

U.S. National Debt

“The significant problems we have cannot be solved at the same level of thinking with which we created them.” Albert Einstein

What unsustainable really means

As a U.S. taxpayer, it is vital for you to understand the obligation that your government has already assigned you personally. According to the US Treasury, on the 31st day of August, 2006, the U.S. National Debt exceeded \$8,423 billion. There are two parts of the National Debt:

1. The “external” or Public Debt designated on the U.S. Balance Sheet which is owned and traded in an open market by entities outside the U.S. Government such as individuals, banks, and corporations with the Federal Reserve Banks through their “Open-Market Operations”, and
2. The “internal” or intra-governmental debt which is owed to and from separate federal departments within the U.S. Government. In a perfect world, the internal debt should not matter since what is due as a receivable to one federal government department should be reflected on another department’s books as a liability. So the two “balance or zero out” when the two department statements are consolidated in one financial statement. Hopefully this works as planned. But if this is true, why ever discuss the total National Debt rather than just the Public Debt?

Using a 2005 population estimate for the United States of 298,337,000, the share of the U.S. National Debt for each man, woman, and child living in the U.S. is approximately \$28,237. Using the I.R.S.’s estimate in 2002 of 130 million taxpayers, the share of the U.S. National Debt in February, 2006, for each American taxpayer computes to \$64,795. Remember that the “National Debt” is the Total Debt while the “Public Debt” is the line item in Figure 6, the U.S. Balance Sheet, of \$4,588.9 billion. Using the Public Debt as reported, each American taxpayer’s portion is \$35,299.

Take a deep breath and understand that whoever holds the external part of the National Debt, the Public Debt, expects U.S. taxpayers to fund the future payoff of their “investment in

America.” If you or someone you know holds U.S. Treasury securities, then the game is locked into place that they expect U.S. taxpayers to redeem this debt at some future time.

Figure 1 The Debt to the Penny and Who Holds It
 Amounts in Billions
Author's Analysis in Italics
 Source: US Treasury, Bureau of the Public Debt
<http://www.publicdebt.treas.gov/>

Date	Public	%	Intra-Governmental	%	Total	% Inc
8/31/2006	4,847,155,000,000.00	58%	3,576,166,000,000.00	42%	8,423,321,000,000.00	6.12%
9/30/2005	4,601,238,726,062.04	58%	3,331,470,935,661.46	42%	7,932,709,661,723.50	7.50%
9/30/2004	4,307,344,596,908.92	58%	3,071,708,099,421.40	42%	7,379,052,696,330.32	8.78%
9/30/2003	3,924,090,106,880.88	58%	2,859,140,955,862.74	42%	6,783,231,062,743.62	8.91%
9/30/2002	3,553,180,247,874.74	57%	2,675,055,717,722.42	43%	6,228,235,965,597.16	7.25%
9/28/2001	3,339,310,176,094.74	58%	2,468,153,236,105.32	42%	5,807,463,412,200.06	2.35%
9/28/2000	3,405,303,490,221.20	60%	2,268,874,719,665.66	40%	5,674,178,209,886.86	0.32%
9/30/1999	3,636,104,594,501.81	64%	2,020,166,307,131.62	36%	5,656,270,901,633.43	2.35%
9/30/1998	3,733,864,472,163.53	68%	1,792,328,536,734.09	32%	5,526,193,008,897.62	2.09%
9/30/1997	3,789,667,546,849.60	70%	1,623,478,464,547.74	30%	5,413,146,011,397.34	

Since September, 30, 2005, the National Debt grew over \$1.8 billion each day. This computes to \$75 million per hour, \$1.26 million per minute or \$21,030 per second. If the U.S. National Debt increases at the same rate as last year or 7.5%, it will end the 2006 fiscal year at approximately \$8.528 trillion: \$27,500 per citizen or \$65,499 per taxpayer.

To put this number in perspective, the Public Debt computes to 53.4% of the total value of U.S. home mortgages at the end of 2005.¹ The end of 2005 estimate to totally rebuild the devastation from Hurricane Katrina was \$100 billion, or less than 50 days of our current debt acquisition rate. Total taxes paid by corporations, \$271.8 billion, was less than the *increase* in the Public Debt between 2004 and 2005, \$293.9 billion.

Between 2004 and 2005, the Public Debt increased from \$4,329.4 billion to \$4,624.2 billion, a 7.0% increase. For the prior two years, the public debt grew 8.85% each year. At least the U.S. debt grew at a slower pace in 2005. Does that mean that investors are starting to shy

¹ The Federal Reserve Board, Table D.3 Debt Outstanding by Sector, on May 21, 2006 at <http://www.federalreserve.gov/releases/z1/Current/>

away from US debt instruments? And remember, the federal government reports that inflation is under 4%, a trend for the past 10 years.

Another fact to consider, which is often ignored, is the fact that the necessary increase of \$319.2 billion in Public Debt in 2005 is the *net result of the daily sales and redemptions of U.S. Treasury securities*, which means that buyers must purchase the sum of both the old securities redeemed and the US Government's new debt requirements to satisfy the federal government's habit of spending more than it collects in revenues.

More significantly, the U.S. National Debt is *75% of the U.S. 2005 GDP of \$12.0 trillion*. That means that the total debt is 75% of our total annual production: everybody doing everything: Governments, universities, corporations, small-businesses, etc. Whew!

A Different Perspective

Interestingly, as a counterpoint, in a debate of the Balance Budget Amendment of 1997, the Center on Budget and Policy Priorities, fondly known as CBPP which is a non-profit organization identified in a 1998 Aspen Institute survey of members of Congress of both parties and Administration officials as the single most influential non-profit organization in Washington on federal budget policies, argued:

“One of the main arguments used on behalf of the balanced budget amendment is that without it, we will bankrupt our children and grandchildren. Many of its proponents contend the balanced budget amendment is necessary to avert a catastrophe of this nature.

This argument makes an appealing sound-bite. It does not stand up well, however, under scrutiny.”²

“Today, the federal debt stands at \$3.8 trillion. This equals 50 percent of the Gross Domestic Product and 15 percent of national wealth. How serious a problem does this pose? A household analogy may help. The current situation is somewhat analogous to that of a household with annual income of \$60,000 that has debts, such as a mortgage, totaling \$30,000 and savings and investments worth \$230,000. Such a household would be considered to be in solid financial shape, and its debts would not be considered excessive. Similarly, the current federal debt, while substantial, does not pose economic dangers.”³

When you try to relax and accept this argument, three issues rise to the surface. First, mortgage debts are normally a single amount on a negotiated fixed time payoff where the original debt is reduced by recurring payments over time on a regular basis. The Public Debt is a

² Kogan, Richard, 1997, “A Legacy of Debt?,” p1

³ Kogan, Richard, 1997, “A Legacy of Debt?,” p4

moving target which is moving in the wrong direction, increasing rather than decreasing, and is not being paid off at all. Second, a mortgage is always secured by the asset for which it was incurred. The Public Debt is a result of past government spending and has no asset securing it. Third, an external player validated the mortgage transaction: the mortgage amount, the payoff time period, and its interest rate. The Public Debt has no similar external check and balance; it rides on the wave of world-wide confidence in the US government.

The argument presented above is a fine example of “fuzzy thinking,” which the pure evaluation of numbers avoids.

Statutory Debt Limit

In “Note 10: Federal Debt Securities Held by the Public and Accrued Interest” on page 95 of the 2005 U.S. Treasury Report, the federal government reveals that there were no buy-back operation in 2005. And, more importantly, Congress’s power to stem this tide is disclosed under the provision for a statutory limit for the Public Debt which, as we can see, Congress has increased each year.

“Section 3111 of Title 31, United States Code (U.S.C.) authorizes the Secretary of the Treasury to use money received from the sale of an obligation and other money in the General Fund of the Treasury to buy, redeem, or refund, at or before maturity, outstanding bonds, notes, certificates of indebtedness, Treasury bills, or savings certificates of the Government. There were no buyback operations in fiscal years 2005 and 2004.

As of September 30, 2005, and 2004, respectively, \$7,871.0 billion and \$7,333.4 billion of debt were subject to a statutory limit (31 U.S.C. § 3101). That limit was \$8,184.0 billion as of September 30, 2005, and \$7,384.0 billion as of September 30, 2004.”

On the 2nd day of February, 2006, the US Treasury reported that the National Debt exceeded \$8 trillion. What do you think Congress did? The vote was actually 52-48 to raise the limit.⁴ As Senator Barak Obama (D-IL) begins,

“The fact that we are here today to debate raising America's debt limit is a sign of leadership failure. It is a sign that the U.S. Government can't pay its own bills. It is a sign that we now depend on ongoing financial assistance from foreign countries to

⁴ To review the proceedings in Congress, sign onto <<http://thomas.loc.gov>> and click “Congressional Record” on the left sidebar. Then insert the phrase “statutory limit of public debt” in the search criteria and press the Search button. You may find the March 16, 2006, record from the US Senate stimulating.

finance our Government's reckless fiscal policies.”

And, as they say, the rest is history. It took me awhile to comprehend that Congress actually understands the debt issues quite clearly as evidenced in “Appendix C: Congressional Record for 2006 Statutory Debt Limit Vote.” I still have not decided whether this is good news or not.

Since the general view is that intra-governmental debt is unimportant, four additional questions immediately arise:

1. How is the Public Debt financed?
2. When is this Public Debt due and payable?
3. Who holds the Public Debt?
4. What interest are we paying on the Public Debt?

How is the Public Debt financed?

The Federal Reserve issues, sells, US Treasury Securities in the open market to finance federal government operations, fund the Public Debt, and fund the Trade Deficit. Refer to Appendix C for a detailed description of the mechanics of US Treasury financing.

As previously mentioned, the Federal Reserve must redeem the face value of debt which matures each year. At the same time they must issue or sell enough debt to replace what they have just redeemed and to fund both this year's government overspending and the trade deficit generated each month.

(In 2005, the Federal Reserve redeemed \$x.x trillion Treasuries and issued \$x.x trillion which increased the Public Debt \$xxx billion. Find the charts you lost showing the difference between redemptions and sales, ie it's slowing down and interest rates are rising to generate demand.)

As the US Public Debt swells and holders demand shorter and shorter maturity cycles, massive market pressure is applied to interest rates across the board. Hold on America; we are on a rollercoaster ride to higher interest rates. Our rollercoaster cab flew down the tracks in the last fifteen years, our debt exploded, and we are now beginning to climb out of any interest rate comfort level. There is no telling where the peak on this ride will end. Remember 1981 when

the prime lending rate was 18.8%⁵ and the Federal Funds rate from the Federal Reserve averaged 16.4%⁶?

⁵ http://www.federalreserve.gov/releases/h15/data/Annual/H15_PRIME_NA.txt on May 21, 2006

⁶ http://www.federalreserve.gov/releases/h15/data/Annual/H15_FF_O.txt on May 21, 2006

When is all this debt due and payable?

Figure 20 describes the 43% increase in the privately held Public Debt between 2001 and 2005. Significantly we discover that as the Public Debt has grown, it has shifted to shorter term bills. Debt instruments are scheduled to mature an average of 15 months sooner in September, 2005, than they were in September, 2001. The Federal Reserve redeems Maturing Public Debt and sells new Public Debt at Federal Reserve auctions everyday. Over 70% of our Public Debt is currently due to mature in less than 5 years.

I wonder why investors are shying away from long-term America?

**Figure 2 Public Debt Maturity Distribution and Average Length to Payoff
Of Marketable Interest-Bearing Public Debt Held by Private
Investors**

Amounts in Millions

Author's Analysis in Italics

Source: Table FD-5, Office of Debt Management,

Office of the Under Secretary for Domestic Finance

<http://fms.treas.gov/bulletin/>

Sept 30th	Amount Privately Held	Within 1 year	1-5 years	5-10 years	10-20 years	20 years +	Average Length to Maturity
2001	2,328,302 <i>100%</i>	900,178 <i>39%</i>	650,522 <i>28%</i>	329,247 <i>14%</i>	174,653 <i>8%</i>	273,702 <i>12%</i>	6 yrs. 1 mo.
2002	2,492,821 <i>100%</i>	939,986 <i>38%</i>	802,032 <i>32%</i>	311,176 <i>12%</i>	203,816 <i>8%</i>	235,811 <i>9%</i>	5 yrs. 6 mos.
2003	2,804,092 <i>100%</i>	1,057,049 <i>38%</i>	955,239 <i>34%</i>	351,552 <i>13%</i>	243,755 <i>9%</i>	196,497 <i>7%</i>	5 yrs. 1 mo.
2004	3,145,244 <i>100%</i>	1,127,850 <i>36%</i>	1,150,979 <i>37%</i>	414,728 <i>13%</i>	243,036 <i>8%</i>	208,652 <i>7%</i>	4 yrs. 11 mos.
2005	3,334,411 <i>100%</i>	1,100,783 <i>33%</i>	1,279,646 <i>38%</i>	499,386 <i>15%</i>	281,229 <i>8%</i>	173,367 <i>5%</i>	4 yrs. 10 mos.
<i>Chg</i>	<i>1,006,109</i>	<i>200,605</i>	<i>629,124</i>	<i>170,139</i>	<i>106,576</i>	<i>-100,335</i>	<i>-15 months</i>
<i>%Chg</i>	<i>43%</i>	<i>22%</i>	<i>97%</i>	<i>52%</i>	<i>61%</i>	<i>-37%</i>	<i>-21%</i>

Who holds the Public Debt?

“Figure 21: Estimated Ownership of U.S. Securities” shows that the purchasers of the national debt include “public” entities such as individuals, corporations, state and local governments, Federal Reserve Banks, foreign governments and foreign central banks as well as “internal” intra-governmental debt holdings between multiple Federal trust funds, revolving funds, and specials funds

Figure 3 Estimated Ownership of U.S. Treasury Securities by Type

Amounts in Billions

Author's Analysis in Italics

Source: Table OFS-2 from Office of Debt Management, Office of the Undersecretary of Domestic Finance

<http://fms.treas.gov/bulletin/b45ofs.doc>

Description	June 2005	%	June 1995	%	Chg	% Chg
Public Debt Total	7,836.5		4,951.4		<i>2,885.1</i>	<i>58%</i>
Federal Reserve	4,033.5		1,690.1		<i>2,343.4</i>	<i>139%</i>
Total External	3,803.0	<i>100%</i>	3,261.3	<i>100%</i>	<i>541.7</i>	<i>17%</i>
Banks	127.9	<i>3%</i>	340.0	<i>10%</i>	<i>-212.1</i>	<i>-62%</i>
Savings Bonds	204.2	<i>5%</i>	182.6	<i>6%</i>	<i>21.6</i>	<i>12%</i>
Private Pensions	157.6	<i>4%</i>	142.7	<i>4%</i>	<i>14.9</i>	<i>10%</i>
Other Gov't Pensions	159.3	<i>4%</i>	217.2	<i>7%</i>	<i>-57.9</i>	<i>-27%</i>
Insurance Cos	154.6	<i>4%</i>	245.0	<i>8%</i>	<i>-90.4</i>	<i>-37%</i>
Mutual Funds	249.1	<i>7%</i>	202.5	<i>6%</i>	<i>46.6</i>	<i>23%</i>
Other Gov'ts	430.6	<i>11%</i>	313.7	<i>10%</i>	<i>116.9</i>	<i>37%</i>
Foreign & Int'l	2,016.2	<i>53%</i>	762.5	<i>23%</i>	<i>1,253.7</i>	<i>164%</i>
Other	303.5	<i>8%</i>	855.2	<i>26%</i>	<i>-551.7</i>	<i>-65%</i>

. Although the government report titles the first line, “Public Debt Total,” it does not balance to any other government statement. I can only assume that either the title is a misnomer and really should be “National Debt Total” or that the U.S. Securities totals include private investment as well as the Public Debt.

After noting that the total number of securities increased 58% in the ten years from June, 1995, to June, 2005, we discover that the largest portion of that increase, 2,343.4 of 2,885.1 or 81%, came from the Federal Reserve. There’s our 80%, so we need to follow that trail to see the

dynamics there. But at the moment that is another interesting sidebar beyond the scope of this endeavor.

Let's focus on the U.S. Securities held by entities other than the Federal Government. During the decade reported, several U.S. entities reduced their debt positions: US Banks (-62%), Government Pension Plans (-27%), Insurance Companies (-37%), and Others (-65%). Foreigners increased their debt holdings by 164%, enlarging their portion of the debt from 23% in 1995 to 53% in 2005. It is clear that U.S. entities are dropping their debt positions and foreigners are picking them up.

Figure 4 Major Foreign Holders of U.S. Treasury Securities

Amounts in Billions of Dollars

Author's Analysis in Italics

Source: Department of the Treasury/Federal Reserve Board

Country	2006				2005	
	Jun	% Tot	\$ Chg	% Chg	Jan	% Tot
80%						
Japan	635.3	30.4%	-44.0	-6.5%	679.3	35.6%
China: Mainland	327.7	15.7%	104.2	46.6%	223.5	11.7%
United Kingdom	201.4	9.6%	100.4	99.4%	101.0	5.3%
OPEC	101.5	4.9%	34.5	51.5%	67.0	3.5%
Korea	68.9	3.3%	15.3	28.5%	53.6	2.8%
China: Taiwan	67.1	3.2%	-1.2	-1.8%	68.3	3.6%
Caribbean Banks	60.3	2.9%	-35.5	-37.1%	95.8	5.0%
China: Hong Kong	48.8	2.3%	3.5	7.7%	45.3	2.4%
Germany	48.3	2.3%	-5.5	-10.2%	53.8	2.8%
Mexico	46.0	2.2%	12.5	37.3%	33.5	1.8%
Canada	41.3	2.0%	5.9	16.7%	35.4	1.9%
Luxembourg	37.4	1.8%	-4.3	-10.3%	41.7	2.2%
20%						
Singapore	34.6	1.7%	4.7	15.7%	29.9	1.6%
Brazil	33.4	1.6%	19.6	142.0%	13.8	0.7%
Switzerland	30.6	1.5%	-10.2	-25.0%	40.8	2.1%
France	28.9	1.4%	7.9	37.6%	21.0	1.1%
Ireland	20.0	1.0%	4.5	29.0%	15.5	0.8%
Turkey	19.1	0.9%	6.2	48.1%	12.9	0.7%
Sweden	18.2	0.9%	2.4	15.2%	15.8	0.8%
Belgium	16.9	0.8%	0.1	0.6%	16.8	0.9%
Netherlands	16.9	0.8%	0.1	0.6%	16.8	0.9%
Thailand	15.8	0.8%	2.5	18.8%	13.3	0.7%
Italy	15.2	0.7%	2.1	16.0%	13.1	0.7%
India	12.5	0.6%	-3.4	-21.4%	15.9	0.8%
Israel	11.4	0.5%	-3.5	-23.5%	14.9	0.8%
Poland	11.4	0.5%	1.2	11.8%	10.2	0.5%
Norway	0.0	0.0%	-35.1	-100.0%	35.1	1.8%
All Other	120.8	5.8%	-4.1	-3.3%	124.9	6.5%
Grand Total	2,089.7	100.0%	180.8	9.5%	1,908.9	100.0%
Of which:						
Foreign Official	1,273.0	100.0%	34.7	2.8%	1,238.3	100.0%
Treasury Bills	188.0	14.8%	-54.6	-22.5%	242.6	19.6%
Treasury Bonds/Notes	1,085.0	85.2%	89.3	9.0%	995.7	80.4%

Figure 4 identifies countries that held U.S. Treasuries during the eighteen months between January, 2005, and June, 2006. Significantly four countries account for 60% of foreign holdings: Japan, mainland China, the U.K., and OPEC or the oil producing countries. Note that Taiwan and Hong Kong, both of whom are heavily influenced by mainland China, account for another 5.5%.

Also significant is the trend of which countries are decreasing their holding in U.S. securities (Norway, Caribbean Banks, Switzerland, Israel, India, and Germany) and which are increasing their share (the U.K., OPEC, China, Brazil, Korea, Mexico, and Singapore).

More importantly, our debt dilemma is causing disruptions in our foreign relations with other countries. **(expand) ie dinner with chinese**

In his lecture delivered at the May 15, 2005, CIBER Conference at University of Connecticut, Dr. Jack Behrman from the School of Business Administration at the University of North Carolina states:

“An even greater threat to the U.S. than increased competitiveness from the BRICs (Brazil, Russia, India, and China) is the volume of dollar reserves held by them and other countries. Asian countries hold \$2 trillion in reserves, and 50% of U.S. treasuries are held abroad. Any significant drop even in the rate of buying of dollars or treasuries—at \$2 billion per day to finance the twin U.S. deficits—can accelerate the decline in the dollar, force a rise in interest rates, and cause bankruptcies in mortgages and a decline in consumption = recession!”⁷

In “The passing of the buck; the future of the dollar” in the December 2nd, 2004, issue of The Economist, the author comments:

“Markets have been rattled by concerns that foreign central banks might reduce their holdings of American Treasury bonds. Last week, officials at the central banks of both Russia and Indonesia said that their banks were considering reducing the share of dollars in their reserves. Even more alarming were reports that China's central bank, the second-biggest holder (after Japan) of foreign-exchange reserves, may have trimmed its purchases of American Treasury bonds.”

As you can see, foreign countries and foreign citizens are not buying American, they are buying America. Comparing the foreign ownership of the U.S. Public Debt of \$2,016.2 billion to

⁷ Behrman, Jack, 2005 “Peaks and PITS with the BRIC’s Accommodations with the West, p. 8

the Total Assets of the U.S. Government of \$1,456.1, we discover that the U.S. obligation to foreigners is 138% of our federal government's total reported assets.

Unfortunately the U.S. *needs* foreigners to continue to purchase U.S. Treasuries to finance federal government spending until we stop the bleeding caused by Congress's annual habit of spending more than it accumulates in taxes.

And as David Walker, the Comptroller General of the United States wonders,

“Imagine what would happen to interest rates on Treasury securities if these foreign investors suddenly decided to buy fewer of these securities or, worse yet, started to sell off their U.S. holdings.”⁸

What interest are we paying on the Debt?

Interest is a dollar value to the creditor which calculates the reward for his risk of loaning money for a specific period of time. From Figure 2, U.S. Government Statement of Net Costs, we learn that the 2005 expense for Interest on the Public Debt was \$181.2 billion. Using Note 10 from the Financial Statements, we can verify the amount as follows.

Figure 5 Interest Paid on U.S. Public Debt, 2005

Amounts in Billions

Author's Analysis in Italics

Source: 2005 U.S. Treasury Report, page 37

<http://www.gao.gov/financial/fy2005financialreport.html>

Note 10 to U.S. Financial Statements	2005				2004		
	Debt	Avg Rate	Interest	% Chg	Debt	Avg Rate	Interest
Marketable securities in billions:							
Treasury bills, 3-12 month duration	910.3	3.40%	31.0	101.2%	961.5	1.60%	15.4
Treasury notes, 1-7 year duration	2,328.2	3.70%	86.1	16.7%	2,109.6	3.50%	73.8
Treasury bonds, 7-30 year duration	520.5	7.90%	41.1	-6.9%	551.9	8.00%	44.2
Treasury inflation-protected securities (TIPS)	307.0	2.40%	7.4	18.0%	223.0	2.80%	6.2
Total marketable Treasury securities	4,066.0	4.07%	165.6	18.6%	3,846.0	3.63%	139.6
Non-marketable securities	535.2	4.90%	26.2	11.4%	461.5	5.10%	23.5
Net unamortized premium/(discounts)	-35.5				-34.8		
Total Treasury securities, net(public)	4,565.7	4.20%	191.8	17.6%	4,272.7	3.82%	163.2

⁸ Walker, David, Lecture at JFK School of Government, Harvard University, March 6, 2006

Note that the interest paid for Treasury Bills *doubled* while the total interest paid for all securities increased more than \$30 billion or 17.6%. The Total Treasury Securities funding the Net Public Debt has increased from \$4,272.7 billion to \$4,585.7 billion, or \$293.0 billion, a 6.9% increase. If these trends continue, and there is no reason *yet* to believe that they will diminish, the increase in both the principle amount owed, the Public Debt, and the interest rate, a double whammy, will increase the Public Debt to \$4,878 billion and the Interest Expense to \$225.5 billion at fiscal year-end, 2006.

Compound interest works against us when we are debtors just like it works for us when we are creditors or investors.

Figure 6 U.S. Treasury Interest Rates, 1962-2005
 Source: The Federal Reserve
<http://www.federalreserve.gov/releases/h15/data.htm>

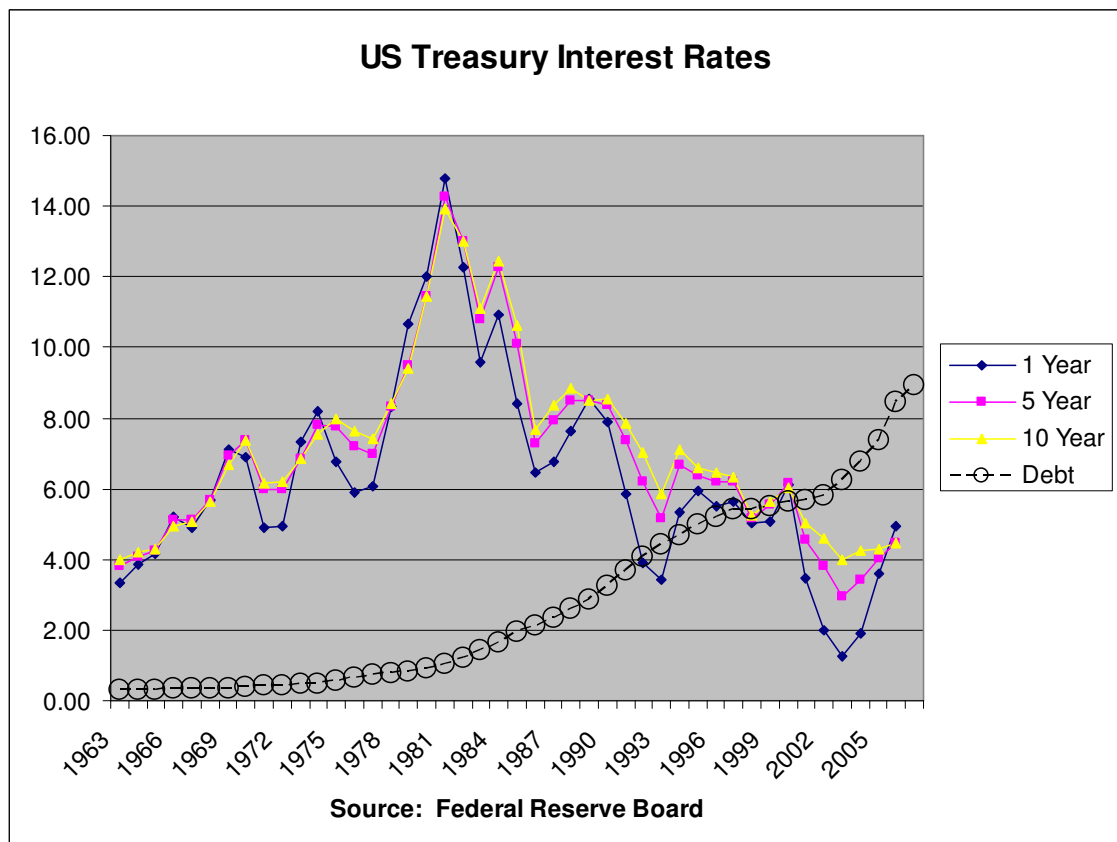
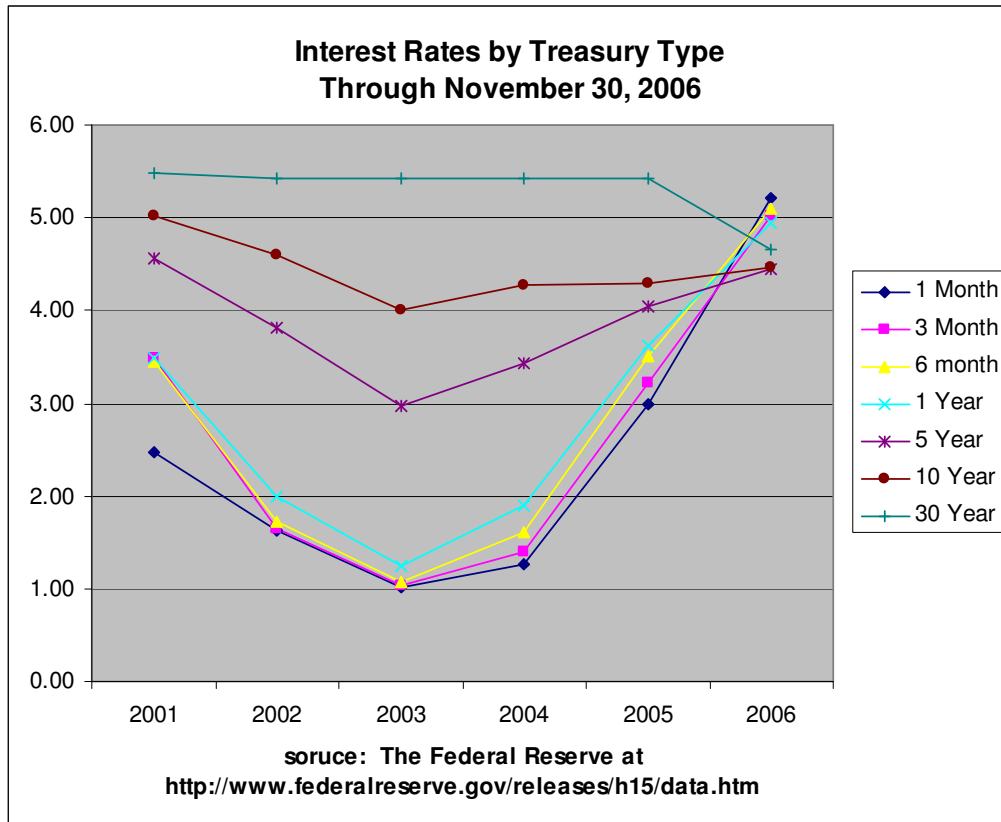


Figure 24 illustrates the historical interest rate for three different types of U.S. Treasuries. Note that the highest interest rates in the past forty years occurred in the early eighties when interest for U.S. Treasuries exceeded 14%. And significant is the fact that interest on the three bond maturities, 1-5-10 years, was locked in step, both on the way up from 1977 to 1981 and back down from 1981 to 1984.

Figure 25 depicts changes in interest rates during the 2001-2005 Housing Bubble:

Figure 7 U.S. Treasury Interest Rates, 2001-2005

Source: The Federal Reserve
<http://www.federalreserve.gov/releases/h15/data.htm>



Why is this trend important? *Half* of adjustable rate mortgages created during this time are tied to the 1-year CMT index, which is the average yield for 1 year bonds, and are adjusted annually. The rest are tied to the 3 or 5 year CMT index and adjusted every 3- 5 years.⁹

⁹ Brussee, Warren, page 28

Anyone who allowed the low adjustable rate for a new mortgage in 2003 to entice him into a new long-term mortgage may need to review that decision in the near future.

The information on Figure 25 raises several questions. The spike and subsequent convergence of the interest rate for all short-term bonds between 2003 to 2006 from 1.0% to 4.75% reflect the confidence of the buyer. Why would a buyer commit his money to a 30 year debt instrument when he could gain the same return on a 1 year debt instrument? After a year he could either roll his money into a second bond or buy another investment offering more return, thereby avoiding committing his money to one investment for a long period of time.

The convergence of the interest rates for the different bond maturities increases the likelihood of more sales of short-term bonds and less sales of long-term bonds. This adds more risk to the seller’s position, and, in this case, that means the U.S. Government.

If nothing else, Figure 7 shows us that *something is changing* in the U.S. Treasury environment. This is a clear “wake up, America” signal reported by the Federal Reserve.

Figure 8 U.S. Treasury Interest Rates, 2001 Compared to November 30, 2006

Source: The Federal Reserve

<http://www.federalreserve.gov/releases/h15/data.htm>

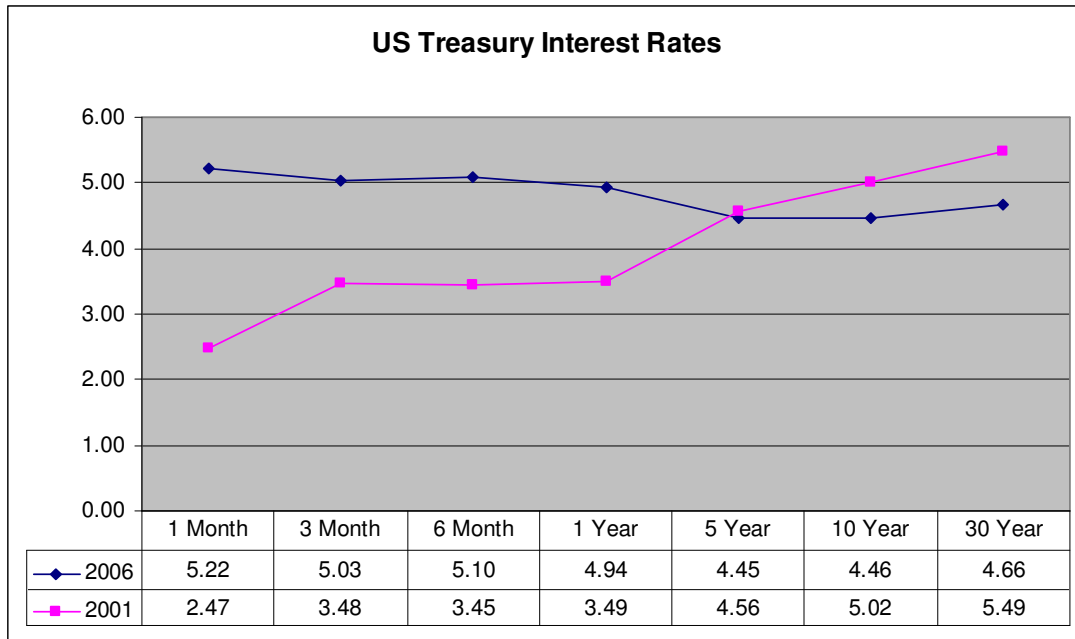


Figure 26 shows the change in the market's demand for interest payments for U.S. Treasuries between the end of 2001 and November 30, 2006. While the rate for long-term bonds declined, the market required an interest rate increase of 35% between 2001 and 2005 for short-term securities. Clearly short-term interest rates are rising as The U.S. Government becomes more and more dependent on debt financing. This makes long-term investors uneasy and so they require a higher payment for their risk. And as we know from Figure 8, the market for U.S. Treasuries is switching from long-term investments to short-term securities

The normal curve is an upward slope starting at a lower rate for short-term securities and progressing to higher rates for long-term securities. Pressure on the rate curve to flatten indicates a loss of market confidence as holders demand a higher rate of return for a shorter maturity, ie. "give me more sooner." When the curve changes to a downward slope with at least one percent interest difference between short-term and long-term rates, the phenomena is called an "Inverted Yield Curve." Economists use this indicator as a signal that the economy is slipping into recession **as evidenced ?? times in the past ?? years**. The last year the yield curve inverted was 2000 when the Dow Jones lost 20% and the Nasdaq 60% of their value. The inverted yield curve does not cause a recession; it simply indicates that investors are weary.

The Federal Reserve Board affects interest rates by raising or lowering the Federal Funds Rate which the banks charge each other as money flows between them. On March 30, 2006, The Fed raised the Federal Funds Rate from 5.5% to 5.75%, a signal that they are trying to slow the economy down by making it harder for consumers and companies to borrow funds for whatever reason. Unfortunately this action will amplify the inversion of the yield curve.