The State of the Economy and Prospects for Tax Revenue in Tennessee

presented to

Tennessee State Funding Board
Nashville, Tennessee
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by

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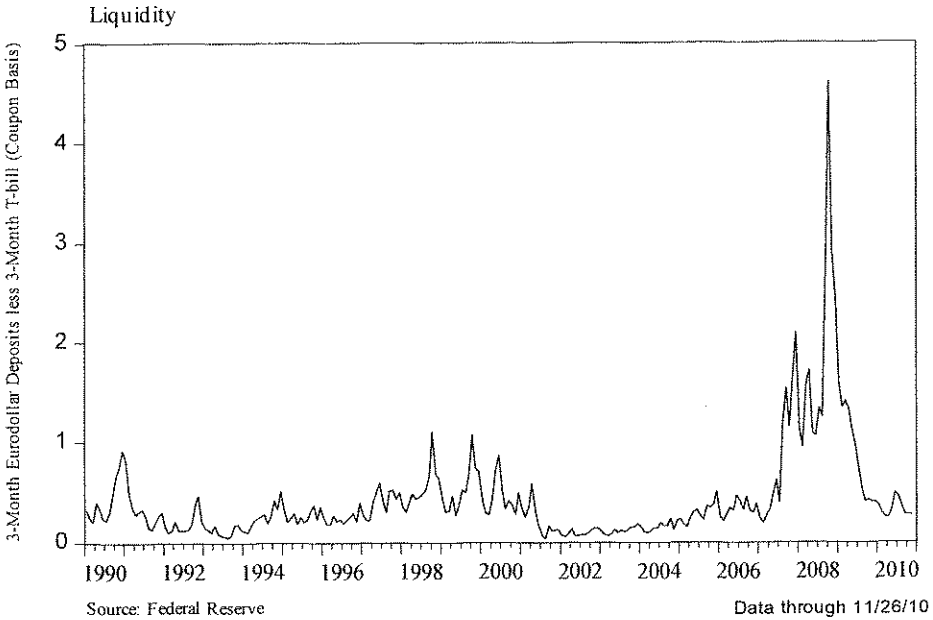
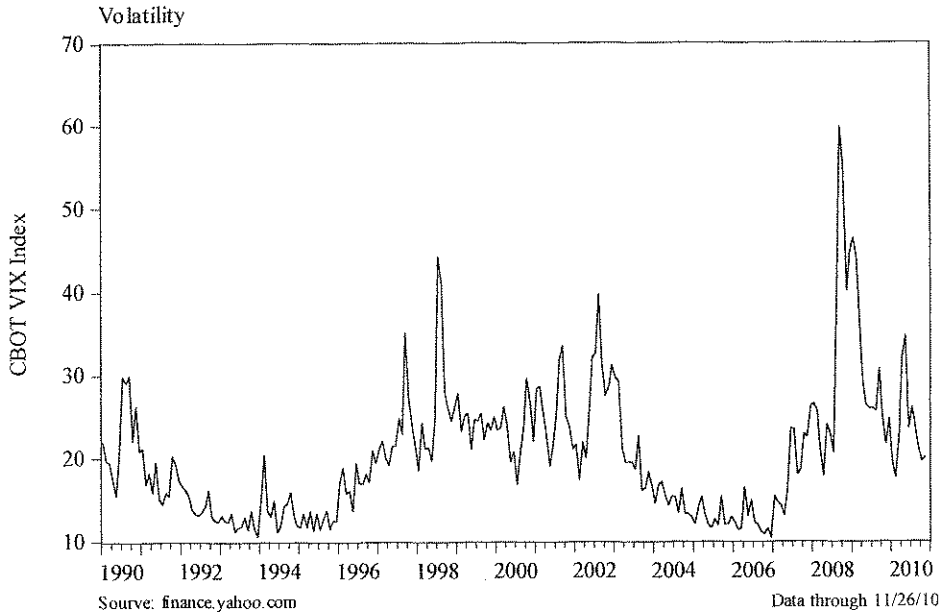
The U.S. Crisis in Perspective

Liquidity and Risk: Return to Normality?





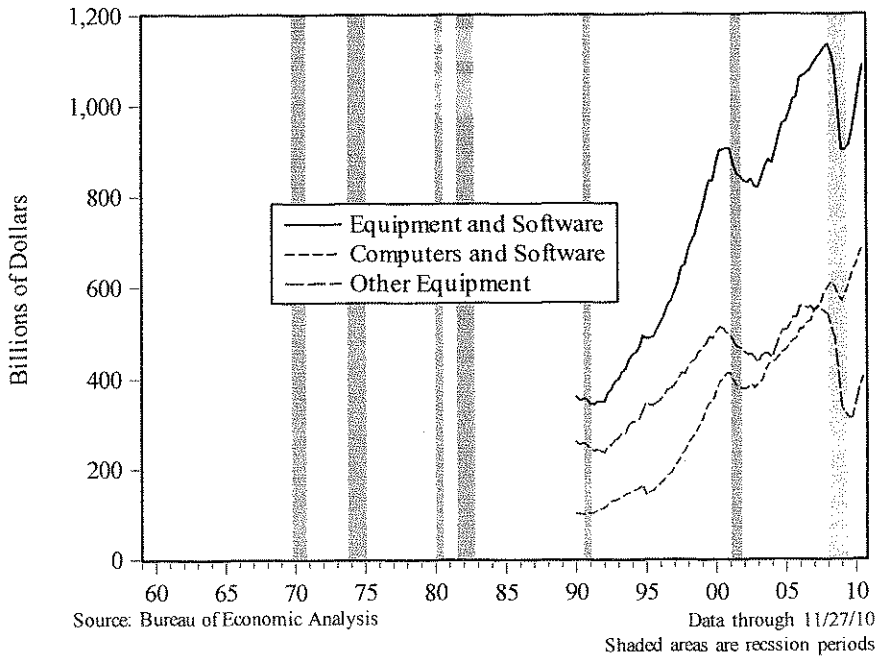
Investment Spending and the Business Cycle

Business Equipment and Software

Business equipment and software

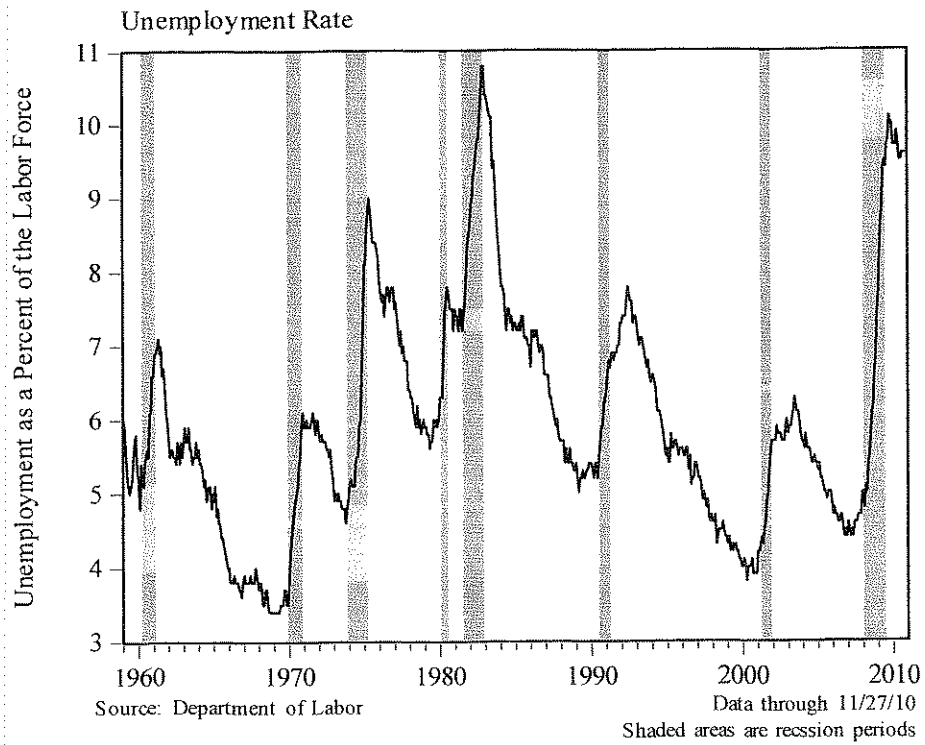
- In the last recession "all other equipment" bore the brunt of the downturn
- Not surprising since manufacturing capacity utilization rate bottomed at around 66percent

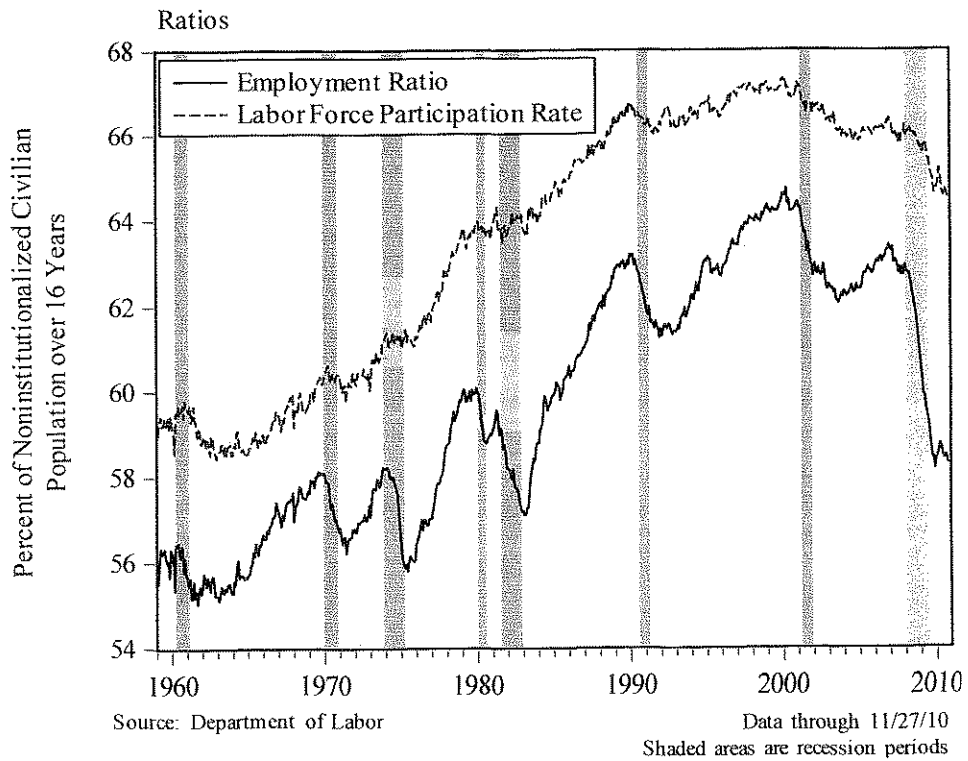
Given low state of capacity utilization, it could be some time before spending on "other equipment" reaches its pre-recession level



Labor Markets and the Business Cycle

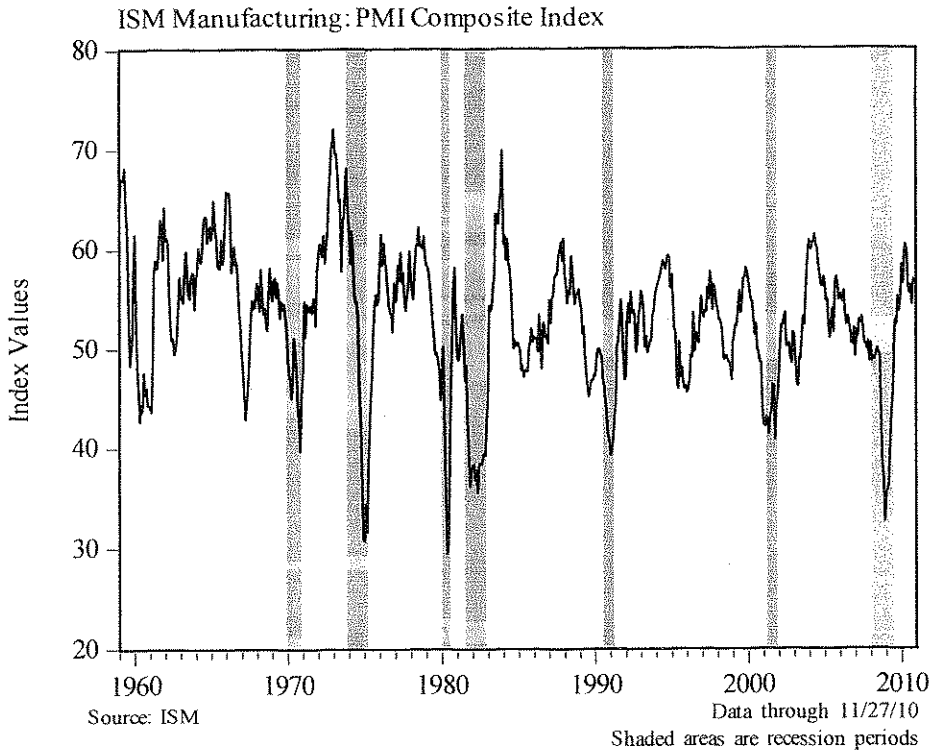
Unemployment Rate, Labor Force Participation Rate and Employment Ratio

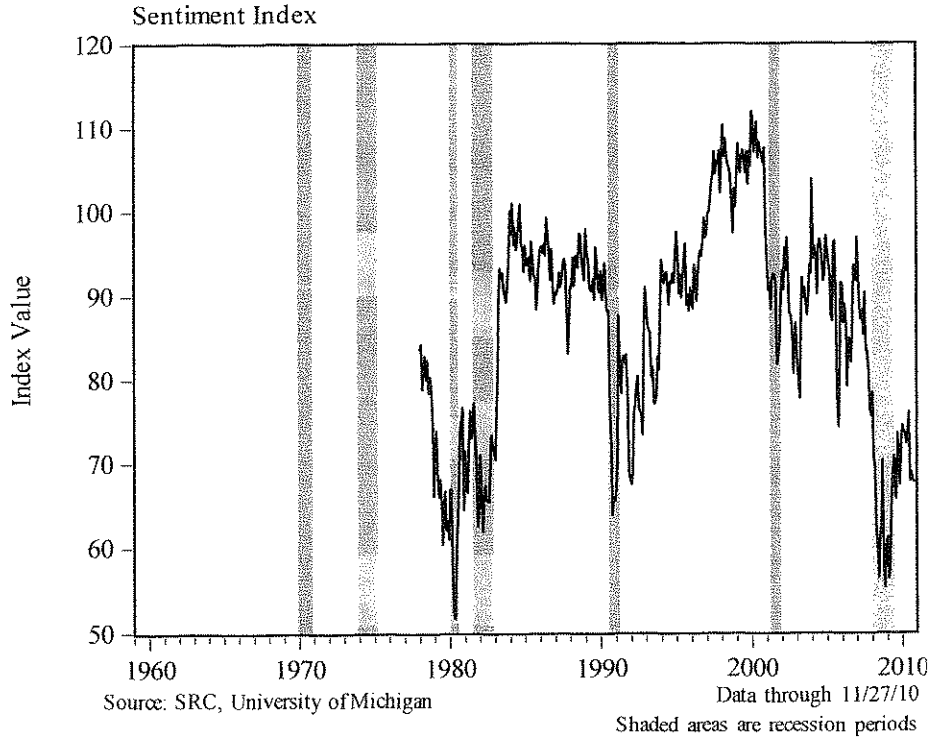




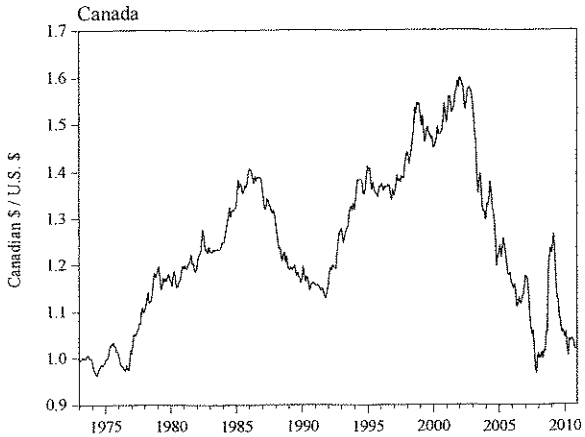
Forward Looking Indexes and the Business Cycle

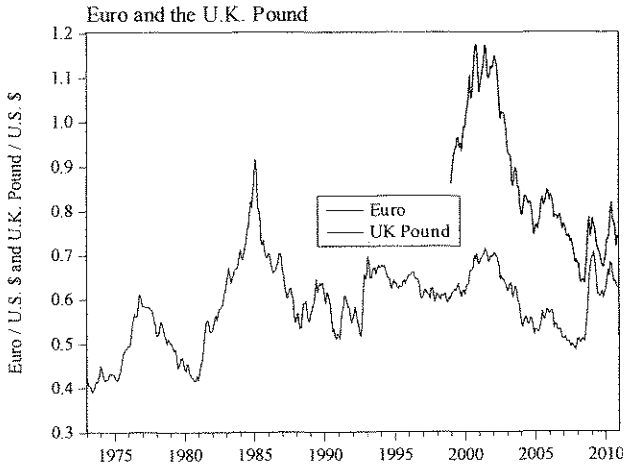
Leading Indicators and Consumer Confidence

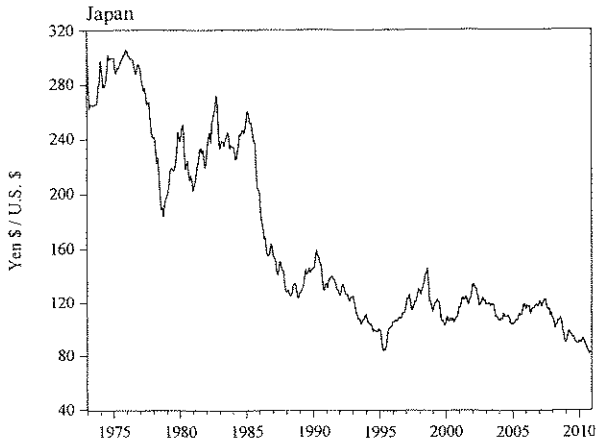


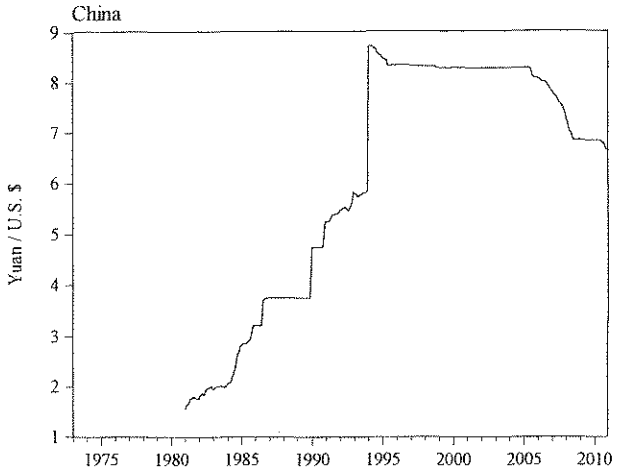


U.S. Economy: Potential Flash Points
Quantitative Easing 2 and the Dollar







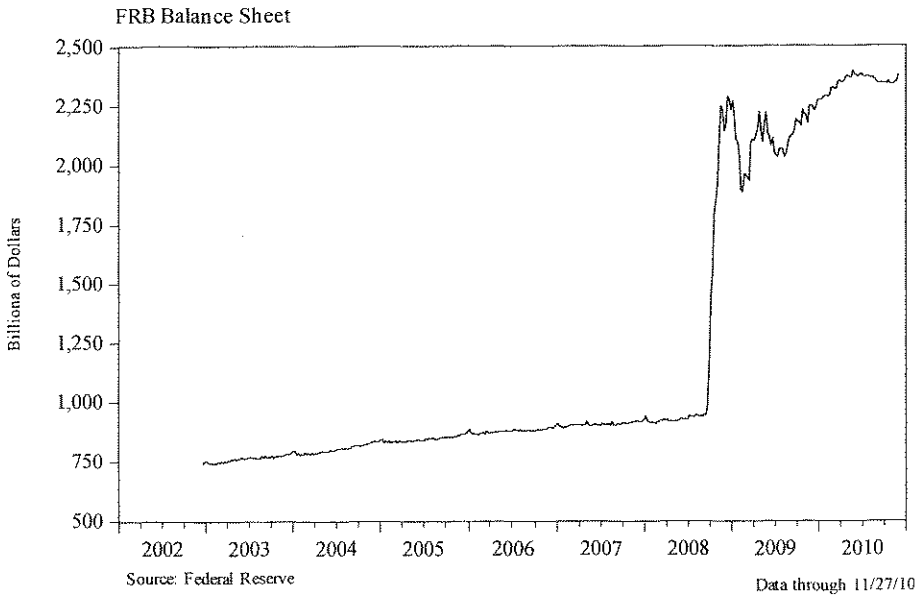


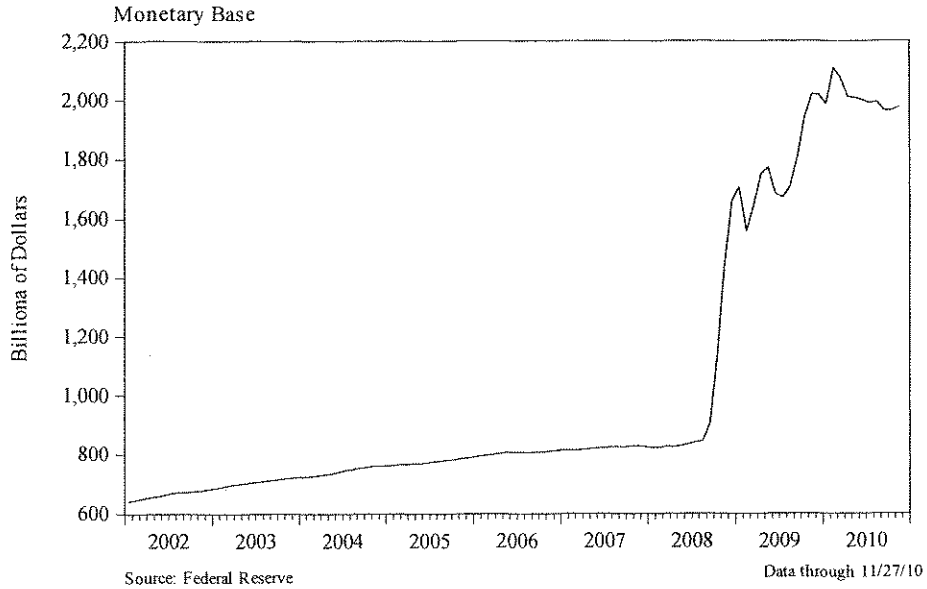
Data through 11/27/10

Data expressed as foreign currency per dollar

Source: Federal Reserve

U.S. Economy: Potential Flash Points
Quantitative Easing 2 and Inflation





The U.S. Outlook – Broad-Brush Comparison

Blue Chip Short-Term Financial Survey and the FOMC

Blue Chip Financial Survey Results			
	Consensus	10Highest	10 Lowest
4Q2010	2.3	3.0	1.6
1Q2011	2.5	3.3	1.7
2Q2011	2.7	3.5	1.8
3Q2011	3.0	4.8	2.2
4Q2011	3.1	4.0	2.3
1Q2012	3.2	4.0	2.5
December 1, 2010			

Table 1. Economic projections of Federal Reserve Governors and Reserve Bank presidents, November 2010

Variable	Central tendency					Range				
	2010	2011	2012	2013	Longer run	2010	2011	2012	2013	Longer run
Change in real GDP	2.4 to 2.5	3.0 to 3.6	3.6 to 4.5	3.5 to 4.6	2.5 to 2.8	2.3 to 2.5	2.5 to 4.0	2.6 to 4.7	3.0 to 5.0	2.4 to 3.0
Unemployment rate	9.5 to 9.7	8.9 to 9.1	7.7 to 8.2	6.9 to 7.4	5.0 to 6.0	9.4 to 9.8	8.2 to 9.3	7.0 to 8.7	5.9 to 7.9	5.0 to 6.3
PCE inflation	1.2 to 1.4	1.1 to 1.7	1.1 to 1.8	1.2 to 2.0	1.6 to 2.0	1.1 to 1.5	0.9 to 2.2	0.6 to 2.2	0.4 to 2.0	1.5 to 2.0
Core PCE inflation	1.0 to 1.1	0.9 to 1.6	1.0 to 1.6	1.1 to 2.0		0.9 to 1.4	0.7 to 2.0	0.6 to 2.0	0.5 to 2.0	

Baseline Economic Outlook

Cyclical Characteristics

		2010				2011				2012				Year-over-Year Growth		
		I(A) 2010	II(A) 2010	III(A) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	2010	2011	2012
1	Domestic Final Sales ('96$)	13433.1	13575.1	13672.6	13751.9	13827.9	13896.0	13968.4	14043.9	14127.9	14225.8	14332.0	14443.6	2.7	2.1	2.8
2	Change *	1.4	4.3	2.9	2.3	2.2	2.0	2.1	2.2	2.4	2.8	3.0	3.2			
3	Cyclical Domestic Demand ('96$)	2778.6	2872.8	2903.2	2931.7	2949.1	2963.7	2985.3	3009.7	3039.0	3078.5	3124.1	3172.2	5.5	3.7	4.2
4	Change *	6.3	14.3	4.3	4.0	2.4	2.0	2.9	3.3	4.0	5.3	6.1	6.3			
5	Cyclical Consumer Demand ('96$)	1138.9	1157.8	1178.6	1199.9	1216.8	1226.9	1241.5	1249.8	1258.3	1272.8	1287.5	1303.2	6.8	5.6	3.8
6	Change *	8.8	6.8	7.4	7.4	5.7	3.4	4.8	2.7	2.7	4.7	4.7	4.9			
7	Light Vehicles and Parts ('96$)	133.4	132.7	134.5	139.5	137.3	136.9	137.9	139.4	141.6	145.8	150.8	156.2	6.4	2.1	7.8
8	Change *	18.7	-2.1	5.5	15.6	-6.1	-1.1	2.9	4.4	6.5	12.4	14.5	15.1			
9	Other Durables ('96$)	1005.5	1025.1	1044.1	1060.5	1079.5	1090.0	1103.6	1110.5	1116.7	1127.0	1136.7	1147.0	6.8	6.0	3.3
10	Change *	7.6	8.0	7.6	6.4	7.4	3.9	5.1	2.5	2.3	3.7	3.5	3.6			
11	Fixed Investment ('96$)	1630.5	1702.5	1709.5	1731.7	1732.3	1736.8	1743.8	1759.8	1780.6	1805.7	1836.5	1869.1	3.9	2.9	4.6
12	Change *	5.0	5.0	5.0	5.3	0.1	1.0	1.6	3.7	4.8	5.8	7.0	7.3			
13	Resid. Construction (96$)	330.7	350.1	323.1	311.9	302.9	295.9	291.2	289.6	288.1	288.0	289.2	291.3	-4.0	-10.3	-2.0
14	Change *	-12.3	25.6	-27.5	-13.1	-11.0	-8.9	-6.2	-2.3	-2.0	-0.2	1.7	2.9			
15	Nonresid. Construction ('96$)	319.3	318.9	314.2	312.2	311.7	311.6	311.9	312.1	312.2	312.9	314.1	315.6	-14.5	-1.4	0.6
16	Change *	-17.8	-0.5	-5.8	-2.5	-0.7	-0.1	0.3	0.3	0.1	0.9	1.5	1.9			
17	Equipment and Software ('96$)	989.7	1046.0	1087.3	1107.6	1117.7	1129.3	1140.7	1158.2	1180.3	1204.8	1233.3	1262.2	15.4	7.5	7.4
18	Change *	20.5	24.8	16.8	7.7	3.7	4.2	4.1	6.3	7.9	8.6	9.8	9.7			
19	Noncyclical Demand ('96$)@	10360.2	10322.1	10374.2	10391.7	10459.7	10501.9	10550.9	10608.9	10668.7	10724.5	10780.5	10839.8	2.0	1.6	2.1
20	Change *	3.1	-1.5	2.0	0.7	2.6	1.6	1.9	2.2	2.3	2.1	2.1	2.2			
21	Chg. in Business Inventories	44.1	68.8	111.5	87.0	81.5	72.8	69.3	65.6	62.7	60.6	59.1	58.0			
22	Gross Domestic Purchases ('96$)&	13449.4	13624.4	13766.5	13838.8	13909.4	13968.8	14037.7	14109.4	14190.6	14286.4	14391.1	14501.6	3.5	2.5	2.4
23	Change *	4.0	5.3	4.2	2.1	2.1	1.7	2.0	2.1	2.3	2.7	3.0	3.1			
24	Net Exports ('96$)	-338.4	-449.0	-506.7	-515.5	-500.5	-503.2	-501.5	-490.9	-482.9	-483.4	-486.6	-489.5			
25	GDP ('96$)**	13138.8	13194.9	13277.4	13323.3	13408.8	13465.6	13536.2	13618.5	13707.7	13803.0	13904.6	14012.1	2.7	2.1	2.6
	Change *	3.7	1.7	2.5	1.4	2.6	1.7	2.1	2.5	2.6	2.8	3.0	3.1			

@ Noncyclical Demand = Consumer spending on nondurable goods and services and all forms of government spending (excluding CCC inventories)
& Gross Domestic Purchases = Domestic final demand plus Change *
A = Actual; E = Forecast * Annualized percent change Except for price indexes, all data in billions of dollars Historical sources: BEA and BLS Npvember 27, 2010

Baseline Economic Outlook

Corporate and International Sectors

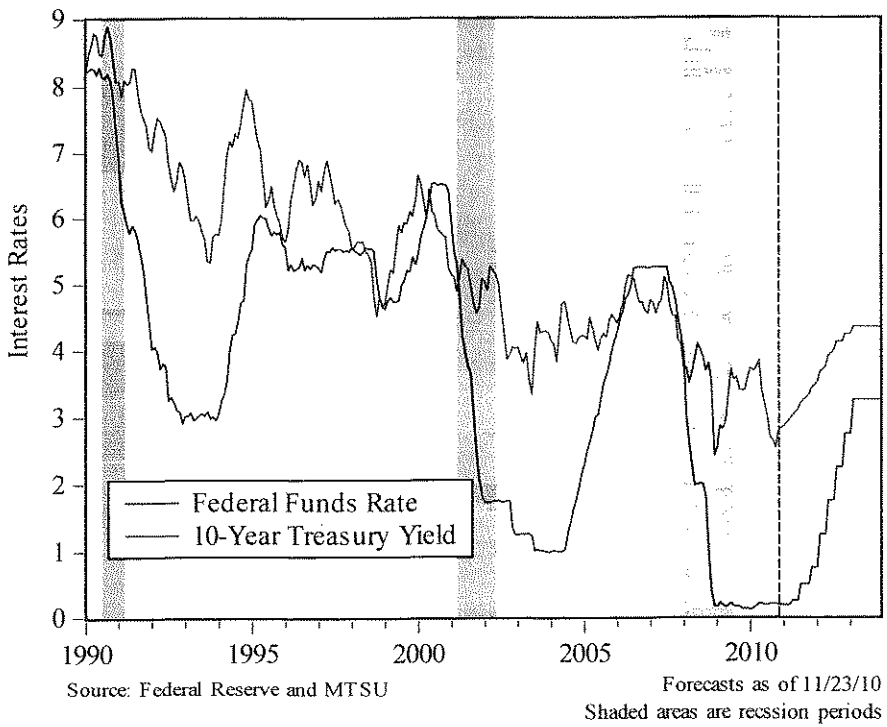
		2010				2011				2012				Year-over-Year Growth		
		I(A) 2010	II(A) 2010	III(A) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	2010	2011	2012
1	Fixed Business Invest. ('96$)	1302.6	1355.3	1388.9	1419.8	1429.4	1440.9	1452.6	1470.3	1492.5	1517.7	1547.4	1577.8	5.9	6.0	5.9
2	Change *	5.5	5.6	5.6	9.2	2.7	3.3	3.3	5.0	6.2	6.9	8.0	8.1			
3	Structures	319.3	318.9	314.2	312.2	311.7	311.6	311.9	312.1	312.2	312.9	314.1	315.6	-14.5	-1.4	0.6
4	Change *	-17.8	-0.5	-5.8	-2.5	-0.7	-0.1	0.3	0.3	0.1	0.9	1.5	1.9			
5	Producer Equip. & Software	989.7	1046.0	1087.3	1107.6	1117.7	1129.3	1140.7	1158.2	1180.3	1204.8	1233.3	1262.2	15.4	7.5	7.4
6	Change *	20.5	24.8	16.8	7.7	3.7	4.2	4.1	6.3	7.9	8.6	9.8	9.7			
7	Chg. in Bus. Invent. ('96$)	44.1	68.8	111.5	87.0	81.5	72.8	69.3	65.6	62.7	60.6	59.1	58.0			
8	Chg. in Nonfarm Inventories	36.5	61.0	106.0	83.3	78.7	70.6	67.5	64.0	61.3	59.3	57.8	56.7			
9	Corporate Profits (B.T.)	1772.9	1788.2	1864.5	1942.6	2020.0	2053.4	2139.5	2240.1	2370.9	2523.0	2677.3	2823.6			
10	Corporate Profits (A.T.)	1369.7	1382.6	1427.1	1495.8	1555.4	1581.2	1647.4	1724.9	1825.6	1942.7	2061.5	2174.2	33.6	14.7	23.0
11	Change *	54.1	3.8	13.5	20.7	16.9	6.8	17.9	20.2	25.5	28.2	26.8	23.7			
12	Internal Funds (A.T.)	1084.3	1091.6	1103.1	1148.0	1184.7	1214.1	1261.1	1317.3	1369.5	1409.3	1453.5	1501.2	6.7	12.4	15.2
13	Change *	-20.8	2.7	4.3	17.3	13.4	10.3	16.4	19.1	16.8	12.1	13.2	13.8			
14	Dividends	720.3	728.4	736.6	746.9	761.3	777.3	794.0	810.8	824.9	831.6	839.3	848.1	2.0	7.2	6.4
15	Change *	6.8	4.6	4.6	5.7	7.9	8.7	8.9	8.7	7.1	3.3	3.8	4.3			
16	Output per Hour *	3.5	-1.8	2.2	0.4	2.0	1.1	1.6	2.1	2.2	2.3	2.4	2.5	3.3	1.3	2.1
17	Hourly Compensation *	-1.1	-0.7	2.1	1.5	1.9	1.9	1.7	2.6	2.7	2.9	3.1	3.3	1.2	1.7	2.6
18	Unit Labor Costs *	-4.5	1.1	-0.1	1.1	-0.1	0.8	0.1	0.5	0.6	0.6	0.7	0.8	-2.1	0.4	0.5

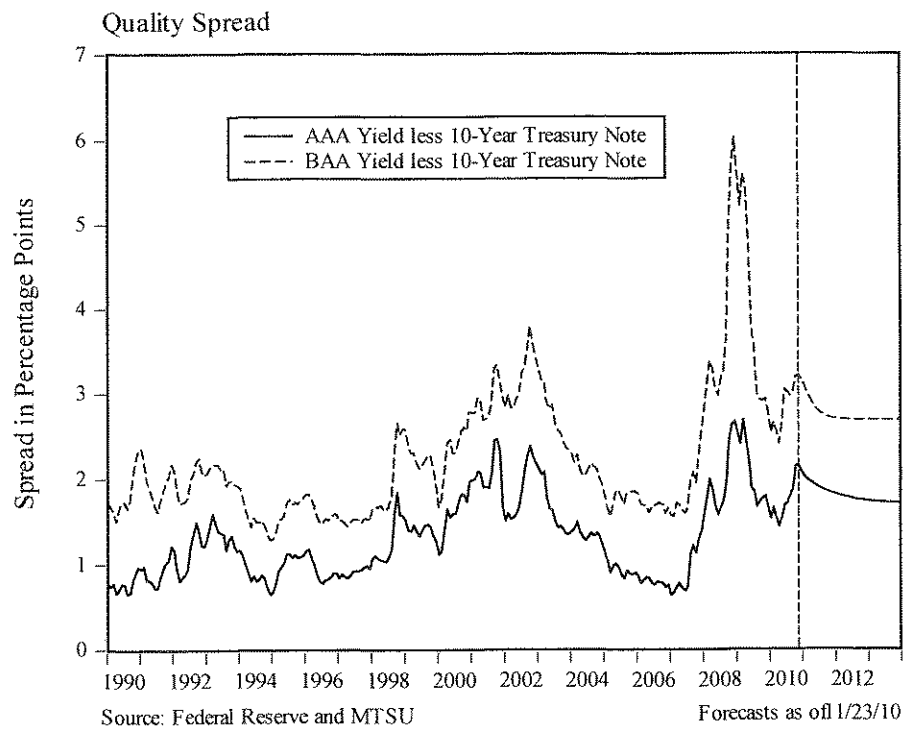
		2010				2011				2012				Year-over-Year Growth		
		I(A) 2010	II(A) 2010	III(A) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	2010	2011	2012
1	Net Exports ('96$)	-338.4	-449.0	-506.7	-515.5	-500.5	-503.2	-501.5	-490.9	-482.9	-483.4	-486.6	-489.5			
2	Exports ('96$)	1616.4	1652.1	1677.5	1701.3	1725.0	1747.9	1770.8	1793.7	1816.8	1840.2	1863.9	1887.9	11.5	5.9	5.3
3	Change *	11.4	9.1	6.3	5.8	5.7	5.4	5.3	5.3	5.3	5.3	5.3	5.2			
4	Imports ('96$)	1954.8	2101.1	2184.2	2216.8	2225.5	2251.1	2272.2	2284.6	2299.7	2323.6	2350.5	2377.4	14.1	6.8	3.5
5	Change *	11.2	33.5	16.8	6.1	1.6	4.7	3.8	2.2	2.7	4.2	4.7	4.7			
6	Trade-Weighted Index	75.3	77.6	75.9	72.7	72.4	72.9	73.0	73.2	72.9	72.8	72.8	72.6	-3.1	-3.3	-0.1

A = Actual; E = Forecast * Annualized percent change Except where noted, all data in billions of dollars Historical sources: BEA, BLS, and Federal Reserve November 27, 2010

Interest Rate Outlook – Graphic Portrayal

MTSU Baseline Interest Rate Forecast





Interest Rate Forecasts

Capital Market Rates

		2010				2011				20112				Annual Averages		
		I(A) 2010	II(A) 2010	III(A) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	2010	2011	2012
	U.S. Treasury Notes and Bonds															
1	1-Yr Note	0.37	0.38	0.27	0.26	0.37	0.51	0.81	1.02	1.45	1.95	2.42	2.84	0.32	0.68	2.17
2	2-Yr Note	0.92	0.87	0.54	0.48	0.68	0.84	1.15	1.39	1.83	2.33	2.80	3.20	0.70	1.01	2.54
3	5-Yr Note	2.42	2.25	1.55	1.34	1.53	1.71	1.97	2.20	2.53	2.91	3.24	3.46	1.89	1.85	3.04
4	10-Yr Note	3.72	3.49	2.79	2.72	2.91	3.06	3.24	3.41	3.63	3.87	4.08	4.20	3.18	3.15	3.95
5	30-Yr Note	4.49	4.20	3.60	3.79	3.92	3.79	4.02	4.10	4.13	4.31	4.38	4.39	4.02	3.96	4.30
	Other Bonds															
6	AAA Bonds	5.29	5.04	4.58	4.85	4.91	4.98	5.11	5.23	5.43	5.64	5.84	5.94	4.94	5.06	5.71
7	BAA Bonds	6.29	6.18	5.78	5.90	5.93	5.89	5.98	6.10	6.31	6.55	6.76	6.88	6.04	5.97	6.62
8	State and Local	4.35	4.35	4.07	4.28	4.29	4.14	4.16	4.22	4.36	4.53	4.68	4.76	4.26	4.20	4.58
	Mortgage Rates - Primary Mkt															
9	30-Yr (FHLMC - PMMS)	4.63	4.57	3.99	3.94	4.20	4.42	4.67	4.88	5.15	5.42	5.66	5.81	4.28	4.54	5.51
10	15-Yr (FHLMC - PMMS)	3.96	3.99	3.39	3.05	3.12	3.25	3.50	3.69	4.00	4.36	4.67	4.89	3.60	3.39	4.48
11	ARM (FHLMC - PMMS)	4.25	4.01	3.57	3.28	3.14	3.10	3.25	3.36	3.71	4.14	4.56	4.95	3.78	3.21	4.34
	Mortgage Rates - Secondary Mkt															
12	30-Yr (FLHMC Req Net Yield)	5.00	4.91	4.45	4.28	4.48	4.67	4.90	5.10	5.35	5.61	5.84	5.97	4.66	4.79	5.69
13	15-Yr (FHLMC Req Net Yield)	4.38	4.29	3.92	3.67	3.72	3.84	4.05	4.21	4.50	4.83	5.11	5.29	4.06	3.96	4.93

Sources: Federal Reserve, Federal Home Loan Bank, Federal Home Loan Mortgage Corp

November 23, 2010

Baseline Economic Outlook

Economics Outlook for Tennessee

	2010				2011				2012				Year-over-Year Growth		
	I(A) 2010	II(A) 2010	III(E) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	2010	2011	2012
National Trends															
1 Civilian Employment (Mil.)	138.6	139.3	139.2	139.4	139.6	139.9	140.1	140.3	140.6	141.0	141.3	141.7	-0.5	0.6	0.8
2 Change *	1.4	2.0	-0.4	0.5	0.7	0.7	0.7	0.6	0.8	1.0	1.1	1.1			
3 Personal Income	12350.3	12517.1	12600.4	12707.8	12826.6	12941.6	13059.8	13177.2	13300.0	13427.1	13551.9	13687.1	3.0	3.6	3.8
4 Change *	3.7	5.5	2.7	3.5	3.8	3.6	3.7	3.6	3.8	3.9	3.8	4.1			
5 Income Per Employee (T)	89.091	89.837	90.520	91.176	91.879	92.532	93.206	93.895	94.571	95.247	95.881	96.572	3.6	3.0	2.9
6 Change *	2.2	3.4	3.1	2.9	3.1	2.9	2.9	3.0	2.9	2.9	2.7	2.9			
7 Housing Starts (Mil. of Units)	0.617	0.602	0.584	0.632	0.652	0.651	0.690	0.769	0.884	0.999	1.120	1.239	9.8	13.4	53.6
8 Change *	42.6	-9.4	-11.4	36.9	13.2	-0.2	25.9	54.1	74.4	63.4	58.1	49.8			
Tennessee															
9 Nonagricultural Employment (T)	2594.0	2610.0	2607.7	2619.4	2623.8	2627.9	2631.7	2636.1	2641.7	2647.4	2653.2	2658.8	-0.5	0.8	0.8
10 Change *	0.2	2.5	-0.4	1.8	0.7	0.6	0.6	0.7	0.9	0.9	0.9	0.9			
11 Personal Income	220.8	223.0	225.0	226.5	228.3	230.2	232.1	234.0	236.1	238.1	240.1	242.3	3.8	3.3	3.5
12 Change *	7.0	4.2	3.6	2.6	3.2	3.4	3.4	3.3	3.6	3.5	3.4	3.7			
13 Dividends & Interest	29.8	29.9	30.0	30.2	30.5	30.8	31.1	31.4	31.7	32.0	32.3	32.6	1.2	3.1	4.0
14 Change *	5.2	0.9	1.6	2.4	3.6	3.9	4.0	4.1	4.2	3.7	4.0	4.3			
15 Income Per Employee (T)	85.105	85.448	86.278	86.453	86.995	87.588	88.205	88.772	89.363	89.938	90.505	91.145	4.3	2.4	2.7
16 Change *	6.8	1.6	3.9	0.8	2.5	2.8	2.9	2.6	2.7	2.6	2.5	2.9			
17 Retail Sales	82.6	85.4	84.9	84.9	85.8	86.0	86.8	87.6	87.8	88.6	89.1	89.6	4.9	2.5	2.6
18 Change *	-1.5	14.2	-2.3	0.0	4.4	1.1	3.5	3.9	0.9	3.5	2.4	2.3			
19 Single-Family Building Permits (T)	13.495	12.568	10.144	10.695	11.201	11.317	11.601	12.287	13.894	15.817	17.850	19.839	-2.0	-1.1	45.2
20 Change *	-1.8	-24.8	-57.6	23.6	20.3	4.2	10.4	25.8	63.5	68.0	62.2	52.6			
21 Total Building Permits (T)	19.575	17.033	14.490	15.207	15.806	15.835	16.229	17.222	19.431	21.369	23.573	25.740	15.7	-1.8	38.4
22 Change *	152.0	-42.7	-47.6	21.3	16.7	0.7	10.3	26.8	62.0	46.3	48.1	42.2			

Note: Except where noted, all data in billions of dollars. Historic sources: BEA, BLS, State of Tennessee T=Thousands of units, persons, or dollars November 27, 2010

A = Actual; E = Forecast * Quarter-to-quarter percent changes expressed at compound annual rates.

Baseline Economic Outlook

Baseline Revenue Projections

		FY99-00	FY00-01	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	Forecasts FY10-11	FY11-12	FY12-13
11	Total Tax Revenue*	7,526.8	7,656.4	7,469.0	8,449.7	9,094.0	9,638.6	10,290.8	11,066.5	11,194.5	10,199.7	10,089.0	10,262.5	10,471.1	10,748.4
12	Chg@	7.8	1.7	-2.4	13.1	7.6	6.0	6.8	7.5	1.2	-8.9	-1.1	1.7	2.0	2.6
13	Sales and Use Tax*	4,600.7	4,643.3	4,645.7	5,459.4	5,810.8	6,091.5	6,515.6	6,810.2	6,856.6	6,331.3	6,188.6	6,267.0	6,387.5	6,533.7
14	Chg@	5.9	0.9	0.1	17.5	6.4	4.8	7.0	4.5	0.7	-7.7	-2.3	1.3	1.9	2.3
15	Income Tax*	179.9	199.4	141.7	102.9	140.0	155.9	194.4	248.8	292.1	221.2	171.7	186.5	197.7	215.0
16	Chg@	12.2	10.8	-28.9	-27.4	36.0	11.4	24.7	28.0	17.4	-24.3	-22.4	8.6	6.0	8.8
17	Gross Receipts Tax*	213.1	248.6	224.3	216.5	219.1	235.9	241.2	274.3	290.6	315.1	350.6	327.7	331.0	336.1
18	Chg@	7.9	16.6	-9.8	-3.5	1.2	7.6	2.2	13.7	6.0	8.4	11.3	-6.5	1.0	1.6
19	Excise plus Franchise Taxes*	1,083.0	1,102.8	966.3	1,071.7	1,197.8	1,372.0	1,491.6	1,749.1	1,650.4	1,368.7	1,423.6	1,462.9	1,488.3	1,549.6
20	Chg@	21.5	1.8	-12.4	10.9	11.8	14.5	8.7	17.3	-5.6	-17.1	4.0	2.8	1.7	4.1
21	Gasoline Tax*	576.1	569.4	576.9	600.1	599.3	608.1	605.6	612.8	616.8	601.3	607.1	616.5	625.3	633.3
22	Chg@	1.5	-1.2	1.3	4.0	-0.1	1.5	-0.4	1.2	0.7	-2.5	1.0	1.6	1.4	1.3
23	Vehicle Registration*	218.6	211.4	219.6	225.0	238.5	244.2	249.5	259.9	253.7	241.3	239.4	245.2	250.9	256.5
24	Chg@	8.7	-3.3	3.9	2.5	6.0	2.4	2.2	4.1	-2.4	-4.9	-0.8	2.4	2.3	2.2
25	Fuel Tax*	152.8	173.4	151.2	155.4	167.7	173.7	180.7	185.7	182.4	154.8	154.6	156.2	157.5	158.1
26	Chg@	7.2	13.5	-12.8	2.8	7.9	3.5	4.0	2.8	-1.8	-15.1	-0.1	1.0	0.8	0.4
27	Privilege Tax*	153.7	160.8	177.4	216.5	246.1	264.9	304.9	350.7	314.2	255.6	247.6	262.8	266.3	270.9
28	Chg@	7.8	4.6	10.3	22.1	13.6	7.7	15.1	15.0	-10.4	-18.7	-3.1	6.1	1.3	1.7
29	All Other Taxes*	348.9	347.2	365.8	401.9	474.6	492.4	507.3	575.1	737.7	710.3	705.8	737.6	766.6	795.2
30	Chg@	5.6	-0.5	5.4	9.9	18.1	3.7	3.0	13.4	28.3	-3.7	-0.6	4.5	3.9	3.7

* Millions of dollars

@ Annual Percent Change

November 29, 2010