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

presented to

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by

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

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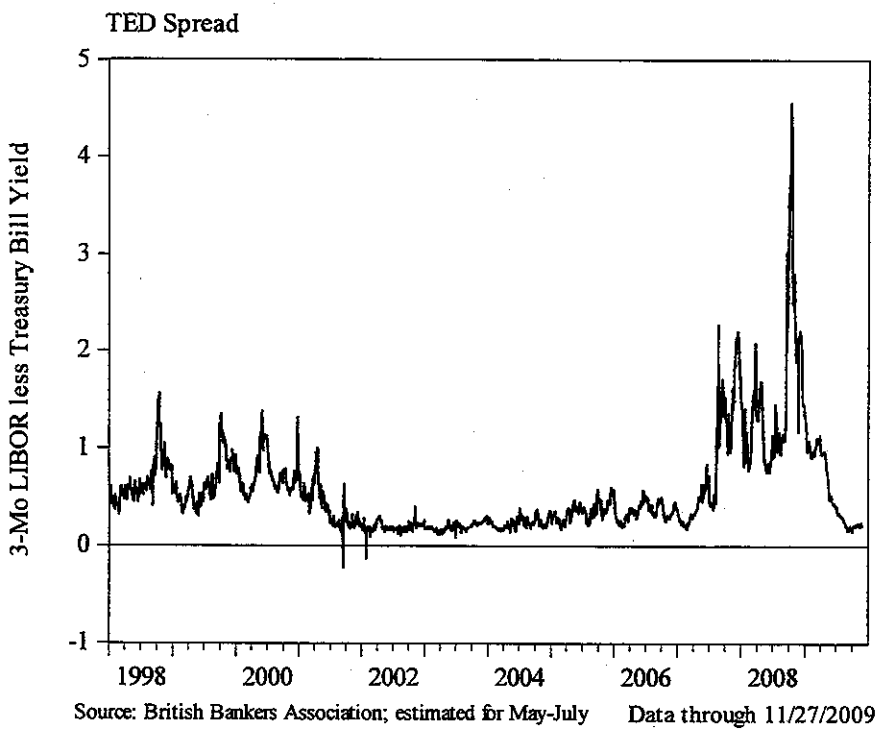
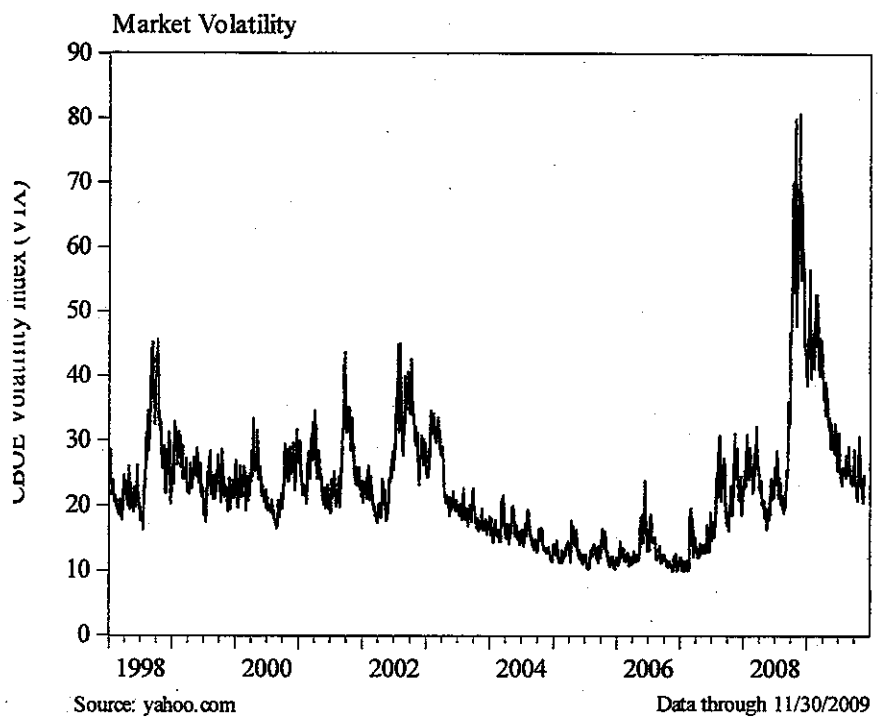
The U.S. Crisis in Perspective

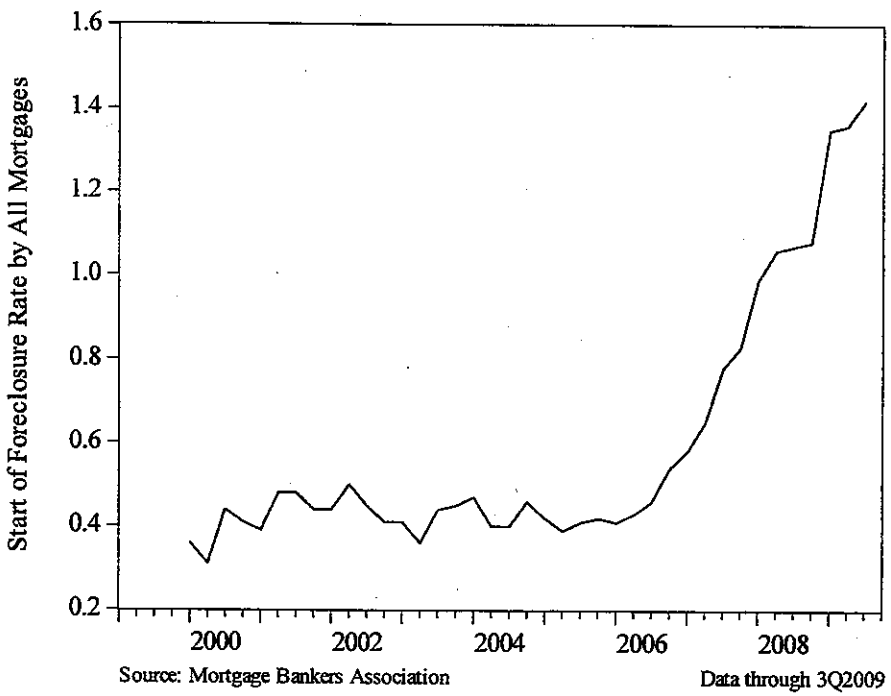
Liquidity and Risk





The U.S. Crisis in Perspective

Housing Sector—Foreclosures



Problem is now in the prime mortgage area

- 33 percent of foreclosures started in the third quarter were prime fixed-rate
- Prime fixed loans were 44 percent of the quarterly increase in foreclosures
- Prime fixed loans were 54 percent of the quarterly increase delinquent loans

The performance of prime adjustable rate loans is also deteriorating

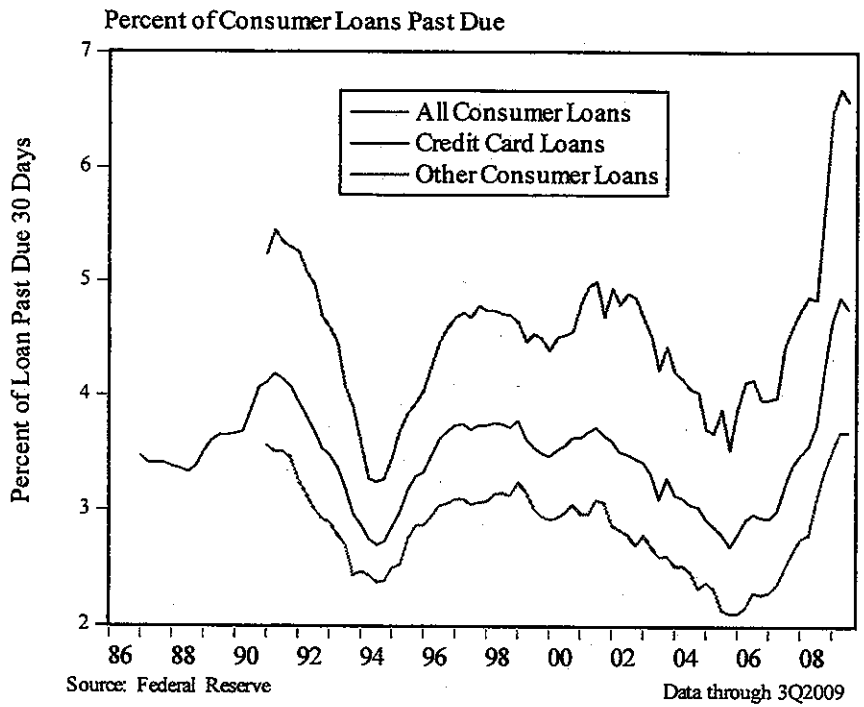
Problem in sub-prime area is improving

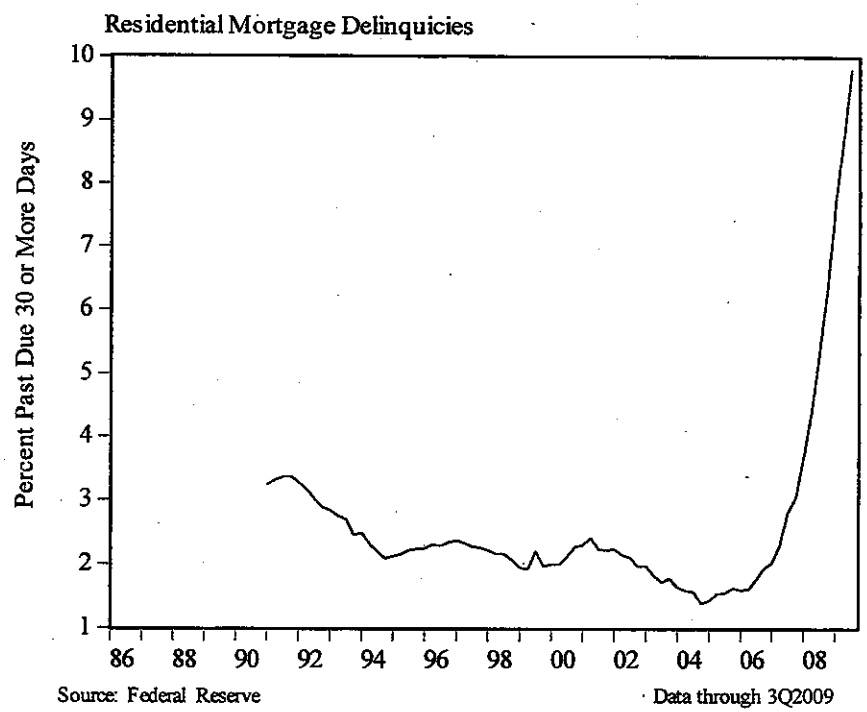
- Fixed-rate and sub-prime adjustable rate loans saw decreases in foreclosures

Source: Mortgage Bankers Association 11/19/09

The U.S Crisis in Perspective

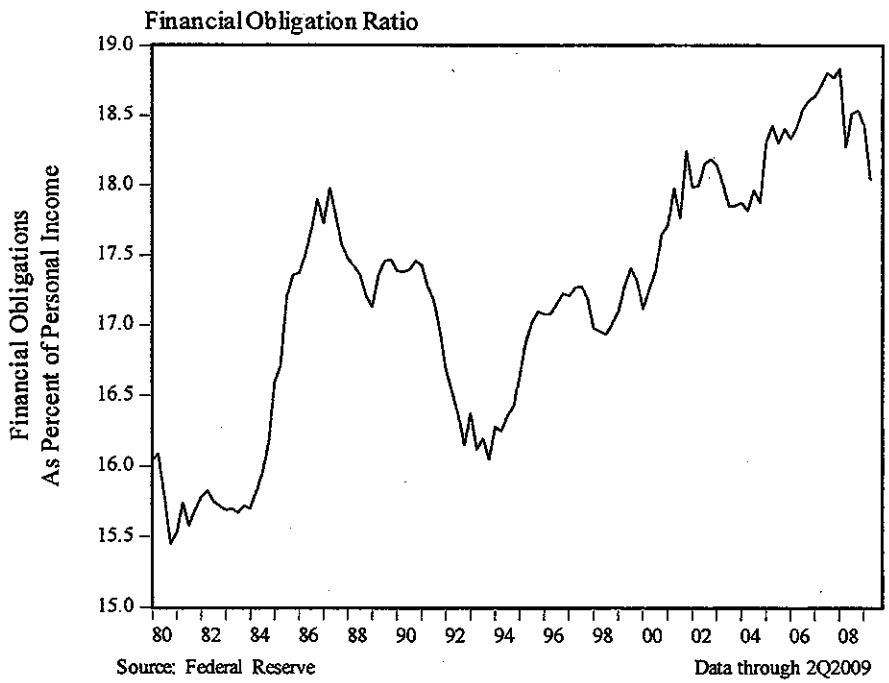
Household Sector –Commercial Bank Delinquency Rates



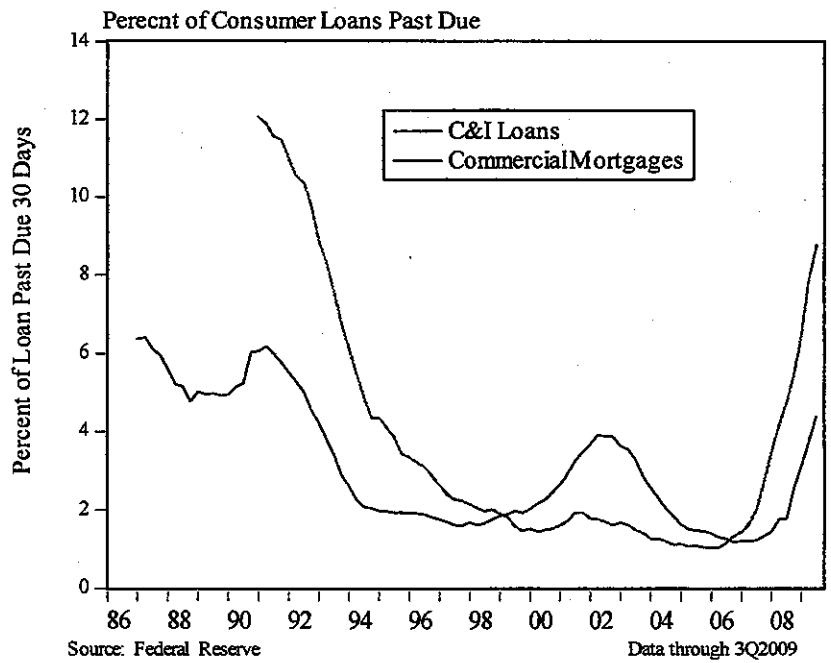


The U.S. Crisis in Perspective

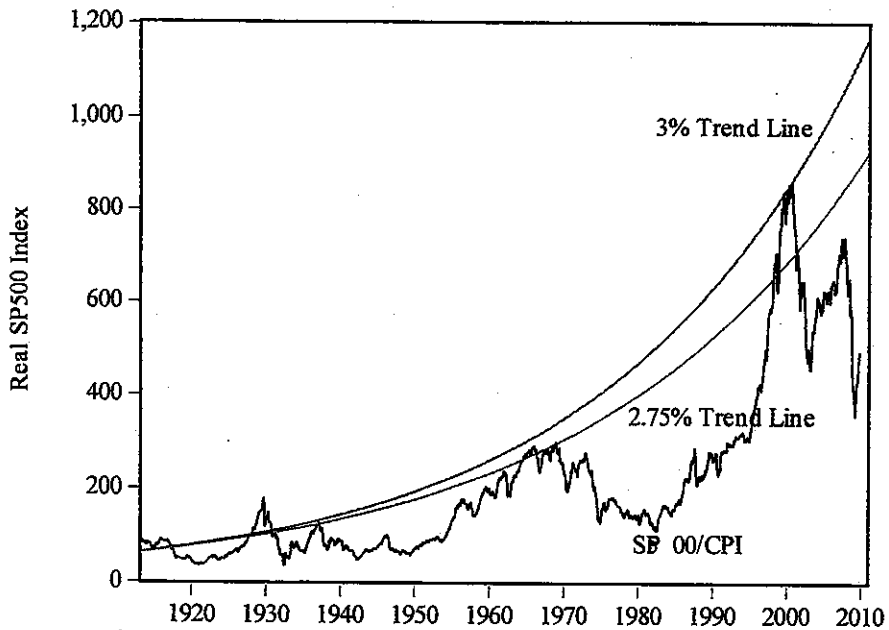
Household Sector—Debt Service Burden



Business Sector—Commercial Bank Delinquency Rates

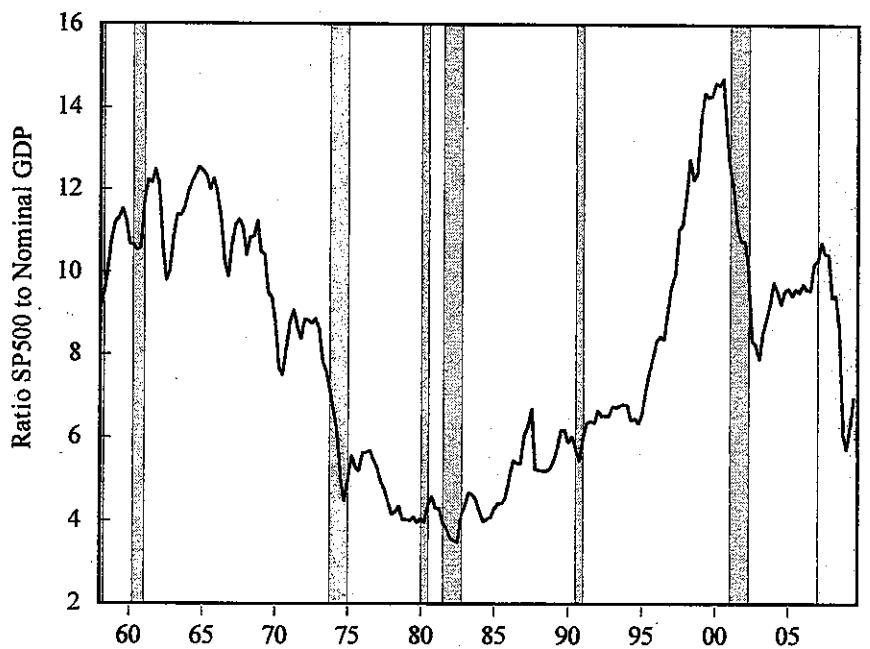


The U.S. Crisis in Perspective
The Equity Market



Source: Federal Reserve and Bureau of Labor Statistics

Data through 11/30/09

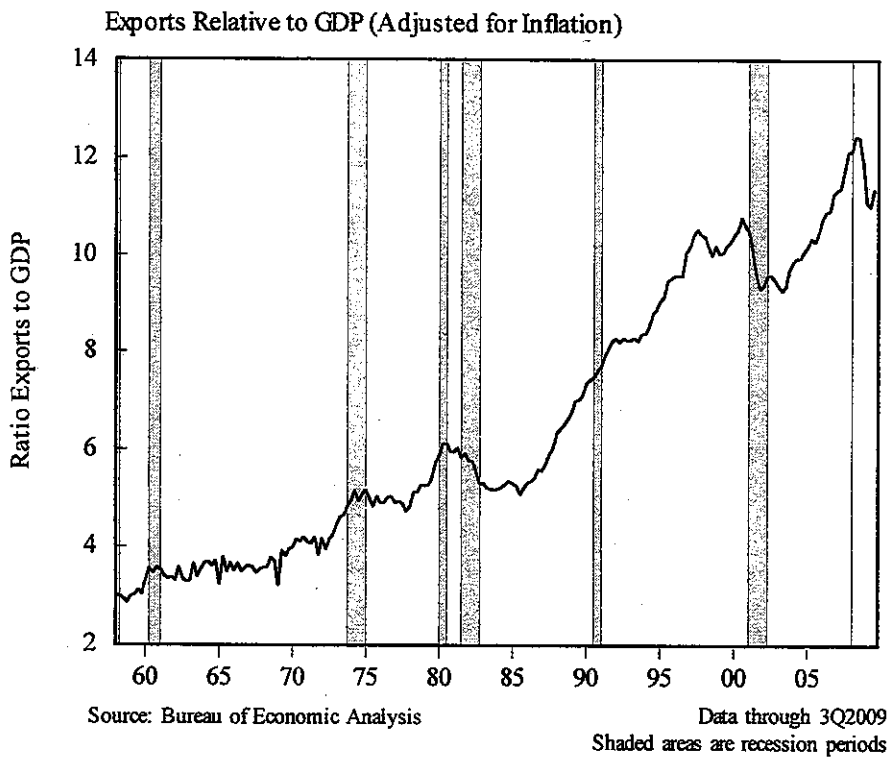


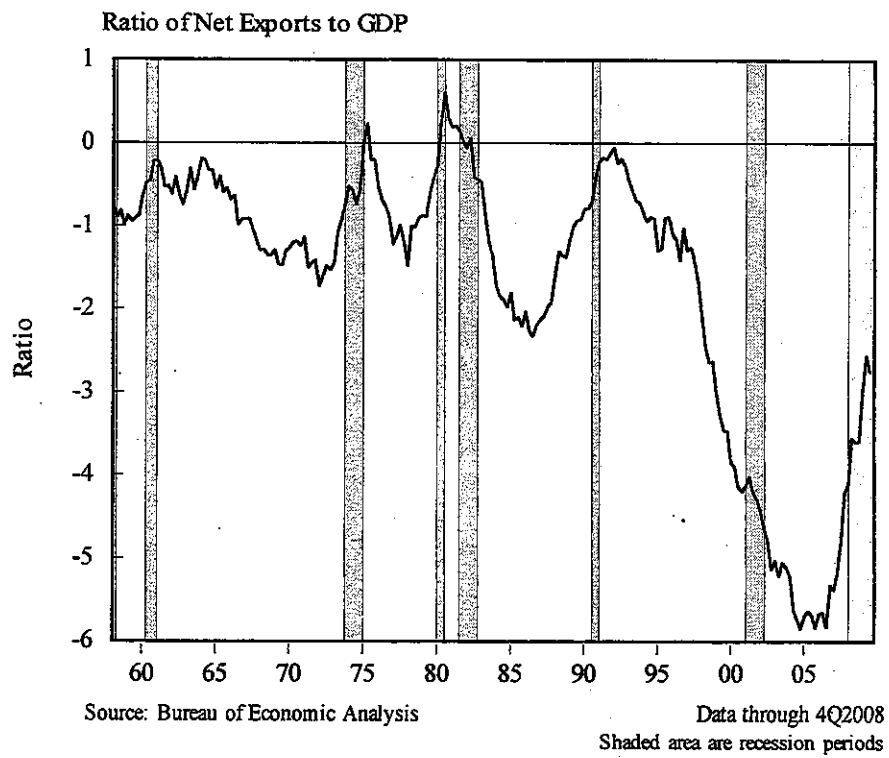
Source: Standard and Poors and Bureau of Economic Analysis

Data Estimatde for 4Q2009
Shaded areas are recession periods

The U.S. in a Global Environment

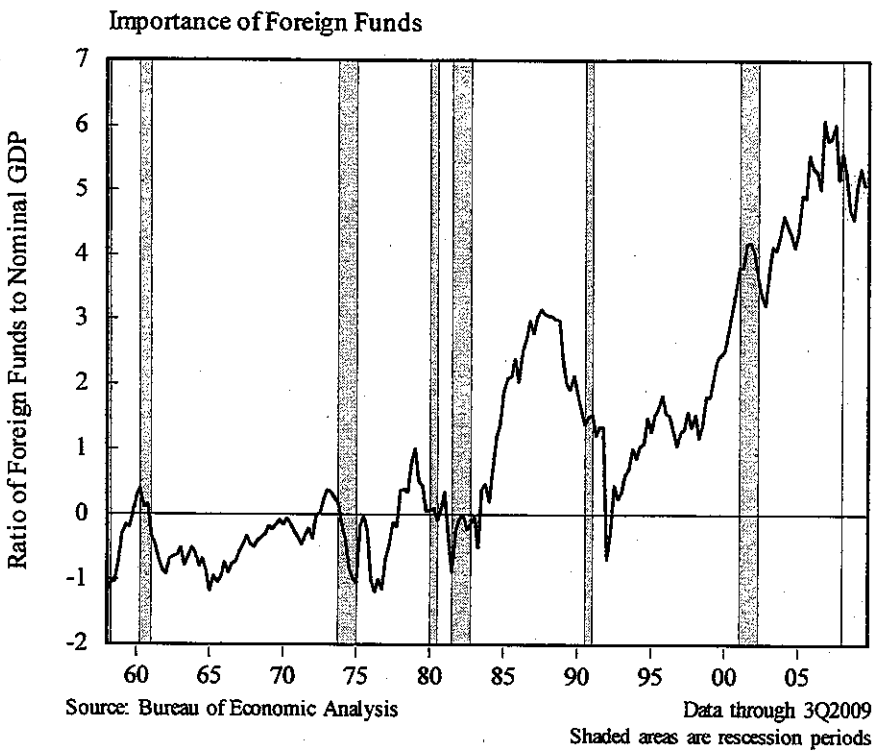
Exports and the Net Export Deficit

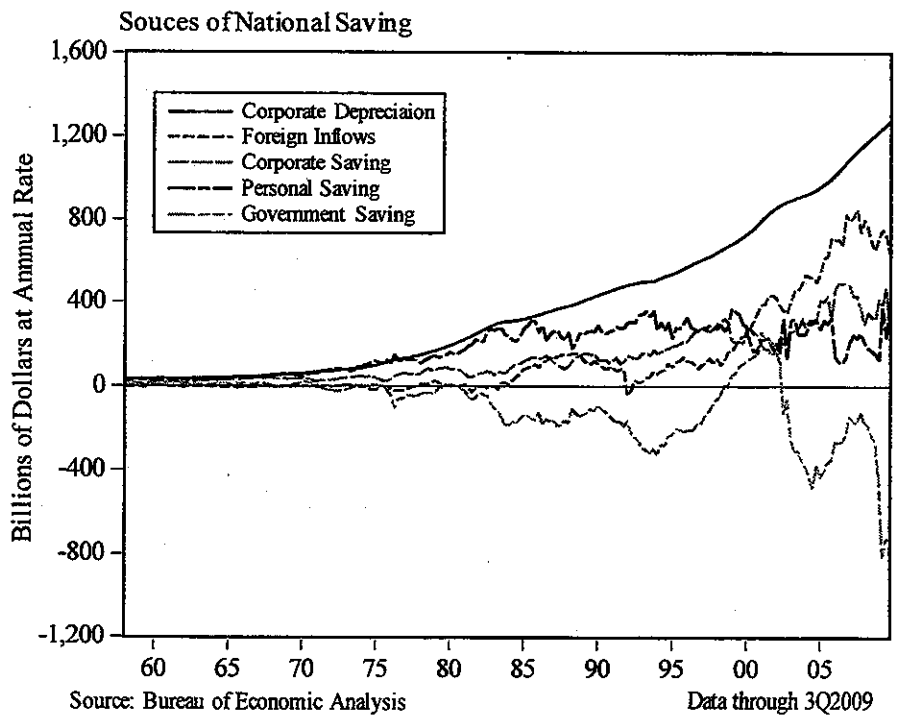




The U.S. in a Global Environment

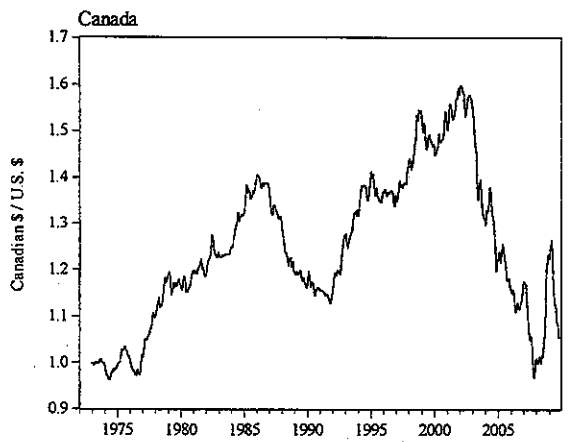
U.S. Capital Inflows and National Savings

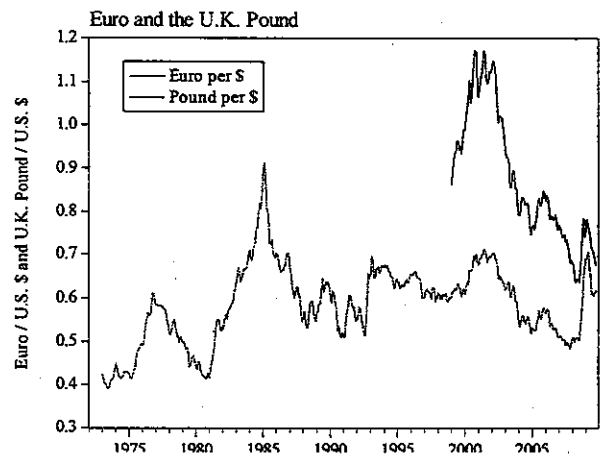


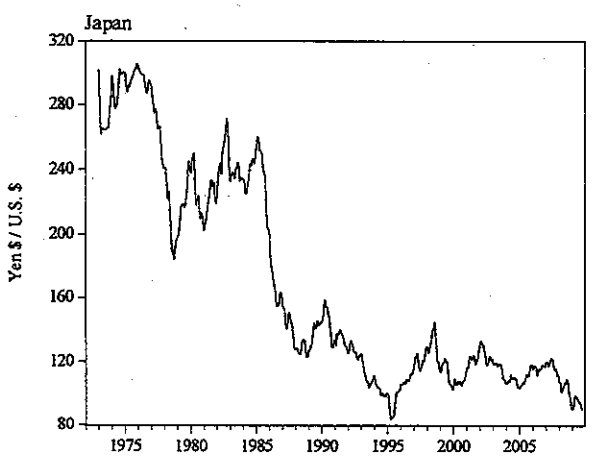


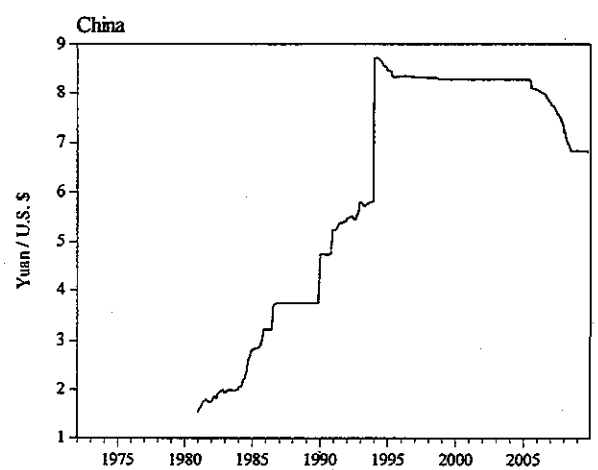
The U.S. in a Global Environment

$ versus Industrialized Countries









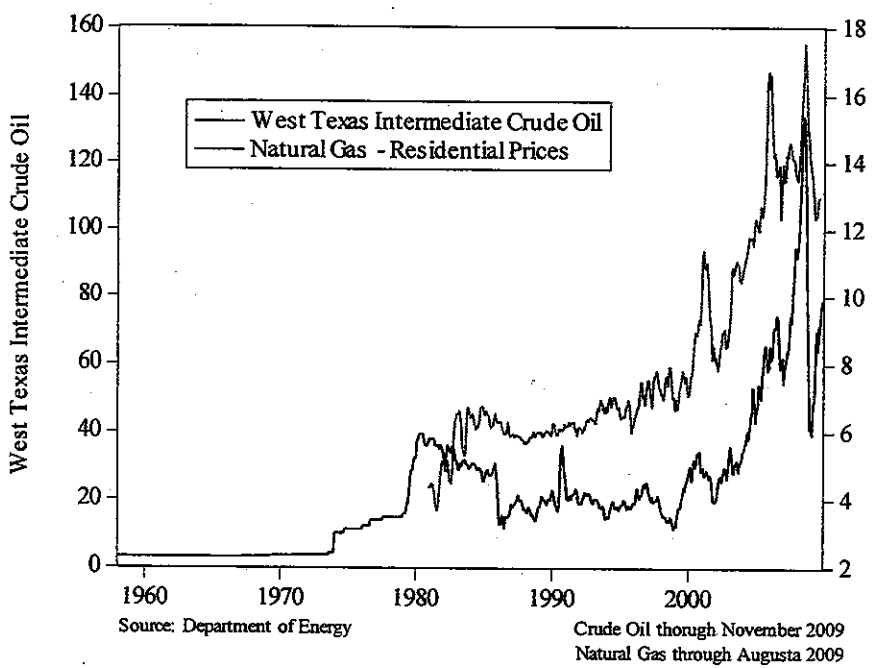
Data through October 2009

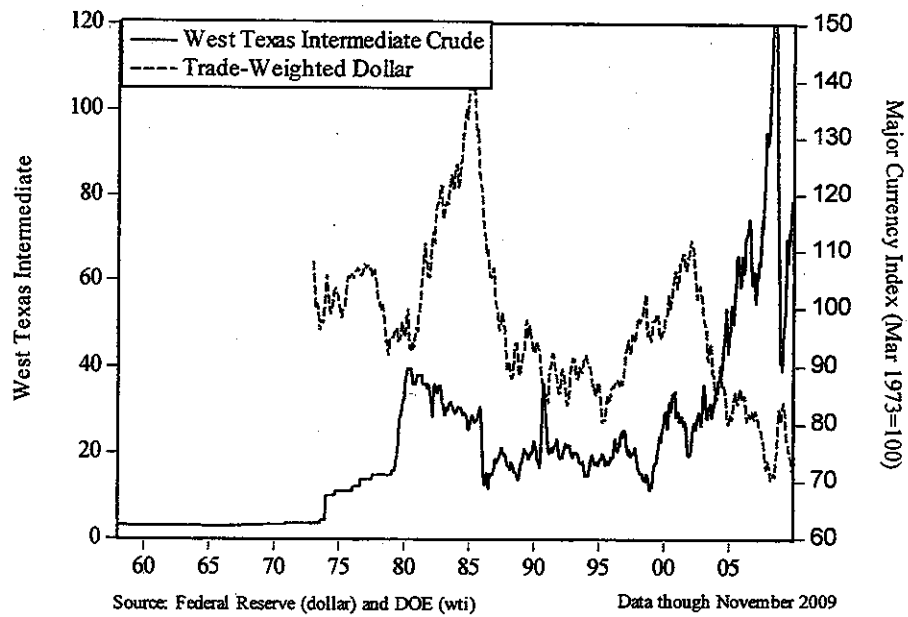
Data expressed as foreign currency per dollar

Source: Federal Reserve

Energy and the U.S. Economy

Natural Gas Prices, Oil Prices, and the Dollar





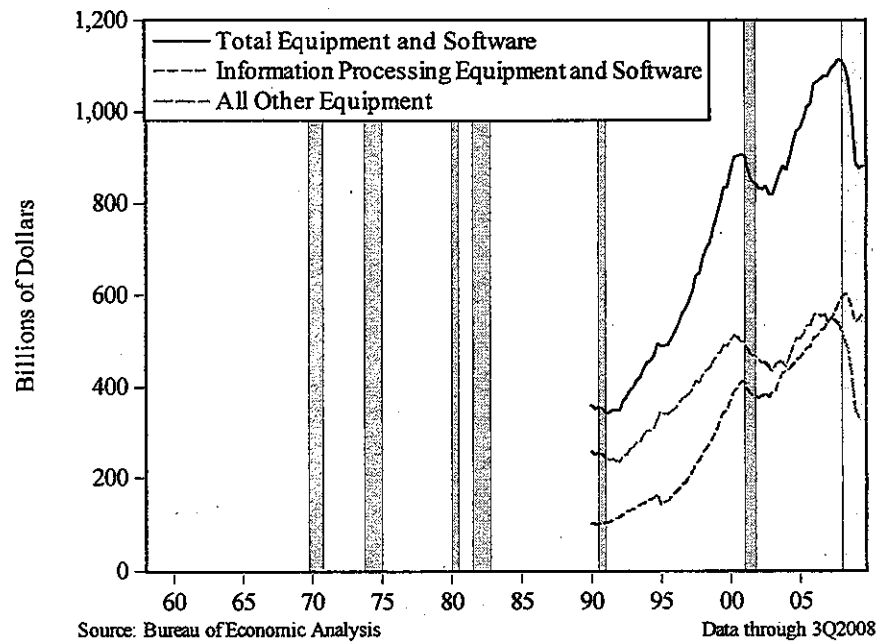
The Corporate Sector and the Business Cycle

The Investment Spending Picture

Business equipment and software

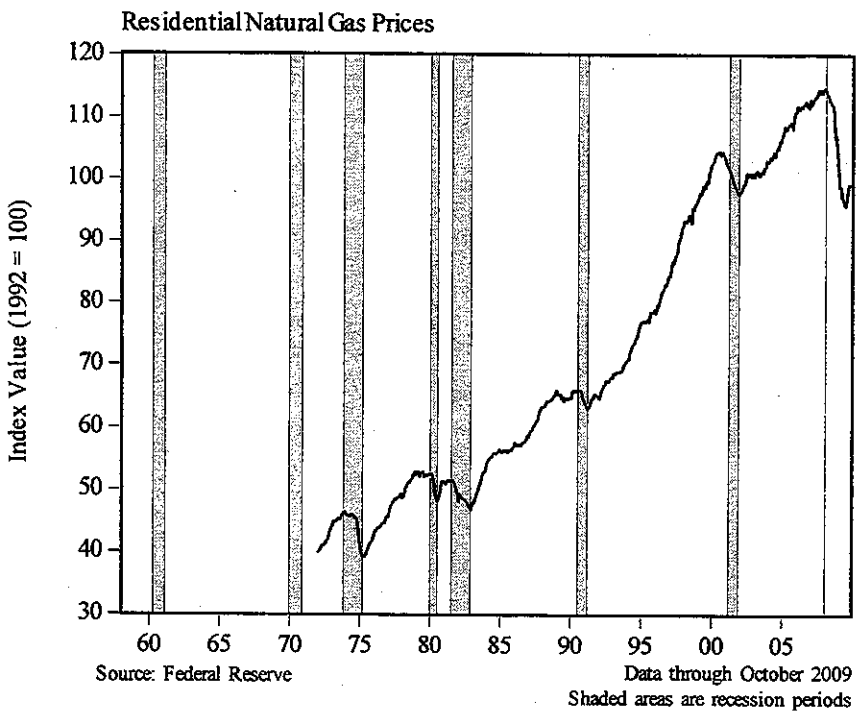
- In thus recession all other equipment has borne the brunt of the downturn
- Not surprising since manufacturing capacity utilization rate bottomed at around 66percent and is not a bit short of 68 percent

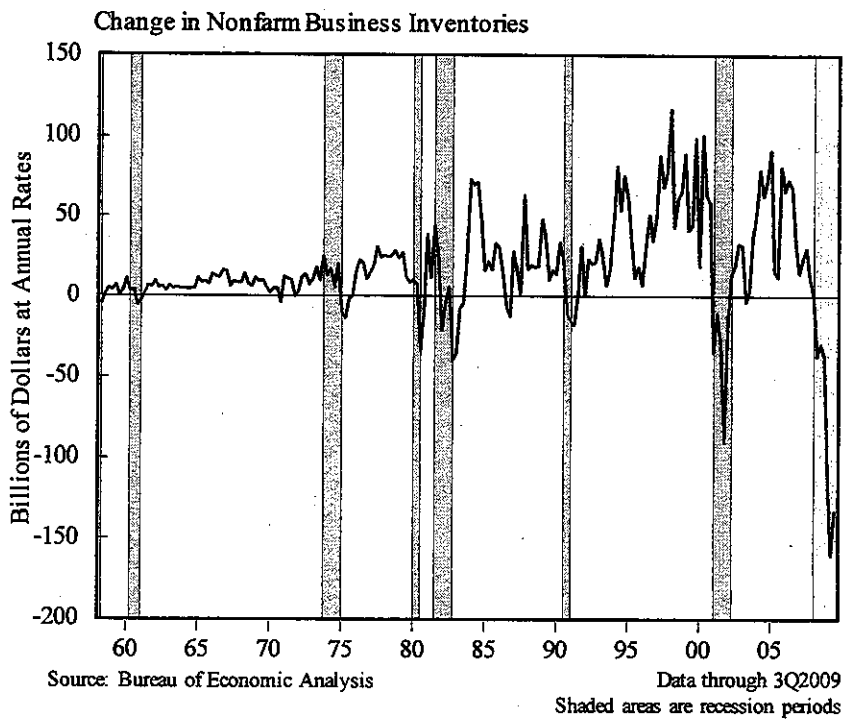
Given low state of capacity utilization, it could be several quarters for spending on durable equipment rebounds



The Corporate Sector and the Business Cycle

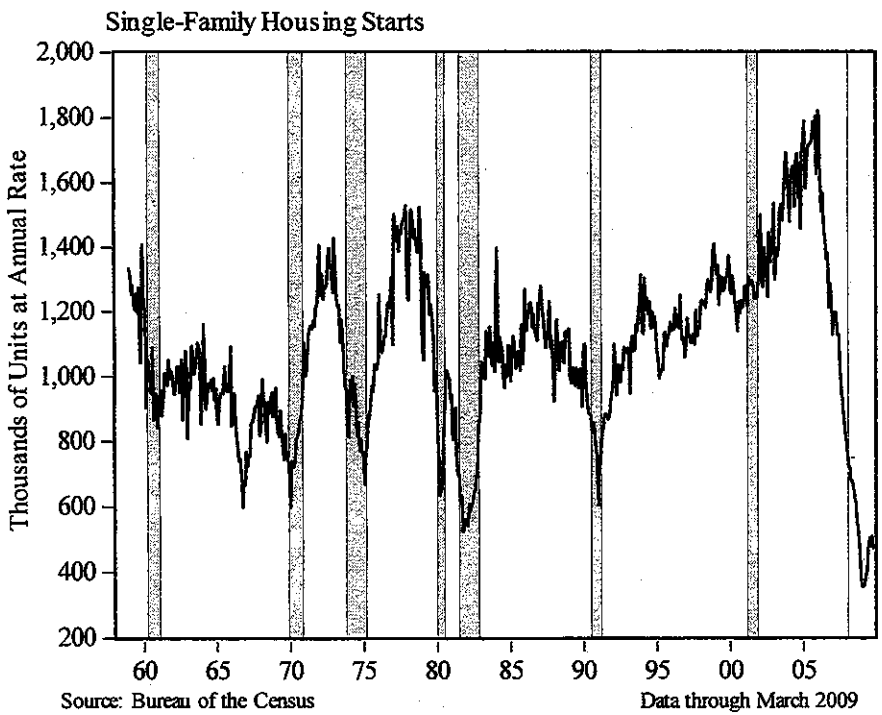
Industrial Output and Changes in Inventories

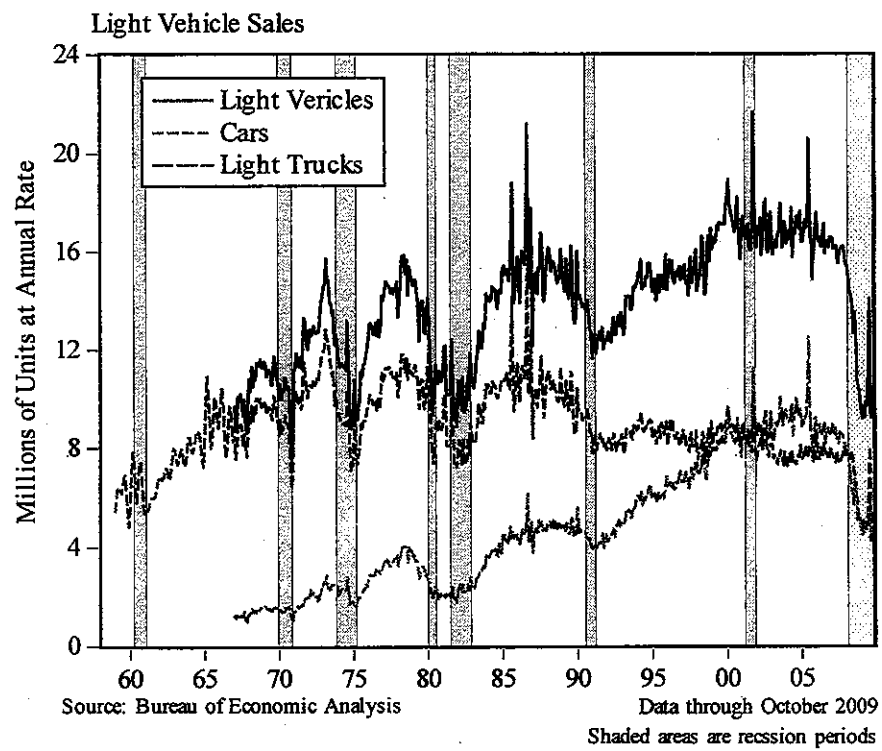




Household Investment and the Business Cycle

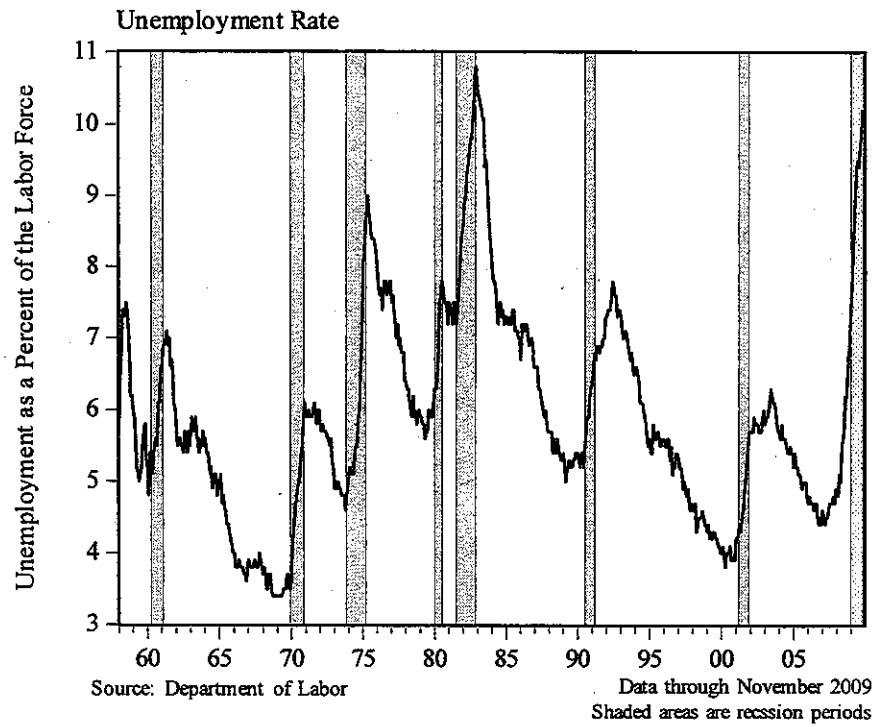
Light Vehicle Sales and Housing

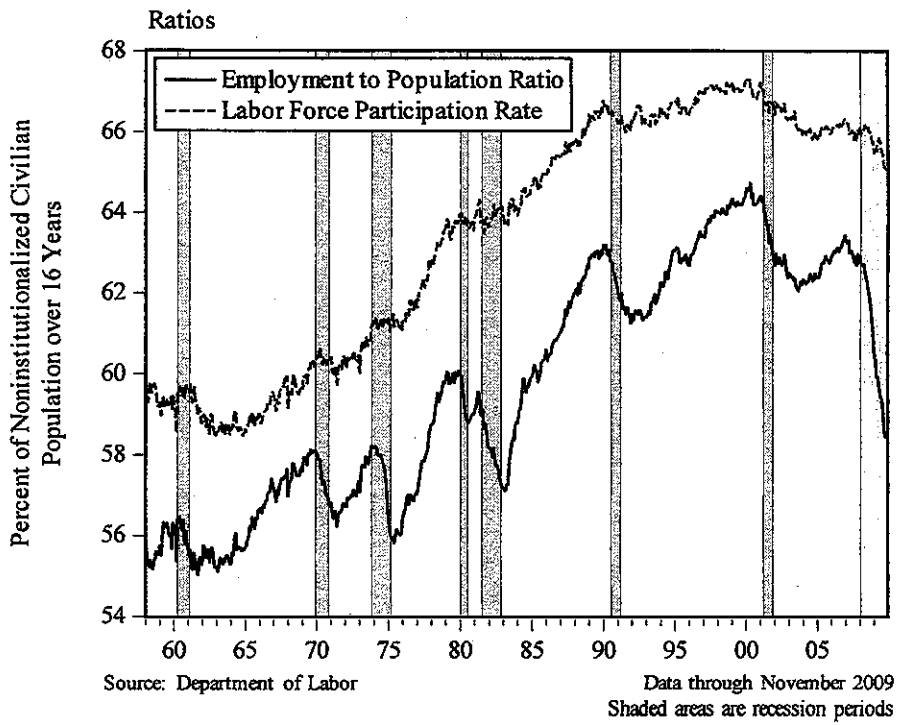




Labor Markets and the Business Cycle

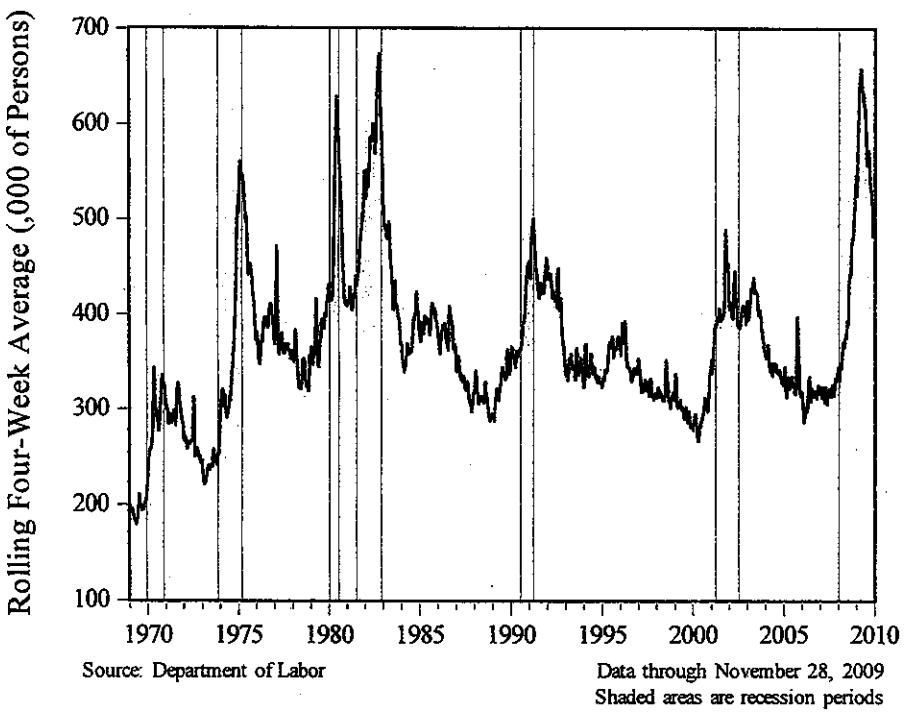
Unemployment Rate, Labor Force Participation Rate and Employment Ratio

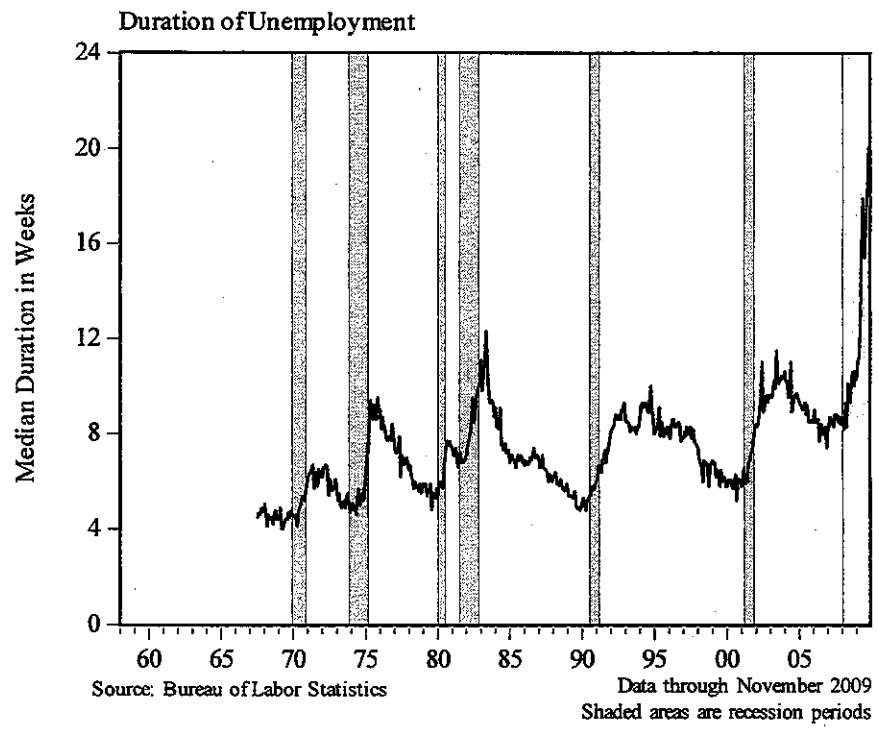




Labor Markets and the Business Cycle

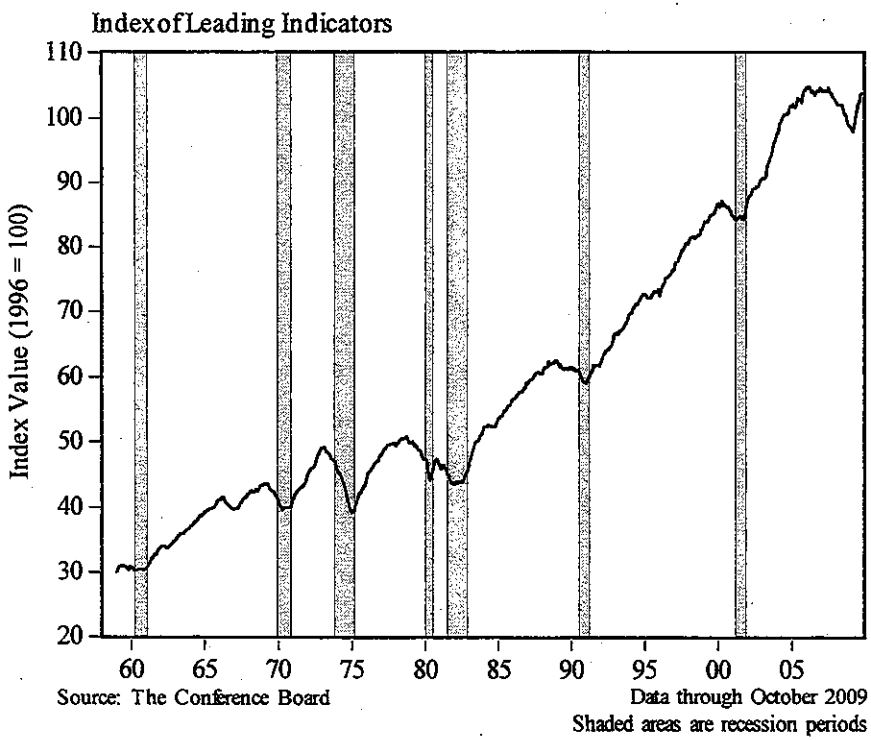
Initial Unemployment Claims and the Duration of Unemployment

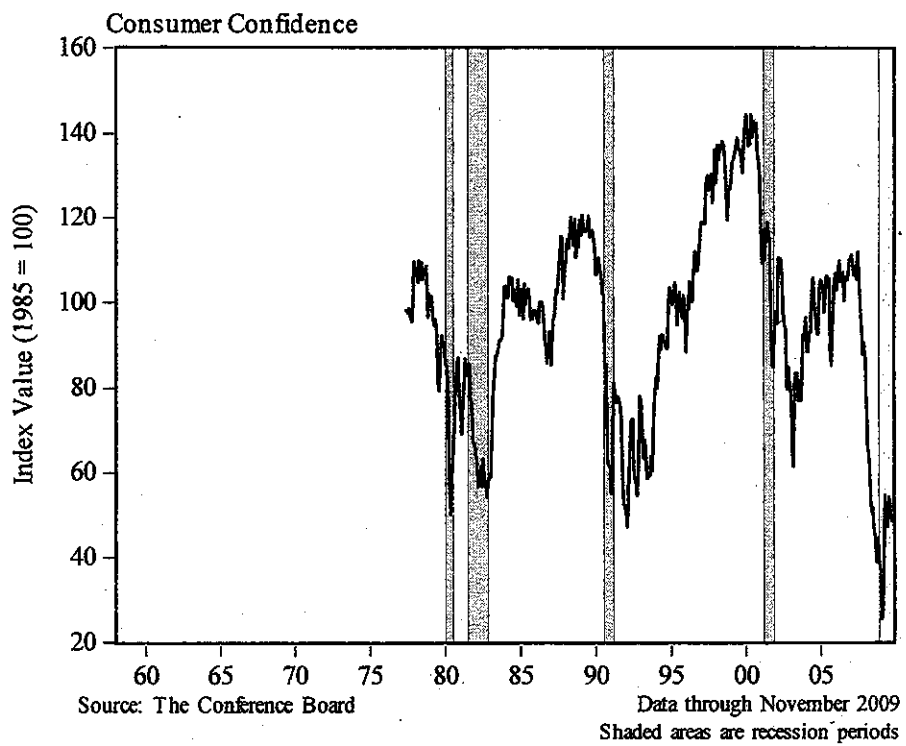




Forward Looking Indexes and the Business Cycle

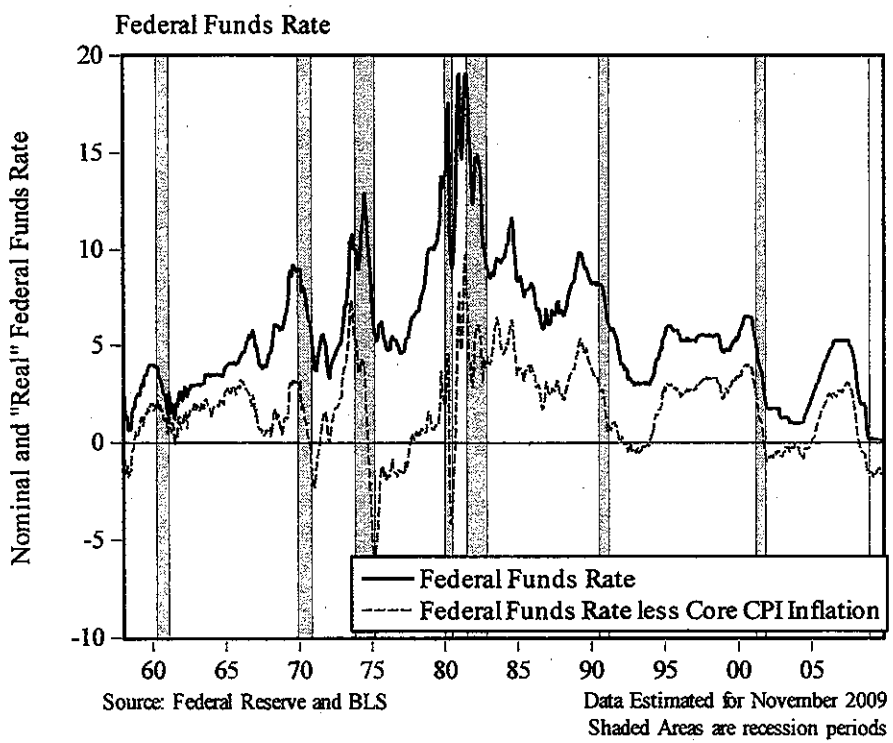
Leading Indicators and Consumer Confidence

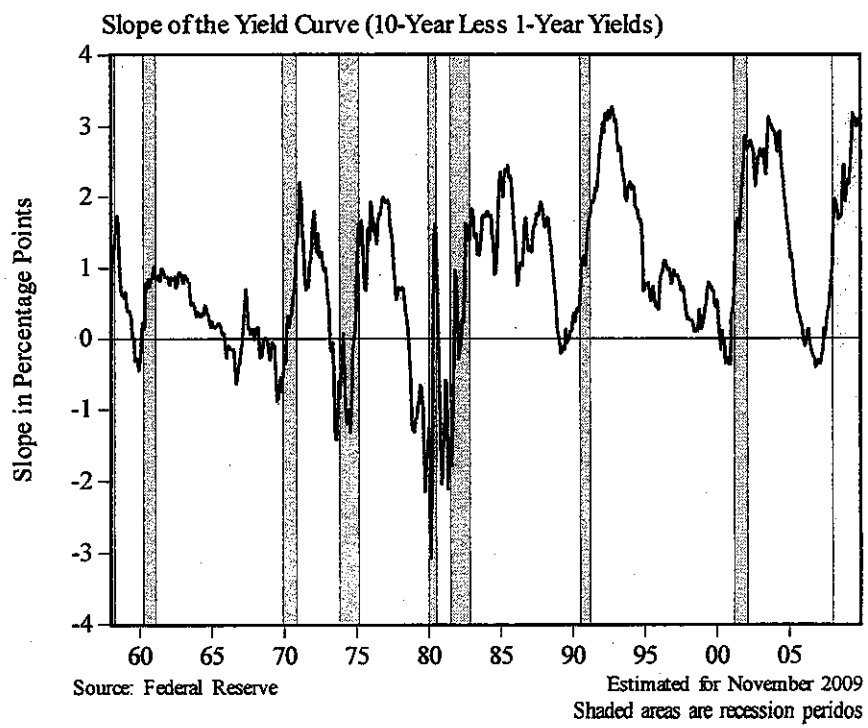




The U.S. Outlook – Setting the Stage

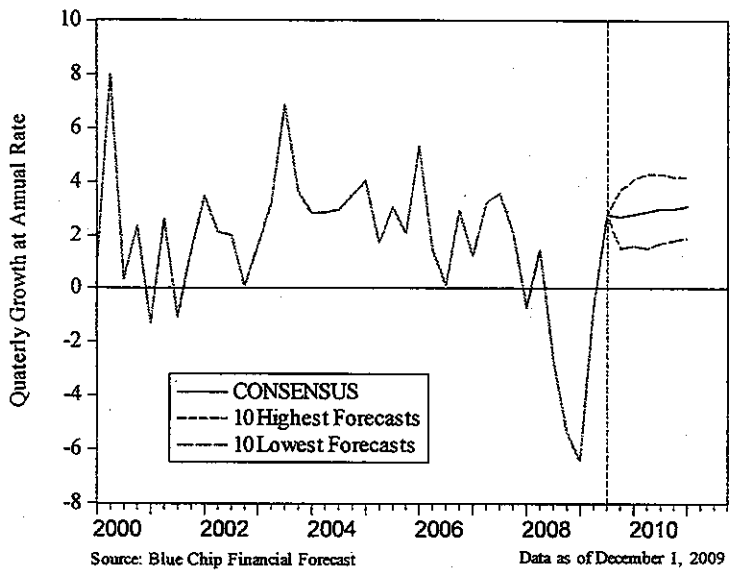
The Interest Rate Regime





The U.S. Outlook – Broad-Brush Comparison

Blue Chip Short-Term Financial Survey, the FOMC, and MTSU



Comparison of Baseline Against Blue Chip Financial Survey Results				
	Blue Chip Financial Survey			
	Consensus	10Highest	10 Lowest	MTSU
4Q2009	2.7	3.7	1.5	2.4
1Q2010	2.8	4.1	1.6	1.9
2Q2010	2.9	4.3	1.5	1.9
3Q2010	3.0	4.3	1.7	2.6
4Q2010	3.0	4.2	1.8	2.5
1Q2011	3.1	4.2	1.9	2.9

MTSU and the Federal Reserve (FOMC) Forecasts

Table 1. Economic projections of Federal Reserve Governors and Reserve Bank presidents, November 2009

Variable	Central tendency1					Range2				
	2009	2010	2011	2012	Longer run	2009	2010	2011	2012	Longer run
Real GDP Growth	-0.4 to -0.2	2.5 to 3.5	3.4 to 4.5	3.5 to 4.8	2.5 to 2.8	-0.5 to 0.0	2.0 to 4.0	2.5 to 4.6	2.8 to 5.0	2.4 to 3.0
Unemployment Rate	9.9 to 10.1	9.3 to 9.7	8.2 to 8.6	6.8 to 7.5	5.0 to 5.2	9.8 to 10.3	8.6 to 10.2	7.2 to 8.7	6.1 to 7.6	4.8 to 6.3
PCE inflation	1.1 to 1.2	1.3 to 1.6	1.0 to 1.9	1.2 to 1.9	1.7 to 2.0	1.0 to 1.7	1.1 to 2.0	0.6 to 2.4	0.2 to 2.3	1.5 to 2.0
Core PCE inflation3	1.4 to 1.5	1.0 to 1.5	1.0 to 1.6	1.0 to 1.7	NA	1.3 to 1.6	0.9 to 2.0	0.5 to 2.4	0.2 to 2.3	NA

	2009	2010	2011	2012
MTSU: GDP Growth	-2.6	2.1	2.9	3.2
MTSU: Unemployment Rate	9.3	9.9	8.6	7.0

Baseline Economic Outlook

General Overview

		2009				2010				2011				Year-over-Year Growth		
		I(A) 2009	II(A) 2009	III(A) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	2009	2010	2011
1	Gross Domestic Product	14178.0	14151.2	14266.3	14356.7	14483.2	14600.6	14748.8	14895.1	15057.3	15242.9	15417.0	15606.7	-1.3	3.3	4.4
2	Change *	5.3	5.3	5.3	2.6	3.6	3.3	4.1	4.0	4.4	5.0	4.6	5.0			
3	Gross Dom. Product (96$)	12925.4	12901.5	12990.3	13020.5	13087.8	13149.4	13236.0	13318.5	13412.8	13525.6	13623.9	13731.9	-2.6	2.1	2.9
4	Change *	-6.4	-0.7	2.8	0.9	2.1	1.9	2.7	2.5	2.9	3.4	2.9	3.2			
5	Personal Consump. Exp. (96$)	9209.2	9189.0	9256.0	9252.6	9289.7	9339.0	9389.0	9446.5	9509.7	9589.3	9666.0	9744.3	-0.6	1.7	2.8
6	Change *	0.6	-0.9	2.9	-0.1	1.6	2.1	2.2	2.5	2.7	3.4	3.2	3.3			
7	Equipment and Software (96$)	887.5	876.5	881.5	856.4	855.6	856.9	862.8	870.0	886.6	905.9	917.6	933.2	-17.5	1.0	5.7
8	Change *	-36.4	-4.9	2.3	-10.9	-0.4	0.6	2.8	3.4	7.9	9.0	5.3	7.0			
9	Nonresid. Construction (96$)	419.4	400.0	383.9	371.3	369.1	367.7	367.7	368.5	365.1	363.7	364.3	365.1	-18.7	-4.6	-1.0
10	Change *	-43.6	-17.3	-15.2	-12.5	-2.3	-1.5	0.0	0.9	-3.6	-1.5	0.7	0.9			
11	Resid. Construction (96$)	367.9	344.4	360.1	361.8	362.6	362.0	361.9	361.9	365.2	369.6	370.9	372.5	-20.4	1.4	2.1
12	Change *	-38.2	-23.2	19.5	1.9	0.8	-0.6	-0.1	0.0	3.7	4.9	1.4	1.8			
13	Federal Defense (96$)	672.8	695.2	710.2	707.8	710.5	710.9	711.4	712.1	712.7	713.4	714.0	714.6	5.6	2.1	0.3
14	Change *	-5.1	14.0	8.9	-1.4	1.5	0.2	0.3	0.4	0.3	0.4	0.4	0.4			
15	Fed. Nondefense (96$)	323.4	328.2	333.7	335.7	338.4	341.0	343.7	346.3	349.0	351.7	354.4	357.2	4.4	3.7	3.1
16	Change *	-2.4	6.1	6.9	2.4	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1			
17	State + Local (96$)	1533.3	1548.0	1547.4	1545.5	1544.5	1544.4	1545.4	1547.3	1551.2	1558.9	1567.4	1577.0			
18	Change *	-1.6	3.9	-0.2	-0.5	-0.3	0.0	0.2	0.5	1.0	2.0	2.2	2.5	0.0	0.1	1.2
19	Net Exports ('96$)	-386.5	-330.4	-358.0	-348.5	-331.8	-330.7	-325.5	-321.0	-320.8	-327.3	-336.2	-343.0			
20	Chg. in Bus. Invent. (96$)	-113.9	-160.2	-133.4	-62.0	-50.7	-41.9	-20.5	-13.1	-5.9	0.4	5.6	10.9			
21	Nonfarm Inventories	-114.9	-163.1	-136.9	-63.3	-51.2	-41.9	-20.2	-12.8	-5.5	0.8	6.0	11.4			
22	Farm Inventories	1.0	2.9	3.5	1.2	0.5	0.0	-0.2	-0.3	-0.4	-0.4	-0.4	-0.5			
23	GNP Deflator ('96=100) *	1.9	0.0	0.5	1.6	1.5	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.3	1.2	1.5
24	CPI (1982-84=100) *	-2.4	1.3	3.6	2.6	2.1	1.8	2.0	2.0	2.2	2.4	2.4	2.6	-0.4	2.3	2.2
25	PPI (1982=100) *	-6.2	1.8	4.8	3.2	2.0	1.6	1.8	2.0	2.3	2.6	2.5	2.5	-2.7	2.5	2.4

A = Actual; E = Forecast * Annualized percent change Except for price indexes, all data in billions of dollars Historical sources: BEA and BLS December 6, 2009

Baseline Economic Outlook

Cyclical Characteristics

		2009				2010				2011				Year-over-Year Growth		
		I(A) 2009	II(A) 2009	III(A) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	2009	2010	2011
1	Domestic Final Sales ('96$)	13425.8	13392.1	13481.7	13431.0	13470.3	13522.0	13581.9	13652.6	13739.6	13852.4	13954.6	14064.0	-1.1	1.7	3.0
2	Change *	-6.4	-1.0	2.7	-1.5	1.2	1.5	1.8	2.1	2.6	3.3	3.0	3.2			
3	Cyclical Domestic Demand ('96$)	2762.0	2692.6	2747.5	2696.2	2694.5	2703.3	2716.6	2737.6	2769.0	2816.9	2854.9	2896.4	-13.3	0.8	4.5
4	Change *	-25.2	-9.7	8.4	-7.3	-0.2	1.3	2.0	3.1	4.7	7.1	5.5	5.9			
5	Cyclical Consumer Demand ('96$)	1087.2	1071.7	1122.0	1106.7	1107.3	1116.6	1124.2	1137.2	1152.1	1177.6	1202.2	1225.5	-4.2	2.5	6.1
6	Change *	3.9	-5.6	20.1	-5.3	0.2	3.4	2.8	4.7	5.3	9.2	8.6	8.0			
7	Light Vehicles and Parts ('96$)	123.5	122.9	124.8	110.5	111.4	113.5	115.1	118.3	122.8	132.6	142.1	149.6	-6.0	-4.8	19.4
8	Change *	7.1	-1.9	6.3	-38.6	3.4	7.8	5.5	11.9	16.1	35.7	31.8	22.9			
9	Other Durables ('96$)	963.7	948.8	997.2	996.3	995.9	1003.0	1009.1	1018.9	1029.2	1045.0	1060.1	1075.9	-4.0	3.4	4.6
10	Change *	3.5	-6.0	22.0	-0.4	-0.2	2.9	2.5	3.9	4.1	6.3	5.9	6.1			
11	Fixed Investment ('96$)	1687.5	1631.9	1633.1	1589.4	1587.2	1586.7	1592.4	1600.4	1617.0	1639.2	1652.8	1670.8	-18.5	-0.8	3.4
12	Change *	5.0	5.0	5.0	-10.3	-0.5	-0.1	1.5	2.0	4.2	5.6	3.3	4.4			
13	Resid. Construction (96$)	367.9	344.4	360.1	361.8	362.6	362.0	361.9	361.9	365.2	369.6	370.9	372.5	-20.4	1.4	2.1
14	Change *	-38.2	-23.2	19.5	1.9	0.8	-0.6	-0.1	0.0	3.7	4.9	1.4	1.8			
15	Nonresid. Construction ('96$)	419.4	400.0	383.9	371.3	369.1	367.7	367.7	368.5	365.1	363.7	364.3	365.1	-18.7	-4.6	-1.0
16	Change *	-43.6	-17.3	-15.2	-12.5	-2.3	-1.5	0.0	0.9	-3.6	-1.5	0.7	0.9			
17	Equipment and Software ('96$)	887.5	876.5	881.5	856.4	855.6	856.9	862.8	870.0	886.6	905.9	917.6	933.2	-17.5	1.0	5.7
18	Change *	-36.4	-4.9	2.3	-10.9	-0.4	0.6	2.8	3.4	7.9	9.0	5.3	7.0			
19	Noncyclical Demand ('96$)@	10163.4	10208.9	10242.8	10324.3	10393.3	10446.1	10519.3	10580.9	10643.8	10708.7	10769.0	10835.5	0.8	2.4	2.4
20	Change *	-0.4	1.8	1.3	3.2	2.7	2.0	2.8	2.4	2.4	2.5	2.3	2.5			
21	Chg. in Business Inventories	-113.9	-160.2	-133.4	-62.0	-50.7	-41.9	-20.5	-13.1	-5.9	0.4	5.6	10.9			
22	Gross Domestic Purchases ('96$)&	13297.3	13218.3	13336.3	13369.0	13419.6	13480.1	13561.4	13639.5	13733.6	13852.8	13960.2	14074.9	-3.4	2.0	2.8
23	Change *	-8.5	-2.4	3.6	1.0	1.5	1.8	2.4	2.3	2.8	3.5	3.1	3.3			
24	Net Exports ('96$)	-386.5	-330.4	-358.0	-348.5	-331.8	-330.7	-325.5	-321.0	-320.8	-327.3	-336.2	-343.0			
25	GDP ('96$)**	12925.4	12901.5	12990.3	13020.5	13087.8	13149.4	13236.0	13318.5	13412.8	13525.6	13623.9	13731.9	-2.6	2.1	2.9
	Change *	-6.4	-0.7	2.8	0.9	2.1	1.9	2.7	2.5	2.9	3.4	2.9	3.2			

@ 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 December 6, 2009

Baseline Economic Outlook

Household Sector

		I(A) 2009	II(A) 2009	III(A) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	Year-over-Year Growth 2009	2010	2011
1	Personal Income ($ Bil.)	11952.7	12048.8	12088.7	12120.8	12191.8	12275.6	12379.9	12490.9	12596.7	12715.7	12821.2	12934.9	-1.5	2.3	3.5
2	Change *	-8.9	3.3	1.3	1.1	2.4	2.8	3.4	3.6	3.4	3.8	3.4	3.6			
3	Civilian Employment (Mil.)	141.6	140.6	139.5	138.5	138.6	138.7	138.9	139.1	139.4	139.8	140.1	140.5	-3.7	-0.9	0.8
4	Change *	-6.7	-2.8	-3.0	-2.9	0.3	0.3	0.5	0.8	0.9	1.1	0.9	1.1			
5	Unemployment Rate	8.1	9.3	9.6	10.1	10.1	10.1	9.8	9.5	9.2	8.9	8.4	7.9	9.3	9.9	8.6
6	Personal Consump. Exp. ('96$)	9209.2	9189.0	9256.0	9252.6	9289.7	9339.0	9389.0	9446.5	9509.7	9589.3	9666.0	9744.3	-0.7	1.5	2.8
7	Change *	0.6	-0.9	2.9	-0.1	1.6	2.1	2.2	2.5	2.7	3.4	3.2	3.3			
8	Autos & Parts	123.5	122.9	124.8	110.5	111.4	113.5	115.1	118.3	122.8	132.6	142.1	149.6	-6.0	-4.8	19.4
9	Change *	7.1	-1.9	6.3	-38.6	3.4	7.8	5.5	11.9	16.1	35.7	31.8	22.9			
10	Other Durable Goods	963.7	948.8	997.2	996.3	995.9	1003.0	1009.1	1018.9	1029.2	1045.0	1060.1	1075.9	-4.1	3.1	4.6
11	Change *	3.5	-6.0	22.0	-0.4	-0.2	2.9	2.5	3.9	4.1	6.3	5.9	6.1			
12	Nondurable Goods	2035.5	2025.7	2034.1	2035.9	2039.2	2043.8	2048.9	2054.4	2062.2	2073.4	2083.8	2095.5	-1.2	0.7	1.6
13	Change *	1.9	-1.9	1.7	0.3	0.6	0.9	1.0	1.1	1.5	2.2	2.0	2.3			
14	Services	6076.0	6078.8	6093.7	6110.0	6143.3	6178.6	6215.8	6254.9	6295.5	6338.2	6380.0	6423.3	0.1	1.8	2.6
15	Change *	-0.3	0.2	1.0	1.1	2.2	2.3	2.4	2.5	2.6	2.7	2.7	2.7			
16	Lt. Vehicles	9.5	9.6	11.5	9.7	9.7	9.8	9.9	10.2	10.5	11.3	12.1	12.7	-23.7	-1.4	17.8
17	Change *	-33.3	4.3	107.6	-49.1	-0.1	6.0	3.7	10.1	14.4	34.5	30.6	21.8			
18	New Auto Sales (Mil.)	4.8	4.9	6.4	5.0	5.0	5.1	5.1	5.2	5.3	5.7	6.1	6.4	-22.7	-3.2	15.6
19	Change *	-37.3	6.6	194.0	-60.5	-2.0	4.0	3.7	5.9	10.0	34.5	30.6	21.8			
20	New Light Truck Sales (Mil.)	4.7	4.7	5.1	4.7	4.7	4.8	4.8	5.0	5.2	5.6	6.0	6.3	-24.9	0.5	20.0
21	Change *	-28.9	2.0	40.0	-31.5	2.0	8.2	3.7	14.7	19.2	34.5	30.6	21.8			
22	Private Housing Starts (Mil.)	0.528	0.540	0.589	0.673	0.672	0.699	0.710	0.754	0.949	1.174	1.248	1.321	-35.3	21.7	65.4
23	Change *	-58.6	9.7	41.2	71.0	-0.8	17.3	6.4	27.4	150.1	134.2	27.6	25.8			
24	Single-Family	0.358	0.425	0.499	0.525	0.525	0.525	0.538	0.567	0.750	0.950	1.000	1.050	-26.6	19.2	74.1
25	Multi-Family	0.169	0.115	0.089	0.148	0.147	0.174	0.173	0.187	0.199	0.224	0.248	0.271	-54.1	30.5	38.2
26	Existing Home Sales (Th.)	4116.7	4240.0	4646.7	4575.6	4614.6	4589.8	4624.4	4657.4	4783.1	5002.8	5051.2	4987.3	-7.8	5.2	7.2
27	Change *	-10.6	12.5	44.2	-6.0	3.5	-2.1	3.1	2.9	11.2	19.7	3.9	-5.0			

A = Actual; E = Forecast * Annualized percent change Except where noted, all data in billions of dollars Historical sources: BEA, BLS, and Federal Reserve December 6, 2009

Baseline Economic Outlook

Corporate and International Sectors

		2009				2010				2011				Year-over-Year Growth		
		I(A) 2009	II(A) 2009	III(A) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	2009	2010	2011
1	Fixed Business Invest. ('96$)	1321.2	1288.4	1274.9	1227.6	1224.7	1224.7	1230.5	1238.5	1251.8	1269.6	1281.9	1298.3	-18.6	-3.8	3.7
2	Change *	5.5	5.5	5.5	-14.0	-1.0	0.0	1.9	2.6	4.4	5.8	3.9	5.2			
3	Structures	419.4	400.0	383.9	371.3	369.1	367.7	367.7	368.5	365.1	363.7	364.3	365.1	-19.1	-6.5	-1.0
4	Change *	-43.6	-17.3	-15.2	-12.5	-2.3	-1.5	0.0	0.9	-3.6	-1.5	0.7	0.9			
5	Producer Equip. & Software	887.5	876.5	881.5	856.4	855.6	856.9	862.8	870.0	886.6	905.9	917.6	933.2	-18.1	-1.6	5.7
6	Change *	-36.4	-4.9	2.3	-10.9	-0.4	0.6	2.8	3.4	7.9	9.0	5.3	7.0			
7	Chg. in Bus. Invent. ('96$)	-113.9	-160.2	-133.4	-62.0	-50.7	-41.9	-20.5	-13.1	-5.9	0.4	5.6	10.9			
8	Chg. In Nonfarm Inventories	-114.9	-163.1	-136.9	-63.3	-51.2	-41.9	-20.2	-12.8	-5.5	0.8	6.0	11.4			
9	Corporate Profits (B.T.)	1246.5	1337.1	1493.3	1379.4	1356.2	1444.5	1638.6	1719.9	1714.5	1711.3	1843.0	1997.8			
10	Corporate Profits (A.T.)	976.1	1031.1	1180.7	1089.7	1071.4	1133.9	1278.1	1332.9	1320.1	1317.7	1419.1	1538.3	-8.6	12.6	16.2
11	Change *	85.1	24.5	71.9	-27.4	-6.6	25.5	61.4	18.3	-3.8	-0.7	34.5	38.1			
12	Internal Funds (A.T.)	1000.9	1083.5	1238.4	1091.5	1031.0	1056.4	1152.0	1167.4	1105.9	1043.2	1077.5	1122.2	-5.0	-0.2	-1.3
13	Change *	36.4	37.3	70.7	-39.7	-20.4	10.2	41.4	5.5	-19.5	-20.8	13.8	17.7			
14	Dividends	618.1	556.0	543.3	539.2	539.6	541.6	545.2	548.8	552.2	555.3	558.8	565.3	-18.2	-3.6	2.6
15	Change *	-27.5	-34.5	-8.8	-3.0	0.3	1.5	2.7	2.6	2.5	2.3	2.5	4.8			
16	Output per Hour *	0.2	6.8	9.8	6.3	3.2	2.6	3.1	2.5	2.7	3.1	2.7	2.8	3.3	4.6	2.8
17	Hourly Compensation *	4.2	4.2	4.2	8.4	2.6	3.1	3.2	3.3	3.3	3.9	4.0	3.7	1.0	3.9	3.5
18	Unit Labor Costs *	-4.9	-6.2	-5.1	2.1	-0.6	0.5	0.2	0.8	0.6	0.9	1.3	0.9	-2.2	-0.6	0.7

		2009				2010				2011				Year-over-Year Growth		
		I(A) 2009	II(A) 2009	III(A) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	I(E) 2011	II(E) 2011	III(E) 2011	IV(E) 2011	2009	2010	2011
1	Net Exports ('96$)	-386.5	-330.4	-358.0	-348.5	-331.8	-330.7	-325.5	-321.0	-320.8	-327.3	-336.2	-343.0			
2	Exports ('96$)	1434.5	1419.5	1476.4	1491.9	1509.7	1524.2	1536.8	1554.2	1568.6	1582.9	1597.3	1611.8	-10.7	5.2	3.8
3	Change *	-29.9	-4.1	17.0	4.3	4.9	3.9	3.3	4.6	3.7	3.7	3.7	3.7			
4	Imports ('96$)	1821.0	1749.8	1834.4	1840.4	1841.5	1855.0	1862.3	1875.3	1889.4	1910.2	1933.5	1954.8	-14.7	2.6	3.4
5	Change *	-36.4	-14.7	20.8	1.3	0.2	3.0	1.6	2.8	3.0	4.5	5.0	4.5			
6	Trade-Weighted Index	82.7	79.4	75.4	73.7	74.2	74.8	75.5	76.2	76.6	76.8	77.1	77.2	4.5	-3.4	2.3

A = Actual; E = Forecast * Annualized percent change Except where noted, all data in billions of dollars Historical sources: BEA, BLS, and Federal Reserve December 6, 2009

Outlook for Interest Rates

Market-Based Forecasts: Futures Market over the Next Year

Futures market does not see tighter policy until third quarter 0f 2010

- General rise in the target for federal funds after September 2009

It is possible that market may have over estimated reference to low rates for an extended period

Federal Reserve's balance sheet will continue to rise until 3/31/10

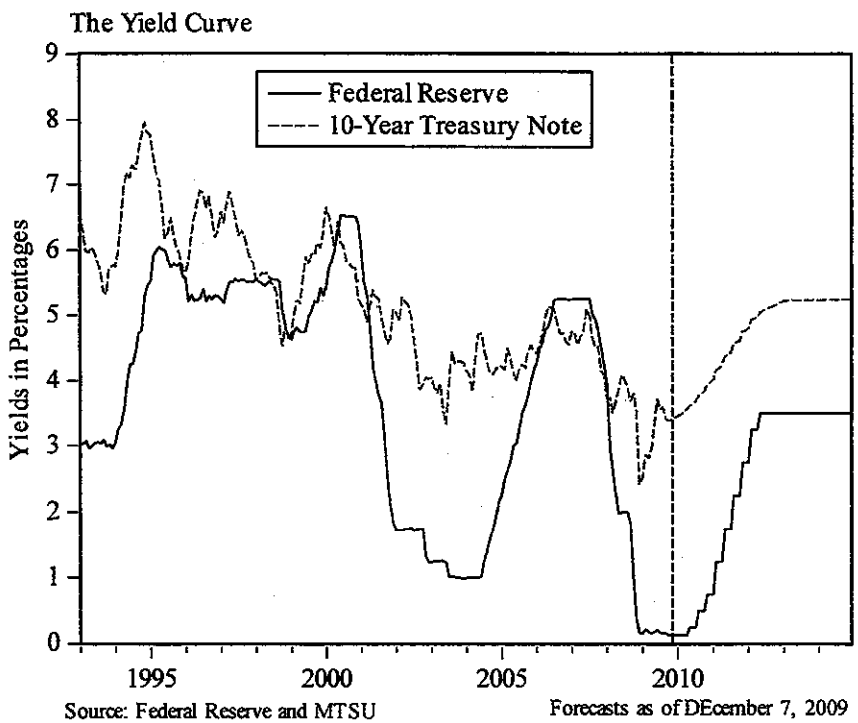
Its commitment to purchase 1.3 trillion in Mortgage-Backed Securities will have been completed

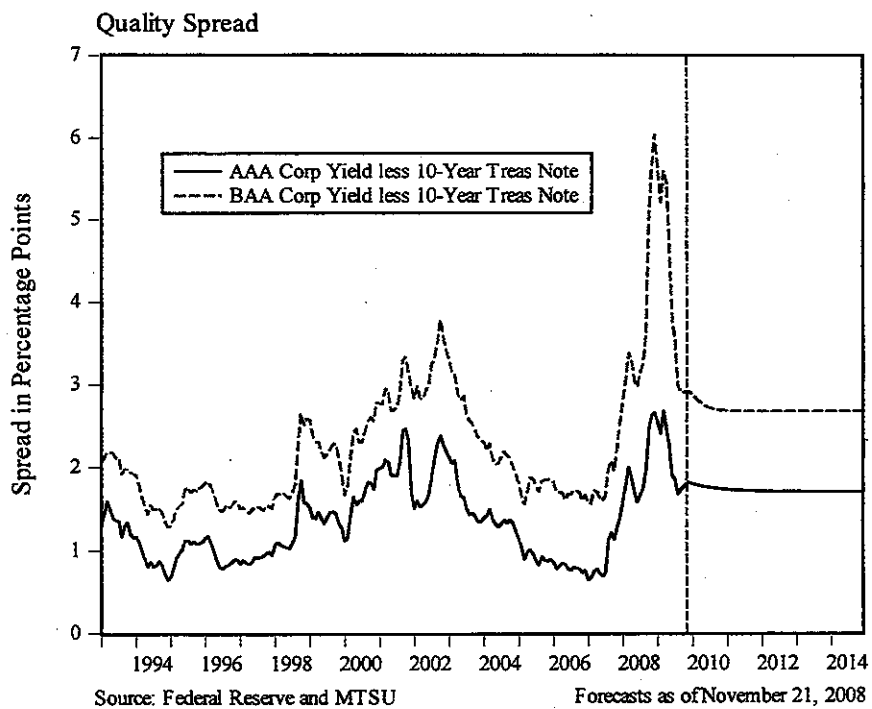
After that point, issue of inflationary pressure of its debt monetization must be considered

Nov-09	0.120
Dec-09	0.125
Jan-10	0.130
Feb-10	0.150
Mar-10	0.165
Apr-10	0.185
May-10	0.225
Jun-10	0.240
Jul-10	0.290
Aug-10	0.345
Sep-10	0.410
Oct-10	0.500
Nov-10	0.635
Dec-10	0.725
Jan-11	0.810
Feb-11	0.960
Mar-11	1.045
Apr-11	1.155
May-11	1.320
Jun-11	1.370
Jul-11	1.515
Aug-11	1.640
Sep-11	1.730
Oct-11	1.810
Source: CBOT	
As of 11/27/09	

Interest Rate Outlook – Graphic Portrayal

MTSU Baseline Interest Rate Forecast





Interest Rate Forecasts

Money Market Rates

		2009				2010				2011				Annual Averages		
		I(A) 2008	II(A) 2008	III(A) 2008	IV(A) 2008	I(A) 2009	II(E) 2009	III(E) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	2008	2009	2010
1	Federal Funds	0.18	0.18	0.16	0.12	0.12	0.21	0.42	0.67	1.08	1.58	2.08	2.58	0.16	0.35	1.83
	Commercial Paper															
2	1-Month	0.22	0.21	0.16	0.13	0.16	0.32	0.55	0.86	1.31	1.84	2.34	2.85	0.18	0.47	2.09
3	3-Month	0.30	0.25	0.20	0.17	0.31	0.42	0.65	0.94	1.42	1.93	2.43	2.93	0.23	0.58	2.18
4	6-Month	0.39	0.26	0.24	0.22	0.31	0.45	0.68	0.98	1.46	1.97	2.47	2.97	0.27	0.60	2.22
	Finance Paper															
5	1-Month	0.40	0.30	0.21	0.15	0.19	0.36	0.57	0.87	1.32	1.84	2.33	2.82	0.26	0.50	2.08
6	3-Month	0.59	0.36	0.24	0.20	0.31	0.43	0.65	0.94	1.43	1.94	2.44	2.94	0.35	0.58	2.19
7	6-Month	0.80	0.40	0.28	0.24	0.40	0.49	0.71	0.98	1.47	1.96	2.46	2.95	0.43	0.65	2.21
	Treasury Bills															
8	1-Month	0.22	0.17	0.16	0.07	0.11	0.22	0.43	0.71	1.17	1.67	2.17	2.67	0.15	0.37	1.92
9	3-Month	0.40	0.32	0.25	0.17	0.25	0.38	0.60	0.88	1.32	1.80	2.27	2.75	0.28	0.53	2.04
	Negotiable CDs															
10	1-Month	0.45	0.33	0.24	0.19	0.07	0.32	0.57	0.89	1.26	1.85	2.37	2.89	0.30	0.46	2.09
11	3-Month	1.08	0.62	0.30	0.30	0.42	0.47	0.63	0.69	1.03	1.71	2.33	2.88	0.58	0.55	1.99
12	6-Month	1.68	1.08	0.43	0.37	0.69	0.68	0.84	1.19	1.62	2.07	2.55	3.03	0.89	0.85	2.32
	Eurodollar Deposit															
13	1-Month	0.88	0.77	0.47	0.39	0.28	0.55	0.68	0.98	1.36	1.96	2.40	2.92	0.63	0.62	2.16
14	3-Month	1.67	1.31	0.71	0.56	0.74	0.85	0.95	0.92	1.17	1.85	2.40	2.95	1.06	0.86	2.09
15	6-Month	2.44	1.91	1.01	0.78	1.24	1.11	1.07	1.49	1.95	2.23	2.70	3.24	1.53	1.23	2.53
16	Prime Rate	3.25	3.25	3.25	3.21	3.12	3.21	3.42	3.67	4.08	4.58	5.08	5.58	3.24	3.35	4.83

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

December 7, 2009

Interest Rate Forecasts

Capital Market Rates

		2008				2009				2010				Annual Averages		
		I(A) 2008	II(A) 2008	III(A) 2008	IV(A) 2008	I(A) 2009	II(E) 2009	III(E) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	2009	2010	2011
	U.S. Treasury Notes and Bonds															
1	1-Yr Note	0.57	0.52	0.45	0.34	0.43	0.59	0.85	1.17	1.64	2.14	2.65	3.15	0.47	0.76	2.39
2	2-Yr Note	0.91	1.01	1.03	0.85	0.88	1.06	1.34	1.67	2.14	2.64	3.13	3.60	0.95	1.24	2.88
3	5-Yr Note	1.76	2.23	2.47	2.27	2.31	2.46	2.68	2.93	3.27	3.62	3.94	4.24	2.18	2.60	3.77
4	10-Yr Note	2.74	3.31	3.52	3.41	3.49	3.60	3.76	3.92	4.13	4.34	4.53	4.71	3.24	3.69	4.43
5	30-Yr Note	3.69	4.19	4.28	4.24	4.49	4.49	4.55	4.70	4.74	4.83	4.94	4.99	4.10	4.56	4.87
	Other Bonds															
6	AAA Bonds	5.27	5.51	5.27	5.20	5.27	5.37	5.50	5.66	5.86	6.06	6.24	6.42	5.31	5.45	6.15
7	BAA Bonds	8.21	7.98	6.66	6.32	6.33	6.36	6.46	6.61	6.81	7.01	7.20	7.39	7.29	6.44	7.10
8	State and Local	4.99	4.72	4.52	4.32	4.37	4.38	4.45	4.56	4.70	4.85	4.99	5.13	4.64	4.44	4.92
	Mortgage Rates - Primary Mkt															
9	30-Yr (FHLMC - PMMS)	4.59	4.74	4.85	4.48	4.61	4.88	5.13	5.34	5.59	5.85	6.07	6.29	4.67	4.99	5.95
10	15-Yr (FHLMC - PMMS)	4.03	4.13	4.09	3.86	3.89	4.00	4.17	4.39	4.72	5.05	5.36	5.65	4.03	4.11	5.20
11	ARM (FHLMC - PMMS)	4.88	4.83	4.71	4.27	3.90	3.70	3.69	3.80	4.12	4.51	4.92	5.36	4.68	3.77	4.73
	Mortgage Rates - Secondary Mkt															
12	30-Yr (FLHMC Req Net Yield)	5.06	5.03	5.16	4.91	5.04	5.21	5.40	5.60	5.84	6.07	6.28	6.48	5.04	5.31	6.17
13	15-Yr (FHLMC Req Net Yield)	4.71	4.64	4.60	4.21	4.15	4.26	4.43	4.65	4.95	5.26	5.55	5.81	4.54	4.37	5.39

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

December 7, 2009

The Tennessee Cycle in Perspective

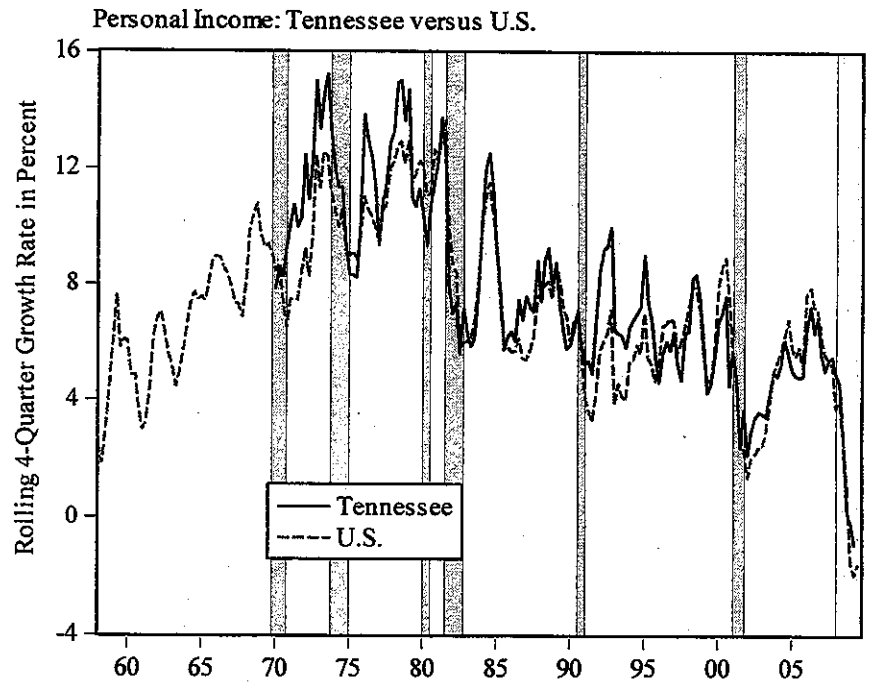
Personal Income – Tennessee versus U.S.

Quarterly growth in state and nation follows roughly the same cyclical pattern

- Over time, each 1% growth in U.S. personal income is met with 1% growth in Tennessee
- But there are sizeable short-run deviations

Since mid-1980s, personal income growth for the U.S. deteriorates more than in Tennessee

- Perplexing, but likely due to larger amounts of cyclically sensitive income elsewhere such as New York and California



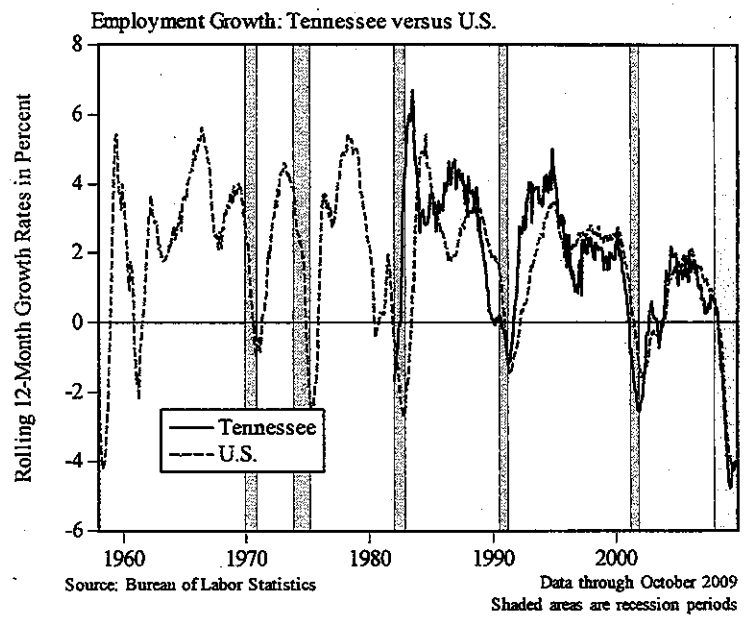
Source: Bureau of Economic Analysis
Shaded areas are recession periods

U.S. data through 3Q2009
Tennessee data through 2Q2009

The Tennessee Cycle in Perspective

Labor Markets – Tennessee versus U.S.

- Tennessee's growth pattern moves in a roughly similar cyclical pattern
- While differences are evident, the pattern is remarked close in the current cycle
- Pattern suggest that, Tennessee and U.S. move in tight tandem are expansion takes hold



The Tennessee Cycle in Perspective

Housing Activity – Tennessee versus U.S.

Housing in Tennessee generally moves with the U.S. housing cycle

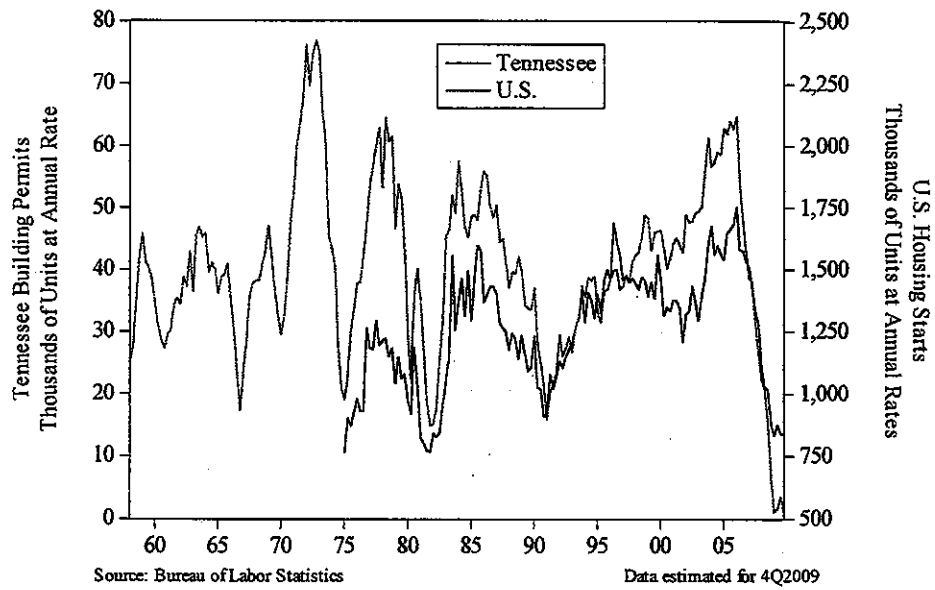
- But there was break in the tightness of the relationship 2000-2004
- Tightness resumes in the late stage of the housing upswing and so far in the housing slump

In hindsight the 2005-2006 national housing boom is seen by many as a bubble

- As a consequence, the volume of starts and valuation plunged

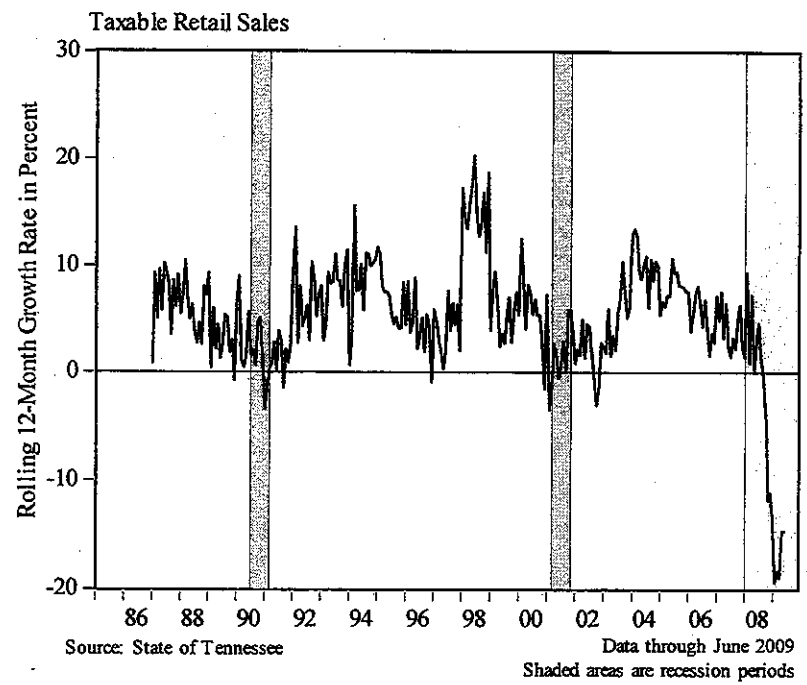
For Tennessee, boom was not as strong as the U.Ss. (in relatively terms as seen in the accompanying graph) and the decline is not as severe in relative terms

This relative comparison does not mitigated, however, the impact of the housing bust for Tennessee



The Tennessee Cycle in Perspective
Consumer Spending

The graph to the right speaks for itself



Baseline Economic Outlook

Economics Outlook for Tennessee

	2008				2009				2010				Year-over-Year Growth		
	I(A) 2008	II(A) 2008	III(A) 2008	IV(E) 2008	I(A) 2009	II(E) 2009	III(E) 2009	IV(E) 2009	I(E) 2010	II(E) 2010	III(E) 2010	IV(E) 2010	2009	2010	2011
National Trends															
1 Civilian Employment (Mil.)	141.6	140.6	139.5	138.5	138.6	138.7	138.9	139.1	139.4	139.8	140.1	140.5	-3.7	-0.9	0.8
2 Change *	-6.7	-2.8	-3.0	-2.9	0.3	0.3	0.5	0.8	0.9	1.1	0.9	1.1			
3 Personal Income	11952.7	12048.8	12088.7	12120.8	12191.8	12275.6	12379.9	12490.9	12596.7	12715.7	12821.2	12934.9	-1.5	2.3	3.5
4 Change *	-8.9	3.3	1.3	1.1	2.4	2.8	3.4	3.6	3.4	3.8	3.4	3.6			
5 Income Per Employee (T)	84.425	85.701	86.646	87.524	87.978	88.512	89.151	89.777	90.340	90.936	91.486	92.047	2.2	3.2	2.6
6 Change *	-2.3	6.2	4.5	4.1	2.1	2.4	2.9	2.8	2.5	2.7	2.4	2.5			
7 Housing Starts (Mil. of Units)	0.528	0.540	0.589	0.673	0.672	0.699	0.710	0.754	0.949	1.174	1.248	1.321	-35.3	21.7	65.4
8 Change *	-58.6	9.7	41.2	71.0	-0.8	17.3	6.4	27.4	150.1	134.2	27.6	25.8			
Tennessee															
9 Nonagricultural Employment (T)	2696.4	2659.2	2653.5	2647.5	2646.8	2648.5	2649.8	2653.5	2658.1	2664.6	2671.0	2677.2	-4.1	-0.5	0.7
10 Change *	-6.6	-5.4	-0.9	-0.9	-0.1	0.3	0.2	0.6	0.7	1.0	1.0	0.9			
11 Personal Income	215.8	217.1	218.8	220.1	222.0	223.4	225.3	227.1	229.0	231.0	232.8	234.8	0.3	3.0	3.3
12 Change *	-0.5	2.3	3.2	2.5	3.3	2.7	3.5	3.2	3.3	3.5	3.2	3.3			
13 Dividends & Interest	28.0	27.6	27.6	27.6	27.7	27.8	27.9	28.0	28.1	28.2	28.3	28.4	-5.5	0.4	1.5
14 Change *	-14.9	-5.5	-0.2	0.0	1.1	0.9	1.6	1.5	1.5	1.6	1.4	2.0			
15 Income Per Employee (T)	80.039	81.631	82.452	83.150	83.857	84.352	85.038	85.589	86.148	86.687	87.169	87.686	4.5	3.5	2.6
16 Change *	6.5	8.2	4.1	3.4	3.4	2.4	3.3	2.6	2.6	2.5	2.2	2.4			
17 Retail Sales	77.8	78.0	75.9	75.9	75.8	75.3	75.6	75.4	75.7	76.4	76.9	77.7	-14.8	-1.8	1.5
18 Change *	-23.9	0.6	-10.0	-0.2	-0.4	-2.8	1.4	-0.7	1.4	3.6	3.0	4.2			
19 Single-Family Building Permits (T)	10.508	11.143	12.756	12.261	12.325	12.603	12.699	13.094	14.428	17.018	18.203	19.413	-23.7	8.7	36.2
20 Change *	27.0	26.4	71.7	-14.6	2.1	9.3	3.1	13.0	47.4	93.6	30.9	29.4			
21 Total Building Permits (T)	13.2	15.1	13.8	15.8	13.7	14.2	14.4	14.7	16.9	20.3	21.3	22.5	-28.5	-1.3	41.9
22 Change *	-37.6	70.7	-30.8	71.3	-42.5	14.9	5.6	9.8	70.7	111.7	20.0	26.0			

Note: Except where noted, all data in billions of dollars. Historic sources: BEA, BLS, State of Tennessee T=Thousands of units, persons, or dollars December 8, 2009

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

Baseline Economic Outlook

Economic Assumptions—Fiscal Year Basis

		FY98-99	FY99-00	FY00-01	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	Forecasts FY09-10	FY10-11	FY11-12
1	Personal Income (Bil $)	139.6	147.9	156.1	160.4	166.0	174.0	183.3	193.9	205.4	215.7	216.7	221.1	228.1	235.7
2	Chg@	6.4	5.9	5.6	2.8	3.5	4.8	5.3	5.8	5.9	5.1	0.5	2.0	3.2	3.3
3	Nonagricultural Employment (Mil)	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.6	2.7	2.7
4	Chg@	1.9	2.0	0.2	-2.1	0.1	0.5	1.7	1.6	0.8	0.4	-3.0	-2.5	0.3	0.9
5	Income Per Employee (Th $)	52.5	54.5	57.4	60.2	62.3	64.9	67.3	70.1	73.6	77.0	79.8	83.5	85.9	87.9
6	Chg@	4.4	3.8	5.4	4.9	3.4	4.2	3.6	4.2	5.0	4.6	3.6	4.6	2.9	2.4
7	Retail Sales (Bil $)	58.8	62.6	64.1	65.9	67.0	73.1	79.2	85.0	88.9	92.0	82.5	75.7	75.8	78.1
8	Chg@	9.9	6.5	2.4	2.9	1.7	9.1	8.3	7.4	4.6	3.5	-10.3	-8.2	0.0	3.1
9	Building Permits (Th of Units)	31.2	29.7	26.3	28.0	30.2	36.0	37.2	40.2	34.1	21.4	11.8	12.5	14.3	20.1
10	Chg@	6.0	-4.8	-11.3	6.4	8.0	19.1	3.3	8.0	-15.1	-37.3	-44.9	6.1	14.6	40.3

* Millions of dollars@ Annual Percent Change

Annual economic data in lines 1, 3, 5, 7, and 9 are calculated in terms of fiscal years ending in IIQ of the calendar year of the noted fiscal year

December 8, 2009

Baseline Economic Outlook

Baseline Revenue Projections

	FY98-99	FY99-00	FY00-01	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	Forecasts FY09-10	FY10-11	FY11-12
11 Total Tax Revenue*	6,979.4	7,526.8	7,656.4	7,469.0	8,449.7	9,094.0	9,638.6	10,290.8	11,052.7	11,117.6	10,153.5	9,929.7	10,110.7	10,410.2
12 Chg@	3.6	7.8	1.7	-2.4	13.1	7.6	6.0	6.8	7.4	0.6	-8.7	-2.2	1.8	3.0
13 Sales and Use Tax*	4,346.2	4,600.7	4,643.3	4,645.7	5,459.4	5,810.8	6,091.5	6,515.6	6,815.4	6,851.2	6,320.8	6,133.2	6,251.7	6,446.6
14 Chg@	6.0	5.9	0.9	0.1	17.5	6.4	4.8	7.0	4.6	0.5	-7.7	-3.0	1.9	3.1
15 Income Tax*	160.4	179.9	199.4	141.7	102.9	140.0	155.9	194.4	247.6	292.0	220.4	181.3	179.4	185.3
16 Chg@	-0.6	12.2	10.8	-28.9	-27.4	36.0	11.4	24.7	27.4	18.0	-24.5	-17.8	-1.0	3.3
17 Gross Receipts Tax*	197.5	213.1	248.6	224.3	216.5	219.1	235.9	241.2	277.6	241.2	317.5	319.8	324.6	329.4
18 Chg@	4.6	7.9	16.6	-9.8	-3.5	1.2	7.6	2.2	15.1	-13.1	31.6	0.7	1.5	1.5
19 Excise plus Franchise Taxes*	891.2	1,083.0	1,102.8	966.3	1,071.7	1,197.8	1,372.0	1,491.6	1,766.1	1,619.5	1,361.8	1,341.9	1,363.4	1,411.1
20 Chg@	-1.7	21.5	1.8	-12.4	10.9	11.8	14.5	8.7	18.4	-8.3	-15.9	-1.5	1.6	3.5
21 Gasoline Tax*	567.4	576.1	569.4	576.9	600.1	599.3	608.1	605.6	612.3	617.1	601.8	607.9	613.8	619.2
22 Chg@	0.8	1.5	-1.2	1.3	4.0	-0.1	1.5	-0.4	1.1	0.8	-2.5	1.0	1.0	0.9
23 Vehicle Registration*	201.2	218.6	211.4	219.6	225.0	238.5	244.2	249.5	257.4	251.3	238.8	241.1	245.3	253.2
24 Chg@	2.8	8.7	-3.3	3.9	2.5	6.0	2.4	2.2	3.1	-2.4	-5.0	0.9	1.8	3.2
25 Fuel Tax*	142.5	152.8	173.4	151.2	155.4	167.7	173.7	180.7	185.9	182.9	154.5	142.0	144.0	148.1
26 Chg@	7.0	7.2	13.5	-12.8	2.8	7.9	3.5	4.0	2.9	-1.6	-15.5	-8.1	1.4	2.8
27 Privilege Tax*	142.6	153.7	160.8	177.4	216.5	246.1	264.9	304.9	313.8	279.0	232.7	242.7	249.3	257.5
28 Chg@	14.7	7.8	4.6	10.3	22.1	13.6	7.7	15.1	2.9	-11.1	-16.6	4.3	2.7	3.3
29 All Other Taxes*	330.4	348.9	347.2	365.8	401.9	474.6	492.4	507.3	576.7	783.4	705.2	719.9	739.1	759.8
30 Chg@	-9.5	5.6	-0.5	5.4	9.9	18.1	3.7	3.0	13.7	35.8	-10.0	2.1	2.7	2.8

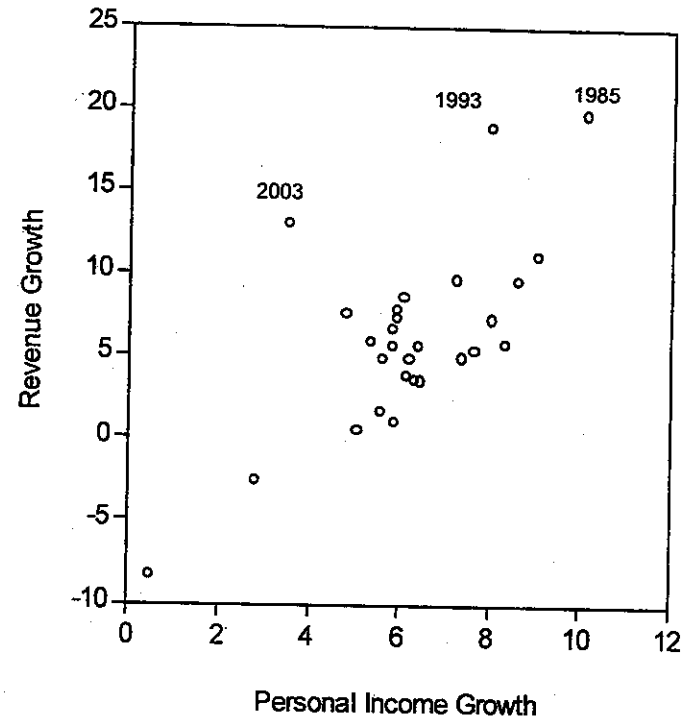
* Millions of dollars

@ Annual Percent Change

December 8, 2009

A Consistency Check

- Top-down forecasting model projects growth in tax revenue based on personal income growth and employment, controlling for tax rate changes in 1985, 1993, and 2003
- Based on personal income projections, the consistency check is below
- Growth is stronger for FY 2009-10 largely because the consistency model cannot capture the shortfall in the running rate in taxes.



Baseline	2010	2011	2012	2013
Revenue	$9,929,662	$10,110,740	$10,410,230	$10,715,870
Revrenue Growth	-2.20	1.82	2.96	2.94
Consistency Model				
Revenue	$10,014,080	$10,285,320	$10,667,040	$11,085,460
Revenue Growth	-1.82	2.71	3.71	3.92

Contingency Views
Balancing the Risks

Probabilities

- Stronger growth 12.5%
- Baseline 50%
- Weaker growth 37.5%

Tilting the balance to weak-growth scenario: Asymmetric cost of forecast errors

- Lower than projected tax revenue is a bigger problem for the state than higher than projected tax revenue

Risk Scenario

Personal income growth projections in is cut by 1 percent per year throughout the forecast horizon and employment growth is cut by 0.5 percent throughout the forevast horizon

Consistency model is re-simulated using these assumptions

Difference between the consistency and the risk models is used to adjust the baseline revenue outlook as noted below

Baseline	2010	2011	2012	2013
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Revrenue Growth	-2.204825	1.823642	2.962107	2.935867
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Revenue	$11,042,500	$11,189,490	$11,450,620	$11,742,040
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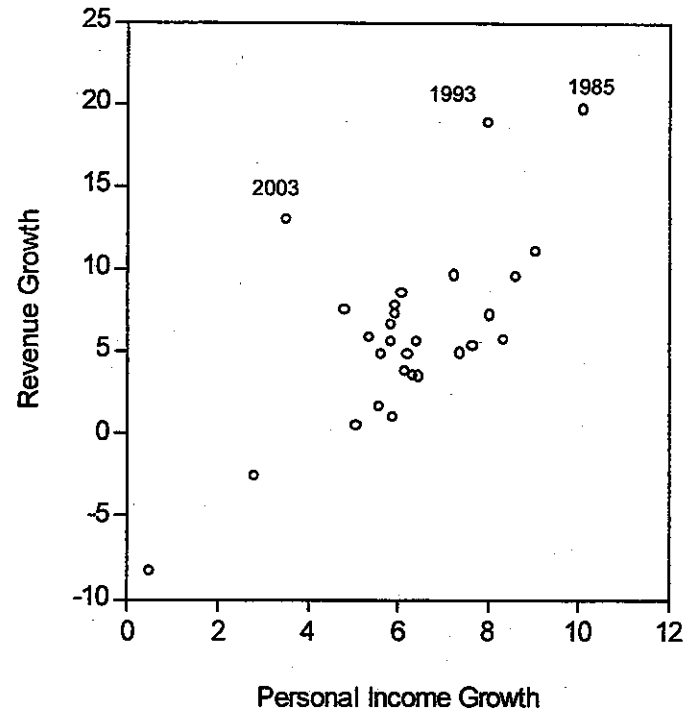

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