

## Telephone Conference Meeting of the Federal Open Market Committee

### March 25, 2003 Presentation Materials -- Text Version

[Presentation Materials \(756 KB PDF\)](#)

Pages 10 to 29 of the Transcript

#### Appendix 1: Materials used by Messrs. Kos and Reinhart

##### Exhibit 1

##### Treasury Securities Market

Exhibit 1 includes three charts and a table describing movements in Treasury yields around the onset of the Iraq War on March 19, 2003.

##### Top panel

##### Two- and Ten-year Treasury Yields

A line chart shows the two- and ten-year on-the-run Treasury yields at five-minute intervals from March 13, 2003 to March 24, 2003. The ten-year yield increased over this timeframe from about 3.7 percent to about 4.0 percent, while the two-year yield rose from 1.5 percent to about 1.7 percent. Both yields were little changed around the March 19 8:00 pm deadline to Iraq, which is marked by a vertical line in the chart.

##### Middle-left panel

##### Treasury Yield Curve

A line chart shows the Treasury yield curve at 4:00 p.m. on March 19, 2003 and on March 24, 2003. The chart indicates that the yield curve changed little between these two dates.

##### Middle-right panel

##### Ten-year TIPS Yield

A line chart shows yield on the ten-year Treasury Inflation Indexed note (TIPS) at a daily frequency between January 2003 and March 2003. A plus sign denotes the yield on March 24, 2003, at approximately 4:45 p.m. This yield was fairly volatile over the period, and increased about 20 basis points on net from about 1.8 percent to 2.0 percent. It declined about 10 basis points (from approximately 2.1 percent to 2.0 percent) over the final 10 days of the period.

##### Bottom panel

##### Selected Treasury Yields

	Today 3/24/03* (1)	Wednesday 3/19/03 (2)	Change (1)-(2)

	<b>Today 3/24/03*</b> (1)	<b>Wednesday 3/19/03</b> (2)	<b>Change (1)-(2)</b>
Nominal			<b>-basis points-</b>
1. Two-year	1.66	1.72	-6
2. Five-year	2.94	2.97	-3
3. Ten-year	3.97	3.98	-1
Indexed			<b>-basis points-</b>
4. Ten-year	2.12	2.10	2

\* Quotes taken at approximately 4:00 pm. [Return to table](#)

## Exhibit 2 Equity Market

Exhibit 2 includes two charts and a table that provide information on recent developments in equity markets.

### Top panel Major Stock Indexes

A line chart shows movements in the Wilshire 5000, the S&P 500, and the Nasdaq stock price indexes at five-minute intervals between March 13, 2003 and March 24, 2003. The chart is indexed from March 13 at 9:30 a.m. and indicates a general upward trend over the period--on net, these indexes increased about 7 percent over the period--with the exception of a drop on March 24.

### Middle panel S&P 100 Implied Volatility (VIX)

A line chart shows the implied volatility of the S&P 100 (VIX) at five-minute intervals from March 13, 2003 to March 24, 2003. There is an overall downward trend over the time period, from 38 percent to 35 percent, with the exception of two spikes on March 20 and March 24.

### Bottom panel Selected Equity Market Quotes

	<b>Today 3/24/03*</b> (1)	<b>Wednesday 3/19/03</b> (2)	<b>Change (1)-(2)</b>
Major Indexes			<b>-percent-</b>
1. Wilshire 5000	8180.39	8258.42	-0.9
2. S&P 500	864.36	874.02	-1.1
3. Nasdaq	1370.23	1397.08	-1.9
Option-Implied Volatility			<b>-percentage points-</b>
4. S&P 100 (VIX)	34.96	35.74	-0.78

\* Quotes taken at approximately 4:00 pm. [Return to table](#)

## **Exhibit 3**

### **Monetary Policy Expectations**

Exhibit 3 includes four charts that provide information about recent movements in monetary policy expectations.

#### **Top panel**

##### **Interest Rate Futures**

A line chart shows the April 2003 federal funds futures rate and the March 2004 Eurodollar futures rate at five-minute intervals from March 13, 2003 to March 24, 2003. The April 2003 federal funds futures rate rises over this period from 1.17 percent to almost 1.20 percent. The March 2004 Eurodollar futures rate increases from about 1.7 percent to approximately 2.3 percent.

#### **Middle-left panel**

##### **Expected Federal Funds Rates**

A line chart presents the expected path of the federal funds rate as of March 19, 2003, and as of March 24, 2003, derived from federal funds and Eurodollar futures with an allowance for term premia and other adjustments. The horizontal axis denotes the horizon of the expectation, and has a range from March 2003 to July 2005. The two lines are close to each other, indicating little change in monetary policy expectations. Both policy paths start at 1.25 percent, decline modestly through mid-2003, and then rise to about 3.25 percent in July 2005.

#### **Middle-right panel**

##### **Short-term Eurodollar Implied Volatility**

A line chart plots the short-term Eurodollar implied volatility, a measure of uncertainty about the federal funds rate approximately three-months ahead, at a daily frequency from January 2003 through March 2003. A plus sign denotes the value on March 24, 2003. Implied volatility rose from 30 percent in early January to about 55 percent in early March and then declined sharply to about 40 percent on March 24.

#### **Bottom panel**

##### **Probability of 1.00% target as opposed to 1.25% target**

A line chart displays, at five-minute intervals from March 13, 2003 to March 24, 2003, the probability that the federal funds rate will be 1 percent following the May FOMC meeting, using data from the May 2003 federal funds futures contract. The chart indicates that the probability of a 1 percent target rate fell from 90 percent to about 60 percent.

## **Exhibit 4**

### **Selected Credit Market Indicators**

Exhibit 4 includes two charts and a table that provide information on a number of credit market indicators.

#### **Top panel**

## Ten-year Swap Spread

A line chart shows the ten-year swap spread over Treasuries at five-minute intervals from March 13, 2003 to March 24, 2003. This spread generally increased over this period, rising from 41 basis points on March 13 to nearly 46 basis points on March 21, and then declined slightly on March 24 to 44 basis points.

## Middle panel

### Stock Prices and Credit Default Swap Premia for Selected Financial Intermediaries

	Stock Prices			CDS Premia		
	Today 3/24/03* (1)	Wednesday 3/19/03 (2)	Change (1)-(2)	Today 3/24/03* (3)	Wednesday 3/19/03 (4)	Change (3)-(4)
			<b>-percent-</b>			<b>-basis points-</b>
1. Bank of America	68.82	69.50	-1.0	31.0	31.0	0.0
2. Citigroup	35.72	35.46	0.7	32.0	34.0	-2.0
3. Goldman Sachs	70.01	70.27	-0.4	55.0	56.8	-1.8
4. Lehman Brothers	58.20	59.69	-2.5	50.0	54.2	-4.2
5. Merrill Lynch	36.30	36.74	-1.2	57.0	56.8	0.2

\* Quotes taken at approximately 4:00 pm. [Return to table](#)

## Bottom panel

### Swaption Implied Volatility (Ten-year Swap Rate)

A line chart shows two implied volatilities at a daily frequency derived from options on the ten-year swap rate between January and March 2003: one is for the three-months-ahead horizon and one is for the one-year-ahead horizon. Plus signs denote the values on March 24, 2003. The three-months ahead implied volatility declined from 31.5 percent to about 28 percent. The one-year ahead implied volatility fluctuated in a narrow range around 27 percent.

## Exhibit 5

### Other Indicators of Market Stress

Exhibit 5 contains three charts and a table that provide information on various indicators of market stress during the first three months of 2003.

## Top panel

### Foreign Exchange Rates

	Today 3/24/03* (1)	Wednesday 3/19/03 (2)	Change (1)-(2)
			<b>-percent-</b>
Dollar/Euro	1.0631	1.0559	0.7
Yen/Dollar	120.8350	120.4700	0.3

	<b>Today 3/24/03* (1)</b>	<b>Wednesday 3/19/03 (2)</b>	<b>Change (1)-(2)</b>
Dollar/Pound	1.5734	1.5643	0.6
Swiss Franc/Dollar	1.3859	1.3943	-0.6

\* Quotes taken at approximately 4:00 pm. [Return to table](#)

### **Middle-left panel**

#### **West Texas Intermediate Crude Oil Spot Price**

A line chart displays the value of the oil price in dollars per barrel at a daily frequency from January through March 24, 2003. A plus sign denotes the value at 4:00 p.m. on March 24. The price slowly rises from \$32 to \$38 by the middle of March and then sharply drops down to \$28 by the end of the period.

### **Middle-right panel**

#### **West Texas Intermediate Crude Oil Futures Prices**

A line chart displays the price of the April 2003, June 2003, and December 2003 futures contracts on a daily basis from January through March 24, 2003. Plus signs denote the values at 4:00 p.m. on March 24. The prices of the three contracts move in tandem, with all contracts showing significant drop in prices over the second and third weeks of March. The June and December contracts are roughly \$2 and \$5 lower, respectively, than the April contract throughout this period.

### **Bottom panel**

#### **Gold Spot Price**

A line chart displays the spot price of gold in dollars per ounce from January 1, 2003 to March 24, 2003 on a daily basis. A plus sign denotes the value at 4:00 p.m. on March 24. The price increases from around \$350 to \$380 by the first week of February and then slowly declines to around \$330 by the end of the period.

## **Appendix 2: Material used by Ms. Johnson**

### *Recent Developments in International Financial Markets*

*March 24, 2003*

**STRICTLY CONFIDENTIAL (FR) CLASS II-FOMC**

### **Chart 1**

03-24-03

### **Top panel**

#### **Selected Exchange Rates**

**(Foreign currency per dollar)**

Index, March 12, 2003 = 100

Date	Canadian Dollar	Swiss Franc	Euro	Yen	Sterling
1-Jan-2003	ND	ND	ND	ND	ND
2-Jan-2003	106.94	105.26	106.39	102.29	100.96
3-Jan-2003	106.36	104.96	105.81	102.28	100.52
6-Jan-2003	105.91	104.60	105.29	101.60	100.30
7-Jan-2003	105.85	105.02	105.80	102.56	100.46
8-Jan-2003	106.01	104.87	105.51	101.85	100.41
9-Jan-2003	105.52	104.72	105.31	102.04	100.59
10-Jan-2003	105.26	104.09	104.63	101.93	100.31
13-Jan-2003	104.72	104.15	104.63	101.58	100.62
14-Jan-2003	104.54	103.94	104.28	100.67	100.37
15-Jan-2003	104.24	103.86	104.23	100.62	100.62
16-Jan-2003	104.33	103.85	104.30	100.72	100.35
17-Jan-2003	104.26	102.73	103.41	100.60	99.73
20-Jan-2003	ND	ND	ND	ND	ND
21-Jan-2003	104.10	102.79	103.24	101.19	100.04
22-Jan-2003	104.05	102.36	102.74	100.83	99.80
23-Jan-2003	103.48	101.99	102.38	100.55	99.36
24-Jan-2003	103.34	101.60	101.83	100.53	98.83
27-Jan-2003	103.52	101.80	101.71	101.25	98.64
28-Jan-2003	104.28	101.84	101.75	101.27	98.35
29-Jan-2003*	103.44	101.48	101.49	100.81	98.01
30-Jan-2003	103.95	102.36	102.29	101.74	97.86
31-Jan-2003	103.79	102.76	102.64	102.37	98.06
3-Feb-2003	103.25	102.37	102.43	102.81	98.32
4-Feb-2003	102.84	101.34	101.36	102.19	97.87
5-Feb-2003	103.17	101.69	101.67	102.22	98.02
6-Feb-2003	103.29	101.70	101.80	102.35	98.62
7-Feb-2003	103.31	102.02	102.06	102.75	99.05
10-Feb-2003	103.99	102.59	102.64	103.47	99.10
11-Feb-2003	103.90	102.54	102.57	103.42	99.60
12-Feb-2003	103.82	102.89	102.86	103.52	99.84
13-Feb-2003	103.20	101.83	101.74	102.82	99.51
14-Feb-2003	103.14	102.28	102.07	102.76	100.15
17-Feb-2003	ND	ND	ND	ND	ND
18-Feb-2003	102.87	103.23	102.94	101.49	101.31
19-Feb-2003	102.80	102.87	102.60	101.25	101.08
20-Feb-2003	102.17	101.84	101.87	100.85	101.28

Date	Canadian Dollar	Swiss Franc	Euro	Yen	Sterling
21-Feb-2003	102.20	102.28	102.19	101.37	101.67
24-Feb-2003	101.47	102.08	102.23	100.51	101.70
25-Feb-2003	101.36	101.67	102.24	99.97	102.56
26-Feb-2003	101.43	101.76	102.09	100.01	102.04
27-Feb-2003	101.53	102.13	102.42	100.34	102.10
28-Feb-2003	101.03	101.82	102.26	100.89	102.49
3-Mar-2003	100.85	101.15	101.74	100.64	102.37
4-Mar-2003	100.32	100.64	101.29	100.67	101.95
5-Mar-2003	99.99	99.88	100.51	100.12	100.79
6-Mar-2003	99.90	99.99	100.24	100.03	100.50
7-Mar-2003	99.57	100.17	100.08	99.39	100.68
10-Mar-2003	99.53	99.49	99.65	99.46	100.76
11-Mar-2003	99.98	100.01	99.95	99.91	100.57
12-Mar-2003*	100.00	100.00	100.00	100.00	100.00
13-Mar-2003	100.86	101.31	101.41	100.96	100.45
14-Mar-2003	100.64	102.82	102.78	101.20	101.95
17-Mar-2003	100.73	103.98	103.93	101.08	102.85
18-Mar-2003*	100.41	103.97	103.76	101.47	103.23
19-Mar-2003	100.52	104.42	104.09	102.52	103.07
20-Mar-2003	100.41	104.17	103.86	102.45	102.93
21-Mar-2003	101.20	105.14	104.53	103.62	102.99
24-Mar-2003	100.52	104.00	103.56	103.00	102.42

\* As shown in the chart, dashed vertical lines mark FOMC meeting dates of January 29 and March 18, 2003, and a solid vertical line marks March 12, 2003. [Return to table](#)

ND No data [Return to table](#)

### Change since 3/12

Canadian dollar	0.5%
Swiss franc	4.0%
Euro	3.6%
Yen	3.0%
Sterling	2.4%

### Bottom panel

#### Indexes of Trade-Weighted Value of the Dollar

Index, March 12, 2003 = 100

Date	Major currencies	Broad	Other Important Trading Partners
1-Jan-2003	ND	ND	ND

<b>Date</b>	<b>Major currencies</b>	<b>Broad</b>	<b>Other Important Trading Partners</b>
2-Jan-2003	105.15	102.05	98.46
3-Jan-2003	104.70	101.78	98.40
6-Jan-2003	104.17	101.44	98.27
7-Jan-2003	104.55	101.53	98.04
8-Jan-2003	104.35	101.50	98.20
9-Jan-2003	104.19	101.44	98.26
10-Jan-2003	103.78	101.26	98.32
13-Jan-2003	103.58	101.23	98.48
14-Jan-2003	103.19	100.98	98.40
15-Jan-2003	103.10	100.92	98.38
16-Jan-2003	103.13	100.93	98.36
17-Jan-2003	102.67	100.82	98.66
20-Jan-2003	ND	ND	ND
21-Jan-2003	102.73	101.06	99.09
22-Jan-2003	102.44	101.08	99.47
23-Jan-2003	102.01	100.76	99.27
24-Jan-2003	101.70	100.69	99.49
27-Jan-2003	101.84	100.86	99.70
28-Jan-2003	102.07	101.01	99.76
29-Jan-2003*	101.57	100.77	99.82
30-Jan-2003	102.21	100.98	99.53
31-Jan-2003	102.47	101.11	99.52
3-Feb-2003	102.33	101.12	99.70
4-Feb-2003	101.60	100.82	99.90
5-Feb-2003	101.85	100.85	99.66
6-Feb-2003	101.99	100.87	99.54
7-Feb-2003	102.22	101.06	99.69
10-Feb-2003	102.80	101.53	100.03
11-Feb-2003	102.78	101.49	99.97
12-Feb-2003	102.90	101.58	100.01
13-Feb-2003	102.09	101.18	100.10
14-Feb-2003	102.27	101.20	99.93
17-Feb-2003	ND	ND	ND
18-Feb-2003	102.40	101.09	99.55
19-Feb-2003	102.16	101.03	99.68
20-Feb-2003	101.61	100.80	99.84
21-Feb-2003	101.89	101.02	99.98
24-Feb-2003	101.49	100.76	99.90

Date	Major currencies	Broad	Other Important Trading Partners
25-Feb-2003	101.42	100.80	100.07
26-Feb-2003	101.34	100.71	99.96
27-Feb-2003	101.58	100.81	99.90
28-Feb-2003	101.51	100.81	99.98
3-Mar-2003	101.17	100.57	99.86
4-Mar-2003	100.79	100.51	100.18
5-Mar-2003	100.18	100.25	100.33
6-Mar-2003	100.02	100.24	100.51
7-Mar-2003	99.77	99.98	100.22
10-Mar-2003	99.60	99.96	100.39
11-Mar-2003	99.99	100.00	100.02
12-Mar-2003*	100.00	100.00	100.00
13-Mar-2003	101.03	100.45	99.75
14-Mar-2003	101.66	100.78	99.73
17-Mar-2003	102.21	101.14	99.88
18-Mar-2003*	102.17	101.10	99.84
19-Mar-2003	102.51	101.38	100.05
20-Mar-2003	102.35	101.24	99.93
21-Mar-2003	103.10	101.54	99.69
24-Mar-2003	102.34	101.14	99.73

\* As shown in the chart, dashed vertical lines mark FOMC meeting dates of January 29 and March 18, 2003, and a solid vertical line marks March 12, 2003. [Return to table](#)

### Change since 3/12

Major currencies	2.3%
Broad	1.1%
OITP	-0.3%

## Chart 2 Selected Yield Curves

03-24-03

### Left panels

#### 3-Month Eurocurrency Futures Rates

#### Yen

Percent

	March 24, 2003	March 17, 2003	March 12, 2003
Jun 2003	0.08	0.08	0.08
Sep 2003	0.09	0.09	0.09

	<b>March 24, 2003</b>	<b>March 17, 2003</b>	<b>March 12, 2003</b>
Dec 2003	0.11	0.10	0.09
Mar 2004	0.14	0.14	0.13
Jun 2004	0.14	0.13	0.13
Sep 2004	0.17	0.16	0.17
Dec 2004	0.20	0.19	0.20
Mar 2005	0.25	0.25	0.25

## **Euro**

Percent

	<b>March 24, 2003</b>	<b>March 17, 2003</b>	<b>March 12, 2003</b>
Jun 2003	2.38	2.41	2.27
Sep 2003	2.36	2.41	2.17
Dec 2003	2.46	2.50	2.19
Mar 2004	2.61	2.63	2.26
Jun 2004	2.85	2.82	2.40
Sep 2004	3.08	3.01	2.57
Dec 2004	3.32	3.22	2.76
Mar 2005	3.49	3.38	2.92

## **Sterling**

Percent

	<b>March 24, 2003</b>	<b>March 17, 2003</b>	<b>March 12, 2003</b>
Jun 2003	3.61	3.50	3.35
Sep 2003	3.62	3.48	3.24
Dec 2003	3.73	3.56	3.24
Mar 2004	3.91	3.71	3.30
Jun 2004	4.11	3.87	3.40
Sep 2004	4.29	4.02	3.51
Dec 2004	4.43	4.15	3.63
Mar 2005	4.53	4.27	3.76

## **Dollar**

Percent

	<b>March 24, 2003</b>	<b>March 17, 2003</b>	<b>March 12, 2003</b>
Jun 2003	1.24	1.19	1.12
Sep 2003	1.33	1.33	1.19
Dec 2003	1.57	1.59	1.37
Mar 2004	1.90	1.92	1.65
Jun 2004	2.30	2.27	1.98
Sep 2004	2.72	2.63	2.33
Dec 2004	3.09	2.96	2.65

	March 24, 2003	March 17, 2003	March 12, 2003
Mar 2005	3.38	3.23	2.92

## Right panels

### 1-Year Forward Rates Derived From Swaps

#### Yen

Percent

	March 24, 2003	March 17, 2003	March 12, 2003
2003	0.07	0.06	0.05
2004	0.15	0.13	0.13
2005	0.24	0.22	0.22
2006	0.35	0.33	0.34
2007	0.49	0.47	0.50
2008	0.67	0.65	0.67
2009	0.88	0.86	0.87
2010	1.09	1.07	1.09
2011	1.30	1.27	1.30
2012	1.50	1.48	1.51

#### Euro

Percent

	March 24, 2003	March 17, 2003	March 12, 2003
2003	2.52	2.60	2.26
2004	3.16	3.21	2.74
2005	3.76	3.73	3.26
2006	4.28	4.18	3.78
2007	4.70	4.60	4.25
2008	5.02	4.95	4.63
2009	5.28	5.22	4.94
2010	5.48	5.43	5.18
2011	5.63	5.59	5.36
2012	5.76	5.74	5.51

#### Sterling

Percent

	March 24, 2003	March 17, 2003	March 12, 2003
2003	3.82	3.61	3.35
2004	4.22	4.03	3.63
2005	4.56	4.41	3.96
2006	4.83	4.72	4.29
2007	5.02	4.95	4.56

	<b>March 24, 2003</b>	<b>March 17, 2003</b>	<b>March 12, 2003</b>
2008	5.15	5.12	4.77
2009	5.26	5.25	4.92
2010	5.34	5.34	5.03
2011	5.41	5.41	5.11
2012	5.46	5.48	5.18

## Dollar

Percent

	<b>March 24, 2003</b>	<b>March 17, 2003</b>	<b>March 12, 2003</b>
2003	1.54	1.48	1.30
2004	2.62	2.54	2.25
2005	3.62	3.49	3.15
2006	4.44	4.26	3.91
2007	5.03	4.84	4.50
2008	5.42	5.25	4.93
2009	5.69	5.54	5.23
2010	5.88	5.76	5.44
2011	6.05	5.93	5.60
2012	6.22	6.07	5.76

## Chart 3 Stock Market Indexes

03-24-03

### Top-left panel Euro Area

(Ratio scale, Index, March 12, 2003 = 100, daily data)

<b>Date</b>	<b>DJ Euro</b>	<b>DJ Euro Tech</b>	<b>DJ Euro Bank</b>
2-Jan-2003	130.73	127.42	126.22
3-Jan-2003	130.39	128.21	125.58
6-Jan-2003	131.46	130.50	126.02
7-Jan-2003	130.41	129.24	125.64
8-Jan-2003	127.88	122.97	124.15
9-Jan-2003	129.67	127.33	125.11
10-Jan-2003	129.65	128.52	125.55
13-Jan-2003	130.14	128.25	127.02
14-Jan-2003	130.76	131.23	127.23
15-Jan-2003	129.29	128.85	126.02
16-Jan-2003	129.32	125.11	125.97

<b>Date</b>	<b>DJ Euro</b>	<b>DJ Euro Tech</b>	<b>DJ Euro Bank</b>
17-Jan-2003	125.54	118.88	121.31
20-Jan-2003	124.09	117.53	120.07
21-Jan-2003	122.83	ND	118.04
22-Jan-2003	120.62	117.38	115.67
23-Jan-2003	120.16	117.05	116.08
24-Jan-2003	118.71	114.21	114.23
27-Jan-2003	114.97	110.38	111.20
28-Jan-2003	114.99	110.16	110.41
29-Jan-2003*	115.80	111.99	110.40
30-Jan-2003	117.97	115.51	112.91
31-Jan-2003	118.50	113.09	113.07
3-Feb-2003	119.66	114.48	114.50
4-Feb-2003	115.78	110.06	110.62
5-Feb-2003	117.54	112.14	113.18
6-Feb-2003	115.26	109.52	111.49
7-Feb-2003	113.58	108.15	110.37
10-Feb-2003	113.00	107.57	109.17
11-Feb-2003	115.75	112.10	112.10
12-Feb-2003	113.30	109.17	109.73
13-Feb-2003	112.66	106.91	110.50
14-Feb-2003	115.71	110.19	114.31
17-Feb-2003	117.61	113.16	ND
18-Feb-2003	119.32	116.20	117.19
19-Feb-2003	116.30	113.66	114.53
20-Feb-2003	114.93	110.48	113.18
21-Feb-2003	116.09	110.60	114.25
24-Feb-2003	114.05	110.56	111.57
25-Feb-2003	110.39	105.57	108.36
26-Feb-2003	109.26	104.64	107.67
27-Feb-2003	111.22	105.10	109.74
28-Feb-2003	113.06	107.78	112.44
3-Mar-2003	113.08	108.12	112.54
4-Mar-2003	110.57	105.22	109.71
5-Mar-2003	109.83	104.44	109.33
6-Mar-2003	108.30	104.12	107.20
7-Mar-2003	106.15	101.00	105.51
10-Mar-2003	103.68	99.31	103.20
11-Mar-2003	103.35	99.31	102.68
12-Mar-2003*	100.00	100.00	100.00

<b>Date</b>	<b>DJ Euro</b>	<b>DJ Euro Tech</b>	<b>DJ Euro Bank</b>
13-Mar-2003	105.57	105.59	104.63
14-Mar-2003	110.49	111.99	110.85
17-Mar-2003	113.80	116.73	113.30
18-Mar-2003*	114.02	117.97	ND
19-Mar-2003	115.56	119.04	115.15
20-Mar-2003	114.22	118.47	113.55
21-Mar-2003	118.32	119.13	118.92
24-Mar-2003	112.60	115.92	113.25

\* As shown in the chart, dashed vertical lines mark FOMC meeting dates of January 29 and March 18, 2003, and a solid vertical line marks March 12, 2003. [Return to table](#)

### Change since 3/12

DJ Euro	12.6%
DJ Euro Tech	16.1%
DJ Euro Bank	13.3%

### Top-right panel United Kingdom

(Ratio scale, Index, March 12, 2003 = 100, daily data)

<b>Date</b>	<b>FTSE-350</b>	<b>FTSE-techMark</b>	<b>FTSE-Bank</b>
2-Jan-2003	121.02	118.48	121.73
3-Jan-2003	121.01	119.15	121.91
6-Jan-2003	120.86	119.36	120.54
7-Jan-2003	119.66	117.96	118.53
8-Jan-2003	118.72	117.47	118.27
9-Jan-2003	119.01	118.27	118.85
10-Jan-2003	120.20	120.14	120.53
13-Jan-2003	119.52	121.17	119.86
14-Jan-2003	119.42	122.18	119.71
15-Jan-2003	117.77	120.83	117.84
16-Jan-2003	117.64	120.45	116.92
17-Jan-2003	115.92	117.72	114.92
20-Jan-2003	114.77	116.58	113.14
21-Jan-2003	113.64	116.53	111.63
22-Jan-2003	111.95	116.25	109.85
23-Jan-2003	110.39	115.88	108.35
24-Jan-2003	109.81	115.24	108.69
27-Jan-2003	106.14	111.00	105.72
28-Jan-2003	106.24	110.82	104.60

<b>Date</b>	<b>FTSE-350</b>	<b>FTSE-techMark</b>	<b>FTSE-Bank</b>
29-Jan-2003*	105.84	109.19	103.30
30-Jan-2003	108.49	111.04	106.67
31-Jan-2003	108.17	109.71	105.65
3-Feb-2003	111.60	113.19	110.87
4-Feb-2003	108.88	110.71	108.41
5-Feb-2003	111.32	111.39	111.15
6-Feb-2003	109.09	109.74	108.69
7-Feb-2003	109.17	110.92	110.04
10-Feb-2003	108.65	110.50	107.99
11-Feb-2003	111.12	112.13	111.04
12-Feb-2003	109.56	110.61	110.82
13-Feb-2003	109.37	109.52	113.86
14-Feb-2003	109.38	109.72	111.65
17-Feb-2003	ND	111.80	ND
18-Feb-2003	112.69	111.72	115.58
19-Feb-2003	110.80	111.54	114.34
20-Feb-2003	111.55	111.51	113.92
21-Feb-2003	112.59	111.23	113.23
24-Feb-2003	111.99	110.24	112.86
25-Feb-2003	109.62	107.34	111.72
26-Feb-2003	108.81	106.63	110.51
27-Feb-2003	108.18	104.68	109.72
28-Feb-2003	110.59	107.84	113.53
3-Mar-2003	111.49	109.22	113.96
4-Mar-2003	109.84	107.70	111.32
5-Mar-2003	108.02	106.25	109.48
6-Mar-2003	107.76	106.15	109.23
7-Mar-2003	105.85	104.97	107.14
10-Mar-2003	104.29	103.01	104.65
11-Mar-2003	104.57	103.59	105.48
12-Mar-2003*	100.00	100.00	100.00
13-Mar-2003	105.39	103.45	105.52
14-Mar-2003	108.68	106.99	109.32
17-Mar-2003	112.03	109.34	113.09
18-Mar-2003*	ND	110.63	ND
19-Mar-2003	113.51	110.00	114.26
20-Mar-2003	113.57	108.67	114.29
21-Mar-2003	116.26	109.78	117.54
24-Mar-2003	112.92	107.67	113.99

\* As shown in the chart, dashed vertical lines mark FOMC meeting dates of January 29 and March 18, 2003, and a solid vertical line marks March 12, 2003. [Return to table](#)

### Change since 3/12

FTSE-350	12.9%
FTSE-Tech	7.7%
FTSE-Bank	14.0%

### Bottom-left panel

#### Japan

(Ratio scale, Index, March 12, 2003 = 100, daily data)

Date	TOPIX	TOPIX-EM	TOPIX-Bank
2-Jan-2003	ND	ND	ND
3-Jan-2003	ND	ND	ND
6-Jan-2003	109.93	111.44	116.30
7-Jan-2003	109.15	111.68	113.70
8-Jan-2003	107.31	109.79	111.00
9-Jan-2003	107.28	109.37	110.77
10-Jan-2003	107.07	109.73	111.11
13-Jan-2003	ND	ND	ND
14-Jan-2003	108.12	111.11	113.06
15-Jan-2003	109.37	111.70	116.58
16-Jan-2003	109.45	111.67	118.21
17-Jan-2003	109.83	112.88	119.28
20-Jan-2003	109.14	111.09	119.46
21-Jan-2003	110.39	112.61	120.86
22-Jan-2003	109.16	112.02	119.14
23-Jan-2003	110.62	114.56	121.24
24-Jan-2003	110.10	113.32	120.99
27-Jan-2003	108.65	110.57	118.39
28-Jan-2003	107.51	109.35	116.54
29-Jan-2003*	105.54	106.66	113.07
30-Jan-2003	105.47	107.15	112.12
31-Jan-2003	104.96	106.59	111.13
3-Feb-2003	107.07	109.13	115.74
4-Feb-2003	107.91	109.09	116.97
5-Feb-2003	108.04	109.30	115.93
6-Feb-2003	107.36	107.92	114.92
7-Feb-2003	107.25	107.13	114.51
10-Feb-2003	107.71	107.71	114.74

Date	TOPIX	TOPIX-EM	TOPIX-Bank
11-Feb-2003	ND	ND	ND
12-Feb-2003	109.57	109.72	118.13
13-Feb-2003	109.03	108.55	119.55
14-Feb-2003	109.67	109.76	119.44
17-Feb-2003	110.14	111.02	118.79
18-Feb-2003	109.50	110.01	116.18
19-Feb-2003	109.10	110.08	113.67
20-Feb-2003	108.56	109.94	110.08
21-Feb-2003	107.38	108.69	109.23
24-Feb-2003	107.23	109.02	108.94
25-Feb-2003	104.71	106.69	105.17
26-Feb-2003	104.60	106.51	104.23
27-Feb-2003	104.71	105.93	105.20
28-Feb-2003	104.65	105.91	104.06
3-Mar-2003	105.53	107.52	101.72
4-Mar-2003	105.84	107.64	103.85
5-Mar-2003	105.17	106.90	103.34
6-Mar-2003	104.33	105.64	103.99
7-Mar-2003	101.77	103.27	101.54
10-Mar-2003	100.28	101.08	99.39
11-Mar-2003	98.50	98.37	98.36
12-Mar-2003*	100.00	100.00	100.00
13-Mar-2003	99.51	99.51	100.43
14-Mar-2003	100.47	102.40	99.46
17-Mar-2003	99.34	100.71	96.62
18-Mar-2003*	100.15	102.76	97.43
19-Mar-2003	100.86	103.65	98.10
20-Mar-2003	103.21	105.36	99.76
21-Mar-2003	ND	ND	ND
24-Mar-2003	106.27	108.83	102.37

\* As shown in the chart, dashed vertical lines mark FOMC meeting dates of January 29 and March 18, 2003, and a solid vertical line marks March 12, 2003. [Return to table](#)

### Change since 3/12

TOPIX	6.3%
TOPIX-EM	8.8%
TOPIX-Bank	7.3%

**Bottom-right panel**

**memo: United States**

(Ratio scale, Index, March 12, 2003 = 100, daily data)

<b>Date</b>	<b>S&amp;P 500</b>	<b>NASDAQ</b>	<b>S&amp;P Banks</b>
2-Jan-2003	113.04	108.26	117.39
3-Jan-2003	112.98	108.43	117.79
6-Jan-2003	115.52	111.11	121.69
7-Jan-2003	114.77	111.91	120.66
8-Jan-2003	113.15	109.52	119.29
9-Jan-2003	115.34	112.45	121.26
10-Jan-2003	115.34	113.17	121.94
13-Jan-2003	115.18	113.04	121.97
14-Jan-2003	115.85	114.21	123.31
15-Jan-2003	114.18	112.47	121.41
16-Jan-2003	113.73	111.15	120.52
17-Jan-2003	112.14	107.58	119.69
20-Jan-2003	ND	ND	119.69
21-Jan-2003	110.37	106.65	116.92
22-Jan-2003	109.22	106.27	114.63
23-Jan-2003	110.34	108.52	116.27
24-Jan-2003	107.11	104.92	111.99
27-Jan-2003	105.38	103.60	109.94
28-Jan-2003	106.76	104.92	111.70
29-Jan-2003*	107.48	106.16	112.02
30-Jan-2003	105.03	103.37	108.86
31-Jan-2003	106.41	103.26	110.17
3-Feb-2003	106.98	103.48	111.00
4-Feb-2003	105.47	102.10	108.44
5-Feb-2003	104.90	101.74	108.07
6-Feb-2003	104.22	101.76	106.32
7-Feb-2003	103.17	100.25	105.45
10-Feb-2003	103.95	101.36	105.97
11-Feb-2003	103.11	101.27	104.29
12-Feb-2003	101.80	99.98	102.81
13-Feb-2003	101.64	99.86	103.09
14-Feb-2003	103.82	102.42	105.63
17-Feb-2003	ND	ND	105.63
18-Feb-2003	105.84	105.26	107.74
19-Feb-2003	105.09	104.31	107.43
20-Feb-2003	104.09	104.06	106.17
21-Feb-2003	105.47	105.45	107.18

<b>Date</b>	<b>S&amp;P 500</b>	<b>NASDAQ</b>	<b>S&amp;P Banks</b>
24-Feb-2003	103.53	103.37	104.56
25-Feb-2003	104.28	103.89	105.42
26-Feb-2003	102.90	101.91	104.17
27-Feb-2003	104.11	103.49	105.83
28-Feb-2003	104.60	104.56	106.89
3-Mar-2003	103.81	103.21	106.16
4-Mar-2003	102.21	102.23	104.08
5-Mar-2003	103.19	102.75	105.40
6-Mar-2003	102.23	101.85	103.85
7-Mar-2003	103.07	102.04	105.16
10-Mar-2003	100.41	99.93	101.06
11-Mar-2003	99.57	99.39	99.44
12-Mar-2003*	100.00	100.00	100.00
13-Mar-2003	103.45	104.81	105.00
14-Mar-2003	103.62	104.78	105.18
17-Mar-2003	107.29	108.84	109.19
18-Mar-2003*	107.74	109.48	110.55
19-Mar-2003	108.68	109.21	112.21
20-Mar-2003	108.89	109.66	112.49
21-Mar-2003	111.39	111.15	115.94
24-Mar-2003	107.47	107.08	111.94

\* As shown in the chart, dashed vertical lines mark FOMC meeting dates of January 29 and March 18, 2003, and a solid vertical line marks March 12, 2003. [Return to table](#)

### Change since 3/12

S&P 500	7.3%
NASDAQ	7.0%
S&P Bank	11.6%

## Chart 4

03-24-03

### Top panel Crude Oil Futures Prices

\$/barrel

<b>Date</b>	<b>WTI May</b>	<b>Brent May</b>
2-Jan-2003	28.84	27.03
3-Jan-2003	29.62	27.79
6-Jan-2003	28.99	27.10

<b>Date</b>	<b>WTI May</b>	<b>Brent May</b>
7-Jan-2003	28.73	26.90
8-Jan-2003	28.52	26.75
9-Jan-2003	29.38	27.59
10-Jan-2003	29.04	27.29
13-Jan-2003	29.64	27.87
14-Jan-2003	29.97	28.22
15-Jan-2003	30.48	28.64
16-Jan-2003	30.82	28.98
17-Jan-2003	30.95	29.05
20-Jan-2003	ND	29.07
21-Jan-2003	30.96	29.15
22-Jan-2003	30.77	28.94
23-Jan-2003	30.46	28.66
24-Jan-2003	31.12	29.29
27-Jan-2003	30.49	28.81
28-Jan-2003	30.94	29.26
29-Jan-2003*	31.72	30.02
30-Jan-2003	31.95	30.15
31-Jan-2003	31.80	30.03
3-Feb-2003	31.34	29.47
4-Feb-2003	32.04	30.18
5-Feb-2003	32.37	30.54
6-Feb-2003	32.40	30.51
7-Feb-2003	33.13	31.29
10-Feb-2003	32.60	30.68
11-Feb-2003	33.27	31.30
12-Feb-2003	33.35	31.29
13-Feb-2003	33.92	31.67
14-Feb-2003	34.04	31.67
17-Feb-2003	ND	31.06
18-Feb-2003	34.12	31.57
19-Feb-2003	34.21	31.56
20-Feb-2003	33.46	30.93
21-Feb-2003	34.33	31.65
24-Feb-2003	35.04	32.49
25-Feb-2003	34.42	31.55
26-Feb-2003	35.34	32.18
27-Feb-2003	35.19	32.07
28-Feb-2003	34.83	31.82

<b>Date</b>	<b>WTI May</b>	<b>Brent May</b>
3-Mar-2003	34.24	31.63
4-Mar-2003	34.91	32.11
5-Mar-2003	34.96	32.00
6-Mar-2003	35.54	32.52
7-Mar-2003	36.35	33.14
10-Mar-2003	36.28	32.92
11-Mar-2003	35.74	32.65
12-Mar-2003*	36.35	33.21
13-Mar-2003	34.67	31.77
14-Mar-2003	33.36	30.13
17-Mar-2003	32.54	29.48
18-Mar-2003*	30.05	27.25
19-Mar-2003	29.36	26.75
20-Mar-2003	28.12	25.50
21-Mar-2003	26.91	24.35
24-Mar-2003	28.66	26.09

\* As shown in the chart, dashed vertical lines mark FOMC meeting dates of January 29 and March 18, 2003, and a solid vertical line marks March 12, 2003. [Return to table](#)

### **Change since 3/12**

WTI May	-\$7.63
Brent May	-\$6.91

### **Bottom panel**

#### **Implied Distributions from Oil Futures Options March 21, 2003**

The bottom panel represents implied distributions from December 2003 and May 2003 West Texas Intermediate oil futures options on March 21, 2003. The May 2003 WTI distribution has a range from approximately 15 to 43 dollars per barrel, and is roughly symmetric with noticeable peak at approximately 26 dollars per barrel. The December 2003 WTI distribution has a range from approximately 8 to 50 dollars per barrel, with a peak at approximately 25 dollars per barrel. The December 2003 WTI distribution is asymmetric, with greater weight placed on the likelihood of a price below 20 dollars per barrel than on the likelihood of a price greater than 30 dollars per barrel.

Note: As shown in the chart, approximate values of May 2003 and December 2003 Contract Futures are 27 and 25, respectively.

## **Appendix 3: Materials used by Mr. Stockton**

March 25, 2003

## NONFINANCIAL DEVELOPMENTS

### Chart 1

#### Current Indicators

3-25-03

##### Top-left panel

###### UI--Initial Claims

UI stands for Unemployment Insurance, and initial claims is weekly initial claims for unemployment insurance. The period covered is from 2002 to March 15, 2003, and the data represent thousands of claims. The data are seasonally adjusted using Federal Reserve Board seasonals.

The data are plotted on two curves. One curve shows weekly claims; the other shows the four-week moving average of weekly claims.

The weekly curve is more volatile. It starts at just above 400 thousand at the beginning of 2002, moves down slightly, increases sharply to about 470 thousand by March, decreases sharply to about 360 thousand by July, increases sharply to about 440 thousand by September, swings erratically between 375 thousand and 440 thousand until declining to 360 thousand in January 2003, and finally rises to about 420 thousand by March 15 2003.

The four-week moving average curve is smoother. It starts at just above 400 thousand at the beginning of 2002, declines briefly, increases sharply to about 440 thousand by March, decreases sharply to about 370 thousand by July, increases sharply to about 430 thousand by October, declines to about 380 thousand in January 2003, and then increases sharply to about 420 thousand by March 15 2003.

##### Top-right panel

###### UI--Insured Unemployment

UI stands for Unemployment Insurance, and insured unemployment is continuing claims for unemployment insurance. The period covered is from 2002 to March 8, 2003, and the data represent millions of people collecting unemployment insurance. The data are seasonally adjusted using Federal Reserve Board seasonals.

The data are plotted on two curves. One curve shows weekly insured unemployment; the other shows the four-week moving average of weekly insured unemployment.

The weekly curve is more volatile. It starts at about 3.5 million at the beginning of 2002, moves up to about 3.75 million by May, falls to about 3.45 million by June, rises to about 3.85 million by September, falls to about 3.25 million in January 2003, and then rises to about 3.5 million by March 8 2003.

The four-week moving average curve is smoother. It starts at about 3.5 million at the beginning of 2002, moves up to about 3.7 million by May, falls to about 3.5 million by July, rises to about 3.7 million by September, falls to about 3.3 million by January 2003, and then rises to about 3.4 million by March 8 2003.

##### Middle-left panel

###### IP Weekly Production Index

IP stands for industrial production. The period covered is from January 2002 to March 2003 for monthly data and January 1, 2002 through March 15, 2003 for weekly data. The "Monthly aggregate of weekly index" is represented by monthly bars, and the "Weekly index--total IP points of 16 components" is plotted as an overlaid curve.

The monthly bars start slightly above 19 at the beginning of 2002 and increase fairly steadily through June to near 20. In July the bar jumps to about 20.25 and the following months alternate above and below 20, hovering within around .25 index points, with January and February of 2003 both above 20 and March a bit below 20.

The weekly curve starts a bit below 19 index points and follows the monthly data up to a peak of near 20.5 around July. The curve generally follows the monthly data, but has a peak near the July high in November and a drop below to near 18.75 at the end of 2002. The data for the week of March 15 comes in around 19.75.

### **Middle-right panel**

#### **Production of Domestic Motor Vehicles**

The data are shown from the start of 2002 through mid-2003. The production data are plotted on a curve. Solid circles mark quarterly averages in 2002, and open circles mark schedules (Federal Reserve Board Seasonals) for the first two quarters of 2003. The data are presented in millions of units at an annual rate.

The curve starts slightly above 12 staying relatively flat through May 2002 when it starts to increase to slightly above 13 around July. The curve decreases to near 12 in October, spikes up to 13 in November, is back near 12 in December, then increases again near 13 in January 2003. A smooth decrease follows the January point nearing 11.75 in May 2003 and increasing to roughly 12 in June.

The quarterly average for 2002:Q1 is just above 12, Q2 is just slightly higher than Q1, Q3 is near 13, and Q4 is slightly below 12.5. The schedule for 2003:Q1 is also slightly below 12.5 and 2003:Q2's schedule falls just below 12.

Note: March through June are schedules.

### **Bottom-left panel**

#### **Chain Store Sales**

This figure displays an index of chain store sales. An increase in the index indicates an increase in merchandise sold from one month to the next, and a decrease indicates a decrease in merchandise sold from one month to the next. The period covered is from January 2002 to March 22, 2003.

The curve starts at about 397 at the beginning of 2002, spikes to about 415 by February, falls to about 399 by April, rises steeply to about 416 by June, falls to about 393 by December, then rises steeply, on net, to about 410 by March 22, 2003.

Source. Bank of Tokyo-Mitsubishi.

### **Bottom-right panel**

#### **Consumer Sentiment**

This figure displays two different measures of consumer sentiment plotted as separate curves. The period covered is from January 2002 to March 2003.

One curve plots an index (1966=100) of consumer sentiment as measured bimonthly in the Michigan SRC surveys of consumers. The curve starts at about 93 in January 2002, moves up to about 96 by

May, declines steadily to about 80 by October, increases to about 87 by December, and then declines again to a preliminary reading of about 75 by the first half of March 2003.

The second curve plots the Conference Board Consumer Confidence Index (1966=100). The curve starts at about 98 in January 2002, increases to about 111 by March, stays flat for two months, then declines sharply to about 80 by October, increases to about 83 in November, then declines steadily to about 62 by March 2003.

## **Chart 2**

### **Domestic Energy Markets**

3-25-03

#### **Top-left panel**

##### **Gasoline and Crude Oil Prices**

The period covered is from 2002 to March 24, 2003, and the data represent the weekly retail price of gasoline and daily spot price of West Texas Intermediate crude oil.

The data are plotted on two curves. One curve represents retail price of gasoline, and the other curve represents the price of West Texas Intermediate crude oil. The data are not seasonally adjusted.

The curve for retail gasoline starts at about 110 cents per gallon at the beginning of 2002 and increases to about 140 cents per gallon by the end of March 2002. It remains steady through 2002, increases to a peak of about 175 cents per gallon in the first three months of 2003, then drops down to about 170 cents per gallon by March 24, 2003.

The curve for West Texas Intermediate Crude Oil starts around 50 cents per gallon, holds between 60 to 70 cents per gallon during the last 10 months of 2002, peaks at about 90 cents per gallon in March 2003, then ends at about 70 cents per gallon on March 24, 2003.

#### **Top-right panel**

##### **Gasoline Inventories**

The period covered is from 2002 to July 2003, and the data represent the weekly U.S. domestic gasoline inventories and the 5-year monthly average of U.S. domestic gasoline inventories. The 5-year monthly average of gasoline inventories is defined to be the monthly mean over the five most recent years for which we have data.

The data are plotted on two curves. One curve represents the gasoline inventories, and the other curve represents the repeated 5-year monthly average of gasoline inventories. The data are not seasonally adjusted.

The curve for gasoline inventories starts at about 210 million barrels at the beginning of 2002, hits a minimum at about 192 million barrels by November 2002, retraces back to 215 million barrels by January 2003, then ends at approximately 200 million barrels on March 14, 2003.

The curve for the 5-year monthly average of gasoline inventories starts at about 218 million barrels in 2002, decreases to about 209 million barrels in March 2002, increases to 215 million barrels by May 2002, declines to its minimum at about 199 million barrels in August 2002, then ends 2002 at 205 million barrels. In 2003, the curve starts at about 218 million barrels, decreases to about 209

million barrels in March 2003, increases to 215 million barrels by May 2003, then declines and ends at about 208 million barrels in July 2003.

Source: U.S. Department of Energy, Energy Information Agency.

### **Bottom-left panel** **Natural Gas Spot Price**

The period covered is from 2002 to March 24, 2003, and the data represent the daily Henry Hub Natural Gas Spot Price. The data are plotted on one curve.

The curve for natural gas starts at about 2 dollars per million British Thermal Units (MMBtU) at the beginning of 2002, climbs steadily to about 6 dollars per MMBtU in February 2003, then spikes to about 19 dollars per MMBtU in late February 2003. It then goes back to approximately 5 dollars per MMBtU by March 24, 2003.

### **Bottom-right panel** **Natural Gas Inventories**

The period covered is from January 1997 to March 14, 2003, and the data represent the end-of-month U.S. domestic Natural Gas Inventories, defined as working gas in storage.

The data are plotted on four curves and an open circle. One curve represents the 1997-2000 average of U.S. domestic natural gas inventories. The second curve represents the 2001 U.S. domestic natural gas inventories. The third curve represents the 2002 U.S. domestic natural gas inventories. The fourth and final curve represents the 2003 U.S. domestic natural gas inventories. The open circle represents U.S. domestic natural gas inventories on March 14, 2003.

The curve for 1997-2000 average U.S. domestic natural gas inventories starts at around 1750 billion cubic feet in January, decreases to about 1250 billion cubic feet in March, increases to about 3000 billion cubic feet in October, and ends at about 2250 billion cubic feet in December.

The curve for 2001 U.S. domestic natural gas inventories starts at around 1250 billion cubic feet in January, decreases to about 750 billion cubic feet in March, increases to about 3200 billion cubic feet in November, and ends at about 2900 billion cubic feet in December.

The curve for 2002 U.S. domestic natural gas inventories starts at around 2400 billion cubic feet in January, decreases to about 1500 billion cubic feet in March, increases to about 3100 billion cubic feet in October, and ends at about 2400 billion cubic feet in December.

The curve for 2003 U.S. domestic natural gas inventories starts at around 1500 billion cubic feet in January and ends at about 800 billion cubic feet in February. The open circle represents natural gas inventories stood at approximately 700 billion cubic feet on March 14, 2003.

## **Chart 3** **Housing**

3-25-03

### **Top panel**

**(Seasonally Adjusted)**

		<b>1 Housing Starts</b>	<b>2 Permits Issued</b>	<b>3 New Home Sales</b>	<b>4 Existing Home Sales</b>
----- millions of units, annual rate -----					
2002		1.71	1.73	.976	5.57
2002	Q2	1.67	1.67	.951	5.50
	Q3	1.70	1.70	1.020	5.40
	Q4	1.75	1.80	1.038	5.77
2002	Nov.	1.76	1.74	1.035	5.64
	Dec.	1.82	1.89	1.077	5.91
2003	Jan.	1.82	1.78	.914	6.10
	Feb.	1.62	1.79	<u>n.a.</u>	5.84

n.a. Not available [Return to table](#)

**Bottom-left panel****New Home Sales and Starts**

The data are plotted on two curves. One curve represents new home starts, and the other represents new homes sales. Both curves are seasonally adjusted.

The starts curve represents the number of new single-family homes with construction started, usually counted when ground is broken. New homes sales are the number of homes sold, contract completed, in a given month. The period covered is from 1995 to February 2003, and the data represent millions of units at an annual rate.

The curve for starts begins at about 1.4 million units at the beginning of 1995 and increases to about 1.5 million units in mid-1996 after a slight dip in 1995. It falls to below 1.4 million units in 1997 and slowly rises to a peak of about 1.8 million units in late 1998. Starts then fall to around 1.45 million units in 2000; after the drop, starts rise erratically to a level of about 1.6 million units in February of 2003.

The curve for sales begins at about 0.6 million units in 1995, and increases to above 1.0 million units in 1999. The sales dip to about 0.8 million units in 2000, before increasing erratically to near 1.1 million units in 2002. Then sales fall to about 0.9 million units in January of 2003.

**Bottom-right panel****Existing Home Sales**

The sales curve is the number of already existing single-family homes sold, contract completed, in a given month. The period covered is from 1995 to February 2003. The data is seasonally adjusted using FRB seasonals and represents millions of units at an annual rate.

The curve begins at about 3.6 million units at the beginning of 1995 and increases to about 5.5 million units in mid-1999. It falls to below 5.0 million units in 2001 and rises erratically to a level of about 5.7 million units in February 2003.

## Chart 4 Consumer Price Index

3-25-03

### Top panel

	All Items	Energy Items	Food	All items less food and energy			MEMO: Core PCE prices	
				Total	Commodities	Services		
Relative importance	1	2	3	4	5	6	7	
Jan. 2003	100.0	7.0	14.5	78.5	22.8	55.7		
<i>Twelve-month percent changes, Feb. to Feb.<sup>1</sup></i>								
1999	1.6	-5.7	2.4	2.1	.7	2.8	1.5	
2000	3.2	19.9	1.8	2.2	.3	2.9	1.7	
2001	3.5	13.1	3.0	2.7	.9	3.6	2.0	
2002	1.1	-15.9	2.7	2.6	-.9	4.0	1.6	
2003	3.0	22.0	1.4	1.7	-1.5	3.2	1.3 <sup>3</sup>	
<i>Percent changes from three months earlier at compound annual rates<sup>2</sup></i>								
2002	Feb.	1.1	-10.3	2.1	1.9	-2.7	4.2	1.3
	May	3.6	35.8	.2	2.1	-1.1	3.4	1.6
	Aug.	2.2	6.0	.2	2.3	-.3	3.4	2.0
	Nov.	2.0	5.6	2.3	1.5	-2.5	3.1	1.2
2003	Feb.	4.3	44.9	2.7	1.5	-1.9	2.8	.5
<i>Monthly percent changes not at annual rates<sup>2</sup></i>								
2002	July	.2	.7	.1	.2	-.1	.3	.1
	Aug.	.2	.2	-.1	.3	.2	.3	.2
	Sept.	.2	.4	.2	.2	-.1	.2	.2
	Oct.	.2	1.4	.1	.1	-.1	.3	.1
	Nov.	.1	-.5	.2	.1	-.3	.3	.1
	Dec.	.1	-.4	.2	.2	-.1	.3	.1
2003	Jan.	.3	4.0	-.2	.1	-.3	.3	.0
	Feb.	.6	5.9	.7	.1	-.1	.1	.1 <sup>3</sup>

1. Not seasonally adjusted. [Return to table](#)

2. Seasonally adjusted. [Return to table](#)

3. Staff estimate. [Return to table](#)

### Bottom panel

#### Consumer Price Index--Current Methods Basis

This panel displays the consumer price index (CPI) on a current methods basis as a 12-month percent change. The period covered is from 1996 to February 2003.

The data are plotted on two curves: one is the CPI for all items, and one is the CPI for all items less food and energy.

The CPI for all items curve starts at about 2.45 percent at the beginning of 1996, increases gradually to about 2.9 percent by the beginning of 1997, declines to about 1.2 percent by early 1998, remains at about that level for the rest of the year, increases to about 3.5 percent by early 2000, remains at about that level until mid-2001, declines steeply to about 1.1 percent by early 2002, then rises again to 3.0 percent by February 2003.

The CPI for all items less food and energy curve starts at about 2.5 percent in the beginning of 1996, and remains roughly at that level until mid-1999. It then begins a very slight and gradual increase to about 2.7 percent by early 2002, and finally falls back to 1.7 percent by February 2003.

## Consumer Surveys

3-25-03

### Top panel

#### Consumer Sentiment

The Conference Board index is a measure of consumer sentiment which is indexed to 100 in 1985. The Michigan SRC index is also a measure of consumer sentiment, but is indexed to 100 in 1966. The period covered is from 1978 to March 2003. There are shaded areas that represent National Bureau of Economic Research declared recessions (1980:Q1-1980:Q3, 1981:Q3-1982:Q4, and 1990:Q3-1991:Q1).

The data are plotted on two curves. One curve represents consumer sentiment as measured by the Conference Board, and the other represents consumer sentiment as measured by Michigan SRC. Both curves are indexes.

The curve for the Conference Board begins at just above 100 in 1978 and then declines to a low of around 60 in 1980. The series jumps up in 1981, but then falls to near 60 in 1982. The series increases to about 100 in 1984 and maintains that level before increasing to about 120 in 1987. The series stays at around 120 through 1989 before falling to a low of under 60 in the end of 1990. The series jumps to around 70 in 1993, and then increases steadily to a high of 140 in 2000. The series then drops to about 60 in March 2003.

The curve for the Michigan SRC begins at just above 80 in 1978 before falling to about 50 in 1980. The series increases to about 70 in 1981 and maintains that level through 1982. The series then increases to about 100 in 1983 and stays at about 100 through 1989, before falling to around 60 in 1990. In early 1991 the series increases sharply to above 80, before slowly increasing throughout the 1990s to a peak of about 110 in 2000. The series then gradually falls to a preliminary reading in March 2003 of just below 80.

### Middle panel

#### Michigan Survey: Current and Expected Conditions

The current conditions line measures the surveyed consumers' assessment of current economic conditions, and is an index where 1966 = 100. The expected conditions line measures the surveyed consumers' assessment of expected economic conditions. The period covered is from 1978 to March 2003, and there are shaded areas that represent National Bureau of Economic Research declared recessions (1980:Q1-1980:Q3, 1981:Q3-1982:Q4, and 1990:Q3-1991:Q1).

The data are plotted on two curves. One curve represents current conditions and the other represents expected conditions. Both curves are indexes.

The curve for current conditions begins at just below 100 in 1978 and decreases steadily to a low of just above 60 in 1980. The series remains at a low level, around 75, through 1982. Then the series increases to around 110 in 1984. The series remains around 110 through 1990, before falling sharply in 1990 to around 90. After remaining around 90 through 1992, the series increases gradually to nearly 120 in 2000. The series then falls slowly to about 90 as a preliminary reading for March 2003.

The curve for expected conditions begins at just under 80 in 1978 and then falls to a low of just above 40 in 1980. The series erratically increases to about 100 in 1983, before falling slowing throughout the late 1980s to around 80 in 1989. A sudden drop to around 50 in 1990 occurs before an unsteady increase throughout the rest of the 1990s to a peak of nearly 110 in 2000. The series drops to around 70 as a preliminary reading in March 2003.

### **Bottom panel**

#### **Expected Labor Market Conditions**

The Conference Board index is a measure of expected labor market conditions in the next 6 months, which is indexed to 100 in 1985. The Michigan Survey index is a measure of expected labor market conditions over the next 12 months and is indexed to 100 in 1966. The period covered is from 1978 to March 2003, and there are shaded areas that represent National Bureau of Economic Research declared recessions (1980:Q1-1980:Q3, 1981:Q3-1982:Q4, and 1990:Q3-1991:Q1).

The data are plotted on two curves. One curve represents expected labor market conditions as measured by the Conference Board, and the other represents expected labor market conditions as measured by Michigan SRC. Both curves are indexes.

The curve for the Conference Board begins at just above 100 in 1978, then declines to a low of around 60 in 1980. The series jumps up in 1981 and remains around 90 through 1982. The series increases to about 120 in 1983 and gradually declines to about 100 in 1989 before falling sharply in 1990 to below 80. The series jumps up to around 100 in 1991 and remains near that level through the 1990s. The series decreases to about 80 in March 2003.

The curve for the Michigan Survey begins at about 90 in 1978 before falling to about 40 in 1980. The series increases to about 100 and then falls again to around 50 in late 1981. The series rises to above 120 in 1983, before steadily falling throughout the 1980s to a low of around 40 in 1990. Throughout the 1990s the series jumps around 80 before falling to nearly 50 in 2001. The series increases in 2002 and falls to about 70 in the preliminary March 2003 reading.

## **Unemployment Insurance (Seasonally adjusted, BLS basis)**

3-25-03

### **Top panel**

#### **Initial Claims**

Initial claims means weekly initial claims for unemployment insurance. The period covered is from 1990 to March 15, 2003, and the data represent thousands of claims. The data includes initial claims filed under the emergency unemployment benefits (EUC) program by individuals also eligible to file

under regular programs. The EUC program was in effect from July 18, 1992 to April 30, 1994.

The data are plotted on two curves. One curve shows weekly claims; the other shows the four-week moving average of weekly claims.

The weekly claims curve is more volatile. It starts at about 370 thousand at the beginning of 1990, moves up fairly rapidly to about 500 by early 1991, then declines gradually, though with high week-to-week volatility, to about 350 by the beginning of 1995. It then rises again to about 430 by the beginning of 1996, and falls steadily over the next several years to about 265 in the beginning of 2000. It then rises steeply to about 530 by mid-2001, and falls off gradually to 421 by March 15, 2003. All of these larger movements are marked by very volatile week-to-week movements, with large up-spikes occurring in mid-1992, mid-1993, early 1994, mid-1998, mid-2001, and early 2002.

The curve for the four-week moving average of weekly claims is smoother. It starts at about 360 thousand in the beginning of 1990, increases to about 500 by early 1991, declines to about 350 by the beginning of 1995, increases to about 380 by early 1996, declines steadily to about 265 by the beginning of 2000, rises sharply to about 480 by mid-2001, then declines gradually to 421 by March 15, 2003. While this line is considerably smoother than the weekly series, and lacks the large up-spikes of that series, it still displays some volatility over this time period.

## **Bottom panel**

### **Insured Unemployment**

Insured unemployment is continuing claims for unemployment insurance. The period covered is from 1990 to March 8 2003, and the data represent millions of people collecting unemployment insurance.

The data are plotted on two curves. One curve shows weekly insured unemployment levels. The other curve is identical to the first one in all time periods except an interval from July 18, 1992, to April 30, 1994, when it is higher than the other line. It shows weekly insured unemployment levels adjusted to include a staff estimate of people collecting emergency benefits who are also eligible to file under regular programs.

The unadjusted weekly insured unemployment curve starts at about 2.3 million in the beginning of 1990, increases rapidly to about 3.5 million by early 1991, declines only a small amount by late 1992, then falls steeply to about 2.5 million by early 1993, remains at about that level for the rest of the year, then declines gradually over several years to about 2.1 million at the end of 2000. It then rises steeply to about 3.7 million by the end of 2001, dips briefly and then rises again to about 3.8 million at the beginning of 2002, and finally falls to 3.55 million by March 8, 2003.

The adjusted insured unemployment curve is identical to the unadjusted curve except between late 1992 and early 1994. The line is at about 3.3 million (versus the 3.25 million level of the unadjusted line) in late 1992; it then declines to about 2.9 million (versus 2.5 million) by early 1993; it rises to about 3.25 million (versus 2.75 million) by the end of 1993, and finally falls steeply to rejoin the unadjusted line at about 2.75 million by early 1994.

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