDIAN		2.8%	3.5%
STD DEV		0.5%	0.8%
HIGH		3.7%	7.1%
LOW		1.1%	2.0%

**Table 6 - Personal consumption expenditures**

Individual	2001	2002	2003
	3.1%		
4		4.0%	3.5%
33		3.9%	3.0%
21		3.8%	3.9%
1		3.8%	3.2%
6		3.7%	2.3%
23		3.6%	3.2%
18		3.6%	3.5%
5		3.6%	3.0%
11		3.5%	3.5%
29		3.5%	3.5%
13		3.5%	3.7%
10		3.5%	3.2%
24		3.5%	3.4%
17		3.5%	3.5%
30		3.5%	3.4%
20		3.4%	3.3%
19		3.4%	3.3%
16		3.4%	3.2%
2		3.3%	3.2%
3		3.3%	
8		3.3%	3.0%
22		3.2%	2.8%
12		3.2%	2.8%
14		3.2%	2.8%
31		3.0%	0.7%
32		3.0%	4.0%
26		2.9%	2.1%
28		2.6%	3.1%
7		1.5%	0.6%
27		1.5%	2.1%
34		0.8%	0.8%
MEAN		3.2%	2.9%
MEDIAN		3.4%	3.2%
STD DEV		0.7%	0.9%
HIGH		4.0%	4.0%
LOW		0.8%	0.6%

**Table 7 - Fixed nonresidential investment**

Individual	2001	2002	2003
	-3.2%		
7		3.2%	7.4%
31		2.0%	5.2%
27		1.3%	2.7%
34		0.0%	7.6%
14		-1.1%	10.1%
12		-1.2%	10.1%
2		-2.7%	13.3%
8		-2.9%	7.9%
16		-3.5%	12.8%
1		-3.5%	4.0%
4		-3.7%	4.6%
26		-4.0%	1.9%
3		-4.1%	
22		-4.1%	7.7%
23		-4.3%	5.7%
30		-4.5%	8.7%
5		-4.5%	5.8%
17		-4.7%	5.5%
21		-4.9%	9.0%
29		-5.0%	6.9%
28		-5.1%	8.8%
18		-5.3%	4.4%
19		-5.5%	10.1%
20		-5.5%	10.1%
11		-5.6%	3.7%
13		-5.7%	5.8%
32		-8.2%	5.1%
33		-8.3%	4.2%
6		-8.3%	-1.3%
24		-15.1%	7.0%
MEAN		-4.2%	6.7%
MEDIAN		-4.4%	6.9%
STD DEV		3.4%	3.2%
HIGH		3.2%	13.3%
LOW		-15.1%	-1.3%

**Table 8 - Fixed residential investment**

Individual	2001	2002	2003
	1.5%		
33		6.1%	0.0%
5		5.0%	1.2%
2		4.7%	1.9%
13		4.5%	3.6%
11		4.1%	-1.2%
3		4.0%	
22		3.9%	0.8%
29		3.7%	-0.2%
7		3.5%	2.6%
28		2.9%	-2.0%
24		2.7%	-11.2%
1		2.1%	1.0%
8		2.1%	-1.3%
32		2.1%	4.0%
18		2.1%	-2.7%
23		1.8%	1.2%
30		1.5%	-0.4%
16		1.4%	1.2%
6		1.3%	0.3%
27		1.3%	0.3%
14		0.5%	-2.4%
26		0.5%	0.7%
12		0.4%	-2.5%
34		0.3%	0.3%
19		-0.1%	-0.3%
20		-0.1%	-0.3%
4		-0.2%	1.0%
17		-1.3%	2.7%
31		-2.0%	2.2%
21		-4.8%	2.4%
MEAN		1.8%	0.1%
MEDIAN		1.9%	0.3%
STD DEV		2.3%	2.7%
HIGH		6.1%	4.0%
LOW		-4.8%	-11.2%

**Table 9 - Change in business inventories**

Individual	2001	2002	2003
	-61.7		
8		\$70.0	\$50.0
26		\$50.3	\$62.2
28		\$31.0	\$82.3
31		\$30.5	\$44.9
7		\$30.0	\$40.0
4		\$25.0	\$40.0
1		\$25.0	\$37.0
30		\$22.7	\$52.4
34		\$22.0	\$10.0
6		\$21.0	\$3.0
21		\$14.7	\$45.7
3		\$14.0	
24		\$13.5	\$47.3
5		\$13.5	\$35.0
23		\$12.2	\$47.5
17		\$8.5	\$44.9
18		\$6.7	\$43.0
12		\$4.1	\$38.3
14		\$4.0	\$38.0
16		\$3.7	\$18.6
13		\$3.5	\$35.0
19		\$2.6	\$45.2
20		\$2.6	\$45.2
29		\$2.5	\$30.0
11		-\$3.8	\$39.0
32		-\$5.3	\$33.8
27		-\$5.5	\$31.7
2		-\$6.5	\$41.9
22		-\$11.6	\$35.5
33		-\$25.0	\$0.0
MEAN		\$12.5	\$38.5
MEDIAN		\$10.4	\$40.0
STD DEV		\$18.4	\$15.9
HIGH		\$70.0	\$82.3
LOW		-\$25.0	\$0.0

## Table 10 - Net exports of goods and services

Individual	2001	2002	2003
	-\$408.7		
27	-\$371.0	-\$393.0	
7	-\$375.0	-\$345.0	
1	-\$420.0	-\$460.0	
6	-\$421.0	-\$358.0	
4	-\$446.3	-\$475.9	
32	-\$451.3	-\$489.0	
22	-\$454.4	-\$486.3	
18	-\$459.6	-\$482.0	
17	-\$462.8	-\$499.4	
2	-\$463.9	-\$525.9	
26	-\$465.0	-\$430.0	
5	-\$465.0	-\$450.0	
29	-\$466.0	-\$500.0	
3	-\$467.8		
11	-\$468.0	-\$497.3	
28	-\$469.9	-\$551.6	
8	-\$470.0	-\$500.0	
24	-\$473.8	-\$473.9	
13	-\$475.0	-\$538.0	
19	-\$477.6	-\$517.6	
20	-\$477.6	-\$517.6	
23	-\$480.9	-\$511.2	
14	-\$482.0	-\$517.0	
12	-\$482.3	-\$516.9	
16	-\$483.5	-\$550.4	
34	-\$500.0	-\$300.0	
33	-\$500.0	-\$600.0	
21	-\$504.6	-\$558.2	
31	-\$515.0	-\$399.0	
30	-\$526.7	-\$572.8	
MEAN	-\$465.9	-\$483.3	
MEDIAN	-\$469.0	-\$499.4	
STD DEV	\$33.5	\$68.5	
HIGH	-\$371.0	-\$300.0	
LOW	-\$526.7	-\$600.0	

**Table 11 - Government consumption and investment**

Individual	2001	2002	2003
	3.6%		
34		10.5%	5.6%
31		7.0%	3.0%
5		6.6%	3.8%
1		6.4%	6.0%
19		6.0%	2.6%
20		6.0%	2.6%
33		5.9%	4.3%
18		5.8%	3.1%
32		5.7%	4.2%
13		5.6%	3.4%
11		5.6%	3.5%
23		5.2%	2.8%
6		5.2%	3.2%
16		5.1%	2.1%
2		5.1%	2.7%
12		5.0%	2.1%
26		5.0%	3.1%
29		5.0%	2.2%
14		5.0%	2.2%
22		5.0%	1.5%
17		4.7%	2.7%
4		4.6%	2.7%
28		4.4%	2.2%
3		4.4%	
8		4.4%	4.7%
24		4.4%	1.2%
21		4.4%	2.2%
30		3.8%	2.8%
27		3.5%	3.7%
7		1.6%	0.6%
MEAN		5.2%	3.0%
MEDIAN		5.0%	2.8%
STD DEV		1.4%	1.2%
HIGH		10.5%	6.0%
LOW		1.6%	0.6%

## Table 12 - Industrial production

Individual	2001	2002	2003
	-3.8%		
22		7.8%	5.3%
28		5.5%	8.4%
7		4.9%	6.1%
21		4.0%	5.5%
19		3.7%	3.5%
5		2.4%	4.8%
8		2.1%	4.9%
29		2.0%	4.5%
10		2.0%	3.2%
18		1.8%	6.0%
31		1.7%	3.1%
34		1.4%	2.1%
27		1.3%	2.5%
1		1.1%	5.4%
9		0.7%	3.2%
14		0.6%	4.3%
24		0.5%	6.1%
3		0.5%	
12		0.5%	4.5%
16		0.4%	4.6%
13		0.3%	4.9%
2		0.2%	5.6%
23		0.2%	5.1%
33		-0.1%	7.1%
20		-0.1%	3.8%
11		-0.3%	2.6%
30		-0.4%	6.5%
32		-0.7%	2.0%
26		-0.8%	4.0%
6		-1.5%	1.4%
MEAN		1.4%	4.5%
MEDIAN		0.7%	4.6%
STD DEV		2.0%	1.6%
HIGH		7.8%	8.4%
LOW		-1.5%	1.4%

**Table 13 - Car and light truck sales (millions)**

Individual	2001	2002	2003
	17.0		
12		17.0	17.2
6		16.9	16.6
1		16.8	16.4
15		16.8	16.7
13		16.7	17.0
8		16.7	16.8
4		16.7	16.6
26		16.7	16.1
2		16.7	16.9
24		16.6	16.9
18		16.6	16.8
31		16.6	16.7
9		16.5	17.0
5		16.5	16.7
34		16.5	16.7
10		16.5	16.6
29		16.5	16.2
3		16.5	
20		16.4	17.2
19		16.4	16.3
17		16.3	16.7
7		16.3	16.6
28		16.3	16.6
30		16.2	17.0
16		16.2	16.7
22		16.2	15.8
11		16.2	15.1
32		16.0	16.1
25		16.0	16.5
33		16.0	16.0
27		15.9	15.2
21		15.6	15.3
MEAN		16.4	16.5
MEDIAN		16.5	16.6
STD DEV		0.3	0.5
HIGH		17.0	17.2
LOW		15.6	15.1

**Table 14 - Housing starts (millions)**

Individual	2001	2002	2003
	1.60		
17		1.72	1.71
23		1.69	1.71
3		1.69	
34		1.66	1.67
13		1.66	1.65
4		1.65	1.70
9		1.63	1.65
28		1.63	1.57
22		1.62	1.58
8		1.62	1.55
2		1.62	1.53
11		1.62	1.45
1		1.61	1.63
16		1.61	1.63
5		1.61	1.59
15		1.61	1.59
33		1.60	1.60
25		1.60	1.59
29		1.60	1.55
20		1.59	1.59
30		1.59	1.59
31		1.58	1.60
24		1.58	1.57
27		1.58	1.51
21		1.57	1.53
18		1.57	1.52
12		1.56	1.53
19		1.56	1.59
14		1.56	1.53
6		1.54	1.47
26		1.53	1.45
32		1.53	1.52
7		1.50	1.55
MEAN		1.60	1.58
MEDIAN		1.60	1.59
STD DEV		0.05	0.07
HIGH		1.72	1.71
LOW		1.50	1.45

**Table 15 - Oil price (dollars per barrel - West Texas Intermediate)**

Individual	2001	2002	2003
	\$25.92		
13	\$28.50	\$31.26	
26	\$28.25	\$27.00	
34	\$28.00	\$29.00	
22	\$28.00	\$27.00	
9	\$27.50	\$25.00	
17	\$27.40	\$27.79	
7	\$27.00	\$27.00	
19	\$27.00	\$26.50	
15	\$26.50	\$27.50	
18	\$26.50	\$27.50	
32	\$25.69	\$25.25	
24	\$25.52	\$24.43	
6	\$25.03	\$26.25	
12	\$25.00	\$25.00	
14	\$25.00	\$25.00	
23	\$25.00	\$25.00	
33	\$25.00	\$25.00	
31	\$25.00	\$24.50	
30	\$24.86	\$25.00	
11	\$24.30	\$25.30	
4	\$24.00	\$25.50	
8	\$24.00	\$23.00	
1	\$24.00	\$22.00	
2	\$23.98	\$23.22	
5	\$23.50	\$22.00	

MEAN	\$25.78	\$25.68
MEDIAN	\$25.03	\$25.25
STD DEV	\$1.52	\$2.06
HIGH	\$28.50	\$31.26
LOW	\$23.50	\$22.00

## Table 16 - Unemployment rate

Individual	2001	2002	2003
	4.8%		
6		6.5%	6.3%
22		6.2%	6.1%
4		6.1%	5.9%
27		6.1%	5.8%
33		6.0%	6.0%
24		6.0%	5.7%
7		6.0%	5.5%
23		6.0%	5.4%
26		5.9%	6.2%
5		5.9%	5.5%
11		5.8%	5.8%
21		5.8%	5.5%
10		5.8%	5.4%
13		5.8%	5.4%
14		5.8%	5.3%
31		5.8%	5.3%
25		5.8%	5.0%
18		5.7%	5.5%
29		5.7%	5.5%
30		5.7%	5.5%
28		5.7%	5.4%
8		5.7%	5.3%
19		5.7%	5.1%
20		5.7%	5.1%
3		5.7%	
32		5.7%	5.5%
17		5.6%	5.3%
12		5.6%	5.3%
16		5.6%	5.1%
9		5.5%	5.3%
34		5.5%	5.0%
1		5.5%	4.8%
2		5.5%	4.8%
15		5.3%	5.0%
MEAN		5.8%	5.4%
MEDIAN		5.8%	5.4%
STD DEV		0.2%	0.4%
HIGH		6.5%	6.3%
LOW		5.3%	4.8%

**Table 17 - Inflation rate (consumer price index)**

Individual	2001	2002	2003
	2.8%		
7		3.6%	3.8%
6		3.4%	5.2%
31		2.7%	2.9%
19		2.7%	2.6%
2		2.6%	2.3%
34		2.5%	2.9%
22		2.5%	2.7%
27		2.5%	2.7%
9		2.0%	2.3%
32		1.9%	2.3%
13		1.9%	3.0%
30		1.9%	2.7%
20		1.9%	2.6%
3		1.9%	
16		1.8%	2.5%
1		1.8%	2.4%
29		1.7%	2.8%
21		1.7%	2.7%
26		1.7%	2.7%
18		1.7%	2.6%
24		1.7%	2.6%
15		1.7%	2.4%
12		1.7%	2.2%
14		1.7%	2.2%
10		1.6%	2.4%
11		1.6%	2.4%
28		1.5%	2.8%
8		1.5%	2.4%
5		1.4%	2.5%
25		1.4%	2.2%
23		1.3%	1.9%
33		1.0%	2.0%
4		0.8%	1.8%
17		0.6%	2.1%
MEAN		1.9%	2.6%
MEDIAN		1.7%	2.5%
STD DEV		0.6%	0.6%
HIGH		3.6%	5.2%
LOW		0.6%	1.8%

**Table 18 - One year t-bill**

Individual	2001	2002	2003
	3.48%		
7		5.00%	6.25%
31		4.50%	5.10%
24		3.86%	4.36%
29		3.82%	4.00%
26		3.80%	4.70%
2		3.78%	4.62%
22		3.70%	3.90%
9		3.50%	4.00%
11		3.40%	5.38%
32		3.31%	4.63%
34		3.30%	3.40%
1		2.90%	4.20%
17		2.84%	3.74%
6		2.80%	5.50%
21		2.80%	4.75%
18		2.70%	3.70%
13		2.69%	4.29%
16		2.69%	4.16%
5		2.66%	3.70%
3		2.60%	
8		2.50%	3.90%
10		2.50%	2.80%
23		2.38%	3.52%
30		2.00%	3.70%
33		2.00%	3.00%
MEAN		3.12%	4.22%
MEDIAN		2.84%	4.08%
STD DEV		0.73%	0.78%
HIGH		5.00%	6.25%
LOW		2.00%	2.80%

**Table 19 - Ten year t-note**

Individual	2001	2002	2003
	5.02%		
7		6.00%	6.75%
12		6.00%	6.00%
32		5.76%	5.69%
26		5.50%	5.90%
10		5.50%	5.80%
14		5.50%	5.75%
11		5.48%	6.38%
1		5.40%	5.90%
24		5.40%	5.90%
30		5.40%	5.90%
6		5.38%	6.25%
31		5.35%	5.75%
13		5.33%	6.26%
3		5.32%	
18		5.30%	5.90%
21		5.30%	5.90%
5		5.30%	5.80%
29		5.30%	5.80%
17		5.30%	5.69%
8		5.30%	5.60%
19		5.27%	6.05%
20		5.27%	6.05%
2		5.25%	5.62%
9		5.25%	5.50%
16		5.23%	5.77%
28		5.22%	5.85%
4		5.20%	5.50%
23		5.20%	5.44%
22		5.10%	5.20%
33		5.00%	5.00%
34		4.80%	5.01%
MEAN		5.35%	5.80%
MEDIAN		5.30%	5.80%
STD DEV		0.24%	0.36%
HIGH		6.00%	6.75%
LOW		4.80%	5.00%

**Table 20 - J. P. Morgan trade weighted dollar**

Individual	2001	2002	2003
	6.5%		
34		6.6%	6.7%
8		6.3%	6.1%
24		6.1%	5.5%
2		3.0%	0.6%
18		2.5%	0.9%
26		2.5%	-2.0%
17		2.4%	0.8%
1		2.0%	0.5%
13		1.1%	-3.1%
27		1.0%	-0.5%
33		0.0%	0.0%
9		-1.5%	-0.5%
31		-1.8%	2.9%
5		-6.5%	2.5%

MEAN	1.7%	1.5%
MEDIAN	2.2%	0.7%
STD DEV	3.4%	2.8%
HIGH	6.6%	6.7%
LOW	-6.5%	-3.1%

## Table 21a - Individual forecasts for 2002

Individual	GDP current dollars	Chain-type price index	GDP chained 1996 dollars	Personal consumption expenditures	Fixed - nonresidential investment	Fixed - residential investment	Change in business inventories	Net exports of goods and services	Government consumption expenditures
1	5.2%	1.5%	3.7%	3.8%	-3.5%	2.1%	\$25.0	-\$420.0	6.4%
2	5.0%	1.8%	3.2%	3.3%	-2.7%	4.7%	-\$6.5	-\$463.9	5.1%
3	4.7%	1.5%	3.1%	3.3%	-4.1%	4.0%	\$14.0	-\$467.8	4.4%
4	4.3%	1.1%	3.1%	4.0%	-3.7%	-0.2%	\$25.0	-\$446.3	4.6%
5	4.2%	1.1%	3.1%	3.6%	-4.5%	5.0%	\$13.5	-\$465.0	6.6%
6	3.6%	0.5%	3.1%	3.7%	-8.3%	1.3%	\$21.0	-\$421.0	5.2%
7	3.6%	0.6%	3.1%	1.5%	3.2%	3.5%	\$30.0	-\$375.0	1.6%
8	4.5%	1.4%	3.0%	3.3%	-2.9%	2.1%	\$70.0	-\$470.0	4.4%
9	4.7%	1.8%	3.0%						
10			3.0%	3.5%					
11	4.2%	1.2%	3.0%	3.5%	-5.6%	4.1%	-\$3.8	-\$468.0	5.6%
12	4.1%	1.2%	2.9%	3.2%	-1.2%	0.4%	\$4.1	-\$482.3	5.0%
13	4.1%	1.1%	2.9%	3.5%	-5.7%	4.5%	\$3.5	-\$475.0	5.6%
14	4.1%	1.1%	2.9%	3.2%	-1.1%	0.5%	\$4.0	-\$482.0	5.0%
15	2.9%		2.9%						
16	4.0%	1.1%	2.8%	3.4%	-3.5%	1.4%	\$3.7	-\$483.5	5.1%
17	3.9%	1.1%	2.8%	3.5%	-4.7%	-1.3%	\$8.5	-\$462.8	4.7%
18	4.3%	1.5%	2.8%	3.6%	-5.3%	2.1%	\$6.7	-\$459.6	5.8%
19	3.9%	1.1%	2.7%	3.4%	-5.5%	-0.1%	\$2.6	-\$477.6	6.0%
20	3.9%	1.1%	2.7%	3.4%	-5.5%	-0.1%	\$2.6	-\$477.6	6.0%
21	4.1%	1.3%	2.7%	3.8%	-4.9%	-4.8%	\$14.7	-\$504.6	4.4%
22	3.8%	1.0%	2.7%	3.2%	-4.1%	3.9%	-\$11.6	-\$454.4	5.0%
23	3.7%	0.9%	2.6%	3.6%	-4.3%	1.8%	\$12.2	-\$480.9	5.2%
24	3.9%	1.2%	2.6%	3.5%	-15.1%	2.7%	\$13.5	-\$473.8	4.4%
25	3.9%	1.4%	2.5%						
26	4.0%	1.5%	2.5%	2.9%	-4.0%	0.5%	\$50.3	-\$465.0	5.0%
27	3.5%		2.5%	1.5%	1.3%	1.3%	-\$5.5	-\$371.0	3.5%
28	3.6%	1.1%	2.4%	2.6%	-5.1%	2.9%	\$31.0	-\$469.9	4.4%
29	3.6%	1.3%	2.4%	3.5%	-5.0%	3.7%	\$2.5	-\$466.0	5.0%
30	3.9%	1.5%	2.3%	3.5%	-4.5%	1.5%	\$22.7	-\$526.7	3.8%
31	4.1%	2.6%	2.2%	3.0%	2.0%	-2.0%	\$30.5	-\$515.0	7.0%
32	3.2%	0.9%	2.2%	3.0%	-8.2%	2.1%	-\$5.3	-\$451.3	5.7%
33	2.9%	1.0%	1.8%	3.9%	-8.3%	6.1%	-\$25.0	-\$500.0	5.9%
34	1.4%	0.3%	1.1%	0.8%	0.0%	0.3%	\$22.0	-\$500.0	10.5%
MEAN	3.9%	1.2%	2.7%	3.2%	-4.2%	1.8%	\$12.5	-\$465.9	5.2%
MEDIAN	3.9%	1.1%	2.8%	3.4%	-4.4%	1.9%	\$10.4	-\$469.0	5.0%
STD DEV	0.7%	0.4%	0.5%	0.7%	3.4%	2.3%	\$18.4	\$33.5	1.4%
HIGH	5.2%	2.6%	3.7%	4.0%	3.2%	6.1%	\$70.0	-\$371.0	10.5%
LOW	1.4%	0.3%	1.1%	0.8%	-15.1%	-4.8%	(\$25.0)	-\$526.7	1.6%

## Table 21b - Individual forecasts for 2002

Individual	Industrial production	Car & light truck sales	Housing starts	Oil price	Unemployment rate	Inflation rate (CPI)	Treasury constant maturity 1-year rate	Treasury constant maturity 10-year rate	J.P. Morgan trade weighted OECD dollar
1	1.1%	16.8	1.61	\$24.00	5.5%	1.8%	2.9%	5.4%	2.0%
2	0.2%	16.7	1.62	\$23.98	5.5%	2.6%	3.8%	5.3%	3.0%
3	0.5%	16.5	1.69		5.7%	1.9%	2.6%	5.3%	
4		16.7	1.65	\$24.00	6.1%	0.8%		5.2%	
5	2.4%	16.5	1.61	\$23.50	5.9%	1.4%	2.7%	5.3%	-6.5%
6	-1.5%	16.9	1.54	\$25.03	6.5%	3.4%	2.8%	5.4%	
7	4.9%	16.3	1.50	\$27.00	6.0%	3.6%	5.0%	6.0%	
8	2.1%	16.7	1.62	\$24.00	5.7%	1.5%	2.5%	5.3%	6.3%
9	0.7%	16.5	1.63	\$27.50	5.5%	2.0%	3.5%	5.3%	-1.5%
10	2.0%	16.5			5.8%	1.6%	2.5%	5.5%	
11	-0.3%	16.2	1.62	\$24.30	5.8%	1.6%	3.4%	5.5%	
12	0.5%	17.0	1.56	\$25.00	5.6%	1.7%		6.0%	
13	0.3%	16.7	1.66	\$28.50	5.8%	1.9%	2.7%	5.3%	1.1%
14	0.6%		1.56	\$25.00	5.8%	1.7%		5.5%	
15		16.8	1.61	\$26.50	5.3%	1.7%			
16	0.4%	16.2	1.61		5.6%	1.8%	2.7%	5.2%	
17		16.3	1.72	\$27.40	5.6%	0.6%	2.8%	5.3%	2.4%
18	1.8%	16.6	1.57	\$26.50	5.7%	1.7%	2.7%	5.3%	2.5%
19	3.7%	16.4	1.56	\$27.00	5.7%	2.7%		5.3%	
20	-0.1%	16.4	1.59		5.7%	1.9%		5.3%	
21	4.0%	15.6	1.57		5.8%	1.7%	2.8%	5.3%	
22	7.8%	16.2	1.62	\$28.00	6.2%	2.5%	3.7%	5.1%	
23	0.2%		1.69	\$25.00	6.0%	1.3%	2.4%	5.2%	
24	0.5%	16.6	1.58	\$25.52	6.0%	1.7%	3.9%	5.4%	6.1%
25		16.0	1.60		5.8%	1.4%			
26	-0.8%	16.7	1.53	\$28.25	5.9%	1.7%	3.8%	5.5%	2.5%
27	1.3%	15.9	1.58		6.1%	2.5%			1.0%
28	5.5%	16.3	1.63		5.7%	1.5%		5.2%	
29	2.0%	16.5	1.60		5.7%	1.7%	3.8%	5.3%	
30	-0.4%	16.2	1.59	\$24.86	5.7%	1.9%	2.0%	5.4%	
31	1.7%	16.6	1.58	\$25.00	5.8%	2.7%	4.5%	5.4%	-1.8%
32	-0.7%	16.0	1.53	\$25.69	5.7%	1.9%	3.3%	5.8%	
33	-0.1%	16.0	1.60	\$25.00	6.0%	1.0%	2.0%	5.0%	0.0%
34	1.4%	16.5	1.66	\$28.00	5.5%	2.5%	3.3%	4.8%	6.6%
MEAN	1.4%	16.4	1.60	\$25.78	5.8%	1.9%	3.12%	5.35%	1.7%
MEDIAN	0.7%	16.5	1.60	\$25.03	5.8%	1.7%	2.84%	5.30%	2.2%
STD DEV	2.0%	0.3	0.05	\$1.52	0.2%	0.6%	0.73%	0.24%	3.4%
HIGH	7.8%	17.0	1.72	\$28.50	6.5%	3.6%	5.00%	6.00%	6.6%
LOW	-1.5%	15.6	1.50	\$23.50	5.3%	0.6%	2.00%	4.80%	-6.5%

## Table 21c - Individual forecasts for 2003

Individual	GDP current dollars	Chain-type price index	GDP chained 1996 dollars	Personal consumption expenditures	Fixed - nonresidential investment	Fixed - residential investment	Change in business inventories	Net exports of goods and services	Government consumption expenditures
1	5.9%	2.3%	3.6%	3.2%	4.0%	1.0%	\$37.0	-\$460.0	6.0%
2	6.3%	1.8%	4.4%	3.2%	13.3%	1.9%	\$41.9	-\$525.9	2.7%
3									
4	5.4%	1.8%	3.4%	3.5%	4.6%	1.0%	\$40.0	-\$475.9	2.7%
5	6.4%	2.5%	3.8%	3.0%	5.8%	1.2%	\$35.0	-\$450.0	3.8%
6	4.3%	1.7%	2.5%	2.3%	-1.3%	0.3%	\$3.0	-\$358.0	3.2%
7	2.6%	0.6%	2.0%	0.6%	7.4%	2.6%	\$40.0	-\$345.0	0.6%
8	5.2%	1.7%	3.4%	3.0%	7.9%	-1.3%	\$50.0	-\$500.0	4.7%
9	5.7%	2.2%	3.5%						
10			3.6%	3.2%					
11	5.8%	2.2%	3.6%	3.5%	3.7%	-1.2%	\$39.0	-\$497.3	3.5%
12	5.4%	2.0%	3.4%	2.8%	10.1%	-2.5%	\$38.3	-\$516.9	2.1%
13	5.5%	1.6%	3.8%	3.7%	5.8%	3.6%	\$35.0	-\$538.0	3.4%
14	5.4%	2.0%	3.4%	2.8%	10.1%	-2.4%	\$38.0	-\$517.0	2.2%
15	3.6%		3.6%						
16	5.6%	1.8%	3.7%	3.2%	12.8%	1.2%	\$18.6	-\$550.4	2.1%
17	5.7%	1.9%	3.7%	3.5%	5.5%	2.7%	\$44.9	-\$499.4	2.7%
18	5.5%	2.0%	3.5%	3.5%	4.4%	-2.7%	\$43.0	-\$482.0	3.1%
19	5.9%	1.9%	3.9%	3.3%	10.1%	-0.3%	\$45.2	-\$517.6	2.6%
20	5.9%	1.8%	3.9%	3.3%	10.1%	-0.3%	\$45.2	-\$517.6	2.6%
21	6.3%	2.5%	3.7%	3.9%	9.0%	2.4%	\$45.7	-\$558.2	2.2%
22	4.8%	1.4%	3.4%	2.8%	7.7%	0.8%	\$35.5	-\$486.3	1.5%
23	4.8%	1.4%	3.4%	3.2%	5.7%	1.2%	\$47.5	-\$511.2	2.8%
24	6.0%	2.3%	3.5%	3.4%	7.0%	-11.2%	\$47.3	-\$473.9	1.2%
25	5.7%	0.8%	3.5%						
26	4.8%	2.0%	2.8%	2.1%	1.9%	0.7%	\$62.2	-\$430.0	3.1%
27	4.1%		2.6%	2.1%	2.7%	0.3%	\$31.7	-\$393.0	3.7%
28	5.2%	1.8%	3.3%	3.1%	8.8%	-2.0%	\$82.3	-\$551.6	2.2%
29	5.5%	2.0%	3.7%	3.5%	6.9%	-0.2%	\$30.0	-\$500.0	2.2%
30	6.2%	2.3%	3.8%	3.4%	8.7%	-0.4%	\$52.4	-\$572.8	2.8%
31	6.1%	2.5%	2.7%	0.7%	5.2%	2.2%	\$44.9	-\$399.0	3.0%
32	3.7%	0.5%	3.2%	4.0%	5.1%	4.0%	\$33.8	-\$489.0	4.2%
33	4.8%	2.1%	2.6%	3.0%	4.2%	0.0%	\$0.0	-\$600.0	4.3%
34	7.7%	0.3%	7.1%	0.8%	7.6%	0.3%	\$10.0	-\$300.0	5.6%
MEAN	5.4%	1.8%	3.5%	2.9%	6.7%	0.1%	\$38.5	-\$483.3	3.0%
MEDIAN	5.5%	1.9%	3.5%	3.2%	6.9%	0.3%	\$40.0	-\$499.4	2.8%
STD DEV	1.0%	0.6%	0.8%	0.9%	3.2%	2.7%	\$15.9	\$68.5	1.2%
HIGH	7.7%	2.5%	7.1%	4.0%	13.3%	4.0%	\$82.3	-\$300.0	6.0%
LOW	2.6%	0.3%	2.0%	0.6%	-1.3%	-11.2%	\$0.0	-\$600.0	0.6%

## Table 21d - Individual forecasts for 2003

Individual	Industrial production	Car & light truck sales	Housing starts	Oil price	Unemployment rate	Inflation rate (CPI)	Treasury constant maturity 1-year rate	Treasury constant maturity 10-year rate	J.P. Morgan trade weighted OECD dollar
1	5.4%	16.4	1.63	\$22.00	4.8%	2.4%	4.2%	5.9%	0.5%
2	5.6%	16.9	1.53	\$23.22	4.8%	2.3%	4.6%	5.6%	0.6%
3									
4		16.6	1.70	\$25.50	5.9%	1.8%		5.5%	
5	4.8%	16.7	1.59	\$22.00	5.5%	2.5%	3.7%	5.8%	2.5%
6	1.4%	16.6	1.47	\$26.25	6.3%	5.2%	5.5%	6.3%	
7	6.1%	16.6	1.55	\$27.00	5.5%	3.8%	6.3%	6.8%	
8	4.9%	16.8	1.55	\$23.00	5.3%	2.4%	3.9%	5.6%	6.1%
9	3.2%	17.0	1.65	\$25.00	5.3%	2.3%	4.0%	5.5%	-0.5%
10	3.2%	16.6			5.4%	2.4%	2.8%	5.8%	
11	2.6%	15.1	1.45	\$25.30	5.8%	2.4%	5.4%	6.4%	
12	4.5%	17.2	1.53	\$25.00	5.3%	2.2%		6.0%	
13	4.9%	17.0	1.65	\$31.26	5.4%	3.0%	4.3%	6.3%	-3.1%
14	4.3%		1.53	\$25.00	5.3%	2.2%		5.8%	
15		16.7	1.59	\$27.50	5.0%	2.4%			
16	4.6%	16.7	1.63		5.1%	2.5%	4.2%	5.8%	
17		16.7	1.71	\$27.79	5.3%	2.1%	3.7%	5.7%	0.8%
18	6.0%	16.8	1.52	\$27.50	5.5%	2.6%	3.7%	5.9%	0.9%
19	3.5%	16.3	1.59	\$26.50	5.1%	2.6%		6.1%	
20	3.8%	17.2	1.59		5.1%	2.6%		6.1%	
21	5.5%	15.3	1.53		5.5%	2.7%	4.8%	5.9%	
22	5.3%	15.8	1.58	\$27.00	6.1%	2.7%	3.9%	5.2%	
23	5.1%		1.71	\$25.00	5.4%	1.9%	3.5%	5.4%	
24	6.1%	16.9	1.57	\$24.43	5.7%	2.6%	4.4%	5.9%	5.5%
25		16.5	1.59		5.0%	2.2%			
26	4.0%	16.1	1.45	\$27.00	6.2%	2.7%	4.7%	5.9%	-2.0%
27	2.5%	15.2	1.51		5.8%	2.7%			-0.5%
28	8.4%	16.6	1.57		5.4%	2.8%		5.9%	
29	4.5%	16.2	1.55		5.5%	2.8%	4.0%	5.8%	
30	6.5%	17.0	1.59	\$25.00	5.5%	2.7%	3.7%	5.9%	
31	3.1%	16.7	1.60	\$24.50	5.3%	2.9%	5.1%	5.8%	2.9%
32	2.0%	16.1	1.52	\$25.25	5.5%	2.3%	4.6%	5.7%	
33	7.1%	16.0	1.60	\$25.00	6.0%	2.0%	3.0%	5.0%	0.0%
34	2.1%	16.7	1.67	\$29.00	5.0%	2.9%	3.4%	5.0%	6.7%
MEAN	4.5%	16.5	1.58	\$25.68	5.4%	2.6%	4.22%	5.80%	1.5%
MEDIAN	4.6%	16.6	1.59	\$25.25	5.4%	2.5%	4.08%	5.80%	0.7%
STD DEV	1.6%	0.5	0.07	\$2.06	0.4%	0.6%	0.78%	0.36%	2.8%
HIGH	8.4%	17.2	1.71	\$31.26	6.3%	5.2%	6.25%	6.75%	6.7%
LOW	1.4%	15.1	1.45	\$22.00	4.8%	1.8%	2.80%	5.00%	-3.1%

## Contributors

David Berson/Orawin Velz	Federal National Mortgage Association/Fannie Mae
Jack Bishop	Kingsbury International, LTD
Jarlath Costello	Ford Motor Company
Tom Davis	Motorola
Robert DiCianni	Ispat Inland Inc.
Rick Dziobak	Amcast Automotive
George A. Erickcek	W. E. Upjohn Institute
Bob Fish	CSM Worldwide
Tom Guthrie	Indiana Purdue at Fort Wayne
William Hickey	DTE Energy
Ellen Hughes-Cromwick	Ford Motor Company
Van Jolissaint	DaimlerChrysler
Paul Kasriel/Asha Bangalore	Northern Trust
Jack Kleinhenz	Greater Cleveland Growth Association
Frank Kolbe	The Association For Manufacturing Technology
David L. Littmann	Comerica
David W. Maaske	Charleston Orwig
Ken Mayland	ClearView Economics, LLC
Jim Meil	Eaton Corporation
Herbert E. Neil	Financial & Economic Strategies Corp.
Bernard Paniak	BJP Economics
Rebecca Ross	Michigan Legislatiure and House Fiscal Agency
Robert Schnorbus	J.D. Power and Associates
Keith Schwer	University of Nevada, Las Vegas
Carolyn Scott	McCoy Scott & Company
John Skorburg	American Farm Bureau
Laura Spingola	Trade Resources LTD
Diane Swonk/Peter G. Glassman	Bank One
Carl Tannenbaum	LaSalle Bank NA / ABN AMRO North America, Inc
Paul Taylor	National Automobile Dealers Association
David P. Teolis	General Motors Corporation
Chris Vavares/Ben Herzon	Macoreconomic Advisors, LLC
Kenny Vieth	A. C. T. Research Co., LLC
Tom Webb	Manheim Auctions