



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

presented to

Tennessee State Funding Board

Nashville, Tennessee

December 9, 2011

by

Albert E. DePrince, Jr.

Professor of Economics and Finance

Jennings A. Jones College of Business

Middle Tennessee State University

Murfreesboro, Tennessee

deprince@mtsu.edu



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

Contents

Supporting Background Material

The U.S. Crisis in Perspective

- Liquidity and Risk
- The Equity Market

The Investment Spending and the Business Cycle

- The Investment Spending Picture
- Light Vehicle Sales and Housing

Labor Markets and the Business Cycle

- Unemployment and Labor Force Participation
- Initial Unemployment Claims and Duration

Forward Looking Indexes and the Business Cycle

- ISM Index and Consumer Sentiment

U.S. Economy: Potential Flash Points

- Overview of Potential Flash Points
- Dollar versus Industrialized Currencies

Setting the Stage for the U.S. Outlook

- Real Interest Rates and the Yield curve
- Broad-Brush Comparison of Forecasts

Forecasts

Baseline Economic Forecast

- General Overview
- Cyclical Characteristics
- Household Sector
- Corporate and International Sectors

Interest Rates

- Market Outlook
- MTSU Interest Rates

The Tennessee Economy

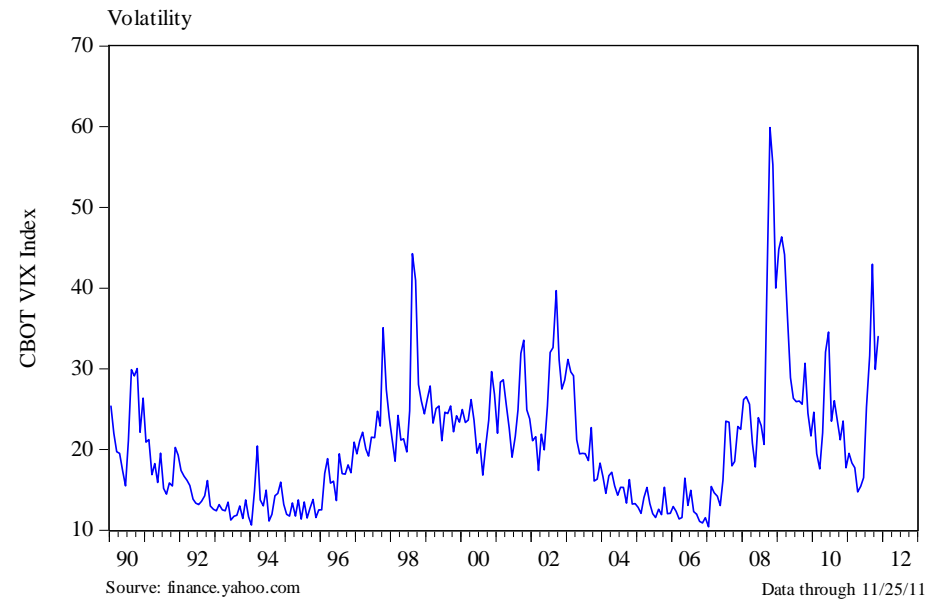
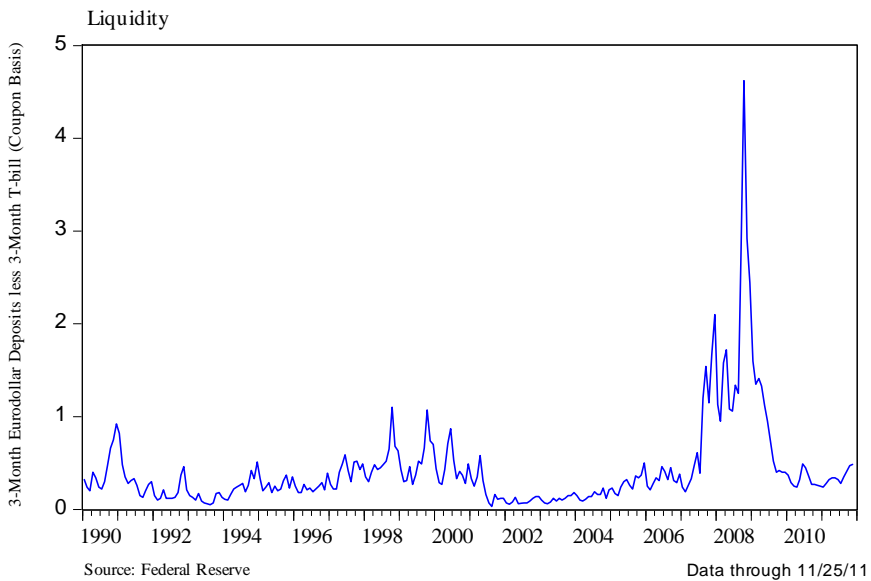
- Highlights

Outlook for Tennessee

- Tennessee Economic Outlook
- Economic Assumptions behind Revenue Projections
- Outlook for State Revenue

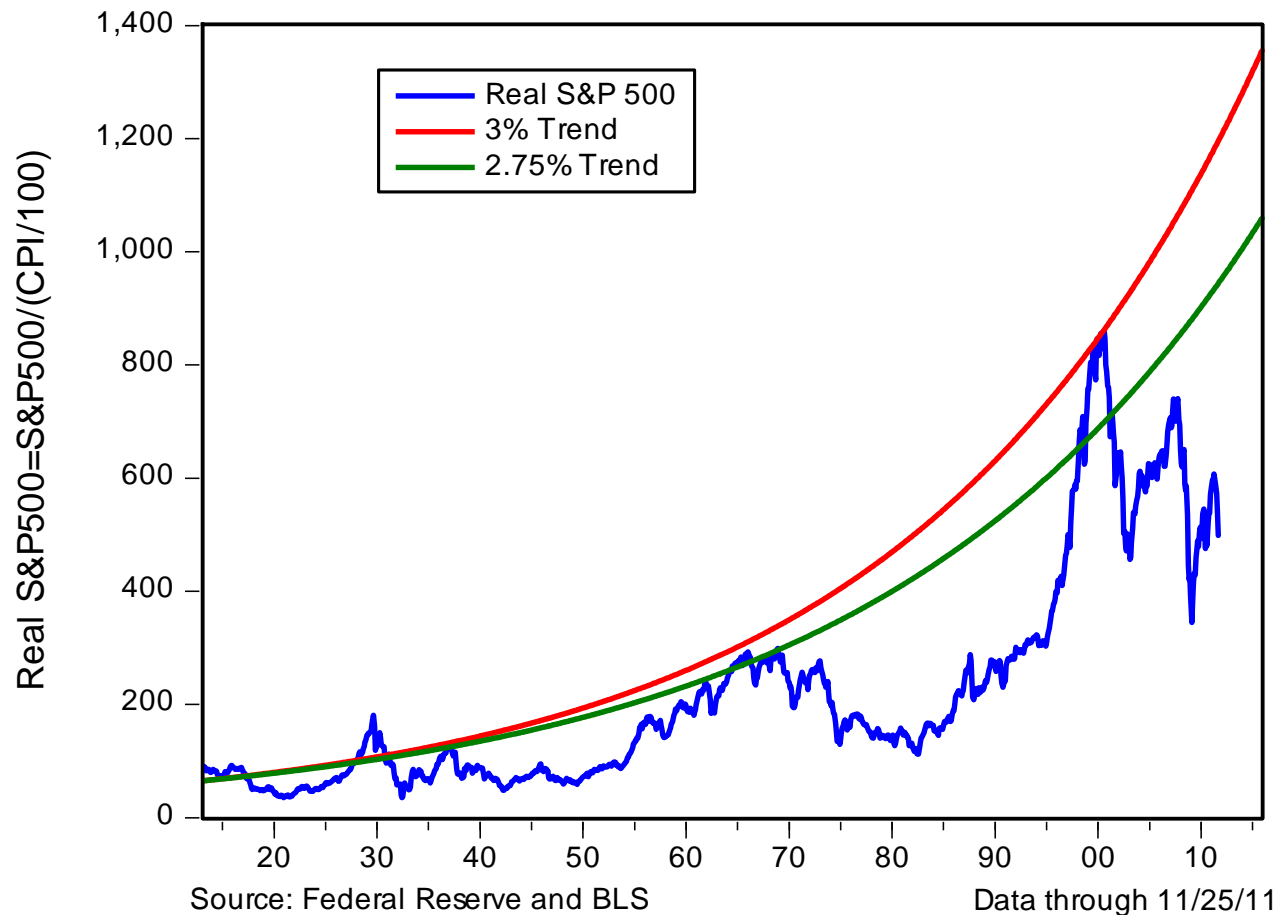
The U.S. Crisis in Perspective

Liquidity and Risk: Return to Normality?



The U.S. Crisis in Perspective

The Equity Markets: Return to Normality?



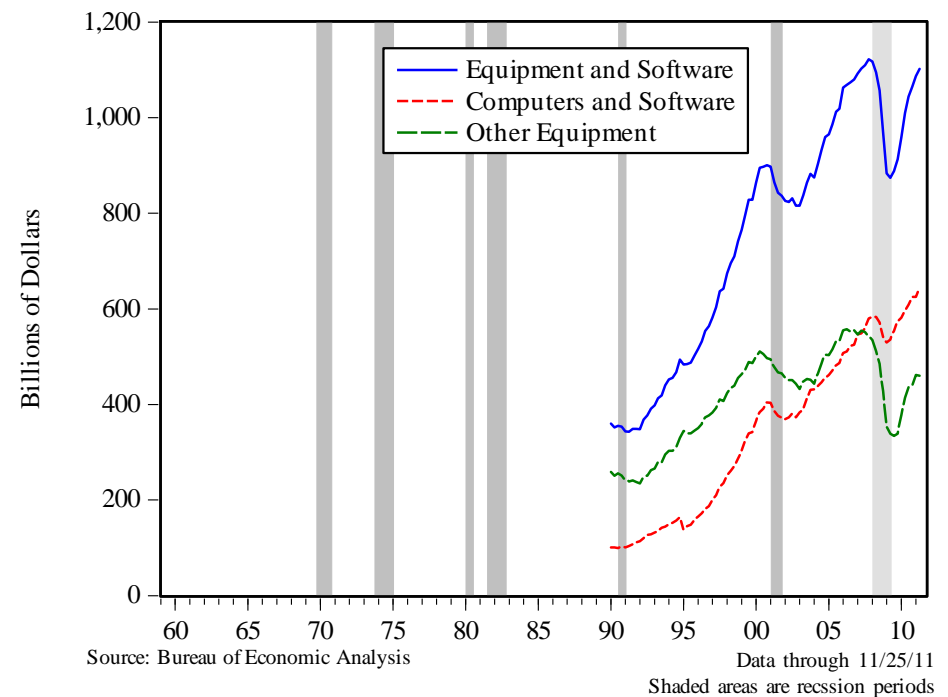
Investment Spending and the Business Cycle

Business Equipment and Software

Business equipment and software

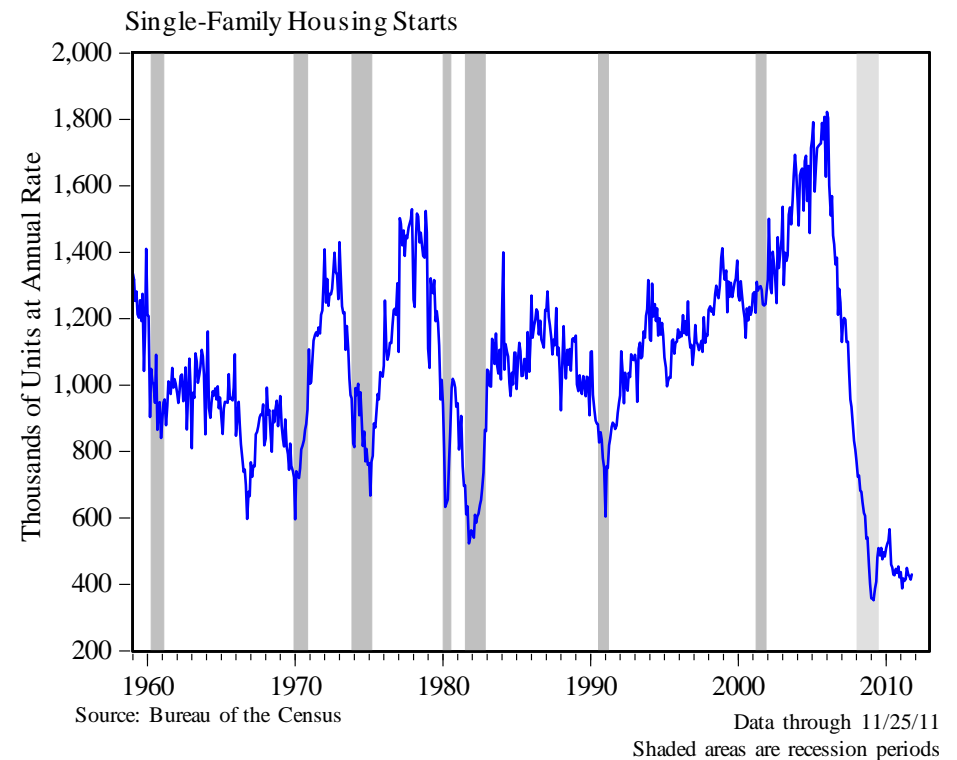
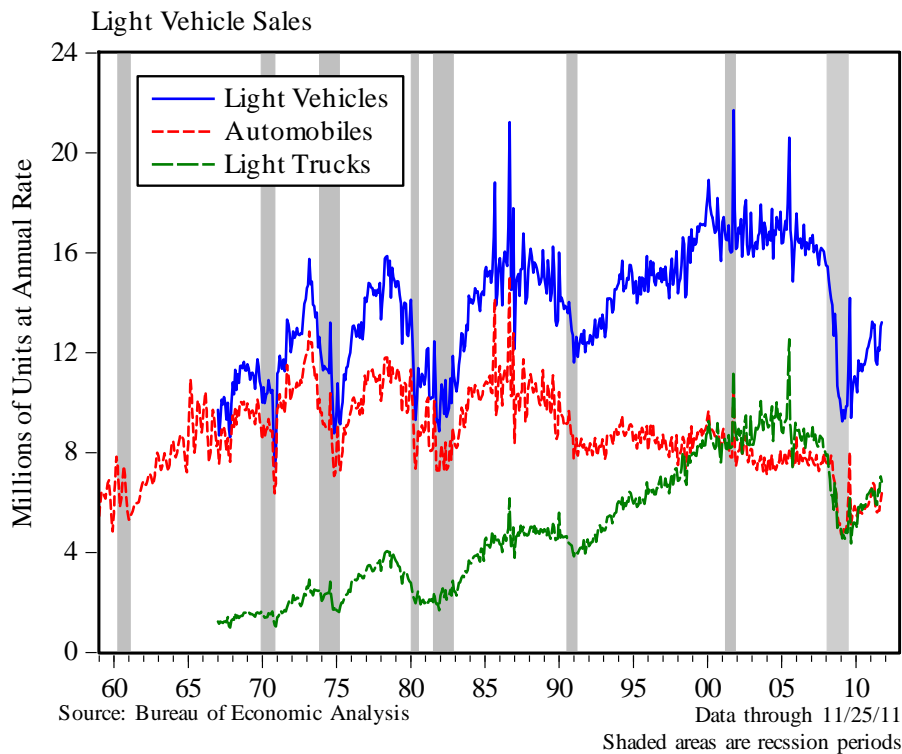
- In the last recession “all other equipment” bore the brunt of the downturn
- Not surprising since manufacturing capacity utilization rate bottomed at around 66 percent

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



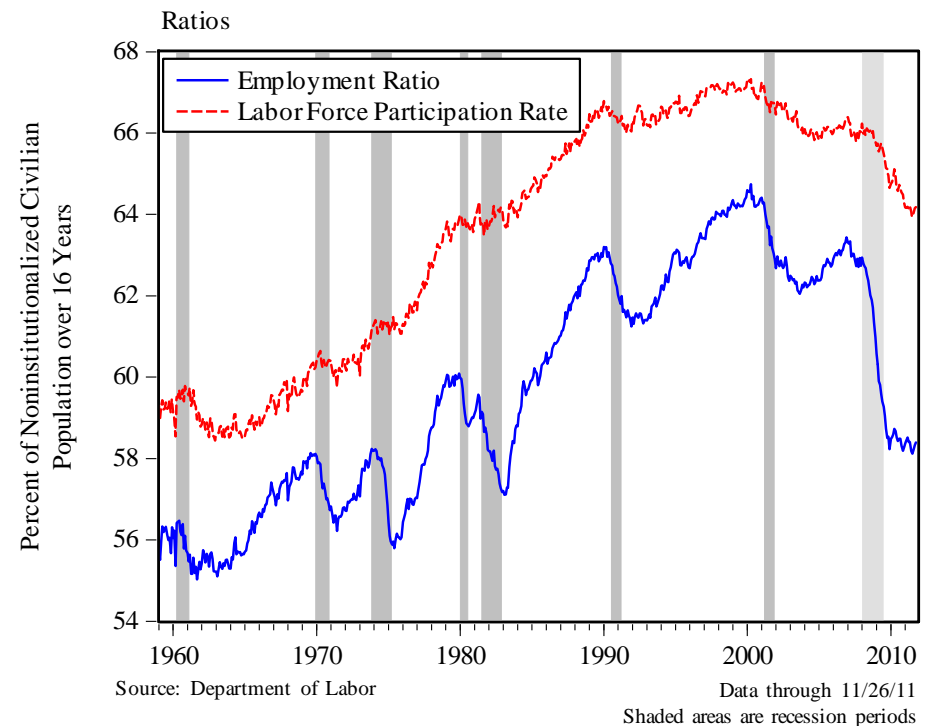
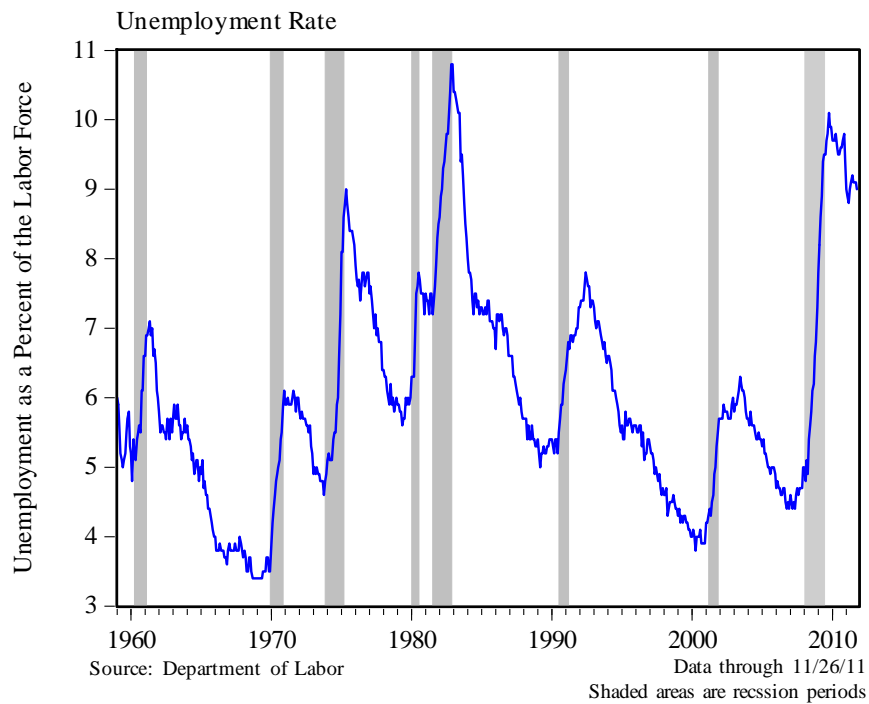
Investment Spending and the Business Cycle

Light Vehicle Sales and Housing



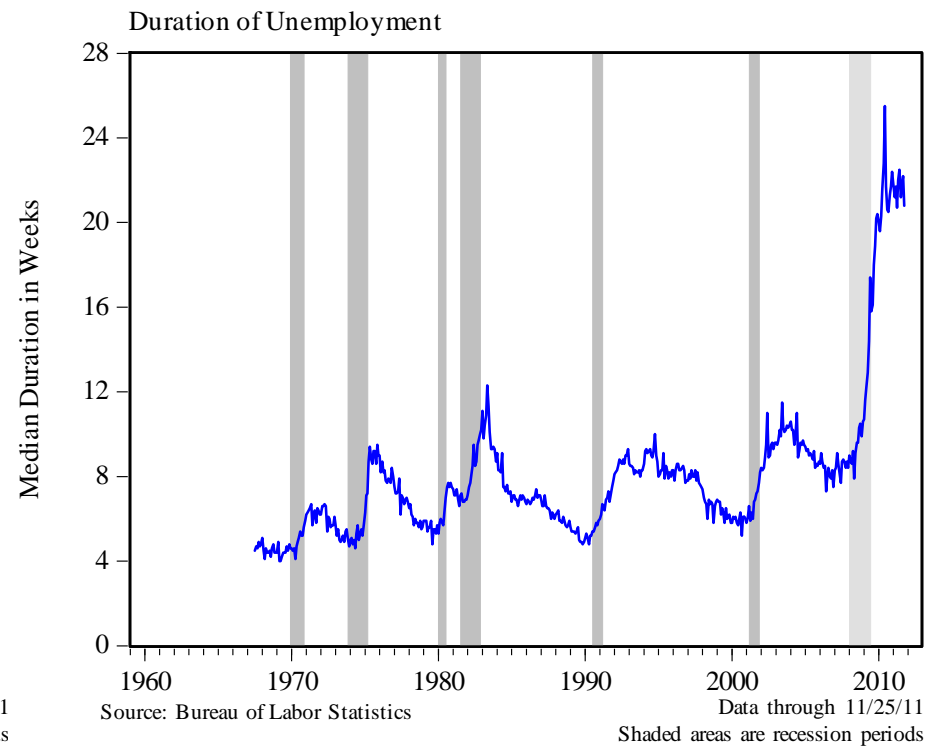
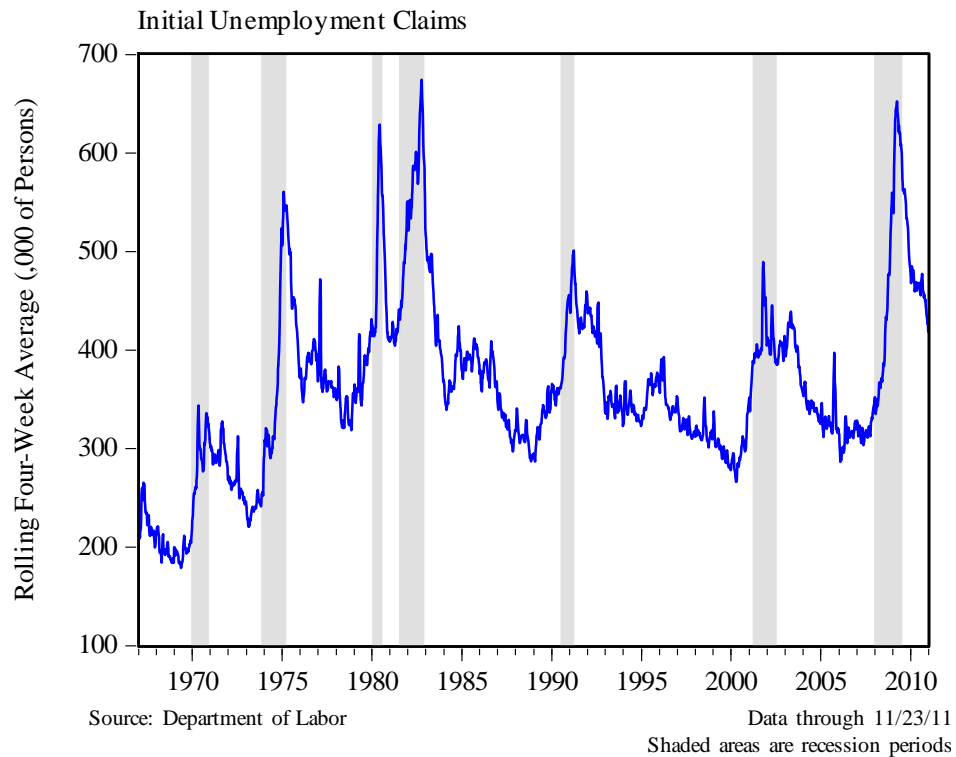
Labor Markets and the Business Cycle

Unemployment Rate, Labor Force Participation Rate and Employment Ratio



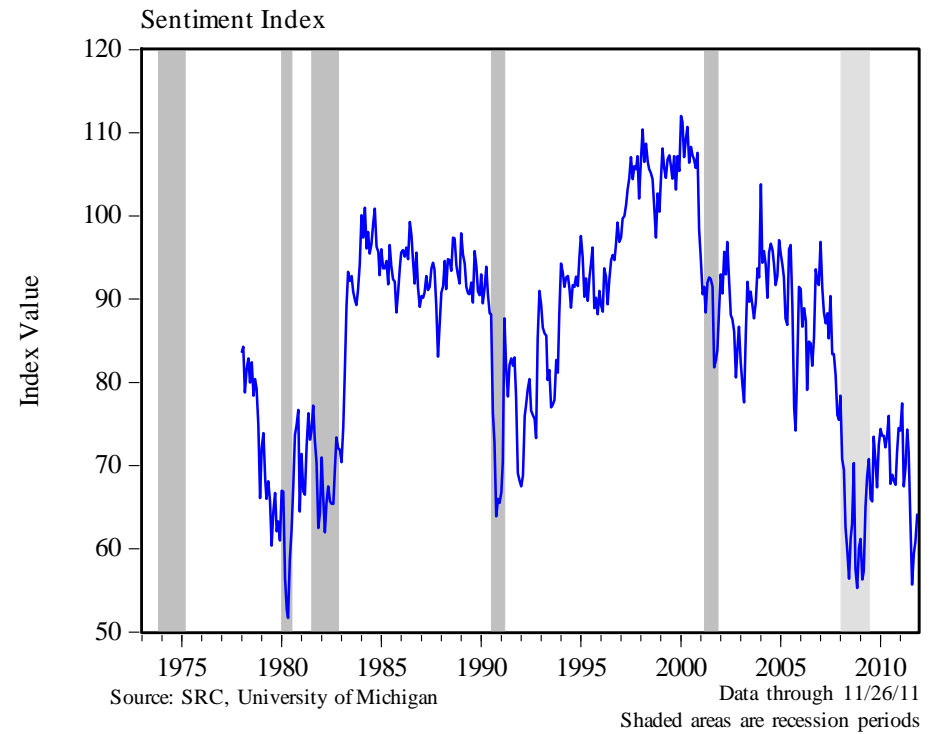
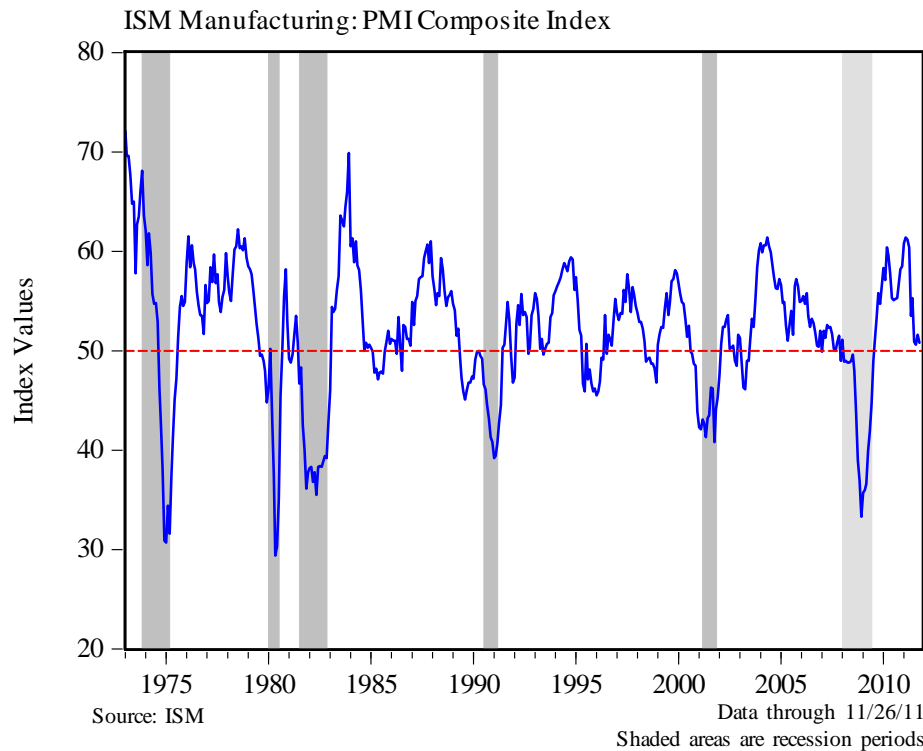
Labor Markets and the Business Cycle

Initial Unemployment Claims and the Duration of Unemployment



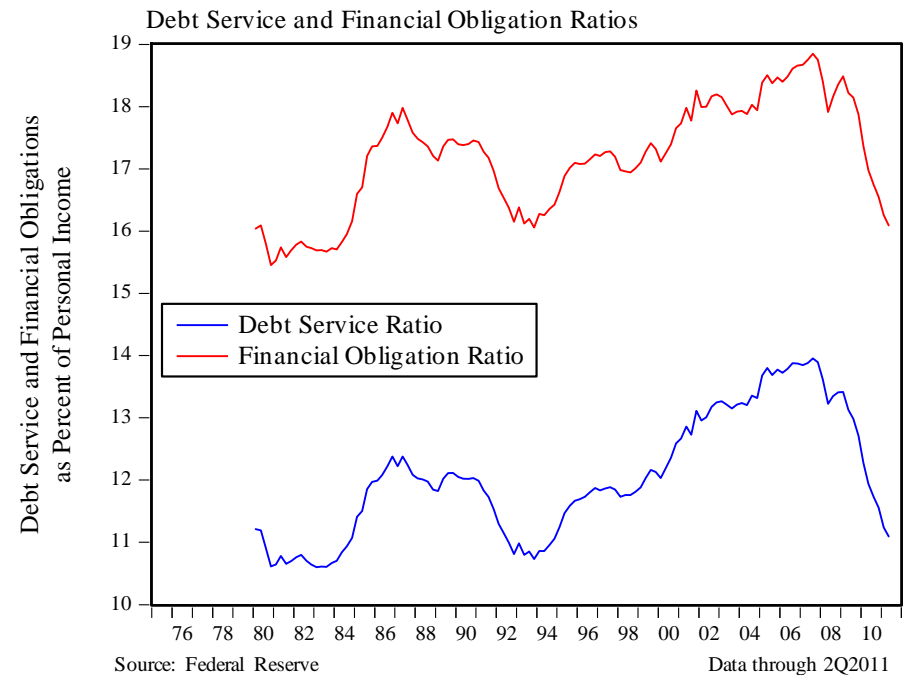
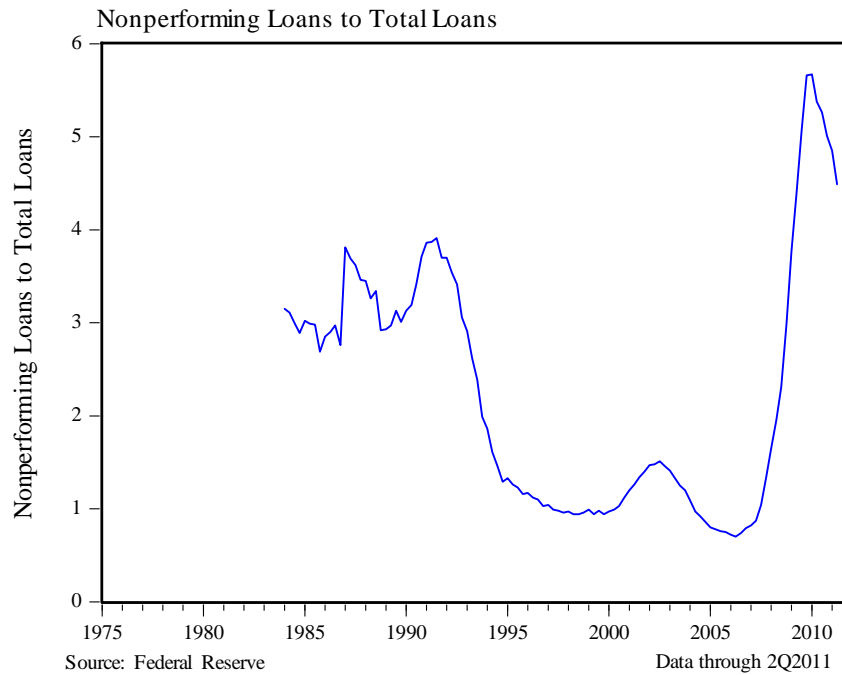
Forward Looking Indexes and the Business Cycle

Business and Consumer Sentiment



Credit Conditions

Banks and Household Sector





U.S. Economy: Potential Flash Points

Un-resolved foreclosures and issue of liquidity of structured securities

Deleveraging and consumer spending

The U.S. Federal budget deficit paralysis and U.S. credit ratings

QE and inflation

QE and the dollar

Central bank asset diversifications and the dollar

Oil likely move above \$100 per barrel

Oil supply disruptions from resolution of Iranian nuclear ambitions

The Euro zone and cascading debt problems (Portugal, Spain and Italy)

Policy induced slowdown in Chinese growth

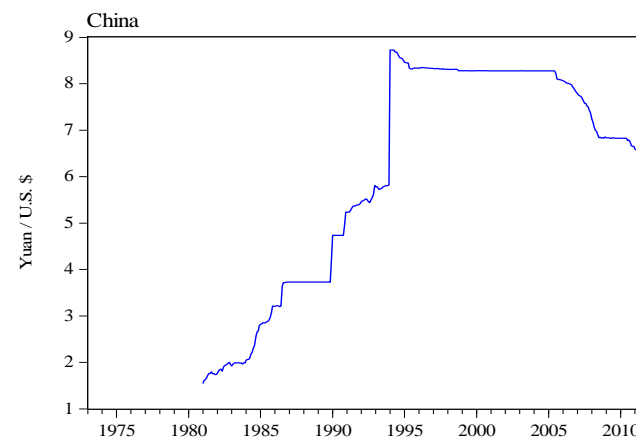
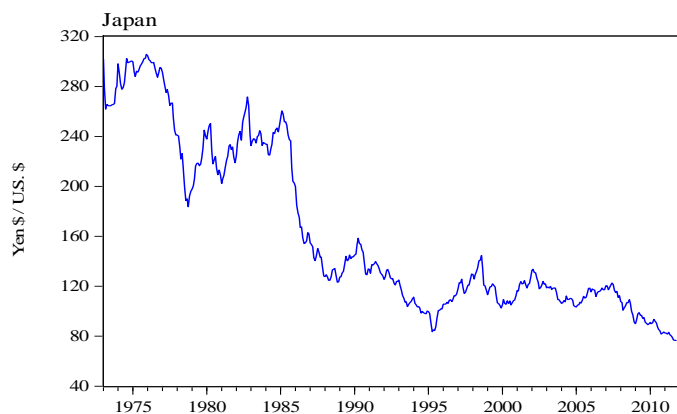
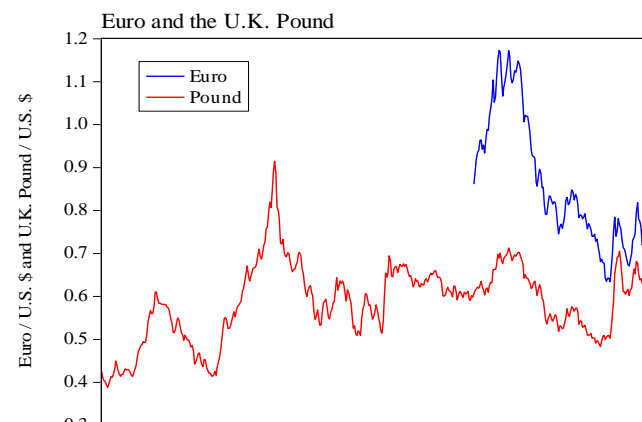
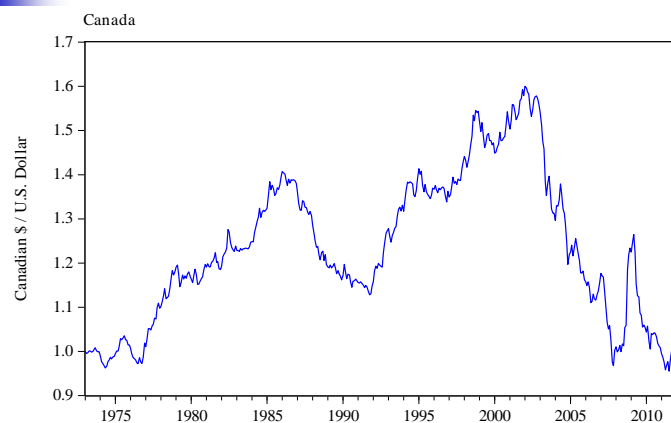
Nuclear programs in hostile countries

Policy induced paralysis in bank lending and borrowing

Rise in risk appetites and effects on U.S. Treasury bond yields

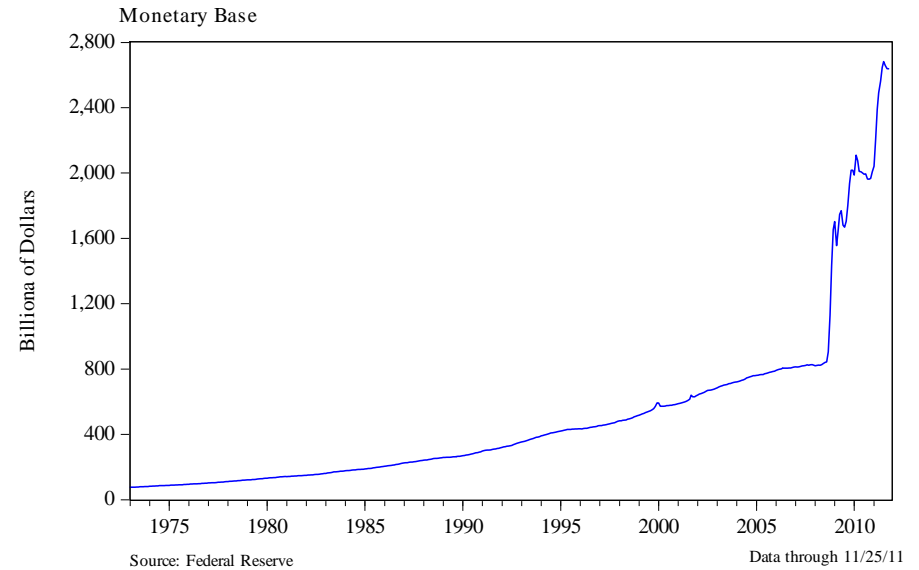
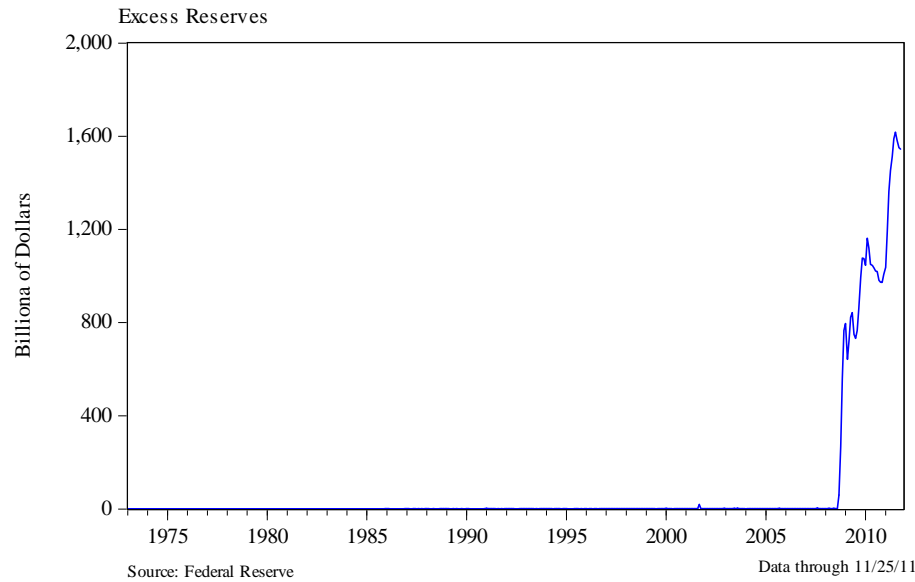
U.S. Economy: Potential Flash Points

Quantitative Easings and the Dollar



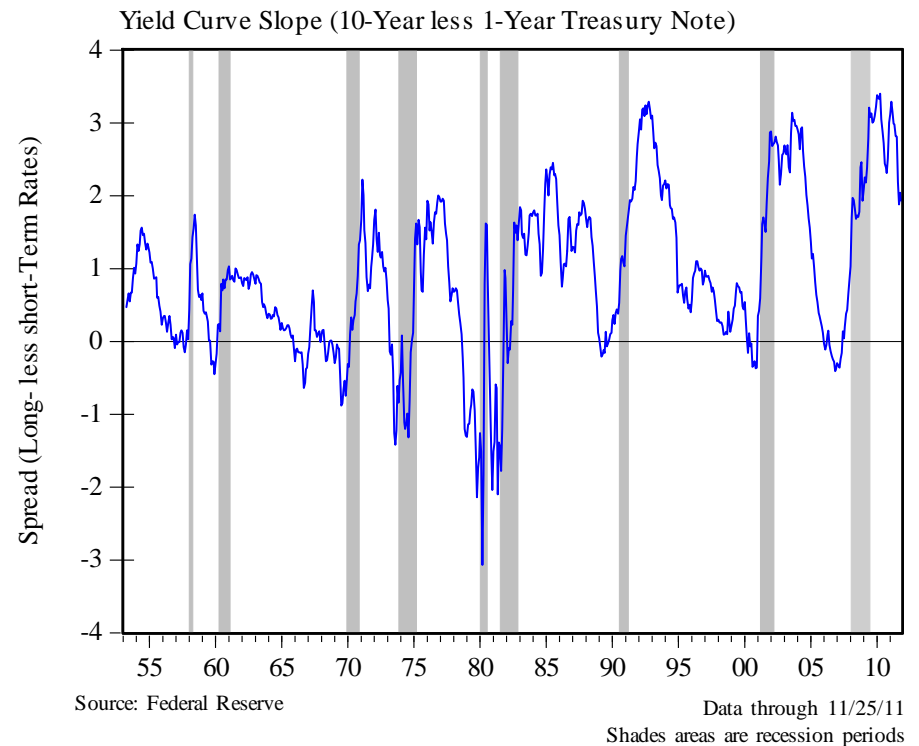
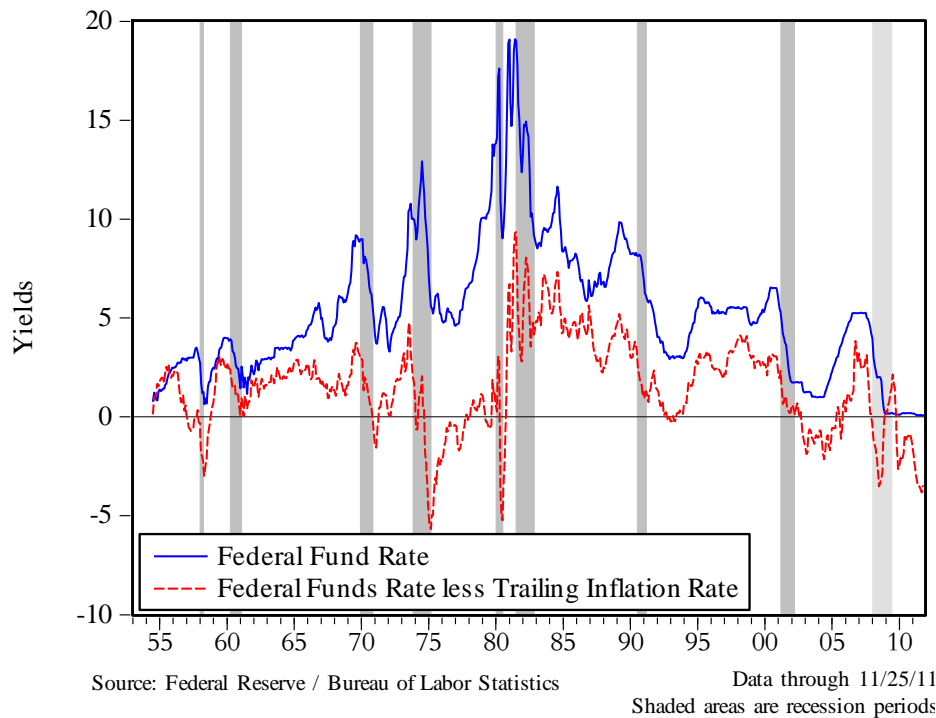
U.S. Economy: Potential Flash Points

Quantitative Easings and Inflation



The U.S. Outlook – Setting the Stage

The Interest Rate Regime



The U.S. Outlook – Broad-Brush Comparison

Blue Chip Short-Term Financial Survey and the FOMC Short- and Long-Term Forecasts

Blue Chip Financial Survey Results			
	Consensus	10 Highest	10 Lowest
4Q2011	2.7	3.2	2.0
1Q2012	2.0	2.9	0.1
2Q2012	2.1	3.1	1.1
3Q2012	2.4	3.3	1.6
4Q2014	2.7	3.5	1.7
1Q2013	2.6	3.4	1.8
December 1, 2011			

Variable	Central tendency					Range				
	2011	2012	2013	2014	Longer run	2011	2012	2013	2014	Longer run
Change in real GDP	1.6 to 1.7	2.5 to 2.9	3.0 to 3.5	3.0 to 3.9	2.4 to 2.7	1.6 to 1.8	2.3 to 3.5	2.7 to 4.0	2.7 to 4.5	2.2 to 3.0
June projection	2.7 to 2.9	3.3 to 3.7	3.5 to 4.2	n.a.	2.5 to 2.8	2.5 to 3.0	2.2 to 4.0	3.0 to 4.5	n.a.	2.4 to 3.0
Unemployment rate	9.0 to 9.1	8.5 to 8.7	7.8 to 8.2	6.8 to 7.7	5.2 to 6.0	8.9 to 9.1	8.1 to 8.9	7.5 to 8.4	6.5 to 8.0	5.0 to 6.0
June projection	8.6 to 8.9	7.8 to 8.2	7.0 to 7.5	n.a.	5.2 to 5.6	8.4 to 9.1	7.5 to 8.7	6.5 to 8.3	n.a.	5.0 to 6.0
PCE inflation	2.7 to 2.9	1.4 to 2.0	1.5 to 2.0	1.5 to 2.0	1.7 to 2.0	2.5 to 3.3	1.4 to 2.8	1.4 to 2.5	1.5 to 2.4	1.5 to 2.0
June projection	2.3 to 2.5	1.5 to 2.0	1.5 to 2.0	n.a.	1.7 to 2.0	2.1 to 3.5	1.2 to 2.8	1.3 to 2.5	n.a.	1.5 to 2.0
Core PCE inflation	1.8 to 1.9	1.5 to 2.0	1.4 to 1.9	1.5 to 2.0		1.7 to 2.0	1.3 to 2.1	1.4 to 2.1	1.4 to 2.2	
June projection	1.5 to 1.8	1.4 to 2.0	1.4 to 2.0	n.a.		1.5 to 2.3	1.2 to 2.5	1.3 to 2.5	n.a.	

Baseline Economic Outlook

General Overview

	2011				2012				2013				Year-over-Year Growth		
	I(A) 2011	II(A) 2011	III(A) 2011	IV(A/E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013
1 Gross Domestic Product	14867.8	15012.8	15180.9	15392.4	15564.7	15749.3	15929.5	16111.4	16303.5	16506.8	16723.1	16942.6	4.0	4.8	4.9
2 Change *	3.8	4.3	4.9	5.7	4.6	4.8	4.7	4.6	4.9	5.1	5.3	5.4			
3 Gross Dom. Product (96\$)	13227.9	13271.8	13337.8	13471.9	13559.7	13656.7	13749.9	13843.0	13943.6	14052.1	14169.7	14288.0	1.8	2.8	3.0
4 Change *	0.4	1.3	2.0	4.1	2.6	2.9	2.8	2.7	2.9	3.1	3.4	3.4			
5 Personal Consump. Exp. (96\$)	9376.7	9392.7	9446.5	9519.7	9580.8	9647.0	9712.8	9776.8	9845.5	9916.5	9993.2	10071.7	2.3	2.6	2.9
6 Change *	2.1	0.7	2.3	3.1	2.6	2.8	2.8	2.7	2.8	2.9	3.1	3.2			
7 Equipment and Software (96\$)	1086.9	1103.5	1144.3	1163.3	1177.7	1191.6	1205.2	1220.3	1236.7	1256.0	1278.5	1301.6	10.3	6.6	5.8
8 Change *	8.7	6.3	15.6	6.8	5.0	4.8	4.6	5.1	5.5	6.4	7.3	7.4			
9 Nonresid. Construction (96\$)	305.9	321.9	331.6	334.5	337.3	339.8	342.9	345.5	346.0	345.6	345.9	346.6	4.6	5.5	1.4
10 Change *	-14.4	22.6	12.6	3.5	3.4	3.0	3.7	3.1	0.6	-0.5	0.3	0.8			
11 Resid. Construction (96\$)	321.1	324.4	325.7	328.0	328.8	328.4	330.5	333.5	340.0	348.5	357.8	367.8	-1.8	1.7	7.0
12 Change *	-2.5	4.2	1.6	2.9	0.9	-0.4	2.6	3.6	8.0	10.4	11.1	11.7			
13 Federal Defense (96\$)	694.0	705.9	714.1	710.0	711.2	711.2	711.3	711.5	711.6	711.8	711.9	712.1	-1.7	0.8	0.1
14 Change *	-12.6	7.0	4.7	-2.3	0.7	0.0	0.1	0.1	0.1	0.1	0.1	0.1			
15 Fed. Nondefense (96\$)	359.4	352.4	349.0	350.0	351.8	353.5	355.5	357.5	359.4	361.4	363.6	365.8	-1.4	0.5	2.3
16 Change *	-2.7	-7.6	-3.8	1.1	2.1	2.0	2.3	2.2	2.2	2.2	2.5	2.5			
17 State + Local (96\$)	1466.4	1456.1	1450.9	1450.1	1451.4	1453.4	1455.7	1458.2	1461.0	1464.2	1467.8	1471.8			
18 Change *	-3.3	-2.8	-1.4	-0.2	0.3	0.6	0.6	0.7	0.8	0.9	1.0	1.1	-2.1	-0.1	0.8
19 Net Exports ('96\$)	-424.4	-416.4	-400.7	-394.4	-405.3	-403.9	-403.8	-401.9	-400.7	-397.1	-396.7	-398.8			
20 Chg. in Bus. Invent. (96\$)	49.1	39.1	-8.5	10.7	26.1	35.6	39.7	41.6	44.1	45.1	47.7	49.4			
21 Nonfarm Inventories	59.7	51.0	4.9	16.5	28.7	37.1	40.9	42.6	45.2	46.2	48.7	50.4			
22 Farm Inventories	-10.6	-11.9	-13.4	-5.8	-2.6	-1.5	-1.2	-1.1	-1.1	-1.1	-1.1	-1.1			
23 GNP Deflator ('96=100) *	2.7	2.6	2.5	1.5	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.2	1.9	1.9
24 CPI (1982-84=100) *	5.2	4.1	3.1	0.8	2.3	2.3	2.2	2.1	2.2	2.2	2.3	2.3	3.1	2.2	2.2
25 PPI (1982=100) *	12.4	7.1	2.0	-1.1	2.1	2.1	2.1	2.1	2.1	2.4	2.4	2.4	5.9	1.8	2.2

A = Actual; E = Forecast

* Annualized percent change

Except for price indexes, all data in billions of dollars

Historical sources: BEA and BLS

December 1, 2011

Baseline Economic Outlook

Cyclical Characteristics

	2011				2012				2013				Year-over-Year Growth		
	I(A) 2011	II(A) 2011	III(A) 2011	IV(A/E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013
1 Domestic Final Sales ('96\$)	13603.2	13649.1	13747.0	13855.6	13939.0	14025.0	14114.0	14203.3	14300.2	14404.0	14518.8	14637.4	1.9	2.5	3.1
2 Change *	0.3	1.4	2.9	3.2	2.4	2.5	2.6	2.6	2.8	2.9	3.2	3.3			
3 Cyclical Domestic Demand ('96\$)	2991.3	3010.0	3078.7	3112.6	3137.4	3161.7	3187.9	3216.1	3252.2	3292.8	3339.7	3390.4	7.0	4.2	4.5
4 Change *	6.0	2.5	9.4	4.5	3.2	3.1	3.4	3.6	4.6	5.1	5.8	6.2			
5 Cyclical Consumer Demand ('96\$)	1277.4	1260.2	1277.1	1286.8	1293.7	1301.9	1309.3	1316.8	1329.5	1342.7	1357.6	1374.4	7.3	2.4	3.5
6 Change *	11.8	-5.3	5.5	3.1	2.2	2.5	2.3	2.3	3.9	4.0	4.5	5.1			
7 Light Vehicles and Parts ('96\$)	161.4	163.8	165.2	166.2	167.0	167.5	167.4	166.9	169.1	171.0	174.1	177.5	6.0	1.8	3.4
8 Change *	8.6	6.1	3.5	2.5	1.8	1.2	-0.2	-1.2	5.5	4.5	7.3	8.1			
9 Other Durables ('96\$)	1116.0	1096.4	1111.9	1120.6	1126.7	1134.4	1141.9	1149.9	1160.4	1171.6	1183.5	1196.9	7.5	2.4	3.5
10 Change *	12.2	-6.8	5.8	3.2	2.2	2.8	2.7	2.8	3.7	3.9	4.1	4.6			
11 Fixed Investment ('96\$)	1699.0	1736.7	1787.8	1825.8	1843.7	1859.9	1878.6	1899.3	1922.6	1950.1	1982.2	2016.0	6.9	6.1	5.2
12 Change *	1.2	9.2	12.3	8.8	4.0	3.5	4.1	4.5	5.0	5.8	6.7	7.0			
13 Resid. Construction ('96\$)	321.1	324.4	325.7	328.0	328.8	328.4	330.5	333.5	340.0	348.5	357.8	367.8	-1.8	1.7	7.0
14 Change *	-2.5	4.2	1.6	2.9	0.9	-0.4	2.6	3.6	8.0	10.4	11.1	11.7			
15 Nonresid. Construction ('96\$)	305.9	321.9	331.6	334.5	337.3	339.8	342.9	345.5	346.0	345.6	345.9	346.6	4.6	5.5	1.4
16 Change *	-14.4	22.6	12.6	3.5	3.4	3.0	3.7	3.1	0.6	-0.5	0.3	0.8			
17 Equipment and Software ('96\$)	1086.9	1103.5	1144.3	1163.3	1177.7	1191.6	1205.2	1220.3	1236.7	1256.0	1278.5	1301.6	10.3	6.6	5.8
18 Change *	8.7	6.3	15.6	6.8	5.0	4.8	4.6	5.1	5.5	6.4	7.3	7.4			
19 Noncyclical Demand ('96\$)@	10236.6	10261.8	10259.1	10359.3	10422.3	10494.9	10562.0	10626.9	10691.4	10759.3	10830.0	10897.5	0.4	2.4	2.5
20 Change *	-1.2	1.0	-0.1	4.0	2.5	2.8	2.6	2.5	2.5	2.6	2.7	2.5			
21 Chg. in Business Inventories	49.1	39.1	-8.5	10.7	26.1	35.6	39.7	41.6	44.1	45.1	47.7	49.4			
22 Gross Domestic Purchases ('96\$)&	13653.6	13689.8	13747.2	13866.3	13965.0	14060.6	14153.7	14244.8	14344.3	14449.2	14566.5	14686.8	1.8	2.7	2.9
23 Change *	0.9	1.1	1.7	3.5	2.9	2.8	2.7	2.6	2.8	3.0	3.3	3.3			
24 Net Exports ('96\$)	-424.4	-416.4	-400.7	-394.4	-405.3	-403.9	-403.8	-401.9	-400.7	-397.1	-396.7	-398.8			
25 GDP ('96\$)**	13227.9	13271.8	13337.8	13471.9	13559.7	13656.7	13749.9	13843.0	13943.6	14052.1	14169.7	14288.0	1.8	2.8	3.0
Change *	0.4	1.3	2.0	4.1	2.6	2.9	2.8	2.7	2.9	3.1	3.4	3.4			

@ 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 1, 2011

Baseline Economic Outlook

Household Sector

	2011				2012				2013				Year-over-Year Growth		
	I(A) 2011	II(A) 2011	III(A) 2011	IV(A/E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013
1 Personal Income (\$ Bil.)	12846.9	12955.3	12975.2	13127.3	13272.5	13408.9	13553.2	13697.7	13847.9	14003.4	14167.9	14337.6	4.9	3.9	4.5
2 Change *	8.8	3.4	0.6	4.8	4.5	4.2	4.4	4.3	4.5	4.6	4.8	4.9			
3 Civilian Employment (Mil.)	139.6	139.6	139.6	140.3	140.8	141.1	141.4	141.7	142.0	142.3	142.6	143.0	0.5	1.0	0.9
4 Change *	1.5	0.0	0.2	2.0	1.3	0.8	0.9	0.8	0.9	0.9	1.0	1.1			
5 Unemployment Rate	8.9	9.1	9.1	8.7	8.8	8.6	8.5	8.5	8.2	8.0	7.7	7.3	8.9	8.6	7.8
6 Personal Consump. Exp. ('96\$)	9376.7	9392.7	9446.5	9519.7	9580.8	9647.0	9712.8	9776.8	9845.5	9916.5	9993.2	10071.7	2.3	2.6	2.9
7 Change *	2.1	0.7	2.3	3.1	2.6	2.8	2.8	2.7	2.8	2.9	3.1	3.2			
8 Autos & Parts	161.4	163.8	165.2	166.2	167.0	167.5	167.4	166.9	169.1	171.0	174.1	177.5	6.0	1.8	3.4
9 Change *	8.6	6.1	3.5	2.5	1.8	1.2	-0.2	-1.2	5.5	4.5	7.3	8.1			
10 Other Durable Goods	1116.0	1096.4	1111.9	1120.6	1126.7	1134.4	1141.9	1149.9	1160.4	1171.6	1183.5	1196.9	7.5	2.4	3.5
11 Change *	12.2	-6.8	5.8	3.2	2.2	2.8	2.7	2.8	3.7	3.9	4.1	4.6			
12 Nondurable Goods	2075.4	2076.6	2073.2	2084.0	2095.7	2111.0	2127.8	2143.8	2159.9	2176.2	2192.5	2208.4	1.8	2.0	3.0
13 Change *	1.6	0.2	-0.7	2.1	2.3	3.0	3.2	3.0	3.0	3.1	3.0	2.9			
14 Services	6039.1	6067.0	6109.8	6148.8	6191.4	6234.1	6275.6	6316.3	6356.1	6397.7	6443.2	6488.9	1.7	2.7	2.7
15 Change *	0.8	1.9	2.9	2.6	2.8	2.8	2.7	2.6	2.5	2.6	2.9	2.9			
16 Lt. Vehicles	13.0	12.1	12.4	13.1	13.1	13.1	13.1	13.1	13.3	13.7	14.1	14.6	9.6	3.4	6.4
17 Change *	24.4	-24.0	11.8	22.9	-0.1	-0.1	-1.4	0.5	7.4	10.9	13.9	14.7			
18 New Auto Sales (Mil.)	6.5	6.0	5.8	6.6	6.6	6.6	6.6	6.6	6.7	6.9	7.1	7.4	8.9	5.9	6.4
19 Change *	47.4	-28.3	-13.7	70.6	-0.1	-0.1	-1.4	0.5	7.4	10.9	13.9	14.7			
20 New Light Truck Sales (Mil.)	6.4	6.1	6.7	6.5	6.5	6.5	6.5	6.5	6.6	6.8	7.0	7.2	10.2	0.9	6.4
21 Change *	5.6	-19.4	42.1	-9.8	-0.1	-0.1	-1.4	0.5	7.4	10.9	13.9	14.7			
22 Private Housing Starts (Mil.)	0.582	0.572	0.610	0.609	0.648	0.658	0.686	0.707	0.794	0.901	1.020	1.135	1.4	13.7	42.6
23 Change *	36.6	-6.7	29.0	-0.7	28.5	6.2	17.8	13.3	58.5	65.7	64.6	53.3			
24 Single-Family	0.414	0.425	0.423	0.450	0.465	0.488	0.500	0.527	0.600	0.700	0.800	0.900	-9.1	15.6	51.6
25 Multi-Family	0.168	0.147	0.187	0.159	0.183	0.171	0.186	0.180	0.194	0.201	0.220	0.235	45.0	8.9	18.0
26 Existing Home Sales (Th.)	4473.3	4303.3	4313.3	4404.2	4465.7	4506.1	4541.2	4580.5	4701.6	4869.0	4986.2	5063.0	-7.4	3.4	8.4
27 Change *	32.4	-14.4	0.9	8.7	5.7	3.7	3.2	3.5	11.0	15.0	10.0	6.3			

A = Actual; E = Forecast

* Annualized percent change

Except where noted, all data in billions of dollars

Historical sources: BEA, BLS, and Federal Reserve

December 1, 2011

Baseline Economic Outlook

Corporate and International Sectors

	2011				2012				2013				Year-over-Year Growth		
	I(A) 2011	II(A) 2011	III(A) 2011	IV(A/E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013
1 Fixed Business Invest. ('96\$)	1378.9	1413.2	1462.8	1497.8	1515.0	1531.4	1548.0	1565.8	1582.7	1601.6	1624.4	1648.2	9.0	7.1	4.8
2 Change *	2.1	10.3	14.8	9.9	4.7	4.4	4.4	4.7	4.4	4.9	5.8	6.0			
3 Structures	305.9	321.9	331.6	334.5	337.3	339.8	342.9	345.5	346.0	345.6	345.9	346.6	4.6	5.5	1.4
4 Change *	-14.4	22.6	12.6	3.5	3.4	3.0	3.7	3.1	0.6	-0.5	0.3	0.8			
5 Producer Equip. & Software	1086.9	1103.5	1144.3	1163.3	1177.7	1191.6	1205.2	1220.3	1236.7	1256.0	1278.5	1301.6	10.3	6.6	5.8
6 Change *	8.7	6.3	15.6	6.8	5.0	4.8	4.6	5.1	5.5	6.4	7.3	7.4			
7 Chg. in Bus. Invent. ('96\$)	49.1	39.1	-8.5	10.7	26.1	35.6	39.7	41.6	44.1	45.1	47.7	49.4			
8 Chg. In Nonfarm Inventories	59.7	51.0	4.9	16.5	28.7	37.1	40.9	42.6	45.2	46.2	48.7	50.4			
9 Corporate Profits (B.T.)	1877.1	1890.6	1921.5	1948.1	1978.2	1986.2	2019.9	2043.9	2100.5	2130.6	2158.7	2169.9			
10 Corporate Profits (A.T.)	1454.8	1470.1	1506.6	1485.4	1508.4	1514.4	1540.2	1558.5	1601.6	1624.6	1646.0	1654.6	5.0	3.5	6.6
11 Change *	39.8	4.3	10.3	-5.5	6.3	1.6	7.0	4.8	11.5	5.9	5.4	2.1			
12 Internal Funds (A.T.)	1402.1	1412.6	1449.7	1437.5	1447.3	1476.8	1518.2	1558.7	1591.4	1616.5	1636.5	1655.7	9.1	5.2	8.3
13 Change *	0.1	3.0	10.9	-3.3	2.8	8.4	11.7	11.1	8.7	6.5	5.0	4.8			
14 Dividends	793.8	807.4	820.7	839.8	859.4	871.1	883.3	895.9	908.6	922.3	937.5	954.1	10.6	7.6	6.1
15 Change *	10.2	7.0	6.8	9.7	9.6	5.6	5.8	5.8	5.8	6.1	6.8	7.3			
16 Output per Hour *	-1.4	0.1	2.8	2.2	1.7	2.2	2.0	2.0	2.2	2.4	2.5	2.4	0.8	2.0	2.2
17 Hourly Compensation *	5.4	3.1	0.3	3.7	3.7	3.1	3.3	3.2	3.4	3.7	3.9	3.9	2.7	3.0	3.5
18 Unit Labor Costs *	6.8	3.0	-2.4	1.5	2.0	0.9	1.3	1.2	1.2	1.3	1.4	1.5	1.8	1.1	1.2

	2011				2012				2013				Year-over-Year Growth		
	I(A) 2011	II(A) 2011	III(A) 2011	IV(A/E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013
1 Net Exports ('96\$)	-424.4	-416.4	-400.7	-394.4	-405.3	-403.9	-403.8	-401.9	-400.7	-397.1	-396.7	-398.8			
2 Exports ('96\$)	1749.6	1765.0	1783.6	1805.8	1829.5	1853.8	1878.6	1903.8	1929.3	1955.2	1981.4	2007.9	6.8	5.1	5.5
3 Change *	7.9	3.6	4.3	5.1	5.3	5.4	5.5	5.5	5.5	5.5	5.5	5.5			
4 Imports ('96\$)	2173.9	2181.4	2184.3	2200.2	2234.8	2257.7	2282.4	2305.7	2330.0	2352.2	2378.1	2406.8	4.8	3.9	4.3
5 Change *	8.3	1.4	0.5	2.9	6.4	4.2	4.4	4.1	4.3	3.9	4.5	4.9			
6 Trade-Weighted Index	72.0	69.8	69.8	69.9	70.1	70.6	71.1	71.7	72.2	72.5	72.6	72.5	-6.7	0.7	2.2

A = Actual; E = Forecast

* Annualized percent change

Except where noted, all data in billions of dollars

Historical sources: BEA, BLS, and Federal Reserve

December 1, 2011

Outlook for Interest Rates

Market-Based Forecasts: Futures Market over the Next Two and a Half Years

Futures market does not see tighter policy until second half of 2013

This is consistent with Federal Reserve's stated interest rate policy

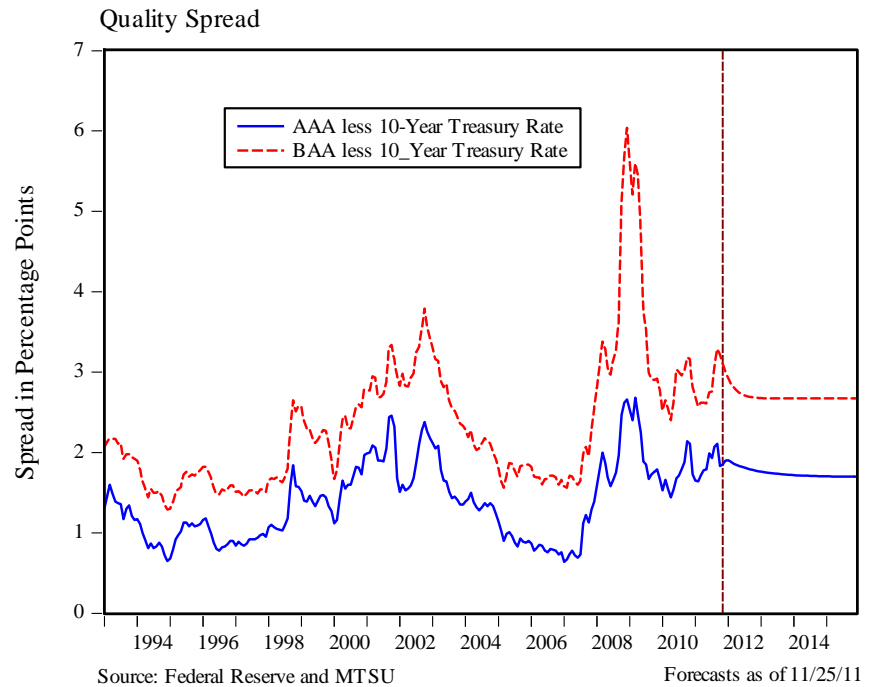
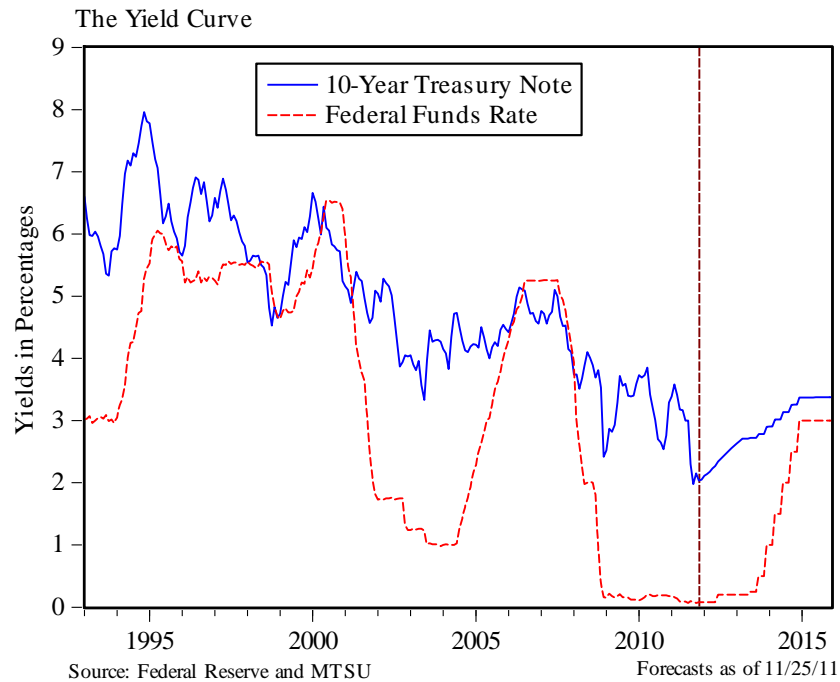
When rates begin to rise, markets presently see very measured increases

Contract	Implicit Rate	Contract	Implicit Rate
Nov-11	0.08	Jul-13	0.22
Dec-11	0.09	Aug-13	0.23
Jan-12	0.11	Sep-13	0.27
Feb-12	0.13	Oct-13	0.28
Mar-12	0.13	Nov-13	0.31
Apr-12	0.13	Dec-13	0.34
May-12	0.14	Jan-14	0.36
Jun-12	0.14	Feb-14	0.42
Jul-12	0.14	Mar-14	0.47
Aug-12	0.14	Apr-14	0.50
Sep-12	0.14	May-14	0.57
Oct-12	0.14	Jun-14	0.59
Nov-12	0.14	Jul-14	0.66
Dec-12	0.14	Aug-14	0.73
Jan-13	0.14	Sep-14	0.79
Feb-13	0.15	Oct-14	0.84
Mar-13	0.16		
Apr-13	0.17		
May-13	0.19		
Jun-13	0.19		

Source: cmegroup.com, as of 11/23/11

Interest Rate Outlook – Graphic Portrayal

MTSU Baseline Interest Rate Forecast



Interest Rate Forecasts

Money Market Rates

	2011				2012				2013				Annual Averages		
	I(A) 2011	II(A) 2011	III(A) 2011	IV(E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013
1 Federal Funds	0.13	0.19	0.19	0.19	0.16	0.09	0.08	0.08	0.08	0.12	0.20	0.20	0.18	0.10	0.15
Commercial Paper															
2 1-Month	0.14	0.20	0.20	0.20	0.18	0.11	0.09	0.11	0.19	0.29	0.39	0.41	0.18	0.12	0.32
3 3-Month	0.15	0.23	0.23	0.21	0.21	0.14	0.12	0.12	0.24	0.34	0.45	0.47	0.20	0.15	0.37
4 6-Month	0.16	0.28	0.25	0.23	0.23	0.16	0.15	0.15	0.27	0.38	0.49	0.50	0.23	0.17	0.41
Finance Paper															
5 1-Month	0.15	0.24	0.21	0.20	0.19	0.12	0.11	0.11	0.21	0.30	0.41	0.42	0.20	0.13	0.33
6 3-Month	0.18	0.32	0.24	0.23	0.22	0.14	0.15	0.16	0.24	0.34	0.45	0.47	0.24	0.17	0.38
7 6-Month	0.21	0.40	0.30	0.26	0.25	0.18	0.20	0.23	0.29	0.39	0.49	0.52	0.29	0.21	0.42
Treasury Bills															
8 1-Month	0.11	0.15	0.16	0.14	0.13	0.04	0.02	0.02	0.06	0.13	0.22	0.22	0.14	0.05	0.16
9 3-Month	0.19	0.22	0.19	0.18	0.17	0.09	0.06	0.05	0.12	0.22	0.33	0.37	0.20	0.09	0.26
Negotiable CDs															
10 1-Month	0.17	0.30	0.26	0.24	0.24	0.16	0.18	0.21	0.25	0.32	0.43	0.45	0.24	0.20	0.36
11 3-Month	0.21	0.42	0.34	0.28	0.28	0.21	0.29	0.39	0.37	0.45	0.51	0.58	0.31	0.29	0.48
12 6-Month	0.31	0.60	0.48	0.37	0.38	0.30	0.41	0.53	0.48	0.53	0.69	0.71	0.44	0.41	0.60
Eurodollar Deposit															
13 1-Month	0.29	0.37	0.38	0.33	0.31	0.25	0.27	0.33	0.30	0.36	0.46	0.50	0.34	0.29	0.41
14 3-Month	0.41	0.50	0.52	0.40	0.41	0.37	0.37	0.48	0.42	0.49	0.55	0.60	0.46	0.41	0.52
15 6-Month	0.49	0.63	0.66	0.59	0.55	0.53	0.54	0.66	0.55	0.58	0.79	0.77	0.59	0.57	0.67
16 Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.19	3.08	3.12	3.20	3.20	3.25	3.24	3.15

Sources: Federal Reserve, Federal Home Loan Bank, Federal Home Loan Mortgage Corp
A = Actual; E = Forecast

December 1, 2011

Interest Rate Forecasts

Capital Market Rates

	2011				2012				2013				Annual Averages			
	I(A) 2011	II(A) 2011	III(A) 2011	IV(E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013	
U.S. Treasury Notes and Bonds																
1	1-Yr Note	0.37	0.38	0.27	0.26	0.27	0.19	0.13	0.12	0.22	0.35	0.50	0.56	0.32	0.18	0.41
2	2-Yr Note	0.92	0.87	0.54	0.48	0.69	0.51	0.28	0.27	0.38	0.53	0.70	0.79	0.70	0.44	0.60
3	5-Yr Note	2.42	2.25	1.55	1.49	2.12	1.76	1.15	0.95	0.97	1.09	1.23	1.34	1.93	1.50	1.16
4	10-Yr Note	3.72	3.49	2.79	2.86	3.46	3.12	2.43	2.08	2.14	2.28	2.43	2.56	3.21	2.77	2.35
5	30-Yr Note	4.49	4.20	3.60	3.84	4.32	3.98	3.34	2.81	2.99	2.90	2.91	3.13	4.03	3.61	2.98
Other Bonds																
6	AAA Bonds	5.29	5.04	4.58	4.86	5.13	4.97	4.46	3.94	4.03	4.11	4.23	4.33	4.94	4.63	4.17
7	BAA Bonds	6.29	6.18	5.78	5.91	6.09	5.78	5.46	5.19	5.01	5.02	5.12	5.24	6.04	5.63	5.10
8	State and Local	4.35	4.35	4.07	4.40	5.12	4.56	4.18	4.04	3.68	3.52	3.52	3.57	4.29	4.47	3.57
Mortgage Rates - Primary Mkt																
9	30-Yr (FHLMC - PMMS)	4.63	4.57	3.99	4.11	4.57	4.37	3.81	3.64	3.72	3.85	4.03	4.18	4.33	4.10	3.94
10	15-Yr (FHLMC - PMMS)	3.96	3.99	3.39	3.28	3.75	3.45	2.93	2.84	2.68	2.65	2.78	2.88	3.65	3.24	2.75
11	ARM (FHLMC - PMMS)	4.25	4.01	3.57	3.31	3.27	3.11	2.91	2.93	2.93	2.92	2.94	2.90	3.79	3.06	2.92
Mortgage Rates - Secondary Mkt																
12	30-Yr (FLHMC Req Net Yield)	5.00	4.91	4.45	4.41	4.85	4.59	4.31	4.04	4.11	4.21	4.34	4.45	4.69	4.45	4.28
13	15-Yr (FHLMC Req Net Yield)	4.38	4.29	3.92	3.80	4.13	3.86	3.49	3.31	3.31	3.36	3.44	3.49	4.10	3.70	3.40

Sources: Federal Reserve, Federal Home Loan Bank, Federal Home Loan Mortgage Corp
A = Actual; E = Forecast

December 1, 2011

The Tennessee Cycle in Perspective

Personal Income

- Tennessee personal income (measured by 4-quarter moving growth rates) moves in line with U.S. personal income growth.

Employment

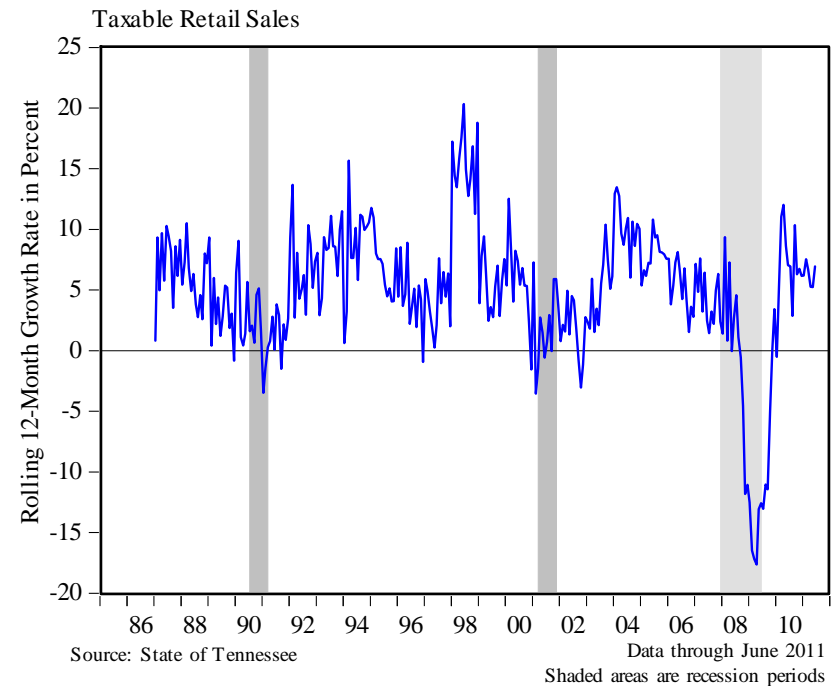
- Tennessee employment (measured by 4-quarter moving growth rates) moves roughly in line with U.S. employment growth.

Housing

- Tennessee building permits moves in line with U.S. housing starts, adjusted for differences in scale

Retail (Taxable) Sales

- See graph to the right. Growth is continuing!!



Baseline Economic Outlook

Economics Outlook for Tennessee

	2011				2012				2013				Year-over-Year Growth		
	I(A) 2011	II(A) 2011	III(E) 2011	IV(A/E) 2011	I(E) 2012	II(E) 2012	III(E) 2012	IV(E) 2012	I(E) 2013	II(E) 2013	III(E) 2013	IV(E) 2013	2011	2012	2013
National Trends															
1 Civilian Employment (Mil.)	139.6	139.6	139.6	140.3	140.8	141.1	141.4	141.7	142.0	142.3	142.6	143.0	0.5	1.0	0.9
2 Change *	1.5	0.0	0.2	2.0	1.3	0.8	0.9	0.8	0.9	0.9	1.0	1.1			
3 Personal Income	12846.9	12955.3	12975.2	13127.3	13272.5	13408.9	13553.2	13697.7	13847.9	14003.4	14167.9	14337.6	4.9	3.9	4.5
4 Change *	8.8	3.4	0.6	4.8	4.5	4.2	4.4	4.3	4.5	4.6	4.8	4.9			
5 Income Per Employee (T)	92.035	92.806	92.913	93.544	94.276	95.046	95.857	96.680	97.530	98.413	99.324	100.243	4.3	2.8	3.6
6 Change *	7.2	3.4	0.5	2.7	3.2	3.3	3.5	3.5	3.6	3.7	3.8	3.8			
7 Housing Starts (Mil. of Units)	0.582	0.572	0.610	0.609	0.648	0.658	0.686	0.707	0.794	0.901	1.020	1.135	1.4	13.7	42.6
8 Change *	36.6	-6.7	29.0	-0.7	28.5	6.2	17.8	13.3	58.5	65.7	64.6	53.3			
Tennessee															
9 Nonagricultural Employment (T)	2629.3	2628.4	2635.1	2652.0	2660.8	2666.3	2671.6	2676.3	2681.4	2686.9	2693.4	2700.5	0.9	1.2	0.8
10 Change *	1.2	-0.1	1.0	2.6	1.3	0.8	0.8	0.7	0.8	0.8	1.0	1.1			
11 Personal Income	230.0	232.9	233.4	236.2	238.7	241.1	243.7	246.3	249.0	251.8	254.7	257.7	4.9	4.0	4.5
12 Change *	7.7	5.1	0.8	4.9	4.3	4.1	4.3	4.4	4.4	4.6	4.7	4.8			
13 Dividends & Interest	28.6	29.1	29.4	30.0	30.5	31.0	31.4	31.9	32.3	32.8	33.3	33.9	6.5	6.5	6.1
14 Change *	13.7	7.7	4.9	7.9	7.1	5.9	6.0	6.0	5.9	6.1	6.4	6.5			
15 Income Per Employee (T)	87.477	88.604	88.565	89.067	89.715	90.444	91.224	92.039	92.859	93.705	94.554	95.410	4.0	2.7	3.6
16 Change *	6.4	5.3	-0.2	2.3	2.9	3.3	3.5	3.6	3.6	3.7	3.7	3.7			
17 Retail Sales	89.6	91.5	92.7	94.2	96.1	97.3	98.5	99.9	101.1	102.5	104.0	105.5	7.0	6.5	5.4
18 Change *	5.4	8.6	5.5	6.9	7.9	5.3	5.0	5.6	5.0	5.6	5.9	6.0			
19 Single-Family Building Permits (T)	10.326	10.086	11.364	11.110	11.465	11.581	11.800	11.855	12.004	12.158	12.323	12.462	-7.3	8.9	4.8
20 Change *	4.2	-9.0	61.2	-8.6	13.4	4.1	7.8	1.9	5.1	5.2	5.6	4.6			
21 Total Building Permits (T)	12.212	12.749	14.409	12.597	12.677	12.723	12.803	12.940	13.021	13.121	13.211	13.294	-17.5	-1.6	2.9
22 Change *	-8.4	18.8	63.2	-41.6	2.6	1.4	2.5	4.3	2.5	3.1	2.7	2.6			

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 1, 2011

A = Actual; E = Forecast

* Quarter-to-quarter percent changes expressed at compound annual rates.

Baseline Economic Outlook

Economic Assumptions—Fiscal Year Basis

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	Forecasts			
											FY11-12	FY12-13	FY13-14	FY14-15
1 Personal Income (Bil \$)	160.4	166.1	174.0	183.3	194.0	205.8	217.2	215.9	216.5	228.0	237.4	247.7	259.1	271.2
2 Chg@	2.8	3.5	4.8	5.3	5.8	6.1	5.5	-0.6	0.3	5.4	4.1	4.4	4.6	4.7
3 Nonagricultural Employment (Mil)	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.6	2.6	2.7	2.7	2.7	2.7
4 Chg@	-2.0	0.1	0.5	1.7	1.6	0.8	0.4	-3.8	-3.5	0.9	1.1	1.0	0.9	1.0
5 Income Per Employee (Th \$)	60.2	62.3	65.0	67.3	70.1	73.8	77.5	80.1	83.2	86.9	89.5	92.5	95.8	99.4
6 Chg@	4.9	3.4	4.3	3.6	4.2	5.2	5.1	3.3	4.0	4.4	2.9	3.4	3.7	3.7
7 Retail Sales (Bil \$)	65.9	67.0	73.1	79.2	85.0	88.9	92.0	83.3	83.3	88.7	95.1	100.5	106.3	112.5
8 Chg@	2.9	1.7	9.1	8.3	7.4	4.6	3.5	-9.5	0.0	6.4	7.2	5.7	5.8	5.8
9 Building Permits (Th of Units)	28.0	30.2	36.0	37.2	40.2	34.1	21.4	11.7	13.1	10.2	11.4	12.0	12.5	13.0
10 Chg@	6.4	8.0	19.1	3.3	8.0	-15.1	-37.3	-45.1	11.4	-21.8	11.3	5.0	4.8	3.7

* 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 IQ of the calendar year of the noted fiscal year

December 1, 2011

Baseline Economic Outlook

Baseline Revenue Projections

	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	Forecasts			
											FY11-12	FY12-13	FY13-14	FY14-15
11 Total Tax Revenue*	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	10,549.7	11,024.4	11,472.0	11,967.5	12,493.4
12 Chg@	-2.4	13.1	7.6	6.0	6.8	7.5	1.2	-8.9	-1.1	4.6	4.5	4.1	4.3	4.4
13 Sales and Use Tax*	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	6,453.4	6,764.9	7,040.2	7,340.8	7,656.4
14 Chg@	0.1	17.5	6.4	4.8	7.0	4.5	0.7	-7.7	-2.3	4.3	4.8	4.1	4.3	4.3
15 Income Tax*	141.7	102.9	140.0	155.9	194.4	248.8	292.1	221.2	171.7	189.6	205.3	222.3	239.2	256.3
16 Chg@	-28.9	-27.4	36.0	11.4	24.7	28.0	17.4	-24.3	-22.4	10.4	8.3	8.3	7.6	7.1
17 Gross Receipts Tax*	224.3	216.5	219.1	235.9	241.2	274.3	290.6	315.1	350.6	339.6	378.4	400.4	424.3	449.7
18 Chg@	-9.8	-3.5	1.2	7.6	2.2	13.7	6.0	8.4	11.3	-3.1	11.4	5.8	6.0	6.0
19 Excise plus Franchise Taxes*	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	1,612.1	1,675.9	1,747.1	1,839.9	1,939.1
20 Chg@	-12.4	10.9	11.8	14.5	8.7	17.3	-5.6	-17.1	4.0	13.2	4.0	4.3	5.3	5.4
21 Gasoline Tax*	576.9	600.1	599.3	608.1	605.6	612.8	616.8	601.3	607.1	615.8	614.1	621.1	623.7	626.6
22 Chg@	1.3	4.0	-0.1	1.5	-0.4	1.2	0.7	-2.5	1.0	1.4	-0.3	1.1	0.4	0.5
23 Vehicle Registration*	219.6	225.0	238.5	244.2	249.5	259.9	253.7	241.3	239.4	241.5	245.3	247.8	252.5	258.8
24 Chg@	3.9	2.5	6.0	2.4	2.2	4.1	-2.4	-4.9	-0.8	0.9	1.5	1.0	1.9	2.5
25 Fuel Tax*	151.2	155.4	167.7	173.7	180.7	185.7	182.4	154.8	154.6	154.9	162.1	169.4	173.3	178.2
26 Chg@	-12.8	2.8	7.9	3.5	4.0	2.8	-1.8	-15.1	-0.1	0.1	4.7	4.5	2.3	2.9
27 Privilege Tax*	177.4	216.5	246.1	264.9	304.9	350.7	314.2	255.6	247.6	224.9	227.9	243.5	261.2	279.7
28 Chg@	10.3	22.1	13.6	7.7	15.1	15.0	-10.4	-18.7	-3.1	-9.1	1.3	6.8	7.3	7.1
29 All Other Taxes*	365.8	401.9	474.6	492.4	507.3	575.1	737.7	710.3	705.8	717.9	750.4	780.3	812.7	848.5
30 Chg@	5.4	9.9	18.1	3.7	3.0	13.4	28.3	-3.7	-0.6	1.7	4.5	4.0	4.1	4.4
Baseline Revenue Forecast	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	10,549.7	11,024.4	11,472.0	11,967.5	12,493.4
Chg@	-2.4	13.1	7.6	6.0	6.8	7.5	1.2	-8.9	-1.1	4.6	10,913.7	11,309.7	11,749.3	12,212.5
Consistency Check Forecast											3.4	3.6	3.9	3.9

* Millions of dollars

@ Annual Percent Change

December 1, 2011