# Consensus Forecast for GDP and Autos-2004 and 2005

**Eleventh Annual Automotive Outlook Symposium** Detroit, Michigan June 4, 2004 William A. Strauss Senior Economist and Economic Advisor Federal Reserve Bank of Chicago

#### 2003 Automotive Outlook Symposium Forecast Winners

Anthony Pratt - T.K. Holdings

Current Dollar GDP	Jack Bishop - Kingsbury International, Ltd.
GDP Price Index, Chain Type	David Berson - Fannie Mae
	Tom Davis - Motorola
	Sal Guatieri - BMO Financial Group/Harris Bank
	Tom Guthrie - Indiana-Purdue at Fort Wanye
	Ellen Hughes-Cromwick/Jarlath Costello - Ford Motor Company
	Paul Kasriel/Asha Bangalore - Northern Trust
	Don Nichols - University of Wisconsin
	David Teolis - General Motors Corporation
	Chris Varvares - Macroeconomic Advisers
Real GDP	Anthony Pratt - T.K. Holdings
Personal Consumption Expenditures	David Littmann - Comerica Bank
Nonresidential Fixed Investment	Tom Davis - Motorola
Residential Investment	David Littmann - Comerica Bank
Change In Private Inventories	Laura Spingola - Trade Resources Ltd.
Net Exports	John Skorburg - American Farm Bureau Federation
	Tom Webb - Manheim Auctions
Government Consumption Expenditures	David Teolis - General Motors Corporation
Industrial Production	David Teolis - General Motors Corporation
Car & Light Truck Sales	Rick Dziobak - Amcast Automotive
	Van Jolissaint - DamilerChrysler
	David Littmann - Comerica Bank
	Ken Mayland - ClearView Economics, LLC
Housing Starts	Evert Van Der Heide - Calvin College
Oil Prices	James C. Smith - Indiana University School of Business
Unemployment Rate	Robert DiCianni - Ispat Inland Inc.
	George Erickeck - W.E. UpJohn Institute
	Peter Glassman - Bank One
	Bill Hickey - DTE Energy
	Dave Maaske - Charleston Orwig
	Rebecca Ross - Michigan Legislature and House Fiscal Agency
	David Teolis - General Motors Corporation
Inflation Rate (CPI)	Kenny Vieth - A.C.T. Research Co., LLC Bill Hickey - DTE Energy
Treasury Constant Maturity 1-Year Rate	Peter Glassman - Bank One
Treasury Constant Maturity 10-Year Rate	Peter Glassman - Bank One
J.P. Morgan Trade Weighted OECD Dollar	David Littmann - Comerica Bank
S. I Morgan Trade Weighted OLCD Dollar	

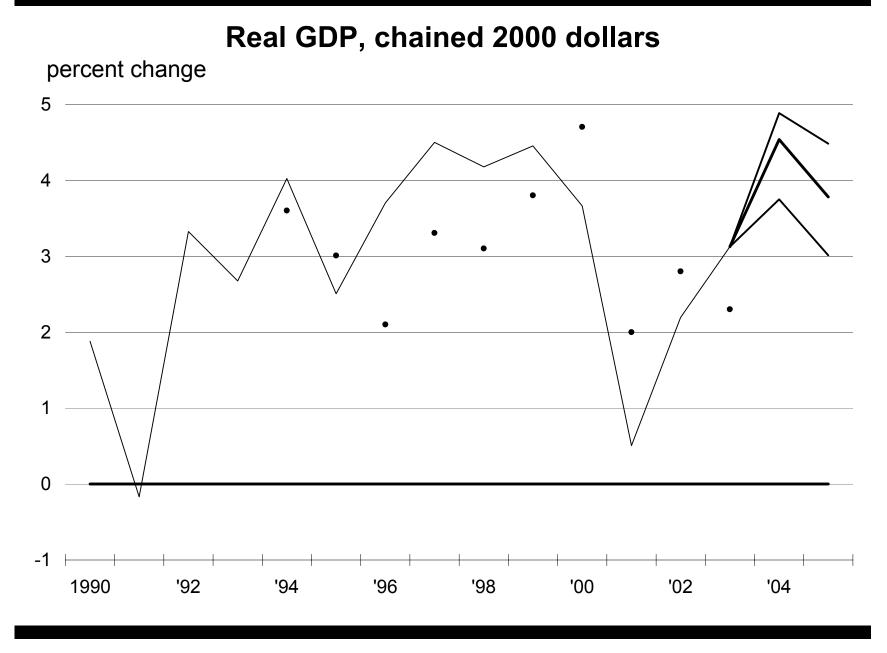
Overall

# Table 1 - Median forecast of GDP and related items

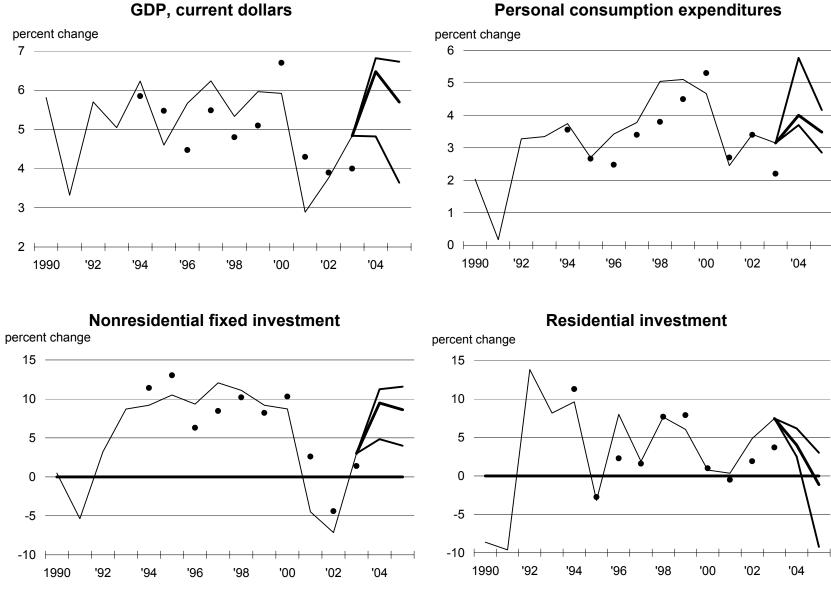
2005	2004	2003	
5.7%	6.5%	4.8%	GDP, current dollars
1.9%	1.8%	1.7%	GDP deflator, chain-type price index
3.8%	4.5%	3.1%	Real GDP, chained 2000 dollars
3.5%	4.0%	3.1%	Personal consumption expenditures
8.6%	9.5%	3.0%	Nonresidential fixed investment
-1.1%	4.0%	7.5%	Residential investment
\$40.0	\$28.2	-\$0.8	Change in business inventories (billions of constant dollars)
-\$498.8	-\$520.0	-\$509.1	Net exports of goods and services (billions of constant dollars)
2.0%	2.2%	3.3%	Government consumption expenditures and gross investment
5.2%	4.9%	0.3%	Industrial production
16.9	16.8	16.6	Car & light truck sales (millions)
1.70	1.83	1.85	Housing starts (millions)
\$31.25	\$35.90	\$31.14	Oil price (dollars per barrel of West Texas Intermediate)
5.3%	5.6%	6.0%	Unemployment rate
2.3%	2.4%	2.3%	Inflation rate (consumer price index)
2.75%	1.64%	1.24%	Treasury constant maturity 1-year rate
5.20%	4.60%	4.02%	Treasury constant maturity 10-year rate
-0.7%	-3.1%	-6.7%	Change in J.P. Morgan narrow nominal dollar index

# Table 2 - Mean forecast of GDP and related items

2005	2004	2003	
5.7%	6.2%	4.8%	GDP, current dollars
1.8%	1.7%	1.7%	GDP deflator, chain-type price index
3.8%	4.6%	3.1%	Real GDP, chained 2000 dollars
3.5%	4.7%	3.1%	Personal consumption expenditures
8.2%	8.7%	3.0%	Nonresidential fixed investment
-1.8%	4.9%	7.5%	Residential investment
\$33.8	\$23.8	-\$0.8	Change in business inventories (billions of constant dollars)
-\$501.4	-\$519.0	-\$509.1	Net exports of goods and services (billions of constant dollars)
2.3%	2.8%	3.3%	Government consumption expenditures and gross investment
4.7%	4.7%	0.3%	Industrial production
16.8	16.7	16.6	Car & light truck sales (millions)
1.71	1.83	1.85	Housing starts (millions)
\$31.85	\$35.35	\$31.14	Oil price (dollars per barrel of West Texas Intermediate)
5.3%	5.6%	6.0%	Unemployment rate
2.4%	2.5%	2.3%	Inflation rate (consumer price index)
2.75%	1.70%	1.24%	Treasury constant maturity 1-year rate
5.23%	4.60%	4.02%	Treasury constant maturity 10-year rate
-0.6%	-1.4%	-6.7%	Change in J.P. Morgan narrow nominal dollar index

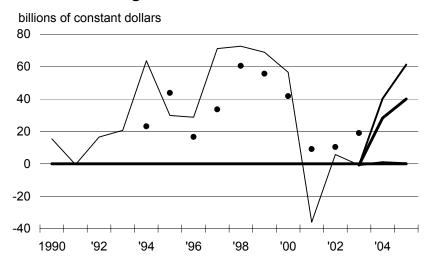


# Figure 1b - Forecast of GDP and related items



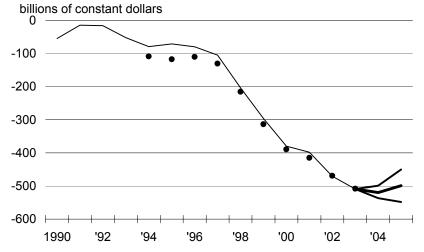
Personal consumption expenditures

# Figure 1c - Forecast of GDP and related items

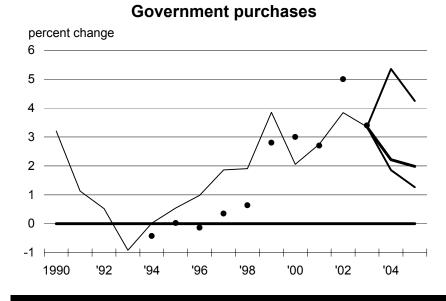


Change in business inventories

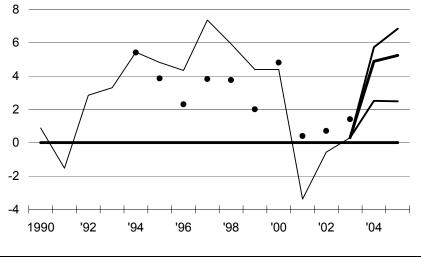
Net exports of goods and services



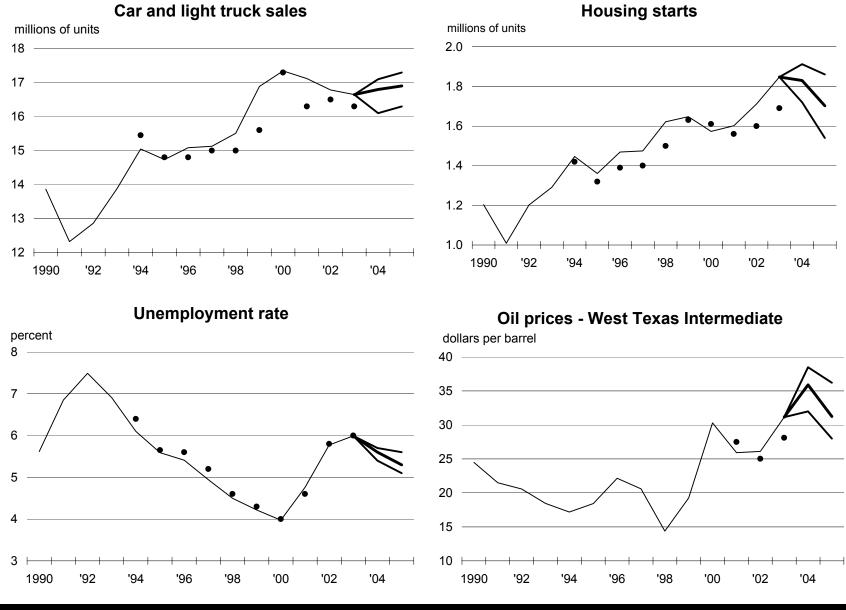
Industrial production



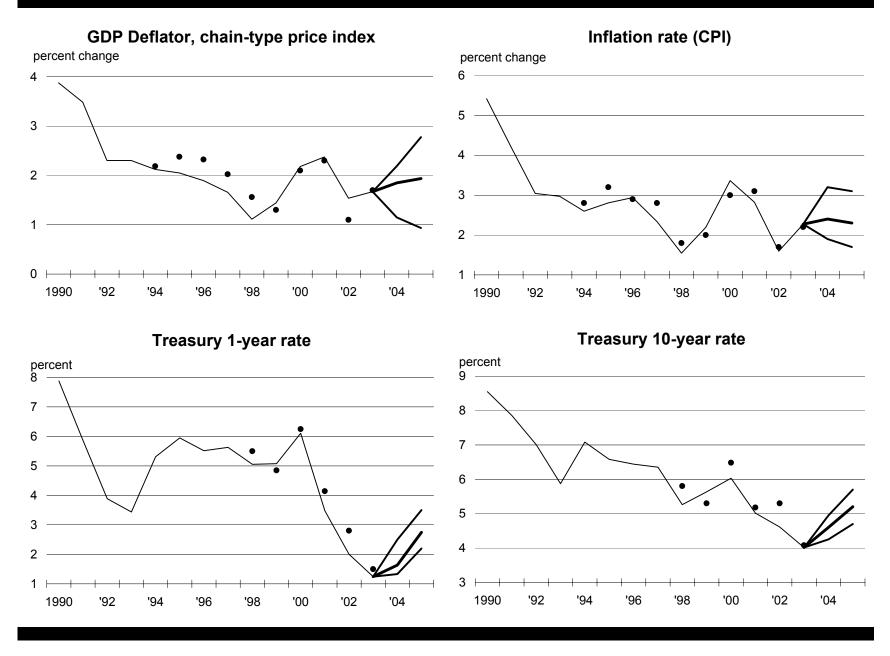
percent change



# Figure 1d - Forecast of GDP and related items

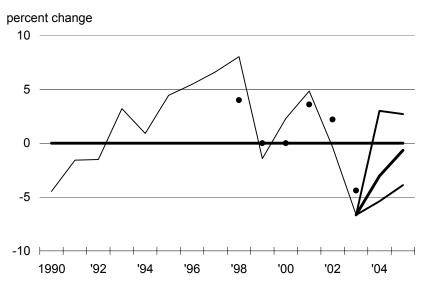


# Figure 1e - Forecast of GDP and related items



# Figure 1f - Forecast of GDP and related items



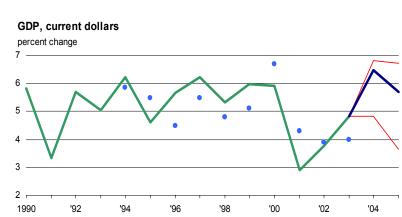


# Table 3 - GDP, current dollars

Individual		2003	2004	2005	
		4.8%			
	11	4.0 /0	7.1%	6.5%	
	2		7.1%	5.6%	GDP,
	4		6.8%	5.2%	percent
	7		6.8%	6.4%	7
	3		6.7%	6.5%	
	14		6.7%	7.0%	6 —
	18		6.7%		Ň١
	15		6.7%	6.4%	5
	9		6.6%	5.3%	3
	19		6.6%	6.4%	
	10		6.6%	5.5%	4 —
	24		6.5%	6.1%	
	23		6.5%	5.7%	3 —
	21		6.5%	6.0%	
	25		6.5%	6.2%	2
	26		6.5%	5.6%	1990
	20		6.5%	6.0%	
	22		6.4%	4.9%	
	8		6.4%	5.4%	
	13		6.3%	5.8%	
	12		6.3%	5.3%	
	1		6.3%	3.6%	
	16		6.2%	4.6%	
	29		6.2%	6.6%	
	33		6.1%	6.7%	
	31		6.1%	4.9%	
	27		6.0%	5.9%	
	30		5.5%	5.1%	
	34		4.9%	3.3%	
	5		4.8%	3.6%	
	32		4.7%	5.2%	
	35		3.9%	8.0%	
			C E0/	E 70/	
MEDIAN			6.5% 6.2%	5.7% 5.7%	
STD DEV			0.7%	1.0%	
HIGH			7.1%	8.0%	

3.9%

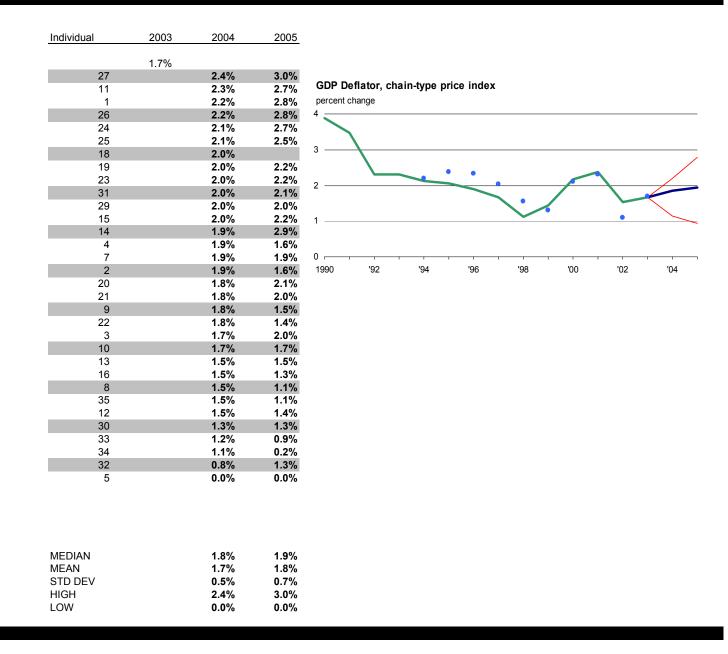
3.3%



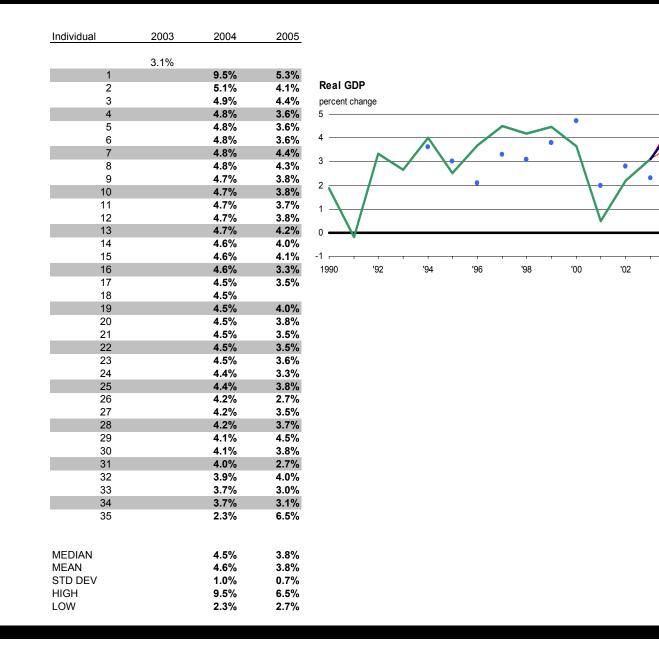
9 Federal Reserve Bank of Chicago - Eleventh Annual Automotive Outlook Symposium June 4, 2004

LOW

#### Table 4 - GDP deflator, chain-type price index



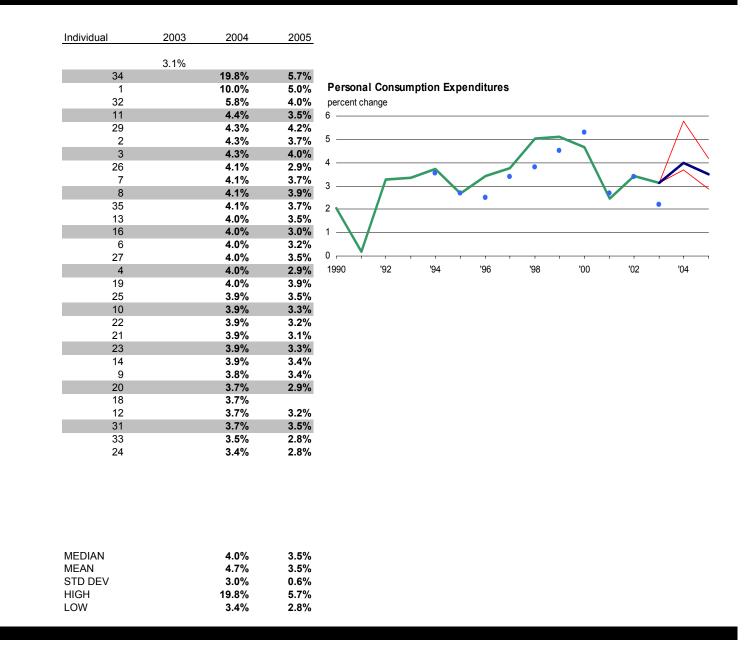
#### Table 5 - Real GDP, chained 2000 dollars



'04

<sup>11</sup> Federal Reserve Bank of Chicago - Eleventh Annual Automotive Outlook Symposium June 4, 2004

# **Table 6 - Personal consumption expenditures**



# Table 7 - Nonresidential fixed investment

Individual	2003	2004	2005
	3.0%		
1		12.0%	5.2%
8		11.6%	17.8%
2		11.2%	10.0%
13		10.6%	11.7%
4		10.4%	7.4%
16		10.4%	8.4%
14		10.2%	10.6%
3		10.1%	11.6%
9		10.0%	9.0%
10		9.9%	8.8%
31		9.9%	7.2%
24		9.8%	9.1%
23		9.8%	8.9%
7		9.7%	9.2%
18		9.5%	
19		9.3%	9.5%
21		9.2%	9.2%
20		9.2%	10.7%
25		9.0%	7.4%
12		8.8%	9.2%
22		8.5%	6.3%
11		8.4%	4.0%
33		7.7%	6.7%
26		6.6%	2.5%
32		5.7%	5.9%
27		5.0%	5.0%
29		4.8%	7.2%
34		3.4%	3.1%
35		2.6%	7.8%

Nonresidential fixed investment

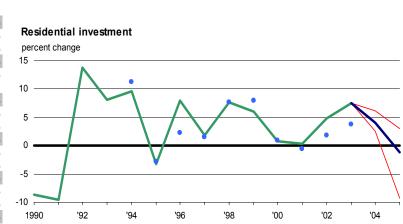
percent change 15 -• • 10 -. 5 -• 0 🖣 -5 -10 -1990 '92 '94 '98 '00 '02 '96 '04

MEDIAN	9.5%	8.6%
MEAN	8.7%	8.2%
STD DEV	2.3%	3.0%
HIGH	12.0%	17.8%
LOW	2.6%	2.5%

13 Federal Reserve Bank of Chicago - Eleventh Annual Automotive Outlook Symposium June 4, 2004

# Table 8 - Residential investment

Individual	2003	2004	2005
	7.5%		
34	1.070	21.9%	11.0%
11		8.0%	3.0%
33		6.2%	2.5%
3		6.1%	-3.0%
24		5.7%	-2.0%
18		5.6%	
23		5.6%	1.0%
22		5.5%	1.1%
2		5.4%	-4.5%
4		5.1%	-5.6%
14		4.9%	1.8%
10		4.7%	-4.9%
7		4.6%	-3.4%
13		4.1%	-3.6%
9		4.0%	0.8%
32		3.9%	4.8%
26		3.9%	2.9%
1		3.9%	-1.9%
35		3.9%	-9.2%
12		3.8%	-5.0%
25		3.7%	0.8%
19		3.6%	-0.1%
16		3.5%	-12.9%
8		3.1%	-7.6%
21		3.0%	-12.7%
27		2.5%	2.5%
20		2.5%	-6.2%
29		1.9%	1.0%
31		1.8%	-0.3%

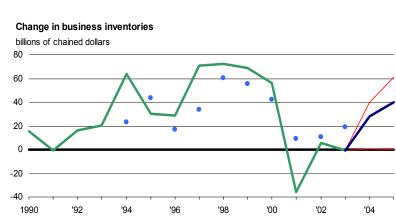


4.0%	-1.1%
4.9%	-1.8%
3.5%	5.2%
21.9%	11.0%
1.8%	-12.9%
	3.5% 21.9%

14 Federal Reserve Bank of Chicago - Eleventh Annual Automotive Outlook Symposium June 4, 2004

# Table 9 - Change in business inventories (billions of constant dollars)

Individual	2003	2004	2005
	-\$0.8		
24	-90.0	\$50.0	\$40.0
19		\$45.1	\$67.3
8		\$40.2	\$63.5
21		\$38.0	\$54.0
12		\$32.7	\$59.1
7		\$32.0	\$57.5
3		\$32.0	\$45.3
1		\$30.0	\$40.0
2		\$30.0 \$30.0	\$40.0 \$40.0
32		\$30.0	\$40.0 \$40.0
10			
		\$28.9	\$47.4
35 22		\$28.8 \$28.8	\$61.2
14		• • •	\$40.0
		\$28.4	\$54.7
13		\$28.2	\$59.1
18		\$28.0	
16		\$25.5	\$36.0
34		\$22.7	\$15.1
29		\$20.0	\$40.0
9		\$20.0	\$23.0
25		\$18.1	\$16.0
31		\$16.8	\$14.0
20		\$16.0	\$14.0
11		\$15.1	\$15.0
33		\$4.8	-\$1.5
27		\$1.0	\$3.0
26		\$1.0	\$1.5
23		\$0.2	\$0.3
4		\$0.0	-\$0.1

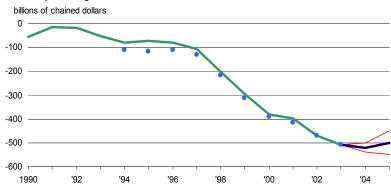


MEDIAN	\$28.2	\$40.0
MEAN	\$23.8	\$33.8
STD DEV	\$12.9	\$21.9
HIGH	\$50.0	\$67.3
LOW	\$0.0	-\$1.5

# Table 10 - Net exports of goods and services (billions of constant dollars)

Individual	2003	2004	2005
	-\$509.1		
34	-4000.1	-\$461.9	-\$497.6
4		-\$493.8	-\$460.7
25		-\$499.0	-\$470.0
12		-\$504.3	-\$457.2
24		-\$507.7	-\$470.5
22		-\$508.2	-\$488.5
20		-\$510.0	-\$500.0
27		-\$513.0	-\$518.0
14		-\$515.8	-\$548.3
10		-\$518.2	-\$494.2
21		-\$519.0	-\$449.0
9		-\$519.0	-\$490.2
18		-\$519.0	
23		-\$520.0	-\$450.0
26		-\$520.0	-\$525.0
29		-\$520.0	-\$525.0
32		-\$520.0	-\$535.0
16		-\$523.1	-\$459.5
7		-\$523.5	-\$507.1
2		-\$523.7	-\$490.0
13		-\$524.4	-\$505.0
31		-\$525.0	-\$405.0
3		-\$525.3	-\$542.0
19		-\$525.3	-\$537.1
35		-\$528.5	-\$492.5
11		-\$535.0	-\$545.0
8		-\$536.8	-\$599.4
33		-\$547.4	-\$563.0
1		-\$565.0	-\$515.0

#### Net exports of goods and services

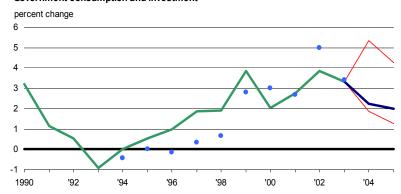


MEDIAN	-\$520.0	-\$498.8
MEAN	-\$519.0	-\$501.4
STD DEV	\$17.3	\$40.4
HIGH	-\$461.9	-\$405.0
LOW	-\$565.0	-\$599.4

# Table 11 - Government consumption and investment

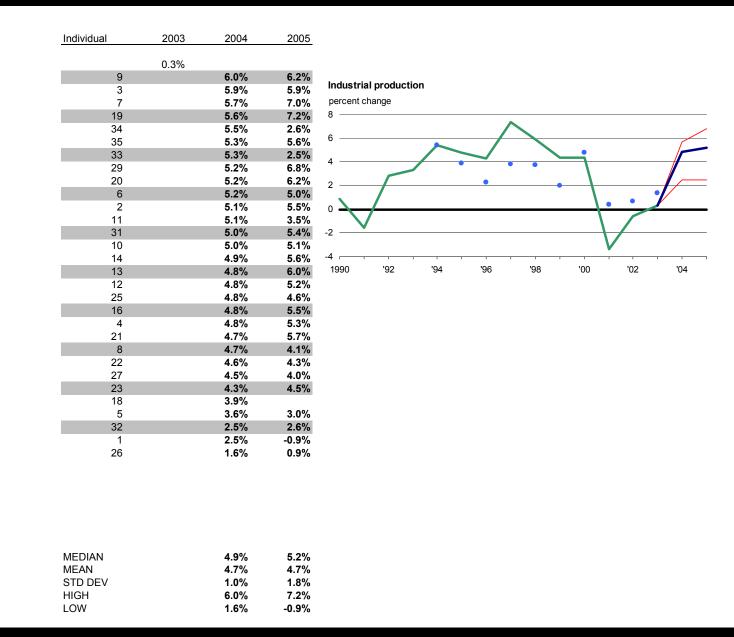
Individual	2003	2004	2005
	0.00/		
·	3.3%		
1		6.1%	4.2%
34		5.8%	4.5%
32		5.4%	5.0%
4		5.0%	2.0%
27		4.7%	2.1%
26		3.2%	1.5%
11		3.2%	4.0%
12		3.0%	1.2%
2		2.7%	1.3%
20		2.7%	3.0%
31		2.5%	3.1%
33		2.4%	2.1%
9		2.4%	1.6%
18		2.3%	
3		2.2%	2.3%
29		2.2%	1.5%
35		2.2%	1.6%
8		2.1%	2.7%
21		2.1%	1.4%
7		2.1%	2.6%
23		2.1%	2.0%
10		2.0%	2.8%
13		2.0%	1.4%
16		2.0%	1.5%
25		1.9%	1.9%
22		1.9%	1.4%
14		1.9%	2.1%
24		1.7%	1.5%
19		1.6%	1.1%
15		1.576	1.1 /0

Government consumption and investment

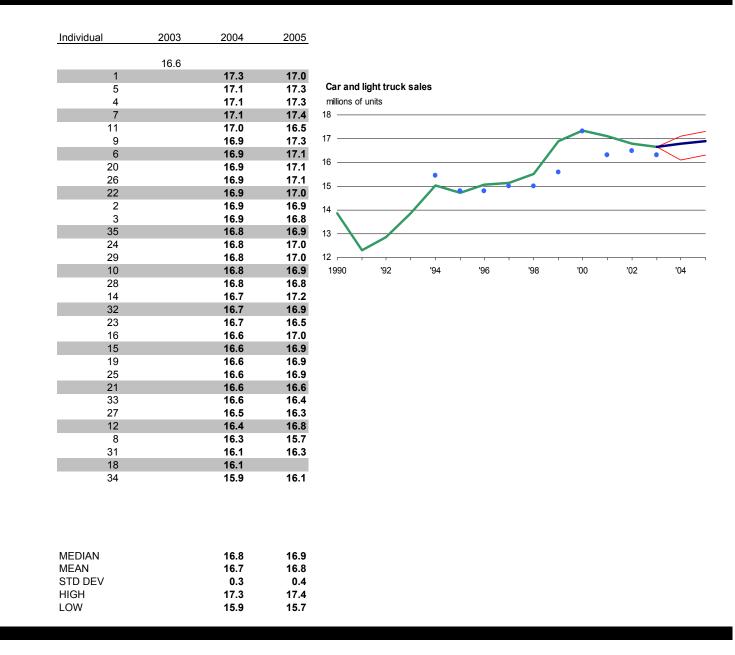


MEDIAN	2.2%	2.0%
MEAN	2.8%	2.3%
STD DEV	1.3%	1.0%
HIGH	6.1%	5.0%
LOW	1.6%	1.1%

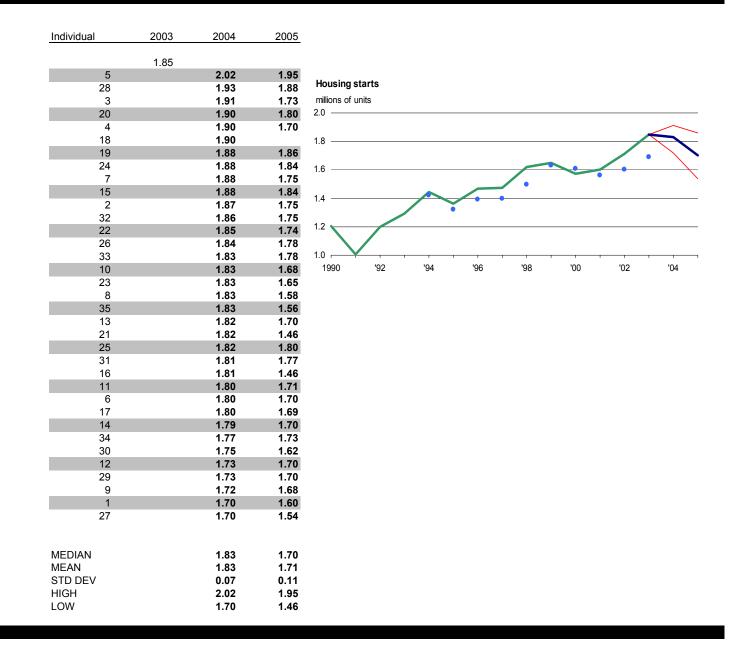
# Table 12 - Industrial production



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

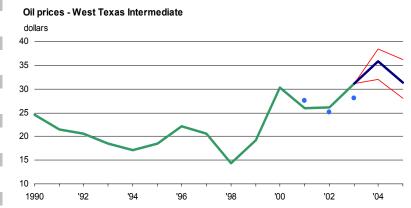


# Table 14 - Housing starts (millions)



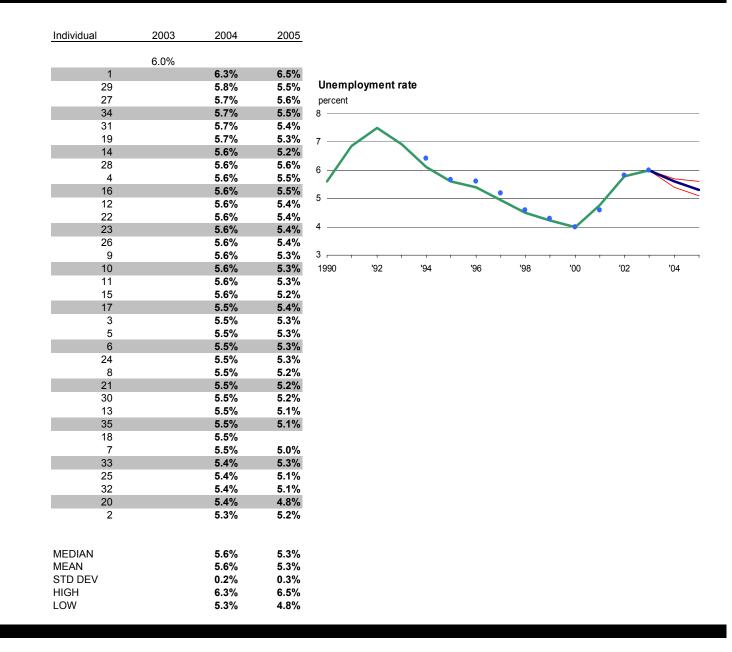
# Table 15 - Oil price (dollars per barrel - West Texas Intermediate)

Individual	2003	2004	2005
	\$31.14		
29	φ31.14	\$41.00	\$40.00
7		\$39.00	\$34.00
31		\$38.50	\$37.30
3		\$38.00	\$33.00
1		\$38.00	\$28.00
14		\$37.69	\$36.20
24		\$37.37	\$35.35
19		\$36.87	\$32.19
28		\$36.70	\$35.80
16		\$36.15	\$32.38
35		\$36.04	\$33.40
2		\$36.00	\$34.00
33		\$36.00	\$31.00
6		\$36.00	\$28.00
8		\$35.80	\$31.00
25		\$35.55	\$34.50
21		\$35.00	\$30.00
22		\$34.90	\$31.10
4		\$34.80	\$29.60
10		\$34.80	\$29.60
34		\$33.87	\$30.05
5		\$33.00	\$29.00
11		\$32.50	\$28.00
17		\$32.30	\$27.52
27		\$32.00	\$33.20
32		\$32.00	\$30.00
26		\$31.10	\$31.40
9		\$29.00	\$26.25

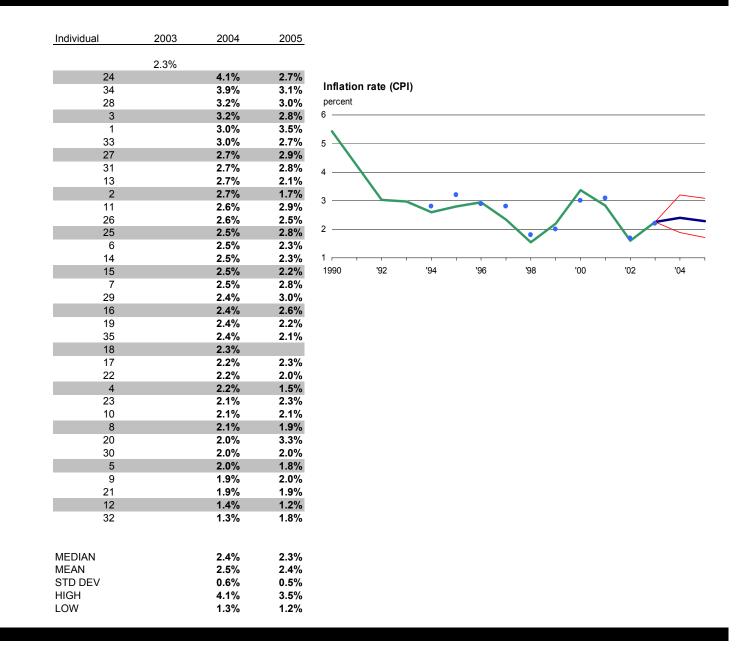


MEDIAN	\$35.90	\$31.25
MEAN	\$35.35	\$31.85
STD DEV	\$2.62	\$3.22
HIGH	\$41.00	\$40.00
LOW	\$29.00	\$26.25

#### Table 16 - Unemployment rate



# Table 17 - Inflation rate (Consumer Price Index)



# Table 18 - Treasury constant maturity 1-year rate

Individual	2003	2004	2005	
	1 0 4 0/			
31	1.24%	2.70%	3.50%	
2		2.65%	2.45%	Treasury 1-year rate
2		2.50%	2.45 <i>%</i> 3.00%	percent
13		1.91%	3.47%	8
13		1.88%	2.31%	Ŭ N
14		1.79%	2.85%	7
12		1.75%	3.50%	
3		1.75%	2.50%	6
35		1.74%	2.50 % 3.00%	5
27		1.74%	3.10%	
25		1.72%	2.42%	4
25		1.66%	2.42 <i>%</i> 3.60%	3
18		1.64%	3.00%	
24		1.63%	2.35%	2
24		1.62%	2.35 <i>%</i> 3.19%	1
33		1.60%	2.20%	1990 '92 '94 '96 '98
10		1.56%	1.71%	1990 92 94 90 90
8		1.50%	3.60%	
6		1.50%	3.00%	
9		1.50%	2.30%	
26		1.50%	1.75%	
19		1.38%	2.64%	
4		1.35%	2.75%	
4 16		1.33%	2.75%	
23		1.25%	2.40%	
32		1.10%	2.40%	
52		1.10/0	2.40 /0	

'00

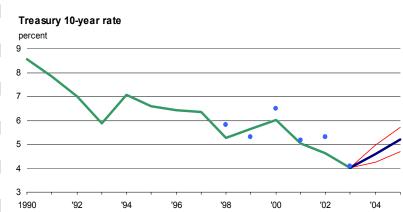
'02

'04

MEDIAN	1.64%	2.75%
MEAN	1.70%	2.75%
STD DEV	0.38%	0.53%
HIGH	2.70%	3.60%
LOW	1.10%	1.71%

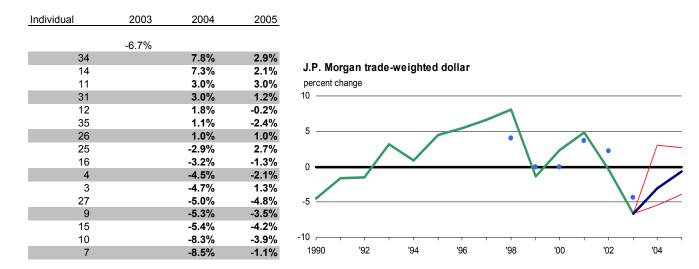
# Table 19 - Treasury constant maturity 10-year rate

Individual	2003	2004	2005	
	4.02%			
31		5.20%	5.70%	
1		5.00%	5.30%	Trea
2		4.95%	4.95%	perce
11		4.91%	6.05%	9 —
12		4.80%	6.20%	
27		4.80%	5.50%	8 —
29		4.80%	5.00%	_
5		4.80%	4.70%	7 —
6		4.75%	5.50%	6 —
3		4.75%	5.20%	0 —
25		4.71%	5.23%	5 —
16		4.62%	5.62%	Ū
35		4.62%	5.54%	4 —
8		4.60%	5.70%	
9		4.60%	5.40%	3 —
15		4.60%	5.10%	1990
13		4.57%	5.20%	
18		4.53%		
23		4.50%	5.70%	
10		4.50%	5.20%	
4		4.50%	5.04%	
26		4.50%	5.00%	
19		4.42%	4.83%	
7		4.41%	5.59%	
21		4.40%	4.90%	
33		4.30%	4.80%	
22		4.30%	4.70%	
24		4.25%	5.07%	
14		4.24%	4.43%	
32		4.10%	4.40%	



MEDIAN	4.60%	5.20%
MEAN	4.60%	5.23%
STD DEV	0.24%	0.43%
HIGH	5.20%	6.20%
LOW	4.10%	4.40%

# Table 20 - Change in J.P. Morgan narrow nominal dollar index



MEDIAN	-3.1%	-0.7%
MEAN	-1.4%	-0.6%
STD DEV	4.9%	2.6%
HIGH	7.8%	3.0%
LOW	-8.5%	-4.8%

# Table 21a - Individual forecasts for 2004

Individual	GDP current dollars	Chain-type price index	GDP chained 2000 dollars	Personal consumption expenditures	Nonresidential fixed investment	Residential fixed investment	Change in business inventories	Net exports of goods and services	Government consumption expenditures
1	6.3%	2.2%	9.5%	10.0%	12.0%	3.9%	\$30.0	-\$565.0	6.1%
2	7.1%	1.9%	5.1%	4.3%	11.2%	5.4%	\$30.0	-\$523.7	2.7%
3	6.7%	1.7%	4.9%	4.3%	10.1%	6.1%	\$31.3	-\$525.3	2.2%
4	6.8%	1.9%	4.8%	4.0%	10.4%	5.1%	\$0.0	-\$493.8	5.0%
5	4.8%	0.0%	4.8%						
6			4.8%	4.0%					
7	6.8%	1.9%	4.8%	4.1%	9.7%	4.6%	\$32.0	-\$523.5	2.1%
8	6.4%	1.5%	4.8%	4.1%	11.6%	3.1%	\$40.2	-\$536.8	2.1%
9	6.6%	1.8%	4.7%	3.8%	10.0%	4.0%	\$20.0	-\$519.0	2.4%
10	6.6%	1.7%	4.7%	3.9%	9.9%	4.7%	\$28.9	-\$518.2	2.0%
11	7.1%	2.3%	4.7%	4.4%	8.4%	8.0%	\$15.1	-\$535.0	3.2%
12	6.3%	1.5%	4.7%	3.7%	8.8%	3.8%	\$32.7	-\$504.3	3.0%
13	6.3%	1.5%	4.7%	4.0%	10.6%	4.1%	\$28.2	-\$524.4	2.0%
14	6.7%	1.9%	4.6%	3.9%	10.2%	4.9%	\$28.4	-\$515.8	1.9%
15	6.7%	2.0%	4.6%						
16	6.2%	1.5%	4.6%	4.0%	10.4%	3.5%	\$25.5	-\$523.1	2.0%
17			4.5%						
18	6.7%	2.0%	4.5%	3.7%	9.5%	5.6%	\$28.0	-\$519.0	2.3%
19	6.6%	2.0%	4.5%	4.0%	9.3%	3.6%	\$45.1	-\$525.3	1.6%
20	6.5%	1.8%	4.5%	3.7%	9.2%	2.5%	\$16.0	-\$510.0	2.7%
21	6.5%	1.8%	4.5%	3.9%	9.2%	3.0%	\$38.0	-\$519.0	2.1%
22	6.4%	1.8%	4.5%	3.9%	8.5%	5.5%	\$28.8	-\$508.2	1.9%
23	6.5%	2.0%	4.5%	3.9%	9.8%	5.6%	\$0.2	-\$520.0	2.1%
24	6.5%	2.1%	4.4%	3.4%	9.8%	5.7%	\$50.0	-\$507.7	1.7%
25	6.5%	2.1%	4.4%	3.9%	9.0%	3.7%	\$18.1 \$1.0	-\$499.0	1.9% 3.2%
26 27	6.5% 6.0%	2.2% 2.4%	4.2% 4.2%	4.1% 4.0%	6.6% 5.0%	3.9% 2.5%	\$1.0	-\$520.0 -\$513.0	3.2% 4.7%
27	0.0%	2.4%	4.2%	4.0%	5.0%	2.5%	\$1.U	-\$513.0	4.7 %
20	6.2%	2.0%	4.2%	4.3%	4.8%	1.9%	\$20.0	-\$520.0	2.2%
30	5.5%	1.3%	4.1%	4.3 /0	4.0 /0	1.9 /0	φ <b>20.</b> 0	-\$520.0	2.2/0
31	6.1%	2.0%	4.0%	3.7%	9.9%	1.8%	\$16.8	-\$525.0	2.5%
32	4.7%	0.8%	3.9%	5.8%	5.7%	3.9%	\$30.0	-\$520.0	5.4%
33	6.1%	1.2%	3.7%	3.5%	7.7%	6.2%	\$4.8	-\$547.4	2.4%
34	4.9%	1.1%	3.7%	19.8%	3.4%	21.9%	\$22.7	-\$461.9	5.8%
35	3.9%	1.5%	2.3%	4.1%	2.6%	3.9%	\$28.8	-\$528.5	2.2%
55	5.576	1.5 %	2.376	4.170	2.078	5.576	φ20.0	-4020.0	2.270
MEDIAN	6.5%	1.8%	4.5%	4.0%	9.5%	4.0%	\$28.2	-\$520.0	2.2%
MEAN	6.2%	1.7%	4.6%	4.7%	8.7%	4.9%	\$23.8	-\$519.0	2.8%
STD DEV	0.7%	0.5%	1.0%	3.0%	2.3%	3.5%	\$12.9	\$17.3	1.3%
HIGH	7.1%	2.4%	9.5%	19.8%	12.0%	21.9%	\$50.0	-\$461.9	6.1%
LOW	3.9%	0.0%	2.3%	3.4%	2.6%	1.8%	\$0.0	-\$565.0	1.6%
	,3				,		÷ 3.0	÷== 310	

# Table 21b - Individual forecasts for 2004

	Inductrial	Cor & light	Llouging	Oil	l la canalo mont	Inflation Rate	Treasury	Treasury	Change in J.P. Morgan
Individual	Industrial production	Car & light truck sales	Housing starts	Price	Unemployment Rate	(CPI)	constant maturity 1-year rate	constant maturity 10-year rate	narrow nominal dollar index
Individual	production		Starts	11100	Rate	(011)	i year late	To year fate	
1	2.5%	17.3	1.70	\$38.00	6.3%	3.0%	2.50%	5.00%	
2	5.1%	16.9	1.87	\$36.00	5.3%	2.7%	2.65%	4.95%	
3	5.9%	16.9	1.91	\$38.00	5.5%	3.2%	1.75%	4.75%	-4.7%
4	4.8%	17.1	1.90	\$34.80	5.6%	2.2%	1.35%	4.50%	-4.5%
5	3.6%	17.1	2.02	\$33.00	5.5%	2.0%		4.80%	
6	5.2%	16.9	1.80	\$36.00	5.5%	2.5%	1.50%	4.75%	
7	5.7%	17.1	1.88	\$39.00	5.5%	2.5%	1.66%	4.41%	-8.5%
8	4.7%	16.3	1.83	\$35.80	5.5%	2.1%	1.50%	4.60%	
9	6.0%	16.9	1.72	\$29.00	5.6%	1.9%	1.50%	4.60%	-5.3%
10	5.0%	16.8	1.83	\$34.80	5.6%	2.1%	1.56%	4.50%	-8.3%
11	5.1%	17.0	1.80	\$32.50	5.6%	2.6%	1.79%	4.91%	3.0%
12	4.8%	16.4	1.73		5.6%	1.4%	1.75%	4.80%	1.8%
13	4.8%		1.82		5.5%	2.7%	1.91%	4.57%	
14	4.9%	16.7	1.79	\$37.69	5.6%	2.5%	1.88%	4.24%	7.3%
15		16.6	1.88		5.6%	2.5%		4.60%	-5.4%
16	4.8%	16.6	1.81	\$36.15	5.6%	2.4%	1.33%	4.62%	-3.2%
17			1.80	\$32.30	5.5%	2.2%			
18	3.9%	16.1	1.90		5.5%	2.3%	1.64%	4.53%	
19	5.6%	16.6	1.88	\$36.87	5.7%	2.4%	1.38%	4.42%	
20	5.2%	16.9	1.90		5.4%	2.0%			
21	4.7%	16.6	1.82	\$35.00	5.5%	1.9%		4.40%	
22	4.6%	16.9	1.85	\$34.90	5.6%	2.2%	1.62%	4.30%	
23	4.3%	16.7	1.83		5.6%	2.1%	1.25%	4.50%	
24		16.8	1.88	\$37.37	5.5%	4.1%	1.63%	4.25%	
25	4.8%	16.6	1.82	\$35.55	5.4%	2.5%	1.72%	4.71%	-2.9%
26	1.6%	16.9	1.84	\$31.10	5.6%	2.6%	1.50%	4.50%	1.0%
27	4.5%	16.5	1.70	\$32.00	5.7%	2.7%	1.72%	4.80%	-5.0%
28		16.8	1.93	\$36.70	5.6%	3.2%			
29	5.2%	16.8	1.73	\$41.00	5.8%	2.4%		4.80%	
30			1.75		5.5%	2.0%			
31	5.0%	16.1	1.81	\$38.50	5.7%	2.7%	2.70%	5.20%	3.0%
32	2.5%	16.7	1.86	\$32.00	5.4%	1.3%	1.10%	4.10%	
33	5.3%	16.6	1.83	\$36.00	5.4%	3.0%	1.60%	4.30%	
34	5.5%	15.9	1.77	\$33.87	5.7%	3.9%			7.8%
35	5.3%	16.8	1.83	\$36.04	5.5%	2.4%	1.74%	4.62%	1.1%
MEDIAN	4.9%	16.8	1.83	\$35.90	2.4%	2.4%	1.64%	4.60%	-3.1%
MEAN	4.9%	16.7	1.83	\$35.30 \$35.35	2.4 %	2.4 %	1.70%	4.60%	-1.4%
STD DEV	1.0%	0.3	0.07	\$2.62	0.6%	0.6%	0.38%	0.24%	4.9%
HIGH	6.0%	17.3	2.02	\$41.00	4.1%	4.1%	2.70%	5.20%	7.8%
LOW	1.6%	17.5	1.70	\$41.00 \$29.00	1.3%	1.3%	1.10%	4.10%	-8.5%
	1.0 /0	10.3	1.70	φ <b>2</b> 3.00	1.5 /0	1.5 /0	1.10/0	4.10 /0	-0.5 //

# Table 22a - Individual forecasts for 2005

	GDP	Chain-type	GDP	Personal			Change	Net exports	Governmer
	current	price	chained 2000	consumption	Nonresidential	Residential	in business	of goods and	consumptio
ndividual	dollars	index	dollars	expenditures	fixed investment	fixed investment	inventories	services	expenditure
1	3.6%	2.8%	5.3%	5.0%	5.2%	-1.9%	\$40.0	-\$515.0	4.2
2	5.6%	1.6%	4.1%	3.7%	10.0%	-4.5%	\$40.0	-\$490.0	1.39
3	6.5%	2.0%	4.4%	4.0%	11.6%	-3.0%	\$45.3	-\$542.0	2.3
4	5.2%	1.6%	3.6%	2.9%	7.4%	-5.6%	-\$0.1	-\$460.7	2.0
5	3.6%	0.0%	3.6%						
6			3.6%	3.2%					
7	6.4%	1.9%	4.4%	3.7%	9.2%	-3.4%	\$57.5	-\$507.1	2.6
8	5.4%	1.1%	4.3%	3.9%	17.8%	-7.6%	\$63.5	-\$599.4	2.7
9	5.3%	1.5%	3.8%	3.4%	9.0%	0.8%	\$23.0	-\$490.2	1.6
10	5.5%	1.7%	3.8%	3.3%	8.8%	-4.9%	\$47.4	-\$494.2	2.8
11	6.5%	2.7%	3.7%	3.5%	4.0%	3.0%	\$15.0	-\$545.0	4.0
12	5.3%	1.4%	3.8%	3.2%	9.2%	-5.0%	\$59.1	-\$457.2	1.2
13	5.8%	1.5%	4.2%	3.5%	11.7%	-3.6%	\$59.1	-\$505.0	1.4
14	7.0%	2.9%	4.0%	3.4%	10.6%	1.8%	\$54.7	-\$548.3	2.1
15	6.4%	2.2%	4.1%						
16	4.6%	1.3%	3.3%	3.0%	8.4%	-12.9%	\$0.0	-\$459.5	1.5
17			3.5%						
18									
19	6.4%	2.2%	4.0%	3.9%	9.5%	-0.1%	\$67.3	-\$537.1	1.1
20	6.0%	2.1%	3.8%	2.9%	10.7%	-6.2%	\$14.0	-\$500.0	3.0
21	6.0%	2.0%	3.5%	3.1%	9.2%	-12.7%	\$54.0	-\$449.0	1.4
22	4.9%	1.4%	3.5%	3.2%	6.3%	1.1%	\$40.0	-\$488.5	1.4
23	5.7%	2.2%	3.6%	3.3%	8.9%	1.0%	\$0.3	-\$450.0	2.0
24	6.1%	2.7%	3.3%	2.8%	9.1%	-2.0%	\$40.0	-\$470.5	1.5
25	6.2%	2.5%	3.8%	3.5%	7.4%	0.8%	\$16.0	-\$470.0	1.9
26	5.6%	2.8%	2.7%	2.9%	2.5%	2.9%	\$1.5	-\$525.0	1.5
27	5.9%	3.0%	3.5%	3.5%	5.0%	2.5%	\$3.0	-\$518.0	2.1
28			3.7%						
29	6.6%	2.0%	4.5%	4.2%	7.2%	1.0%	\$40.0	-\$525.0	1.5
30	5.1%	1.3%	3.8%						
31	4.9%	2.1%	2.7%	3.5%	7.2%	-0.3%	\$14.0	-\$405.0	3.1
32	5.2%	1.3%	4.0%	4.0%	5.9%	4.8%	\$40.0	-\$535.0	5.0
33	6.7%	0.9%	3.0%	2.8%	6.7%	2.5%	-\$1.5	-\$563.0	2.1
34	3.3%	0.2%	3.1%	5.7%	3.1%	11.0%	\$15.1	-\$497.6	4.5
35	8.0%	1.1%	6.5%	3.7%	7.8%	-9.2%	\$61.2	-\$492.5	1.6
	E 70/	4 00/	2 00/	3 E0/	0.00/	4 40/	¢ 4 0 0	¢400 0	
/IEDIAN /IEAN	5.7% 5.7%	1.9% 1.8%	3.8% 3.8%	3.5% 3.5%	8.6% 8.2%	-1.1% -1.8%	\$40.0 \$33.8	-\$498.8 -\$501.4	2.0 2.3
AEAN STD DEV	5.7% 1.0%	1.8% 0.7%	3.8% 0.7%	3.5% 0.6%	8.2% 3.0%	-1.8% 5.2%	\$33.8 \$21.9	-\$501.4 \$40.4	2.3
HIGH	8.0%	3.0%	6.5%	5.7%	17.8%	11.0%	\$67.3	-\$405.0	5.0
LOW	3.3%	0.0%	2.7%	2.8%	2.5%	-12.9%	-\$1.5	-\$599.4	1.1

# Table 22b - Individual forecasts for 2005

	Industrial	Car & light	Llousing	Oil	Inomployment	Inflation rate	Treasury	Treasury	Change in J.P. Morgan narrow nominal
Individual	production	truck sales	Housing starts	Price	Unemployment rate	Inflation rate (CPI)	constant maturity 1-year rate	constant maturity 10-year rate	dollar index
Individual	production	liuck sales	310113	THEE	Tale		1-year rate	To-year fale	
1	-0.9%	17.0	1.60	\$28.00	6.5%	3.5%	3.00%	5.30%	
2	5.5%	16.9	1.75	\$34.00	5.2%	1.7%	2.45%	4.95%	
3	5.9%	16.8	1.73	\$33.00	5.3%	2.8%	2.50%	5.20%	1.3%
4	5.3%	17.3	1.70	\$29.60	5.5%	1.5%	2.75%	5.04%	-2.1%
5	3.0%	17.3	1.95	\$29.00	5.3%	1.8%		4.70%	
6	5.0%	17.1	1.70	\$28.00	5.3%	2.3%	3.00%	5.50%	
7	7.0%	17.4	1.75	\$34.00	5.0%	2.8%	3.60%	5.59%	-1.1%
8	4.1%	15.7	1.58	\$31.00	5.2%	1.9%	3.60%	5.70%	
9	6.2%	17.3	1.68	\$26.25	5.3%	2.0%	2.30%	5.40%	-3.5%
10	5.1%	16.9	1.68	\$29.60	5.3%	2.1%	1.71%	5.20%	-3.9%
11	3.5%	16.5	1.71	\$28.00	5.3%	2.9%	2.85%	6.05%	3.0%
12	5.2%	16.8	1.70		5.4%	1.2%	3.50%	6.20%	-0.2%
13	6.0%		1.70		5.1%	2.1%	3.47%	5.20%	
14	5.6%	17.2	1.70	\$36.20	5.2%	2.3%	2.31%	4.43%	2.1%
15		16.9	1.84		5.2%	2.2%		5.10%	-4.2%
16	5.5%	17.0	1.46	\$32.38	5.5%	2.6%	2.75%	5.62%	-1.3%
17			1.69	\$27.52	5.4%	2.3%			
18									
19	7.2%	16.9	1.86	\$32.19	5.3%	2.2%	2.64%	4.83%	
20	6.2%	17.1	1.80		4.8%	3.3%			
21	5.7%	16.6	1.46	\$30.00	5.2%	1.9%		4.90%	
22	4.3%	17.0	1.74	\$31.10	5.4%	2.0%	3.19%	4.70%	
23	4.5%	16.5	1.65		5.4%	2.3%	2.40%	5.70%	
24		17.0	1.84	\$35.35	5.3%	2.7%	2.35%	5.07%	
25	4.6%	16.9	1.80	\$34.50	5.1%	2.8%	2.42%	5.23%	2.7%
26	0.9%	17.1	1.78	\$31.40	5.4%	2.5%	1.75%	5.00%	1.0%
27	4.0%	16.3	1.54	\$33.20	5.6%	2.9%	3.10%	5.50%	-4.8%
28		16.8	1.88	\$35.80	5.6%	3.0%			
29	6.8%	17.0	1.70	\$40.00	5.5%	3.0%		5.00%	
30			1.62		5.2%	2.0%			
31	5.4%	16.3	1.77	\$37.30	5.4%	2.8%	3.50%	5.70%	1.2%
32	2.6%	16.9	1.75	\$30.00	5.1%	1.8%	2.40%	4.40%	
33	2.5%	16.4	1.78	\$31.00	5.3%	2.7%	2.20%	4.80%	
34	2.6%	16.1	1.73	\$30.05	5.5%	3.1%			2.9%
35	5.6%	16.9	1.56	\$33.40	5.1%	2.1%	3.00%	5.54%	-2.4%
MEAN	4.7%	16.8	1.71	\$31.85	5.3%	2.4%	2.75%	5.23%	-0.6%
MEDIAN	5.2%	16.9	1.70	\$31.25	5.3%	2.3%	2.75%	5.20%	-0.7%
STD DEV	5.2 % 1.8%	0.4	0.11	\$3.22	0.3%	0.5%	0.53%	0.43%	2.6%
HIGH	7.2%	17.4	1.95	\$40.00	6.5%	3.5%	3.60%	6.20%	3.0%
LOW	-0.9%	15.7	1.46	\$26.25	4.8%	1.2%	1.71%	4.40%	-4.8%
	-0.0 /0	10.7	1.70	Ψ20.23	7.0 /0	1.2 /0	1.7 1 /0		-4.070

# Contributors

Zachery Anderson	Nissan North America				
David Berson/Orawin Velz	Fannie Mae				
Jarlath Costello	Ford Motor Company				
Dave Czechowski	Portland Cement Association				
Robert DiCianni	Ispat Inland Inc.				
Rick Dziobak	Accuride Corp.				
George A. Erickcek	W.E. Upjohn Institute				
Peter G. Glassman	Bank One				
Manuel Gutierrez	Kohler Co.				
William Hickey	DTE Energy				
Saul H. Hymans	RSQE - University of Michigan				
Van Jolissaint	DaimlerChrysler				
Paul Kasriel	Northern Trust				
Jack Kleinhenz	Kleinhenz & Associates				
Frank Kolbe	The Association for Manufacturing Technology				
Les Koska	Consultant				
Bernard Lashinsky	Consulting Economist				
David L. Littmann	Comerica Bank				
Dave Maaske	Charleston Orwig				
Ken Mayland	Clearview Economics				
James Meil	Eaton Corporation				
Don Nichols	University of Wisconsin - Madison				
Bernard Paniak	BJP Economics				
Robert Schnorbus	J. D. Power and Associates				
Keith Schwer	University of Nevada, Las Vegas				
Carolyn Scott	McCoy Scott & Company				
Laura Spingola	Trade Resources Ltd.				
Jim Stansell	Michigan House Fiscal Agency				
Mark Stevens	Volkswagen of America				
Carl Tannenbaum	LaSalle Bank/ABN AMRO				
Paul Taylor	National Automobile Dealers Association				
David Teolis	General Motors				
Evert Van Der Heide	Calvin College				
Kenny Vieth	A.C.T. Research Co., LLC				
Tom Webb	Manheim Auctions				