

# FORECAST OF THE NATION



## The Economy's Inexorable Forward March - Despite Emerging Conundrums

May 2005

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# THE ECONOMY'S INEXORABLE FORWARD MARCH - DESPITE EMERGING CONUNDRUMS

MAY 17, 2005



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## FORECAST COMMENTARY

### Highlights

Even after the FED's 8 interest rate hikes, the 10-yr bond rate is still at 4.2%.

Oil is staying at \$50/barrel but the economy has not slowed.

April job reports was the white smoke over the economy

Growth prospects for international economy now marked down. High oil prices will hurt Asia

Alan Greenspan, in his Humphrey-Hawkins testimony in mid-February, openly called the reaction of the long-term bond rate to his six rate hikes a conundrum. Loyal readers of this report should not be surprised. In my November 2004 report, I snuck in a regression equation (updated here again) that showed the inverse relationship between the rising value of trade-deficits and the falling 10-year bond rate. The story behind this relationship is the motive of major Asian Central Banks to hold US treasuries to keep their currencies from appreciating. That force is still in play, and even after his two additional rate hikes, the 10-yr-bond rate is still hovering close to the 4.16% level experienced on the day of his testimony.

Another conundrum is that oil prices have averaged \$50/barrel so far this year but the economy has refused to be cowed down. One reason is that the indefatigable consumer still likes to drive their big trucks and SUV's. Remember, gas prices in inflation-adjusted terms are still cheap compared to 1981. Nothing less than \$5 a gallon will make us switch cars and change our driving habits to reduce gasoline consumption. As long as the ill-advised auto rebate campaigns go on, consumers can't be blamed for buying automobiles like Pavlov's dogs. Additionally, the amount of energy required to produce one dollar of GDP in the Western Hemisphere has fallen dramatically over the last 30 years.

This report's regression equation, however, did not discount the inflationary impact of rising oil prices and strong job growth on the 10-year bond

rate. In fact, the 10-year bond rate did rise to 4.64% by March 28<sup>th</sup> as oil prices threatened to cross the \$60 barrier. As oil began to moderate in mid-April on the heels of March's weak jobs report and the media's steady drum-beat of a soft-patch, the bond rate retreated to 4.20% by early May. This hysteria over the economy's so-called soft-patch died only when the April jobs report showed a strong 274,000 job gain coupled with upward revisions of 100,000 for the previous two months. This jobs report turned out to be the much anticipated *white smoke* over the economy.

One economic reality is that the forward progress of a mature economy is like that of a supertanker. It may take a while to overcome friction, but once the investment process that produces jobs is underway, and has picked up sufficient speed, it is difficult to stop this ship on a dime. In between, squalls in the ocean will produce waves that will rock the tanker but only an uncharted reef (read terrorism) or a captain asleep at the helm (like the compliant FED of the 70's) will run the ship aground. We are past the oil squall, and Captain Greenspan will keep on raising rates throughout the rest of his term to end the year at a 4.0% funds rate.

However, squalls do produce a drag on the tanker. In the past few months I have marked down the growth prospects of the international economy. High oil prices may not change US consumer behavior by much but are definitely a negative for Asian economies. These countries, especially India and China, are still energy inefficient when com-

## Highlights

UK is fighting a home price bubble and Germany is over-dependant on exports.

US growth will be 3.3% in 2005, 3.1% in 2006 and 3.3% in 2007.

Inflation will register 2.8% in 2005 because of high oil prices and the FED will raise the funds rate to 4.0%.

Bush tax cuts helped offset high oil prices; Danger of wage-inflation spiral low.

$$10YrBond_t = \alpha + \beta_1 * NetExports_{t-2} + \beta_2 * Oil_t + \beta_3 * \Delta Emp_t + \varepsilon_t$$

$$10YrBond_t = \underset{(32.02)^{\mp}}{5.703} + \underset{(12.70)^{\mp}}{8.047} * NetExports_{t-2} + \underset{(5.79)^{\mp}}{0.063} * Oil_t + \underset{(2.19)^{\mp}}{0.683} * \Delta Emp_t$$

$$R^2 = 0.703$$

$$t = \text{March '92} - \text{April '05}$$

pared to the west, and the energy bill will take a bite out of their growth. China is already slowing down (disregard their massaged GDP growth numbers and look at monthly production numbers in the cement, iron ore and cotton fabrics industries, as well as their total imports). India's moderation is around the corner. This doesn't bode well for China's main suppliers of raw materials: Japan and Malaysia. Australia is actively popping its inflated real-estate prices via rate hikes. Although I did account for the Chinese slowdown in my last forecast for their official efforts to cool their super-heated investment levels, now I have to add the oil induced pain too.

In Europe, the UK is waging a war against inflated home prices, which means that they will not contribute as much to the world's demand for US exports. But my real worry is Germany. Germany's economy is very export oriented, as evident in their trade surplus (4.4% of GDP in 2004 compared to a \$13.4 billion deficit in 1996). Table 1 shows past growth for the Top 10 us trading partners, forecasts for 2005 as released by the IMF and Blue Chip reports, the latest exchange rate against dollar, and the short-term current interest rate. Reduced world demand and the increasing cost of transportation doesn't sound so good for Germany's export prospects. Given that German domestic demand has been the weakest in the European region, I now see Germany as a bigger drag on European growth prospects than in my previous reports.

My forecast for 2005 US real GDP growth is 3.3%. I have moderated my forecast for export growth in the 2<sup>nd</sup> half of 2005 to 7.5% from my February forecast of 11.4%. However, I have upped my consumption growth forecast for the year to 3.7% from the 3.3% projected before. I can't fight the Humvee consumption force! Fundamentals also play into this strength. More than a million new jobs have been created in the last six months. We agree that the job quality is not as good as it used to be in the late 90's. Only 11% of these job gains were in high-paying categories, i.e.

jobs paying \$50K+ a year, versus 22% of high-paying jobs created in the 1996-to-early-2000 time period. Even so, all this job creation (2.2 million in the last 12 months) and the projected 1.5 million jobs in the next nine months will add to the purchasing power of consumers. Also, I don't expect these on-again-off-again auto rebates to end any time soon. This will keep auto sales at the 16.8 million mark of last year's in spite of oil averaging above \$50 this year.

High oil prices will feed into inflation that will register 2.8% this year, close to the bond market's danger zone of 3.0%. Core inflation will also pick up by 2.4% in 2005, slightly higher than the PCE deflator rise of 2.3%. The FED will keep responding with its measured hikes until the funds rate gets to 4.0% by year-end. The economy will navigate the oil-slick very well as the FED avoids a panicky response to the oil price-induced inflation. But why will the FED be restrained this time around?

First, the tax cuts of the Bush administration have helped consumers make up for the drop in their purchasing power from higher oil prices. Discretionary spending has slowed, as can be seen from the lackluster sales growth at Wal-Mart and other discounters, whereas high-end stores such as Tiffany's report brisk domestic sales. This wasn't the case in the 70's when rising wages, trying to keep pace with inflation, resulted in a higher share of one's pay-check going to higher taxes due to bracket-creep. Also, the danger of having a wage-inflation spiral is presently much lower. The power of the unions in bigger industries, such as auto and airlines, is on the wane. United getting permission to dump its pension plans onto the quasi-government agency is a good example.

Second, the rise in oil prices have been gradual and not as abrupt as it was in '73 and '79. Given current technical advances, businesses have had time to adjust to these changes, barring the airlines. UPS, FedEx and other transporters are adding a surcharge but there has been no evidence

**Table 1: International Country Analysis**

Top US Trading Partners	GDP Growth			Current Account (% of GDP)	Inflation	Exchange Rate (per US\$)	Short-Term Rate
	2003	2004	2005(F)				
				<b>2004</b>	<b>2004</b>	<b>Latest</b>	<b>Latest</b>
<b>1. Canada</b>	<b>2.0</b>	<b>2.8</b>	<b>2.8</b>	<b>2.9</b>	<b>1.9</b>	<b>1.26</b>	<b>2.45</b>
<b>2. Japan</b>	<b>1.4</b>	<b>2.6</b>	<b>1.1</b>	<b>3.4</b>	<b>0.0</b>	<b>104.6</b>	<b>0.02</b>
<b>3. Mexico</b>	<b>1.3</b>	<b>4.0</b>	<b>3.8</b>	<b>-1.2</b>	<b>4.4</b>	<b>11.08</b>	<b>9.61</b>
<b>4. UK</b>	<b>2.2</b>	<b>3.3</b>	<b>2.5</b>	<b>-2.0</b>	<b>1.6</b>	<b>1.91</b>	<b>4.88</b>
<b>5. Netherlands</b>	<b>-0.8</b>	<b>1.3</b>	<b>1.4</b>	<b>2.9</b>	<b>1.3</b>	<b>1.29</b>	<b>2.14</b>
<b>6. Germany</b>	<b>-0.1</b>	<b>1.0</b>	<b>0.9</b>	<b>4.4</b>	<b>1.8</b>	<b>1.29</b>	<b>2.14</b>
<b>7. China</b>	<b>9.3</b>	<b>9.5</b>	<b>8.6</b>	<b>2.4</b>	<b>3.9</b>	<b>8.28</b>	<b>2.10</b>
<b>8. France</b>	<b>0.5</b>	<b>2.5</b>	<b>1.9</b>	<b>-0.6</b>	<b>2.4</b>	<b>1.29</b>	<b>2.14</b>
<b>9. Ireland</b>	<b>3.7</b>	<b>4.7</b>	<b>5.0</b>	<b>-1.6</b>	<b>2.3</b>	<b>1.29</b>	<b>2.14</b>
<b>10. Belgium</b>	<b>1.1</b>	<b>2.4</b>	<b>2.0</b>	<b>4.5</b>	<b>1.9</b>	<b>1.29</b>	<b>2.14</b>
<b>Euro Area</b>	<b>0.4</b>	<b>1.8</b>	<b>1.5</b>	<b>0.8</b>	<b>2.1</b>	<b>1.29</b>	<b>2.14</b>

Source: IMF &amp; Blue Chip International

that it has percolated from businesses to consumers. The increasingly competitive economy, where many suppliers are vying for the consumer's attention, has made companies take a hit to their profit margins rather than pass on the full cost to customers. While some is being passed on, as evident in the recent CPI inflation numbers, it is nowhere near a stage where one can call it a problem. Modest hikes will do the job this time.

The FED, however, won't stay on the sidelines if Goldman Sachs' forecasted \$105/barrel oil price by 2007 comes true. I don't think this is at all a likely scenario. Goldman Sachs' forecast rests upon the fact that currently OPEC is producing very near its full capacity, unlike in the 80's and 90's. According to their analysis, the global rig count also reached its peak in 1981. To this, you add the lack of tankers and refining capacity in the world, and the oil market is ready to breach the triple-digit level.

My counter-argument is that their analysis is of a static variety. First, if prices rise towards this level, people will not only conserve, even in this gas-guzzling culture, but will also find new sources of energy in a hurry. I bet even you would drill an oil well in your backyard! In Texas, rig-counts have climbed sharply by 53% in the last two years. Numerous alternative energy technologies are fully viable even at a sustained \$35/barrel price. Goods-producing countries like Asia will go into a

deep recession, further reducing demand. So before it gets this high due to market forces, the same forces will act to moderate the very price rise. Marketplace dynamics will even overcome stagnant supply and stubborn habit barriers to make the possibility of sharp price increases remote. In short, people will substitute, conserve, and find new supplies as high prices make it all viable.

The economy's growth rate will decline a little to 3.1% in 2006 but will rise to 3.3% in 2007. But why sound so bullish on the domestic economy, even with cautiously optimistic wording on the international front, and not predict 4.0% for the next few years?

In my opinion, these numbers are very good as growth will be in areas that will generate jobs. The GDP expansion in 2005 produces 2.3 million jobs, finally making this expansion more balanced (less housing and lesser federal spending growth) and more sustainable (exports and business investment). Job growth is robust in 2006 too but at a somewhat slower pace of 156,000 per month, which is much closer to the potential for job creation without igniting inflation. As long-bond rates gradually creep up to the 5.5% level, job growth slows to 129,000 per month in 2007.

Highlights

Could Goldman Sachs' \$105/barrel oil price forecast come true?

No. People will substitute, conserve, and find new energy sources.

GDP growth is balanced in the next few years.

The economy will create 2.3 million new jobs in 2005.

Average job growth in 2006 is 156,000; 129,000 in 2007.

### Highlights

Investment appears sub-par as housing starts moderates to 1.8 million in 2005.

Consumption will moderate from 3.7% growth in 2005 to 3.0% in 2006.

The 10-year bond will plateau at 5.5% in 2006.

The dollar will decline 5.8% in 2005 and 6.4% in 2006.

### Further Explanations to my 2005 Growth Profile

My growth profile for the current year deserves a more detailed explanation, especially when you see a sub-par number of 2.7% in the 3<sup>rd</sup> quarter. In the last quarter of 2005, growth is expected to be only 3.0%. Now, don't be tempted to blame this on the weak 1.2% growth for total investment, and please don't draw the erroneous conclusion that high oil prices are the culprit when you see that it averages \$51.25/barrel in the 2<sup>nd</sup> half of 2005.

So what is causing these sub-par numbers that I term "good, balanced growth"?

If you have to lay the blame on somebody, then the obvious culprit is the moderating housing starts that drop from their torrid pace of 2 million units for the past six months to 1.8 million units. This decline makes investment in residential construction drop by double-digits in the 2<sup>nd</sup> half of 2005, which in turn negates the 10.1% growth in business-fixed investment. So even when the inventory change is in the \$50 billion range, it makes for an anemic 2.4% total investment growth. Consumption growth is also moderating from its strong 3.7% rate to 3.0% by year-end as higher interest rates finally begin to cool the consumption frenzy. Last but not the least is the export growth assumptions that have been moderated downward to some extent. This in no way signifies a slowing economy.

The 10-year bond rate forecast has also been revised downward this time. I don't expect the 10-year bond to touch the 6.0% mark even by late 2007 as I had opined in my February forecast. I now expect it to plateau at 5.5%. The large trade deficit is the main reason the bond rate has stayed so low, and this forecast has the nominal trade deficit approaching the \$800 billion range by late 2006. This deficit will almost be 6.0% of nominal GDP. However, the dollar, in nominal terms, declines only by 5.8% in 2005 and by a reasonable 6.4% in 2006.

So why predict these modest declines in the dollar in light of record trade deficits? What is keeping the dollar from falling like a rock as implied by pessimists in academia, the financial press across the pond, and Warren Buffet and his reputed shorts against the dollar?

### Who is Engaged in a Trade-Related Faustian Bargain?

I am going to present arguments in this section that support the idea that the major Central Banks of the world do not have any incentive to let their currencies appreciate sharply against the dollar. In fact, those who let their currencies appreciate, do so at their own peril, as they would lose their competitiveness when exporting to the major buyer of their products, namely the US. If anyone has entered into a Faustian bargain, it is the Japanese and the Germans, who need to sell their surplus domestic auto production to their largest customer, again the US, at a constant cost. The cost of this export-led growth is the loss of purchasing power of their domestic labor-force. However, this does not mean that the US can continue with its record trade deficits forever, but the probability of an abrupt and sharp devaluation of the dollar is very small.

Ben Bernanke, the former Federal Reserve Bank Governor and soon-to-be Chairman of the President's Council of Economic Advisors, recently presented evidence in a speech on March 10<sup>th</sup> that there is a global savings glut which has emerged very quickly in the last ten years. Table 2, reproduced from his speech, clearly shows that industrial or developed countries collectively borrowed \$342.3 billion in 2003. They have gone from being net lenders of \$46.2 billion in 1996 to big debtors now. Countries that finance this debt are the developing nations and Japan. Nowadays, capital flows from poor nations to rich ones, whereas economic theory posits the reverse of this: from rich to poor nations who need funds to develop. This conundrum, in turn, helps the US finance its record current account deficit. But how?

First we have to look at US imports and exports on a net basis. Table 3 shows the 2004 US trade balance by commodities (Top 10 only). Notice that almost forty percent of the trade deficit is made up of two commodities: oil and vehicles, which are considered complements in economics. From Table 2 you will notice that Germany, Japan and the Middle East, including Africa (mostly Nigeria), runs a surplus that is roughly equivalent to the trade deficit in these two categories. Asian economies, especially China, are the provider of basic consumer goods to the US. In return, they end up with surplus dollars which they need to park somewhere.



Highlights

Central Banks of the world would prefer to devalue their currencies against the dollar. Probability of an abrupt devaluation of the dollar is small.

According to Ben Bernanke, there is a global savings glut.

40% of the US trade deficit is oil and cars. Countries that export oil and cars but an equal amount of US t-bonds.

For big private investors with billions, there are few good options outside the US.

**Table 2: Global Current Account Balances**

(Billions of U.S. Dollars)

Countries	1996	2003	Countries	1996	2003
<b>Industrial</b>	<b>46.2</b>	<b>-342.3</b>	<b>Developing</b>	<b>-87.5</b>	<b>205.0</b>
United States	-120.2	-530.7	Asia	-40.8	148.3
Japan	65.4	138.2	China	7.2	45.9
Euro Area	88.5	24.9	Hong Kong	-2.6	17.0
France	20.8	4.5	Korea	-23.1	11.9
Germany	-13.4	55.1	Taiwan	10.9	29.3
Italy	39.6	-20.7	Thailand	-14.4	8.0
Spain	0.4	-23.6	Latin America	-39.1	3.8
Other	12.5	25.3	Argentina	-6.8	7.4
Australia	-15.8	-30.4	Brazil	-23.2	4.0
Canada	3.4	17.1	Mexico	-2.5	-8.7
Switzerland	21.3	42.2	Middle East and Africa	5.9	47.8
United Kingdom	-10.9	-30.5	E. Europe and ex-USSR	-13.5	5.1

Source: Remarks by Governor Ben S. Bernanke, March 10, 2005

Now the game gets really interesting. If I am a private investor abroad looking to park my dollars, I can park it in stocks, bonds, a risk-less asset or any combination of these three asset classes (I can also just keep the dollars in cash under the mattress!). Let me first eliminate from my choice-set places where returns are abysmal (Japan), or where there are strict capital controls (India, China, etc.), or where enough opportunities aren't needed or provided to park the money. For example, Norway runs a budget surplus equivalent to 10% of its

GDP! Australia may seem like a great opportunity but their entire supply of outstanding government bonds can be bought by one bank in Pittsburgh, not leaving much for me! You get the point. What I am asking for are valid strategies that allows one to park billions in one go. A counterpart to this problem happens in real-estate investing, when investors who need to park, say, a billion dollars at once tend to avoid towns like Atlanta or Charlotte, as these cities have no commercial buildings that have ever sold for more than \$350 million.

**Table 3: 2004 US Balance In International Trade\*****What We Buy From Them**

Crude Oil	-135.7
Vehicles	-123.2
Clothing	-67.9
Home Electronics	-67.8
Office Electronics	-65.6
Petroleum Preparations	-28.3
Furniture and Bedding	-23.7
Natural Gas	-21.1
Electrical Machinery	-20.2
Toys, Sporting Goods	-19.1

**What They Buy From Us**

Airplanes	13.2
Chemicals (Plastic)	10.9
Airplane Parts	10.5
Soybeans	6.6
Corn	6.0
Wheat	5.0
Scientific Instruments	4.5
Cotton	4.2
Metal Ores	3.2
Animal Feeds	3.0

\*Net Balance In Billions of Dollars

### Highlights

Not enough good investments exist for the collective body of investors as a whole.

US investments are safer and supply is plentiful.

From a scale perspective, the US provides plenty of options.

Central Banks can only buy government bonds, no corporate stocks or bonds. The US government bond is the safest, with plenty of supply, courtesy of large federal deficit numbers.

Since 2000, foreigners have shifted from buying stocks to treasury bonds.

I can do the investments in dollar-denominated assets or in any other currency, such as the Euro, which is darling of the media and pessimists these days. Sorry, no deal on the Euro as I will first have to convert dollars into Euros, which will cost me, and then I have to go looking for assets to invest in Europe. I might find some in Portugal or in Spain, but again, the scale problem arises. This leaves me with Germany as a candidate. But then I notice that Germany is experiencing a stagnation bordering on deflation in real-estate prices, is also flirting with bouts of consumer price deflation, and has had a weak domestic spending pattern that has led to an anemic economic environment.

Very quickly one starts to think of investing in some other place. Two logical choices come to mind: the US and the UK, who seems to have a much more vibrant economy than the rest of the Europe. The UK seems like a good choice and I plan to invest there in spite of having to suffer conversion costs. But then again, I run into the scale issue. Not enough good investments for the collective body of investors as a whole. This leaves me no other choice but to come back to the US. "These guys are amazing!" I think aloud. They run a big trade deficit but their asset classes pay way more than what I will earn in my own country (imagine you are a Japanese investor). To boot, scale is a non-issue. Buy the GM building in New York or the Sears Towers in Chicago and park a few billion in one go. Buy a half percent of GE or CISCO stock and you can park another few billion. At this point, I am in hog-heaven and I get to own a piece of America. Remember Mel Gibson's cable-cult movie *Air America*, where the Cambodian general running the heroin ring remarks to Robert Downey Jr. that his dream was to run a Holiday Inn in California?

But what if I am in a country with strict capital controls where all foreign currency transactions are to be done by the Central Bank (like India, China, and Malaysia)? Aren't I in trouble of not being able to get maximum returns by investing freely? Not at all. Fortunately, my own central bank is trying to stop the domestic currency from appreciating against the dollar, thereby protecting my earnings from capital losses. I reconcile to my constrained equilibrium situation and let them invest on my behalf. If I live in a culture that is either a command economy (China), a border-line socialist economy (India), or an outright paternalistic (read Korea, Malaysia, Singapore and to some extent Taiwan), it means that I readily accept this by-product of export-led growth at any cost.

Next, it so turns out that Central Banks have mandates that either don't allow them to invest at all in stocks, corporate bonds or even agency bonds (Freddie and Fannie's mortgage-backed securities), or they have to limit their exposure to these investment classes so as to minimize the possibility of capital losses on their balance sheets. Capital preservation is the key mandate, which leaves them with no choice but to invest in a risk-less asset, and the yard-stick or gold standard in the world economy is the US government bond.

Did I hear a pitch about Euro bonds? If I did, then I will dismiss it by putting forward this simple argument. Eleven national elections resulting in eleven independent fiscal policies and only one monetary policy tool to balance it (I am not counting the new EU entrants here). This sounds to me to be a case of ten missing policy instruments to balance these diverse national objectives. Something has to give and how-so-ever remote the possibility of a union dissolution, it exists in the eyes of a bond trader. While not infinitesimal, it is definitely larger than the probability of the US government defaulting on its promises. The bond traders are the ones who provide liquidity in these markets, especially in a market that has been in existence for just over four years. Again, the scale issue comes up. The Euro zone as a net is not running a deficit, so a large supply of these bonds doesn't exist to satisfy the urges of an Asian Central Bank.

Figure A shows the breakdown of net foreign purchases of US financial instruments since 1990. This is the flip side of the trade deficit or capital inflows (subject to statistical discrepancy). From 1994 to 1996, treasury bonds were in high demand and then lost favor as the US stock market took off after 1996. Following this the net treasury bonds position went from a positive \$250 billion to minus \$100 billion by late 2000. Since then, stocks have given up major ground, as well as agency bonds, but there has been a net change of \$500 billion for treasury bonds. This also roughly coincides with the change in the US fiscal deficit. Talk about a marriage made in heaven. The federal government needs to borrow money to finance its runaway spending and willing foreign lenders are there to snap them up as fast as they are printed. No wonder long-bond rates have remained low and our consumption binge has not suffered any negative consequences like a normal economy certainly would!

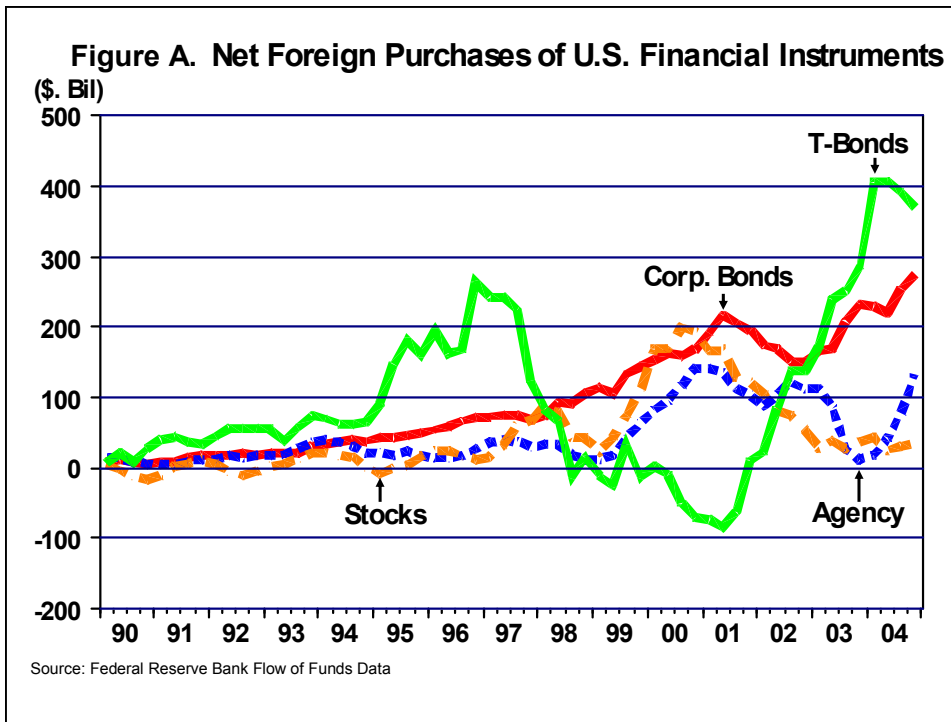
Highlights

Who buys a lot of US bonds? Japan, China and UK.

curity holdings of these countries in 2004, and the net change in that position since 2003. The last column shows the currency appreciation in the last twelve months for these countries.

Quite a few facts emerge from examining these columns. First, the Japanese trade surplus grew a little

Japanese holdings of US treasury grew by a multiple of 40 of its increase in trade surplus in 2004.



So who is buying those bonds and for what purpose? The first few columns of Table 4 show the US trade deficits with its major trading partners in 2004, and the net change in that value compared to 2003. First, I have listed the Asian countries (like China) to which the US seems to have increased its deficit the most. For completeness sake, I have also shown two major European trading partners of the US with whom it runs deficits. The next few columns show the US Treasury Se-

but Japanese holdings of US treasury bonds grew by a multiple of 40! Why such a large change? They were intervening to keep the Yen from appreciating too much, plus they were trying to achieve better returns than what they were making by holding their own government bonds (the Japanese 10-Year bond yield is less than 1 %!). China in order to maintain its dollar peg also bought US treasuries that exceeded of the increase in their trade surplus. But the big surprise here is

**Table 4: Trade and Securities**

	Trade in Goods and Services		U.S. Treasury Securities Holdings		Currency Appreciation (2004)
	2004	Change	2004	Change	
Japan	-75.2	-9.3	702	353.7	4.3
China	-162	-38.1	196	49.4	0.0
South Korea	-19.8	-6.9	67.1	8.6	13.4
Taiwan	-12.9	1.2	59.1	18.2	6.7
Hong Kong	6.5	1.8	52.9	22.7	0.0
Singapore	4.3	2.9	26.9	4.1	4.1
Germany	-45.8	-6.6	59.5	19.5	8.0
UK	-10.4	-1.7	171	124	7.1

Source: US Census Bureau (trade figures) and US Treasury Department

\* All numbers are in billions of U.S. dollars

### Highlights

Korea holds 1/3<sup>rd</sup> of its foreign assets in US bonds. The only thing that stopped the 1997 currency crisis was their dollar reserves.

If Asian banks dump their US bonds, this will certainly destroy their balance sheets.

The US has a production deficit of 3.5 million cars, and is the most important car market for Japanese and German auto producers.

The US consumer like their cars cheap, so car auto makers must cut their worker's paychecks to counter the depreciating dollar.

the UK. Its trade surplus with the US changed by only a few billion but they bought \$124 billion in US treasuries, a mind-boggling number considering the fact that the UK runs an overall trade-deficit that is about 2 percent of their GDP! Why did they do this? Because they didn't want the pound to appreciate too much against the dollar.

The only anomaly here is South Korea. The Korean Won has appreciated against the dollar by double-digits. Korea holds 1/3<sup>rd</sup> of its foreign assets in the form of US treasury securities but hasn't bought any more than what the increase in their trade surplus has been. In March, it roiled the bond market in the US for a few days when it announced that it will need to look beyond US assets in order to diversify its foreign-asset portfolio. This warning, in my viewpoint, was in frustration to an indifferent US response to the North Korean announcement that they had nuclear weapons.

As I have argued above, the South Koreans will be hard-pressed to come up with alternatives to investing in US treasuries. Second, moving away from the dollar into other currencies will entail capital losses on their Central Bank's balance-sheet, which could be substantially large if done hastily. Dumping US treasuries would be akin to a submarine shooting a torpedo at its own oil-supply tanker while being refueled. The ensuing explosion will destroy them both. These countries still have the 1997 currency crisis fresh in their minds, and the only thing that stopped the meltdown before was its dollar reserves.

Thus, mass dumping of US treasuries by Asian nations, whether coordinated or not, will lead to losses that will destroy the balance sheets of these banks. These are not rich countries and not even Japan can afford losses that are that substantial. Now, if you and I see them selling dollar assets slowly in order to invest in their own countries, this will imply that the investment opportunity drought, which resulted in a global savings glut, is now over. Global mobility of capital also implies that we all will follow the same investment trail to earn better returns. In this case, the dollar may even drop sharply, but what one loses in currency depreciation, one makes up more than enough in higher returns. For the foreseeable future (say till the end of this decade), I don't see this big-bang happening. The reason for this is evident with the help of the following illustration.

### How Workers in Foreign Countries Subsidize Cars Imported to the US!

Folks, this is true. If you buy a foreign-made car in the US, part of your purchase price was already paid for by the worker in the foreign country where it was manufactured. Let me prove it.

Table 5 shows the domestic production and sales of passenger cars in a country. One thing is very clear from examining the table. Japan and Germany have a net surplus production of approximately 5.8 million cars whereas the US has a deficit of 3.5 million cars. The US is the biggest car market and, I would say, the only market outside of the UK where one can park excess production. Did I hear somebody mention China? Chinese car sales did grow at a 40% rate in early 2004 to the 1.5 million level, but have stagnated recently as it has tried to slow down its economy. For the sake of argument, if this growth rate somehow continues, it will be another five years before they get to levels sufficient enough to absorb excess world production. We are now talking of an event like NASDAQ shooting up in 1999 for five years in a row! Highly unlikely.

On top of this heroic growth assumption, one has to consider the issue of price. The stuff sold by BMW, Mercedes, Toyota and Honda is of a luxury variety. Who apart from the American consumer can afford them? Certainly the rich Koreans, Indians and the Chinese can buy some, but not on the scale these producers need to sell. The point is that these producers collectively are dependent on one buyer for the majority of their sales. The power of this consumer is so strong that even with the Euro's 50% rise against the dollar in the past few years, car prices in the US have hardly nudged up (as my own recent personal experience proves!).

This is bad news for the foreign manufacturers facing currency appreciation. They are forced to cut their workers' paychecks to pay for the increased cost of selling a car in the US because they can't take a hit to their profits when shareholders are clamoring for returns. To give an example of this drive, Volkswagen recently reached an agreement with its unions to take back current and promised future pay-raises. The threat was that if you don't agree to this proposition to make us competitive, then the Japanese producers will be here to take over the business. Either work for us or good luck working for the Japanese. In effect,

Highlights**Table 5: 2002 Passenger Car Production And Sales**

Country	Production	Sales	Deficit/Surplus
Japan	8,117,563	4,289,683	✓ 3,827,880
Germany	5,301,189	3,341,718	✓ 1,959,471
U.S.	4,879,119	8,422,625	-3,543,506
France	3,181,549	2,254,732	926,817
S. Korea	2,471,444	1,065,161	1,406,283
Spain	2,211,172	1,437,192	773,980
Brazil	1,495,622	1,295,119	200,503
U.K.	1,492,365	2,458,769	-966,404
Canada	1,274,853	868,188	406,665
Mexico	1,000,715	667,565	333,150
China	703,521	780,604	-77,083
India	573,808	601,321	-27,513
Sweden	251,035	246,581	4,454

Source: Ward's World Motor Vehicle Data

Long-run solution: do what Toyota did, put plants in the US to avoid currency fluctuations and political back-lash.

High oil prices will force conservation and move towards nuclear energy. The US gets only 20% of its power from nuclear compared to 70% in France.

US must produce more service exports and high tech manufacturing as it can't compete in traditional manufacturing to cut the trade-deficit.

Revaluating the Chinese Yuan is a hair-brained idea.

the German worker is paying part of the US consumer's purchase price. When I joked about this to the Mayor of Düsseldorf, who visited Atlanta last fall, he said "Don't worry Rajeev, we got rid of the workers. The plants are now fully automated!" No wonder Germany has a 12.0% unemployment rate.

The short-term solution to this excess production capacity is to keep doing what you are doing, but there is a limit to how many concessions you can wring out of your labor force. In the long-run, everybody will follow the example of Toyota, which started putting its car manufacturing plants in the US. Doing this will not only get rid of the currency appreciation issue but also the political flak that comes from running consistent trade surpluses. They learnt this during the voluntary export restraint program of the mid-80's. South Korea needs to follow this example even more as their currency is the one that has been appreciating the most. The Germans are already here but they need to expand more. All this may be bad news for workers back home but it will solve one-fourth of the US trade deficit problems, and might add jobs to boot.

Now for the other big item: oil. Conservation imposed by high prices is expected this decade and a move towards nuclear energy will do the trick. The reason why the US is producing only 20% of its electricity from nuclear power plants whereas France gets 70% is a case of over-blown

hysteria from the Three-Mile Island incident two decades ago. Nuclear energy is cheaper, safer and the only long-term solution to the world's energy problems. Solar and wind power will always remain at the fringe or at the niche level.

For the other half of the trade deficit, US will have to produce more in service exports and high tech manufacturing even if it can't be competitive in traditional manufacturing sectors. If you remember the surplus column from Table 2, it had some surprising items, chiefly agricultural. With the world's growing population, the US will have to become more efficient in agriculture to close the gap. All this will be a process that will take some time, perhaps another ten years at most.

#### China Should Not Give in to Misguided Revaluation Demands

This brings me to the issue of revaluating the Chinese Yuan. Some US politicians, under the misguided notion that a revalued Yuan will lower the trade deficit with China, are asking for trade sanctions if China doesn't revalue its currency. Let me add my two cents as to why China should not consider this hair-brained request bordering on legalized extortion.

The Chinese pegged their currency to earn credibility in 1994, absent prior to that, and the resultant stability has been achieved. Any country that

## Highlights

The Chinese pegged the Yuan to the dollar in 1994, earning credibility and stability.

Revaluation will make Chinese goods expensive in the US and Wal-Mart would seek other cheaper textile producers.

GM spends \$1600-per-vehicle in retiree health and pension benefits and their debt is now at junk status.

Union agreements make it impossible to close plants or lay off workers, making GM workers a fixed instead of a variable factor cost.

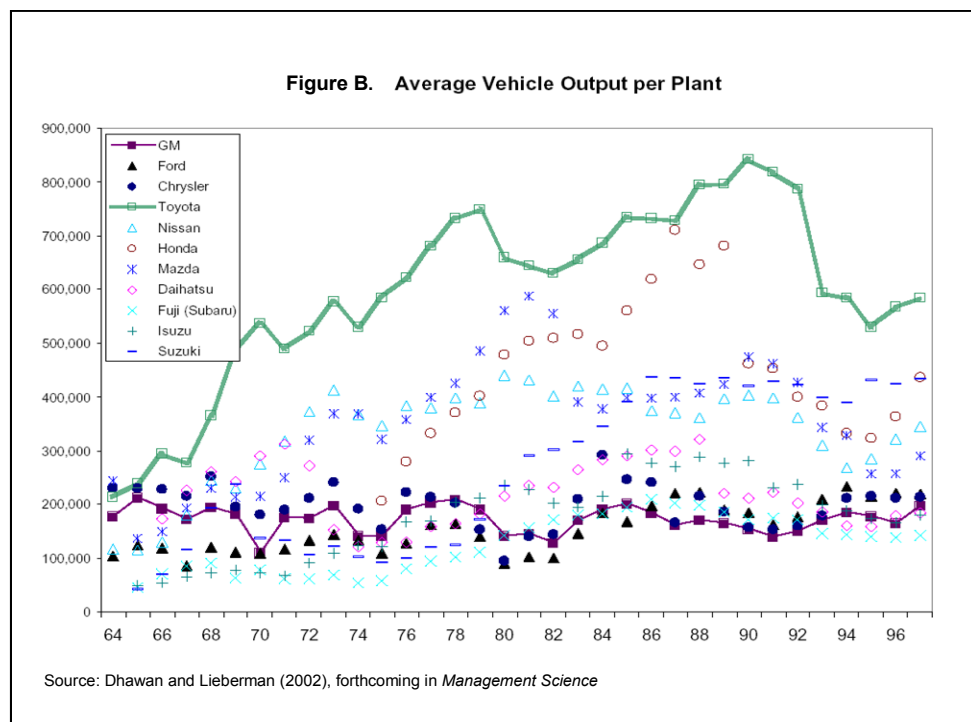
has tried to play with its peg or tinker with its currency board has suffered badly the moment they mentioned any notion of meddling with it. Pegging by definition is a promise that will not change until the world ends, no matter what the temptation or pressure. That promise is what earns a currency the credibility it needs to enter into global transactions using its a home currency without having to use the dollar as a reserve currency. When Argentina in 2002 talked about adding the Euro to the basket instead of having only the dollar, the ensuing mayhem was there for all to see and learn. This is why Hong Kong doesn't make any noises about tinkering with its peg, even though it is suffering from asset price deflation.

There are, however, conditions under which you can break the peg. One is what we refer to as a necessary condition. This is the existence of an independent Central Bank immune to political pressures, not a printing press arm of the government to finance its deficits. Only then can one tinker with pegs or currency valuations. But if you have this, then why need a peg? One can also play with the peg if there are sufficient amounts of foreign currency reserves. This sufficiency condition allows a country to withstand the speculative attacks in case the peg is tinkered with. However, no precedent exists for this route, at least for a large economy.

Revaluation may make China's cost of imported inputs come down but will also make Chinese goods expensive here. We have not felt the pain of dollar depreciation as China is the biggest provider to Wal-Mart for basic consumption goods, and we all shop there, whether we admit to it or not! If this were to happen, Wal-Mart would shift elsewhere very easily for the low-tech consumer products that it buys in bulk from China. Revaluation would be a boon for the Indian, Turkish and Bangladeshi textile producers. The textile job losses in the Carolinas would still continue because they just are not as competitive given their high wage cost structure. This brings me to an important issue in this commentary: rising pension costs.

## Is GM Just in Business to Pay Their Workers' Pension or Do They Really Want to Produce Cars?

United's successful efforts to get rid of its pension plans to PBGC now opens the way for other floundering corporate titans dealing with their own pension shortfalls. The private sector pension plans are now facing a combined \$450 billion in short-falls, and the poster boy right now is GM. GM has also lost three-fourth of its market value, some \$43 billion, since the spring of 2000. The carmaker is considered to be saddled with a \$1600-per-vehicle handicap in so-called legacy costs, mostly retiree health and pension benefits.



Its debt has now been relegated to junk status from a once venerable position of AAA. Talks of GM's bankruptcy are in the air even when its cash position shows more than \$44 billion in available liquidity! What is going on here?

GM's agreement with its unions makes it impossible to close plants or lay off workers, no matter what the market conditions dictate. Whether US consumers are shunning its cars or global economic demand is taking a breather, it has to run plants at full capacity. Why this counter-intuitive move by a smart company? Because GM must continue to pay worker salaries and their pension and health benefits. When it shuts down the assembly lines, workers sit idle, and as they are a fixed cost, not a variable one, normal economic rules imply. The optimal solution under these circumstances is to make cars first and worry about selling them later. The solution has arrived in the form of generous cash rebates and financing deals that came into play after 9/11, aided to a large extent by the super-low interest rates. GM, and Ford too, were actually making money from their financing arms and subsidizing the money-losing assembly line production. That gravy train is over now since the FED started raising rates last summer. Now, there isn't enough profit available from their financing arms to pay for all the promises made to workers in the production arm, some of which were ridiculous, such as no co-payments for health plans.

What's the prognosis? A Wall Street Journal op-ed piece called GM the social security bank of the unions! The government may step in to keep the company going as it won't allow it to dump its pension plans on the PBGC, which itself is underfunded. GM will continue to produce cars to keep servicing its pension plans. I am about to publish a paper in the *Management Science* journal with my co-author Marvin Lieberman of UCLA that measures the efficiency of automakers in US and Japan. People in the media, and even the academic literature, is fixated on the concept of market share. Bigger is better, higher market share will do the trick for GM, stop losing market share to the Japanese, etc., etc., is all the talk these days. That may work from the marketing perspective, but when it comes to the real metric of productivity, such as volume per unit of a plant, GM lags far behind Toyota (see Figure B). Toyota, incidentally, is only one-tenth the size of GM when measured in terms of its number of employees.

We statistically estimated a metric called technical efficiency of a firm, which measures the deviation of a firm from its production frontier. We found that the higher the deviation from the frontier (i.e. the lower the output for the same level of inputs), the lower the technical efficiency of the firm. By this metric, as you can see in Figure C, Toyota defines efficiency standards in the auto industry. GM and Toyota started off at an almost equal footing in 1966 when their efficiency measures

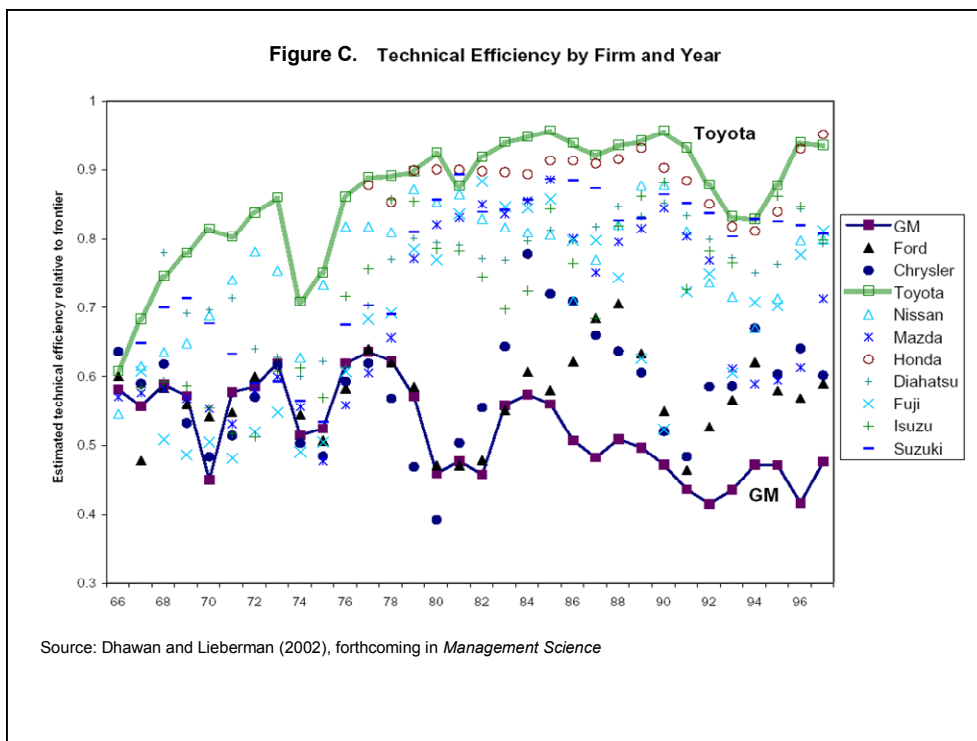
**Highlights**

Dhawan & Lieberman paper forthcoming in the *Management Science* journal calculate US and Japanese automakers efficiency.

In 1966 GM and Toyota efficiency measures were roughly equal. By 1998, Toyota was almost TWICE as efficient as GM.

Just-in-time-inventory method was pioneered by Toyota.

Message to GM: get rid of its current management structure. Pay execs in company bonds so that they don't bankrupt the company in the future.



### Highlights

Public-pension plan shortfalls are a hidden time-bomb. Arnold is heroically trying to change it in California.

Go long on Euro-denominated bonds.

Buy oil stocks and emerging economy bonds.

Non-energy large caps are good buys.

Drug companies are undervalued.

were at 60%. But by 1998, Toyota was at 90% plus efficiency levels, whereas GM is only at 50%, a huge productivity differential. This is after accounting for factors such as cost of inputs, vertical integration, capital investment per worker, etc.

People say size matters in this business. If so, then how does one explain Honda's performance, which is half the size of Toyota but rivals it in efficiency performance? Simple, you have to be better at managing your inventories by locating suppliers close to your plants. Also known as the just-in-time-inventory method, it was pioneered by Toyota, then adopted by other Japanese companies, and after awhile incorporated by the Big Three. In this respect, Ford and Chrysler were early converts compared to GM, which shows as their efficiency numbers are twenty to forty percent higher than that of GM's.

So in simple words, what is this technical inefficiency? These are factors for which in our regressions we have no quantitative measurements as explanatory variables. The prime candidate is the quality of management, which includes not only the executives, but production workers' unions as well.

What can GM do to survive? Survive it will, but to do so efficiently, it has to get rid of its current management structure. Unions are not the only culprits. Upper management has taken a short-run approach. They promised workers whatever benefits they wanted when the company was flush with cash in boom times, but then when the financial markets went sour, a pension short-fall occurred. Not that this mattered to the decision-makers-by then they long gone. The strategy: pass on the problem to the next guy if your expected tenure is equal to the attention span of a toddler.

How do we overcome this incentive compatibility problem? The problem is that compensation is based on current performance from current work effort. Very little of it is deferred comp based on long-term performance. I suggest we make upper management take part of their compensation in 30-year company-issued bonds that they cannot easily sell. If later the company goes bankrupt, because you promised too much under your watch, then...Voila! No payouts. This will take care of any time-inconsistency problem, based on short-term actions.

Something like this is also needed in the public sector given that city and state administrations all

over the US have promised their workers what they can't afford. The public-pension plan shortfalls are a hidden time-bomb. Any politician foolhardy enough to tackle it, as our own Arnold is trying in California, where the state pension costs are eating up a chunk of the budget, and you get the wrath of unions onto you. But remember, we are talking about Arnold here, not a career-politician, so don't underestimate him the way Saddam underestimated the resolve of Bush to throw him out. There is hope for California yet!

### Portfolio Implication of my Forecast!

This is a section that I am going to start with a caveat emptor. This is not investment advice, just what logically follows the rationale of my forecast. You can't sue me if you lose money (as I am sure you wouldn't share the gains with me anyway!)

1. *Go long on Euro-denominated bonds relative to US long-term bonds.*

This is a play on the fact that European growth prospects are dimmer than that of the US. This means that ECB is less likely to be as aggressive as the FED. Also, as short-term rates rise in the US, the Asian Central Banks will be tempted to hold more of their trade surpluses in short-term treasuries as rates rise. They will still buy the 10-year bond but will shift the asset portfolio in favor of shorter maturities.

2. *Oil stocks, especially exploration companies and emerging economy bonds (read Russia, Chile and South Africa), make for a pair.*

Surprised, aren't you. Oil stocks are good from a dividend payout perspective, and with oil expected to remain above \$40 in the coming years, emerging economy revenues will be good. They tend to do well when commodity prices are rising.

3. *Non-energy large caps such as GE, Microsoft, Caterpillar, etc. are good buys.*

Now, don't go betting your ranch on these three. But I like them and companies like these are international in their market reach. Plus, they pay handsome dividends. What more do you want?

4. *Drug companies are undervalued.*

This is a simple one. Vioxx problems got not only Merck, but dragged the whole drug sector down with it. So how are we going to make the old people work so they don't need social security or health benefits? By making them as fit and mobile as a 25-year old, and to do that, we will need more new drugs.



*5. Avoid consumer cyclicals and financial firms but buy state, local and municipal bonds.*

First let me expand the definition of cyclicals to include steel and cement. Why? Because as China slows down, one will find a glut of steel as Mittal Ispat has bought and ramped up every plant in the developing world. I will also add countries like Germany, Switzerland and Hong Kong onto the list of stuff to avoid. Their consumers are in a state of depression that no amount of Prozac will lift. The result is deflation in not only asset prices but also in home values. I like the state, municipal and local bonds for their payment play, relative to treasuries. As the economy strengthens and coffers fill up at local and state levels, the supply of new bonds will decrease as more cash is on hand to finance projects. This will cause the demand for bonds to go up relative to supply, making for handsome capital gains. It's definitely a better play than buying TIPS or any other long-term government bond.

### **RECENT EVIDENCE**

Following a weather-related plunge in March, housing activity rebounded strongly in April, as housing starts advanced to 2.038 million units, an increase of 11% from March. Strong construction activity in April was seen in both single and multi-family categories. On a quarterly basis, in the 1<sup>st</sup> quarter of 2005, housing starts averaged 2,084 million units, thanks to strong construction activity in January and February. These are almost 6% above the levels seen last quarter of 2004.

Despite steadily rising interest rates and elevated gasoline prices, auto sales improved from 16.8 million units in February to 17.3 million units in March. However, the 1<sup>st</sup> quarter figure of 16.9 million units was the weakest quarter since mid-2003. Clearly, monthly auto sales numbers are fluctuating in response to dealer incentives and rebates.

Personal income in March grew by 0.5%, following a 0.4% gain in February. Personal consumption increased by 0.6% in March, led by strong growth in durable goods spending. On a quarterly basis, personal consumption rose at an annualized rate of 5.7%, clearly outpacing the 2.4% in personal income growth.

The consumer confidence index dropped to 97.7 in April from its 103.0 level in March. This sharp

decline was the direct result of soaring gasoline prices and the expectations that these prices will not be coming down any time soon. The weak March employment report may have also had an impact on labor market expectations. In the 1<sup>st</sup> quarter of 2005, consumer confidence averaged 104.2, up 8.4% from the previous quarter and 13.8% from a year ago. Such a high level points towards a strong consumption environment six-months down the road.

Due to bad weather conditions, residential construction activity slowed more than expected in March, with total housing starts plunging 17.6% from their all-time high of 2,229 million to 1,827 million units in March. Most of this decline resulted from a decrease in single-family units. Housing starts are currently 8.2% below levels seen last year and are almost 6% above the levels seen the last quarter of 2004. For the 1<sup>st</sup> quarter of 2005, housing starts averaged 2,085 million units thanks to strong construction activity in January and February.

Existing home sales, supported by mortgage rates at levels below 6%, increased by 1% in March to 6.892 million units (annualized). This is only 0.4% below the record high level of 6.920 million units posted last November. New home sales surged 12%, an indication of persistent strength in the housing market and hit a new record of 1.431 million units in March. This is 10% above the last peak level of 1.304 million units registered in October 2004. On an annual level, new home sales advanced a strong 18.5% in the 1<sup>st</sup> quarter of 2005. The total value of construction increased 0.4% in February, slightly below expectations, but enough to sustain the upward momentum of the last several months. Private residential construction posted a 0.7% increase in February, driven by a strong month for single-family housing starts, and advanced 12% on year-over-year basis. Construction activity will moderate but not by much in coming months.

The Industrial Production Index fell 0.2% in April, while the March growth numbers were revised downward to a 0.1% gain instead of the originally reported 0.3% increase. Manufacturing production was unchanged in April, but utilities output fell 2.3% and become the major reason behind the slump in the overall index for the month. Production of consumer goods dropped 0.9% in April, but was offset by a 0.8% increase in production of business equipment. In the 1<sup>st</sup> quarter of 2005, Industrial production grew at an an-

### **Highlights**

Avoid consumer cyclicals but buy state, local and municipal bonds.

Monthly auto sales fluctuate in response to dealer incentives.

The consumer confidence dropped in April due to high gas prices.

Construction activity is still strong; existing home sales at record highs.

Industrial Production rose at a 3.6% annualized rate in Q1 2005.

**Table 6**  
**Summary of Recent Evidence**

<u>Indicator</u>	<u>Last 4 Months</u>				<u>1st Qtr. Average</u>	<u>Comments</u>
	<u>Jan'05</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>		
<b>Consumer Spending</b>						
Retail Sales (\$billions)	336.8	338.4	339.3	344.9	338.7	High Gasoline Prices Hurt
Automobile Sales (million units)	16.72	16.75	17.28		16.92	People Love Rebates!
Consumer Confidence (index 1985=100)	105.1	104.4	103.0	97.7	104.2	Oil Price Jitters
Personal Income (\$billions)	9,969	10,010	10,058		10,013	Growing Decently
Personal Consumption (\$billions)	8,486	8,543	8,595		8,541	Avoiding the Oil Slick
<b>Housing and Construction</b>						
Housing Starts (million units)	2.189	2.229	1.837	2.038	2.084	Super Strong Levels
Existing Home Sales (million units)	6.820	6.820	6.890		6.843	Near Record High
New Home Sales (million units)	1.178	1.275	1.431		1.295	Exceptional Strength
Residential Construction (\$billions)	577.0	583.6	585.3		581.9	Strong Momentum
Value of Construction (\$billions)	1,041.8	1,046.9	1,051.8		1,046.8	Increasing Steadily
<b>Manufacturing</b>						
Industrial Production (index 1997=100)	117.9	118.2	118.5	118.3	118.2	Decent Growth
Capacity Utilization (% of capacity)	79.2	79.3	79.4	79.2	79.3	Near the Danger Zone
ISM Index	56.4	55.3	55.2	53.3	55.6	Level is Moderating
Durable Goods Orders (\$billions)	200.0	199.8	195.1		198.3	Momentum is Stalled
<b>Deficit &amp; Interest Rates</b>						
Trade Deficit (\$billions)	-58.5	-61.0			-58.0	New Record Highs
10-Year Note (% per annum)	4.22	4.17	4.50	4.34	4.29	Soft Patch Worries
3-Month Bill (% per annum)	2.4	2.6	2.8	2.8	2.6	At a "Measured" Pace
<b>Inflation</b>						
CPI (year-over-year % change)	2.9	2.9	3.2		3.0	Minor Inflationary Fears
Core CPI (year-over-year % change)	2.2	2.3	2.4		2.3	Climbing Steadily
PPI (year-over-year % change)	4.3	4.7	4.9	4.8	4.6	Blame Energy Prices
<b>Employment</b>						
Change in Non-Farm Payroll Employment (thou.)	124.0	300.0	146.0	274.0	190.0	Strong Job Market
US Layoffs (Challenger Report, thousand units)	92.4	108.4	86.4	57.9	95.7	Declining Trend
Unemployment Rate (%)	5.2	5.4	5.2	5.2	5.3	Better Times Ahead?

nualized rate of 3.6%, and now stands 3.8% above the levels seen a year ago. The weak dollar is expected to help this sector but global woes form headwinds on the demand side.

The capacity utilization rate in March fell to 79.2% but it is still at a very high level. Manufacturers still have some spare capacity, but that reserve is steadily declining, thus making it more likely that higher costs will be passed on to the consumer. The overall ISM index fell 1.9 points to 53.3, and on a quarterly basis retreated by 3.2% to 55.6 in the 1<sup>st</sup> quarter of 2005. On a year-over-year basis, the index is down by 14.6%. Durable good orders dropped 2.8% in March, following a decline of 0.2% in February and a 1.2% drop in January. On a year-over-year basis, orders are down by 1.7%. Some might view this as proof that high energy prices and concerns about the economy have begun to wear negatively on business investment. However, durable goods orders are still at a healthy level and portend a decent investment environment ahead.

The U.S. trade deficit in March narrowed to \$55.0 billion, down by \$5.6 billion from February's record high figure of \$60.6 billion. U.S. imports of goods and services in March decreased 2.5% versus a 1.5% increase in total exports. Over the year, import growth outpaced export growth – 10.3% against 7.1%, respectively. The rise in the price of imported petroleum contributed to a higher value of crude oil imports, which increased \$2.7 billion this month, from \$11.3 billion in February to \$14.0 billion in March. The imports of energy-related petroleum products amounted to \$18.0 billion in March compared to \$14.9 billion in the previous month.

The Federal Reserve Board has steadily increased the overnight federal funds target rate by 25 basis points, reaching 3.0% on May 3<sup>rd</sup>. The FOMC statements continued to use its “measured pace” terminology, but the last two have emphasized clearly that they are worried about inflationary pressure picking up. However, Wall Street's reaction was opposite to expectations as it is still worried about the “soft patch” in the economy. Thus, the 10-year bond yield dropped slightly from its 4.34% average in April to 4.2% in early May.

The overall CPI index increased 0.6% in March, and inflation now stands at an annualized rate of 3.2%. At the same time, the analysis of price components show that inflation, though on an upward trend, is not running out of control. First of all, the rise in CPI came primarily from an unusually

large increase in accommodations, airline tickets, and apparel. Secondly, price trends in the production and intermediary goods were more restrained. On a quarterly basis, CPI and the Core Index advanced 3% and 2.3%, respectively, from levels seen last year. Rising energy prices also affected the producer price index (PPI) for finished goods which rose by 0.6% in April, following a 0.7% increase in March. Over the past year, the index has increased 4.8%. For the 1<sup>st</sup> quarter of 2005, PPI increased at an annualized rate of 5.7%.

Total non-farm employment in April grew at a much better than anticipated rate of 274,000 new jobs. The February and March job numbers were also revised significantly up from their originally reported 243,000 and 110,000 jobs to 300,000 and 146,000 respectively. The reason behind this good performance in March were the service producing industries, particularly leisure and hospitality (58,000 jobs), education and health (35,000 jobs) and professional and business services (36,000 jobs). On the other hand, manufacturing lost another 6,000 jobs in April, and now employs 1.5 million fewer workers compared to the beginning of the recession. Construction has added 425,000 jobs last year and education and health added 1.4 millions jobs in the last 12 months.

The unemployment rate, derived from a separate survey, remained unchanged in April at 5.2%. Finally, corporate layoffs in April decreased by 33% to 57,871, the lowest rate since November of 2000. With an average of 95,711 for the first three months of 2005, layoff fell 9% from the last quarter of 2004, which averaged 105,138.

### **HIGHLIGHTS OF THE FORECAST**

The latest GDP report showed that the economy increased at an annual rate of 3.1% rate in the first quarter of 2005, following an increase of 3.8% in the fourth quarter of 2004. The major contributors to the increase in real GDP in the 1<sup>st</sup> quarter were personal consumption expenditures, exports, residential fixed investment, and private inventory investment. Real personal consumption expenditures increased 3.5% in the 1<sup>st</sup> quarter of 2005 compared with an increase of 4.2% in the last quarter of 2004. Durable goods purchases were unchanged, while consumption of nondurable and services rose by 4.9% and 3.6%, respectively.

In the 1<sup>st</sup> quarter of 2005, exports and imports of good and services increased by 7.0% and 14.7% respectively. Fixed investment grew at a decent

### **Highlights**

The U.S. trade deficit in March narrowed to \$55.0 billion.

CPI index increased at an annualized rate of 3.4% in Q1 2005.

The unemployment rate stayed at 5.2% in April.

Corporate layoffs in April decreased by 33% to 57,871, the lowest rate since November of 2000.

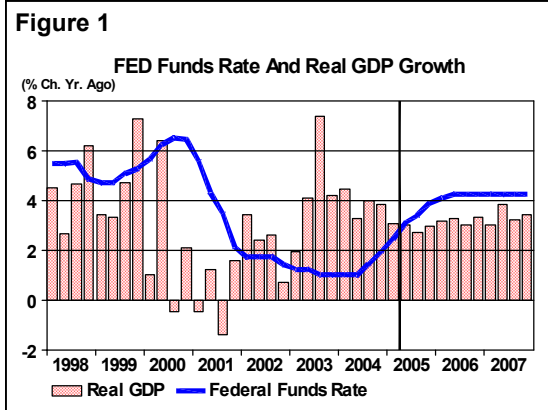
GDP growth will be in the 3% range for the coming few years.

## Highlights

Moderation and consumption growth is expected next year.

Investment expenditures will stay strong.

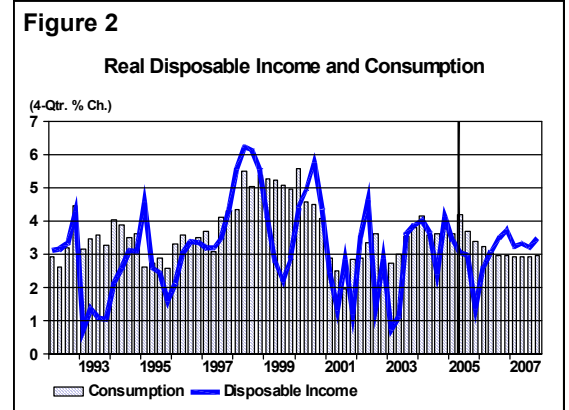
Unemployment rate stays around 5%.



rate of 4.7% and real residential fixed investment increased by 5.7%. On a year-over-year basis, residential investment is now up by 6.6%. The real change in private inventories added only 1.2% to the 1<sup>st</sup> quarter of GDP. Federal government spending increased 0.6% while national defense consumption increased 0.2%.

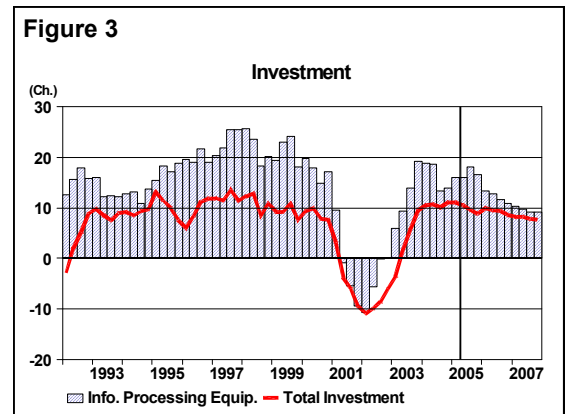
Real GDP will average a 3.0% growth rate in the 1<sup>st</sup> half of 2005, and will display a 2.8% growth rate in the 2<sup>nd</sup> half of this year. For 2005, real GDP growth will be 3.3% and will moderate to a 3.1% in 2006 as consumption growth moderates. In 2007, real GDP expands again by 3.3% as export growth is a respectable 9.8%.

- Overall **consumption** growth is expected to be 3.7% in the 1<sup>st</sup> half of 2005, moderating to 3.1% in the 2<sup>nd</sup> half of 2005. For 2005, consumption growth will still be a strong 3.7% before moderating to 3.0% in 2006, and will grow by 2.9% in 2007. Consumption growth for **durable** goods will decline sharply to 4.6% in 2005 from 6.7% in 2004. It will decrease further to 3.2% in 2006 and rebound to 4.5% in 2007. Consumption growth for **nondurable** goods will also decline in 2005 to 4.2%, and will drop to 3.0% in 2006 and to 2.9% in 2007. **Service** consumption is expected to be 3.3% in 2005, rise by 3.0% in 2006 and by 2.6% in 2007.
- For the year 2005, **fixed investment** is expected to show a strong 10.0% growth rate following a robust 10.6% growth rate in 2004. Investment will again show a solid growth rate of 9.4% in 2006 and will moderate a bit to an 8.0% growth rate in 2007. Investment in **producer's durable equipment** posted a very strong growth rate of 13.6% in 2004. The growth rate for this category will again be



a strong 12.2% in 2005 before moderating to 8.6% in 2006. It will grow by 7.4% in 2007. Investment in **structures** is expected to rise by 2.8% in 2005. This growth trend will continue in 2006 when this category grows at a very strong rate of 11.9%. In 2007, it will again grow by a strong 9.7% rate. **Residential** investment will increase by an anemic 0.5% in 2005, then decline by 6.6% in 2006 and again decline by 2.5% in 2007.

- In 2004, the economy finally turned a corner in terms of job creation and gained about 2.2 million jobs. As a result, the **unemployment rate** dropped from its 2003 average of 6.0% to 5.5% in 2004. In 2005 the economy will add new jobs at a very decent rate of 180,000 per month, and this will help to decrease the unemployment rate to 5.2%. In 2006, the economy adds jobs at the rate of 156,000, which is much closer to the economy's potential without creating inflation. The unemployment rate stays at 5.2% in 2006 and will decline slightly to 5.1% in 2007.



Highlights

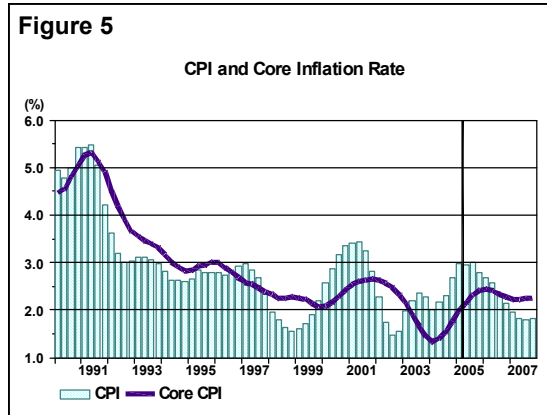
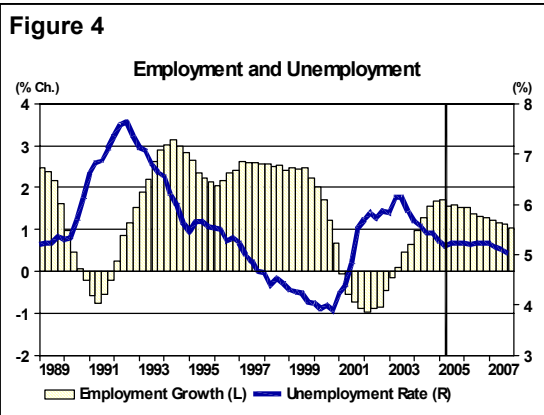
Inflation will not breach the 3% barrier.

Oil prices will remain above \$40 a barrel in the near future.

Auto sales will be strong next year too.

The FED Funds Rate will be at the 4% level.

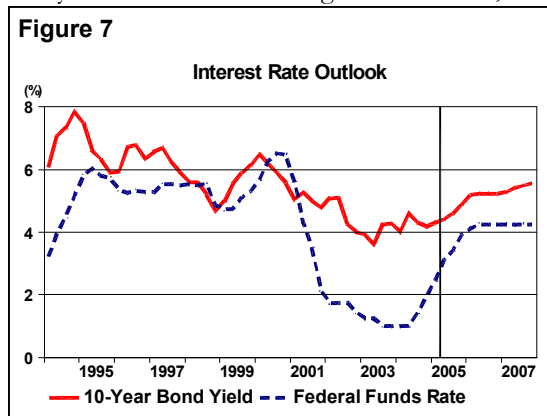
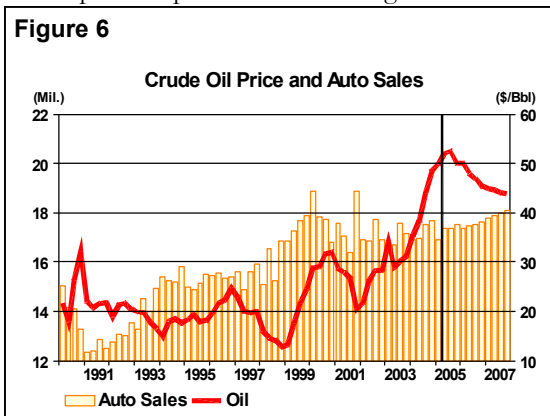
The 10-year bond rate will not cross the 6% even by late 2007.



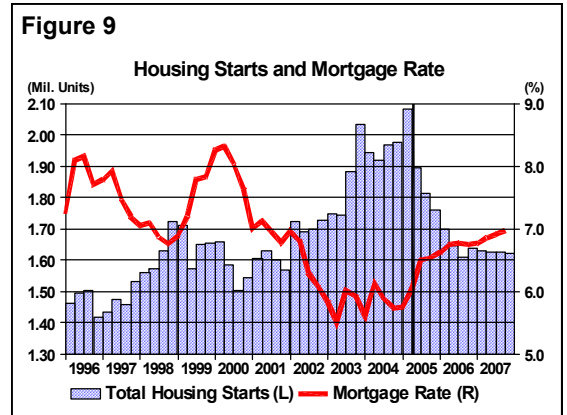
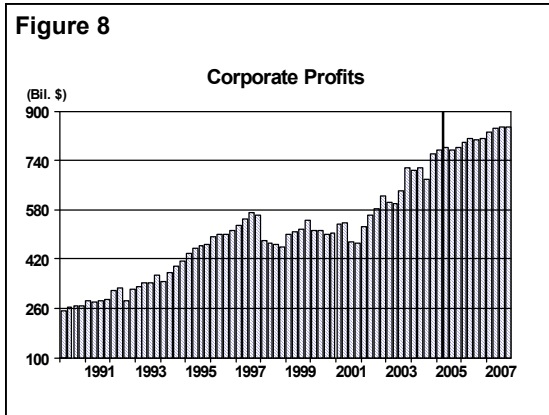
- The **CPI inflation** was 2.7% in 2004. In the 1<sup>st</sup> quarter of 2005, the CPI inflation rate was 2.4% due to moderating oil prices and seasonality factors. Inflation will pick up in the coming quarter to 3.2% but moderate in the 2<sup>nd</sup> half to average 2.8% for the year. The CPI index will moderate to a 2.1% inflation rate in 2006 and will moderate to 1.8% in 2007.
- The **core inflation** rate has steadily trended downward in the last three years, raising talks of deflation. But as job growth turned around, so has this inflation rate. The core inflation rate will inch up from its 1.8% level in 2004 to 2.4% in 2005. In 2006, core inflation will average 2.3% and will remain at this level in 2007. **Wage compensation** in the non-farm business sector grew at a 4.3% rate in 2004. It will grow again by 4.1% in 2005 and by 4.3% in 2006. In 2007, job growth will be strong enough to make wages again grow at a 4.5% rate.
- Rising **oil prices** have been a headache in the last two years. They increased from \$26.1 per barrel in 2002 to \$31.1 in 2003. The situation worsened in 2004, as crude oil prices escalated to \$41.5 per barrel. By summer of 2005, expect the price of oil to average more than

\$50 per barrel and remain close to this level for the next several quarters. In 2005, oil prices will average \$51.1, moderate to \$47.5 in 2006 and drop further to \$44.3 in 2007. Oil prices will remain above \$40 a barrel for the coming future.

- **Automobile and light truck sales** will continue to be as strong in 2005 as they were in 2004 at an annualized level of 16.8 million units. In 2006, auto sales will experience a modest rise when they average 17.1 million units and will sell at the very strong rate of 17.5 million units in 2007 as oil price moderates.
- The **Federal Funds rate** was raised to 3.0% at the last FED meeting in May and will rise to the 4.0% level by the end of 2005 as the FED follows through on its promise of “measured” hikes. However, the maximum funds rate that I am predicting is 4.25% by end of 2006 and is expected to remain there in 2007.
- The **10-year bond rate** averaged 4.3% in the 1<sup>st</sup> quarter of 2005, but is not expected to cross the 5.0% mark until early 2006. The 10-year bond rate will average 4.5% in 2005, rise



Highlights



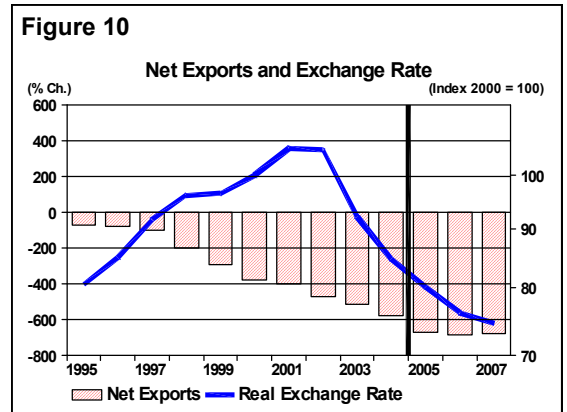
Housing starts will drop 3.2% this year.

somewhat to 5.2% in 2006. In 2007, it will average 5.4%, a modest rise from 2006. Net-net, the 10-year bond will not cross the 6.0% mark to cause upheaval in the mortgage market.

- Pretax **corporate profits** increased by a strong 12.7% in 2004 and will rise strongly by 13.3% in 2005. This strength is virtually absent in 2006 and 2007 when corporate profit growth diminishes to 3.9% and 5.0%, respectively.
- **Housing starts**, which averaged 1.975 million units in the 4<sup>th</sup> quarter of 2004, and 2.085 million units in 1<sup>st</sup> quarter of 2005, will moderate a bit to 1.895 million units in the 2<sup>nd</sup> quarter and 1.812 million units. In the 2<sup>nd</sup> half of 2005 housing starts moderate further to 1.787 million units as mortgage rates start to rise in response to FED's measured rate hikes that edge the 10-year bond to the 5.0% level. Overall, housing starts will average a respectable 1.889 million units in 2005, a drop of 3.2% from 2004 super-high levels. Housing starts will, however, drop sharply to the 1.649 million unit level in 2006 as mortgage rate edge closer to 7.0%. Housing starts will average 1.625 million units in 2007. The effective **mortgage rate** will average 6.2% in 2005, rises to 6.7% in 2006, and rises even higher to 6.9% in 2007.
- The dollar's 2004 slide of 8.2% in the nominal **exchange rate** will continue in the next couple of years too. The nominal trade-weighted dollar index is expected to slide by 5.8% in 2005, and then slide further in 2006 and 2007 by 6.4% and 3.0%, respectively. In 2004, due to the weaker dollar, real **exports** grew robustly by 8.6% against 9.9% increase

in real **imports**. In 2005, exports rise by a reasonable 6.3%, whereas imports rise by 9.5%. In 2006, imports rise by only 6.0% and exports rise by a strong 8.2%. In 2007, exports rise by an even stronger 9.7%, and outdo imports, which are expected to grow only by 5.8% as the dollar's decline raises nominal import prices. The **trade deficit** in nominal terms will expand significantly to \$750.7 billion in 2005 from \$606.2 billion in 2004. It will grow further to \$790.5 billion in 2006, before it moderates slightly to \$775.9 billion in 2007. These numbers signal that the high trade deficits are the new reality which is expected to persist for years to come.

Export growth picks up in 2006 but the trade deficit will keep rising.





# **FORECAST OF THE NATION**

**May2005 Report**

**Tables**

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## Forecast Tables - Summary

**Table 1A. Summary of the Georgia State University Short-Term Forecast of the Nation**

	HISTORY									FORECAST		
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Money Supply (M1)	-3.2	-3.3	1.0	2.0	0.2	3.0	4.8	6.4	5.5	2.3	0.7	1.2
Money Supply (M2)	4.8	4.9	7.3	7.5	6.1	8.7	7.6	6.9	4.5	3.6	2.1	3.6
Money Supply (M3)	6.8	8.3	10.4	8.7	9.4	11.4	8.0	6.4	5.2	3.9	2.5	3.6
Currency	4.1	6.9	7.6	9.8	7.6	6.0	9.5	6.2	5.1	3.8	3.2	4.2
GDP Deflator	1.9	1.7	1.1	1.4	2.2	2.4	1.7	1.8	2.2	2.5	2.0	2.0
Real GDP	3.7	4.5	4.2	4.4	3.7	0.8	1.9	3.0	4.4	3.3	3.1	3.3
<b>Interest Rates (%) on:</b>												
90-day Treasury Bills	5.0	5.1	4.8	4.6	5.8	3.4	1.6	1.0	1.4	3.2	4.2	4.2
10-year Treasury Bonds	6.4	6.4	5.3	5.6	6.0	5.0	4.6	4.0	4.3	4.5	5.2	5.4
30-year Treasury Bonds	6.7	6.6	5.6	5.9	5.9	5.5	5.4	5.1	5.1	5.0	5.7	5.9
Prime Rate	8.3	8.4	8.4	8.0	9.2	6.9	4.7	4.1	4.3	6.2	7.2	7.2
Moody's Corporate Aaa Bonds	7.4	7.3	6.5	7.0	7.6	7.1	6.5	5.7	5.6	5.6	6.3	6.5
Prime Rate Less Inflation	5.3	6.1	6.8	5.8	5.9	4.1	3.1	1.8	1.7	3.4	5.1	5.4
<b>Federal Fiscal Policy</b>												
Effective Tax Rates (%):												
Personal Income	21.5	21.7	21.8	21.4	21.8	23.0	20.0	18.8	18.1	18.3	18.6	19.1
Corporate Profits	5.4	5.1	5.9	5.7	6.0	6.0	5.4	5.1	5.2	4.7	4.7	4.8
Defense Purchases--%change												
Current \$	1.7	-1.4	-1.1	4.3	2.7	6.0	11.4	13.5	10.4	7.4	4.2	1.9
Constant \$	-1.4	-2.8	-2.1	1.9	-0.5	3.9	7.7	9.0	7.3	3.7	2.0	0.1
Other Expenditures--% change												
Transfers to Persons	5.9	3.4	3.0	4.2	5.3	9.0	9.9	6.4	4.2	6.7	6.9	5.8
Grants to S&L Gov't	3.8	3.9	7.1	9.5	6.2	11.6	10.3	11.7	3.1	5.2	4.8	5.7
<b>Billions of Current Dollars</b>												
Revenues	1524.0	1653.1	1773.8	1891.2	2053.9	2016.2	1847.3	1877.0	1965.7	2155.2	2317.3	2484.1
Expenditures	1665.8	1708.9	1735.0	1787.6	1864.4	1969.5	2101.8	2241.6	2341.2	2501.6	2662.6	2794.2
Deficit	-141.8	-55.8	38.8	103.6	189.5	46.7	-254.5	-364.6	-375.6	-346.4	-345.3	-310.0
<b>As Shares of GDP</b>												
Revenues	19.5	19.9	20.3	20.4	20.9	19.9	17.6	17.1	16.8	17.3	17.7	18.0
Expenditures	21.3	20.6	19.8	19.3	19.0	19.4	20.0	20.4	20.0	20.1	20.4	20.3
Defense Purchases	4.5	4.2	4.0	3.9	3.8	3.9	4.2	4.5	4.7	4.7	4.7	4.5
Transfers to Persons	11.4	11.1	10.8	10.6	10.6	11.2	11.9	12.0	11.7	11.8	12.0	12.1
Deficit	-1.8	-0.7	0.4	1.1	1.9	0.5	-2.4	-3.3	-3.2	-2.8	-2.6	-2.3
<b>Details of Real GDP--% change</b>												
Real GDP	3.7	4.5	4.2	4.4	3.7	0.8	1.9	3.0	4.4	3.3	3.1	3.3
Final Sales	3.7	4.0	4.2	4.5	3.8	1.7	1.4	3.2	4.0	3.2	3.1	3.2
Consumption	3.4	3.8	5.0	5.1	4.7	2.5	3.1	3.3	3.8	3.7	3.0	2.9
Business Fixed Investment	9.3	12.1	11.1	9.2	8.7	-4.2	-8.9	3.3	10.6	10.0	9.4	8.0
Producers Durable Equip.	10.6	13.8	13.3	12.7	9.4	-4.9	-5.5	6.4	13.6	12.2	8.6	7.4
Structures	5.7	7.2	5.1	-0.4	6.8	-2.3	-17.8	-5.6	1.4	2.8	11.9	9.7
Residential Construction	8.0	1.9	7.6	6.0	0.8	0.4	4.8	8.8	9.7	0.5	-6.6	-2.5
Exports	8.4	11.9	2.4	4.3	8.7	-5.4	-2.3	1.9	8.6	6.3	8.2	9.8
Imports	8.7	13.6	11.6	11.5	13.1	-2.7	3.4	4.4	9.9	9.5	6.0	5.8
Federal Purchases	-1.2	-1.0	-1.1	2.2	0.9	3.9	7.5	6.6	4.7	3.1	2.2	0.8
State & Local Purchases	2.3	3.6	3.6	4.7	2.7	3.2	2.8	0.7	0.4	1.0	2.5	2.1
<b>Billions of 2000 Dollars</b>												
Real GDP	8329	8704	9067	9470	9817	9891	10075	10381	10842	11198	11543	11925
Final Sales	8300	8632	8994	9401	9760	9922	10063	10382	10796	11138	11486	11858
Inventory Change	28.7	71.2	72.6	68.9	56.5	-31.7	11.8	-0.7	45.7	59.7	56.7	66.8

## Forecast Tables - Summary

**Table 1B. Summary of the Georgia State University Short-Term Forecast of the Nation**

	HISTORY									FORECAST		
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Industrial Production and Resource Utilization</b>												
Production--% change	4.3	7.3	5.8	4.5	4.3	-3.6	-0.3	-0.0	4.1	3.8	3.8	4.3
Capacity Util. Manuf. (%)	81.4	82.8	81.8	81.1	80.6	74.5	73.5	73.7	76.7	78.2	78.3	78.9
Real Bus. Investment as % of Real GDP	14.5	15.2	16.0	16.6	17.1	16.5	15.4	15.7	16.6	17.1	17.2	17.5
Nonfarm Employment (mil.)	119.7	122.8	125.9	129.0	131.8	131.8	130.3	130.0	131.5	133.7	135.6	137.3
Unemployment Rate (%)	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.2	5.2	5.1
<b>Inflation--% change</b>												
Consumer Price Index	2.9	2.3	1.5	2.2	3.4	2.8	1.6	2.3	2.7	2.8	2.1	1.8
Total less Food & Energy	2.7	2.4	2.3	2.1	2.4	2.7	2.3	1.5	1.8	2.4	2.3	2.3
Consumption Deflator	2.2	1.7	0.9	1.7	2.5	2.1	1.4	1.9	2.2	2.3	2.0	1.9
GDP Deflator	1.9	1.7	1.1	1.4	2.2	2.4	1.7	1.8	2.2	2.5	2.0	2.0
Producers Price Index	2.3	-0.1	-2.5	0.9	5.8	1.1	-2.3	5.3	6.2	5.4	0.9	-0.4
<b>Factors Related to Inflation--%change</b>												
Nonfarm Business Sector												
Wage Compensation	3.4	3.1	5.9	4.6	7.0	4.1	3.2	4.0	4.3	4.1	4.3	4.5
Productivity	2.6	1.6	2.7	2.7	2.7	2.6	4.3	4.4	4.0	1.8	2.1	2.5
Unit Labor Costs	0.7	1.4	3.3	1.8	4.2	1.5	-1.1	-0.3	0.3	2.2	2.2	1.9
Farm Price Index	13.9	-7.7	-7.3	-5.9	1.1	4.2	-4.6	12.6	10.5	-4.5	-4.4	-0.9
Crude Oil Price (\$/bbl)	22.1	20.6	14.4	19.3	30.4	26.0	26.1	31.1	41.5	51.1	47.5	44.3
New Home Price (\$1000)	139.8	145.0	152.0	159.8	166.5	172.6	185.0	191.4	217.8	227.3	233.9	240.7
<b>Income, Consumption and Saving--%change</b>												
Disposable Income	5.2	5.3	6.8	4.7	7.5	4.1	4.6	4.2	5.8	5.1	5.2	5.3
Real Disposable Income	3.0	3.5	5.8	3.0	4.8	1.9	3.1	2.3	3.5	2.7	3.2	3.3
Real Consumption	3.4	3.8	5.0	5.1	4.7	2.5	3.1	3.3	3.8	3.7	3.0	2.9
Savings Rate (%)	4.0	3.7	4.3	2.4	2.4	1.8	2.0	1.3	1.2	-0.0	0.1	0.4
<b>Housing and Automobiles--millions of units</b>												
Housing Starts	1.469	1.475	1.621	1.647	1.573	1.601	1.710	1.853	1.952	1.889	1.649	1.625
Auto and Light Truck Sales	15.1	15.1	15.5	16.9	17.3	17.1	16.8	16.6	16.8	16.8	17.1	17.5
<b>Corporate Profits</b>												
Billions of Dollars												
Before Taxes	733.0	798.2	718.3	775.9	773.4	707.9	758.0	874.5	985.4	1116.7	1160.6	1218.5
After Taxes	501.4	552.1	470.0	517.2	508.2	503.8	574.2	639.6	716.2	779.1	806.8	842.9
Percent Change												
Before Taxes	8.7	8.9	-10.0	8.0	-0.3	-8.5	7.1	15.4	12.7	13.3	3.9	5.0
After Taxes	10.0	10.1	-14.9	10.1	-1.7	-0.9	14.0	11.4	12.0	8.8	3.6	4.5
<b>International Trade</b>												
Nominal												
U.S. Dollar--% change	4.5	7.7	4.8	-1.6	4.9	6.0	-1.5	-12.2	-8.2	-5.8	-6.4	-3.0
Exports--% change	6.9	10.0	0.1	3.7	10.6	-5.8	-2.7	4.1	12.4	10.3	9.7	10.0
Imports--% change	6.8	9.5	5.6	12.2	17.9	-5.1	2.1	8.0	15.4	14.9	8.1	5.8
Net Exports (bil. \$)	-96.3	-101.6	-160.0	-260.5	-379.5	-367.0	-424.9	-498.1	-606.2	-750.7	-790.5	-775.9
Real												
U.S. Dollar--% change	5.3	7.9	5.0	0.3	3.7	5.5	-0.4	-12.3	-8.0	-5.5	-4.9	-2.0
Exports--% change	8.4	11.9	2.4	4.3	8.7	-5.4	-2.3	1.9	8.6	6.3	8.2	9.8
Imports--% change	8.7	13.6	11.6	11.5	13.1	-2.7	3.4	4.4	9.9	9.5	6.0	5.8
Net Exports (bil. 2000\$)	-79.7	-104.6	-203.8	-296.2	-379.5	-399.1	-472.1	-518.5	-583.7	-675.6	-690.1	-678.4

## Forecast Tables - Summary

**Table 2A. Quarterly Summary of the Georgia State University Forecast of the Nation**

	2004:4	2005:1	2005:2	2005:3	2005:4	2006:1	2006:2	2006:3	2006:4	2007:1	2007:2
<b>Monetary Aggregates, Velocity, GDP--%change</b>											
Money Supply (M1)	5.6	0.5	0.7	0.9	0.5	0.7	0.5	0.7	0.8	1.5	1.1
Money Supply (M2)	5.8	3.6	2.3	1.2	1.7	2.2	2.6	2.2	3.2	3.5	4.6
Money Supply (M3)	3.8	4.3	3.5	1.9	1.9	2.7	2.6	2.4	3.0	3.4	4.6
Currency	5.0	3.8	1.2	2.3	2.9	3.7	3.8	3.3	3.9	4.5	4.1
GDP Deflator	2.3	3.3	2.7	1.9	2.0	2.1	2.1	1.6	1.9	2.2	2.1
Real GDP	3.8	3.1	3.0	2.7	3.0	3.2	3.3	3.0	3.3	3.0	3.9
<b>Interest Rates (%) on:</b>											
90-day Treasury Bills	2.1	2.6	3.1	3.4	3.9	4.1	4.2	4.2	4.2	4.2	4.2
10-year Treasury Bonds	4.2	4.3	4.4	4.6	4.9	5.2	5.2	5.2	5.2	5.3	5.4
30-year Treasury Bonds	4.9	4.7	4.8	5.0	5.3	5.6	5.6	5.7	5.7	5.8	5.9
Prime Rate	4.9	5.4	6.1	6.4	6.9	7.1	7.3	7.3	7.3	7.3	7.2
Moody's Corporate Aaa Bon	5.5	5.3	5.5	5.6	5.9	6.2	6.3	6.3	6.4	6.4	6.5
Prime Rate Less Inflation	1.4	3.0	2.9	3.9	4.6	5.1	5.0	6.0	5.4	5.4	5.4
<b>Federal Fiscal Policy</b>											
Effective Tax Rates (%):											
Personal Income	17.8	18.0	18.1	18.4	18.6	18.6	18.7	18.6	18.7	19.0	19.0
Corporate Profits	5.2	4.5	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.8
Defense Purchases--%change											
Current \$	1.7	8.0	10.8	6.5	6.2	5.0	1.1	1.0	1.0	4.6	0.9
Constant \$	-0.6	0.2	8.6	4.6	4.5	0.2	0.2	0.1	0.1	0.3	0.0
Other Expenditures--% change											
Transfers to Persons	12.4	11.6	3.5	6.2	0.6	14.6	5.4	7.5	4.0	7.3	4.9
Grants to S&L Gov't	24.8	-0.9	6.8	6.7	2.1	5.4	4.0	5.4	5.9	5.9	5.9
<b>Billions of Current Dollars</b>											
Revenues	2032.5	2079.6	2133.3	2182.7	2225.0	2266.7	2303.3	2330.3	2368.9	2435.2	2470.0
Expenditures	2388.7	2454.4	2485.7	2524.0	2542.2	2612.1	2647.3	2683.7	2707.5	2751.5	2780.4
Deficit	-356.2	-374.8	-352.4	-341.2	-317.2	-345.5	-343.9	-353.4	-338.6	-316.2	-310.4
<b>As Shares of GDP</b>											
Revenues	16.9	17.1	17.3	17.5	17.6	17.7	17.7	17.7	17.8	18.1	18.1
Expenditures	19.9	20.1	20.1	20.2	20.1	20.4	20.4	20.4	20.3	20.4	20.3
Defense Purchases	4.7	4.7	4.7	4.8	4.8	4.8	4.7	4.7	4.6	4.6	4.6
Transfers to Persons	11.8	11.9	11.8	11.9	11.7	12.0	12.0	12.1	12.0	12.1	12.1
Deficit	-3.0	-3.1	-2.9	-2.7	-2.5	-2.7	-2.6	-2.7	-2.5	-2.3	-2.3
<b>Details of Real GDP--% change</b>											
Real GDP	3.8	3.1	3.0	2.7	3.0	3.2	3.3	3.0	3.3	3.0	3.9
Final Sales	3.4	1.9	4.0	2.8	2.9	3.1	3.3	3.0	3.3	3.0	3.7
Consumption	4.2	3.5	3.9	3.1	3.0	2.8	3.1	2.8	3.1	2.6	3.1
Business Fixed Investment	14.5	4.6	10.3	9.3	10.9	9.2	8.6	8.8	8.0	7.5	8.5
Producers Durable Equip.	18.4	6.9	12.3	9.8	8.6	8.4	7.6	8.4	7.1	6.8	7.5
Structures	2.1	-2.6	3.8	7.6	19.1	12.0	11.8	10.4	10.8	9.8	11.6
Residential Construction	3.4	5.7	-2.7	-11.5	-10.1	-3.7	-5.4	-7.3	-2.3	-1.3	-0.4
Exports	3.2	7.0	7.1	7.6	7.3	8.1	8.5	10.0	9.1	9.3	10.8
Imports	11.4	14.7	6.3	6.6	6.8	6.1	4.8	5.8	6.1	5.4	5.6
Federal Purchases	1.2	0.5	6.3	4.1	4.1	1.0	0.9	0.8	0.8	0.9	0.7
State & Local Purchases	0.6	0.6	1.8	2.9	2.3	2.7	2.7	2.2	2.5	2.2	1.9
<b>Billions of 2000 Dollars</b>											
Real GDP	10994.3	11078.2	11160.9	11235.5	11317.9	11406.9	11498.8	11584.7	11679.9	11767.9	11879.7
Final Sales	10947.1	10998.0	11106.7	11183.7	11265.2	11350.5	11443.7	11528.4	11621.1	11708.6	11815.1
Inventory Change	47.2	80.2	54.2	51.8	52.7	56.4	55.1	56.3	58.7	59.2	64.6

## Forecast Tables - Summary

**Table 2B. Quarterly Summary of the Georgia State University Forecast of the Nation**

	2004:4	2005:1	2005:2	2005:3	2005:4	2006:1	2006:2	2006:3	2006:4	2007:1	2007:2
<b>Industrial Production and Resource Utilization</b>											
Production--% change	4.5	3.6	4.1	3.6	3.5	3.9	3.8	4.0	3.9	4.5	4.6
Capacity Util. Manuf. (%)	77.6	78.1	78.3	78.4	78.3	78.5	78.3	78.1	78.2	78.3	78.8
Real Bus. Investment											
as % of Real GDP	16.9	17.0	17.1	17.1	17.1	17.2	17.2	17.2	17.3	17.4	17.5
Nonfarm Employment (mil.)	132.3	132.8	133.4	134.0	134.5	134.9	135.4	135.9	136.3	136.7	137.1
Unemployment Rate (%)	5.4	5.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.1
<b>Inflation--% change</b>											
Consumer Price Index	3.6	2.4	3.2	2.5	2.3	2.0	2.3	1.2	1.8	1.8	1.8
Total less Food & Energy	2.3	2.6	2.9	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3
Consumption Deflator	2.7	2.1	3.3	1.5	2.0	1.9	2.1	1.5	2.0	1.9	2.0
GDP Deflator	2.3	3.3	2.7	1.9	2.0	2.1	2.1	1.6	1.9	2.2	2.1
Producers Price Index	10.2	1.3	6.5	3.8	2.5	0.2	-1.7	-0.7	-0.3	-0.5	-0.3
<b>Factors Related to Inflation--%change</b>											
Nonfarm Business Sector											
Wage Compensation	3.3	3.6	4.1	4.3	4.2	4.5	4.4	4.4	4.3	4.5	4.7
Productivity	2.1	1.8	1.4	1.7	2.1	2.2	2.3	2.2	2.7	2.4	2.9
Unit Labor Costs	1.4	1.6	2.6	2.5	2.1	2.2	2.1	2.1	1.6	2.1	1.7
Farm Price Index	-8.2	-1.2	6.9	-12.3	-9.9	-3.6	-0.1	-1.9	-1.9	-1.5	0.1
Crude Oil Price (\$/bbl)	48.3	49.8	52.0	52.5	50.0	50.0	47.9	46.9	45.3	44.9	44.5
New Home Price (\$1000)	227.8	220.1	220.5	233.6	235.1	229.7	232.1	235.7	238.3	234.8	238.8
<b>Income, Consumption and Saving--%change</b>											
Disposable Income	11.2	1.9	4.8	4.1	3.8	6.7	5.5	5.7	4.8	4.7	5.7
Real Disposable Income	8.3	-0.3	1.4	2.5	1.7	4.7	3.3	4.1	2.7	2.7	3.6
Real Consumption	4.2	3.5	3.9	3.1	3.0	2.8	3.1	2.8	3.1	2.6	3.1
Savings Rate (%)	1.6	0.6	0.0	-0.2	-0.5	-0.0	-0.0	0.3	0.2	0.2	0.3
<b>Housing and Automobiles--millions of units</b>											
Housing Starts	1.975	2.085	1.895	1.812	1.762	1.700	1.647	1.609	1.639	1.629	1.625
Auto and Light Truck Sales	17.0	16.4	16.9	16.9	17.1	16.9	17.0	17.1	17.2	17.3	17.4
<b>Corporate Profits</b>											
Billions of Dollars											
Before Taxes	1057.9	1091.8	1126.4	1118.1	1130.7	1148.9	1164.8	1159.0	1169.7	1198.2	1220.5
After Taxes	762.1	774.3	783.1	775.7	783.2	800.3	810.2	804.9	811.7	831.5	845.5
Percent Change											
Before Taxes	65.4	13.5	13.3	-2.9	4.6	6.6	5.6	-2.0	3.7	10.1	7.6
After Taxes	58.2	6.6	4.6	-3.7	4.0	9.0	5.0	-2.6	3.5	10.1	6.9
<b>International Trade</b>											
Nominal											
U.S. Dollar--% change	-19.8	-2.9	1.8	-6.0	-8.6	-7.4	-6.5	-5.2	-6.1	-1.3	-1.6
Exports--% change	7.2	11.8	12.3	10.6	9.5	9.1	9.1	10.1	9.4	9.4	11.0
Imports--% change	20.0	17.4	14.1	9.3	10.0	8.4	5.0	6.1	6.9	5.2	5.2
Net Exports (bil. \$)	-674.8	-717.6	-746.7	-759.4	-779.0	-792.8	-789.4	-787.8	-792.2	-787.6	-777.3
Real											
U.S. Dollar--% change	-21.0	-2.2	3.5	-3.6	-6.8	-6.4	-5.2	-3.7	-4.8	-0.3	-0.9
Exports--% change	3.2	7.0	7.1	7.6	7.3	8.1	8.5	10.0	9.1	9.3	10.8
Imports--% change	11.4	14.7	6.3	6.6	6.8	6.1	4.8	5.8	6.1	5.4	5.6
Net Exports (bil. 2000\$)	-621.1	-663.2	-671.1	-679.3	-689.0	-693.3	-690.4	-687.8	-688.8	-685.9	-678.5

**Forecast Tables - Detailed**

**Table 3A. Gross Domestic Product**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Billions of Current Dollars</b>											
Gross Domestic Product	8304.3	8747.0	9268.4	9817.0	10128.0	10487.0	11004.1	11735.0	12426.1	13066.7	13772.9
Personal Consumption											
Expenditures	5547.4	5879.5	6282.5	6739.4	7055.0	7376.1	7760.9	8229.9	8733.3	9174.8	9625.9
Durable Goods	692.7	750.2	817.6	863.3	883.7	916.2	950.7	993.9	1037.7	1068.8	1112.8
Autos and Parts	305.1	336.1	370.8	386.5	407.9	426.1	440.1	447.8	466.4	470.4	487.7
Nondurable Goods	1619.0	1683.6	1804.8	1947.2	2017.1	2080.1	2200.1	2377.0	2544.0	2649.8	2754.4
Services	3235.8	3445.7	3660.0	3928.8	4154.3	4379.8	4610.1	4859.0	5151.6	5456.2	5758.7
Gross Private Domestic											
Investment	1389.8	1509.1	1625.7	1735.5	1614.4	1579.2	1665.8	1927.3	2130.3	2249.3	2391.2
Residential	349.1	385.8	424.9	446.9	469.3	504.1	572.3	663.4	695.2	667.9	666.9
Nonres. Structures	250.3	275.2	282.2	313.2	322.6	271.6	261.6	278.2	310.7	359.8	409.7
Producers Dur. Equip	718.3	777.3	851.7	918.9	854.2	792.4	833.1	942.4	1059.8	1159.1	1241.7
Change In Inv.	72.0	70.8	66.9	56.5	-31.7	11.2	-1.2	43.4	64.6	62.5	72.8
Net Exports	-101.6	-160.0	-260.5	-379.5	-367.0	-424.9	-498.1	-606.2	-750.7	-790.5	-775.9
Exports	955.4	955.9	991.3	1096.3	1032.8	1005.0	1046.2	1175.5	1296.1	1421.9	1564.4
Imports	1056.9	1115.9	1251.8	1475.8	1399.9	1429.9	1544.3	1781.6	2046.8	2212.4	2340.3
Government Purchases	1468.7	1518.3	1620.8	1721.6	1825.6	1956.7	2075.5	2183.9	2313.3	2433.1	2531.7
Federal	530.9	530.5	555.8	578.8	612.9	680.9	752.2	809.9	864.3	902.4	924.7
Defense	349.6	345.7	360.6	370.3	392.6	437.4	496.5	547.9	588.3	613.2	624.7
Other	181.3	184.7	195.2	208.5	220.3	243.5	255.8	262.0	276.0	289.2	300.0
State and Local	937.8	987.9	1065.0	1142.8	1212.8	1275.8	1323.4	1374.0	1448.9	1530.7	1607.0
<b>Billions of 2000 Dollars</b>											
Gross Domestic Product	8703.5	9066.9	9470.4	9817.0	9890.7	10074.8	10381.3	10841.9	11198.1	11542.6	11924.6
Personal Consumption											
Expenditures	5547.4	5879.5	6282.5	6739.4	7055.0	7376.1	7760.9	8229.9	8733.3	9174.8	9625.9
Durable Goods	646.9	720.3	804.5	863.3	900.7	959.6	1030.6	1099.3	1149.4	1186.3	1239.3
Autos & Parts	304.7	339.0	372.4	386.5	405.8	428.7	452.1	465.9	473.9	471.4	482.5
Nondurable Goods	1725.3	1794.4	1876.6	1947.2	1986.7	2037.4	2112.3	2208.5	2301.3	2370.3	2438.4
Services	3468.0	3614.9	3758.0	3928.8	4023.2	4128.6	4220.3	4338.3	4480.7	4615.9	4737.6
Gross Private Domestic											
Investment	1387.7	1524.1	1642.6	1735.5	1598.4	1560.7	1628.8	1843.5	1976.3	2049.1	2153.9
Residential	388.6	418.3	443.6	446.9	448.5	470.1	511.2	560.7	563.3	526.3	513.1
Nonres. Structures	280.1	294.5	293.2	313.2	306.1	251.6	237.4	240.7	247.4	276.8	303.7
Producers Dur. Equip	658.3	745.6	840.2	918.9	874.2	826.5	879.2	998.6	1120.0	1216.2	1306.6
Change In Inv.	71.2	72.6	68.9	56.5	-31.7	11.8	-0.7	45.7	59.7	56.7	66.8
Net Exports	-104.6	-203.8	-296.2	-379.5	-399.1	-472.1	-518.5	-583.7	-675.6	-690.1	-678.4
Exports	943.7	966.5	1008.2	1096.3	1036.7	1012.4	1031.8	1120.3	1190.9	1288.8	1414.6
Imports	1048.4	1170.3	1304.5	1475.8	1435.8	1484.4	1550.3	1704.0	1866.6	1978.9	2093.0
Government Purchases	1594.0	1624.4	1687.0	1721.6	1780.4	1857.9	1909.4	1946.6	1981.1	2028.8	2061.5
Federal	567.6	561.3	573.7	578.8	601.4	646.6	689.6	721.7	743.9	760.5	766.3
Defense	373.0	365.3	372.2	370.3	384.9	414.7	451.8	484.9	502.9	512.9	513.6
Other	194.6	195.9	201.5	208.5	216.5	232.0	237.6	236.4	240.7	247.2	252.5
State and Local	1025.9	1063.0	1113.2	1142.8	1179.0	1211.4	1219.9	1224.8	1237.1	1268.2	1295.0

## Forecast Tables - Detailed

**Table 3B. Gross Domestic Product**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Annual Rates of Change of Current Dollar GDP Components (%)</b>											
Gross Domestic Product	6.2	5.3	6.0	5.9	3.2	3.5	4.9	6.6	5.9	5.2	5.4
Personal Consumption											
Expenditures	5.5	6.0	6.9	7.3	4.7	4.6	5.2	6.0	6.1	5.1	4.9
Durable Goods	6.1	8.3	9.0	5.6	2.4	3.7	3.8	4.5	4.4	3.0	4.1
Autos and Parts	7.1	10.2	10.3	4.2	5.5	4.5	3.3	1.7	4.2	0.9	3.7
Nondurable Goods	4.1	4.0	7.2	7.9	3.6	3.1	5.8	8.0	7.0	4.2	3.9
Services	6.1	6.5	6.2	7.3	5.7	5.4	5.3	5.4	6.0	5.9	5.5
Gross Private Domestic											
Investment	12.1	8.6	7.7	6.8	-7.0	-2.2	5.5	15.7	10.5	5.6	6.3
Residential	4.5	10.5	10.1	5.2	5.0	7.4	13.5	15.9	4.8	-3.9	-0.1
Nonres. Structures	11.5	9.9	2.5	11.0	3.0	-15.8	-3.7	6.3	11.7	15.8	13.9
Producers Dur. Equip	10.4	8.2	9.6	7.9	-7.0	-7.2	5.1	13.1	12.5	9.4	7.1
Exports	10.0	0.1	3.7	10.6	-5.8	-2.7	4.1	12.4	10.3	9.7	10.0
Imports	9.5	5.6	12.2	17.9	-5.1	2.1	8.0	15.4	14.9	8.1	5.8
Government Purchases	3.7	3.4	6.7	6.2	6.0	7.2	6.1	5.2	5.9	5.2	4.1
Federal	0.7	-0.1	4.8	4.1	5.9	11.1	10.5	7.7	6.7	4.4	2.5
Defense	-1.4	-1.1	4.3	2.7	6.0	11.4	13.5	10.4	7.4	4.2	1.9
Other	4.9	1.9	5.7	6.8	5.7	10.5	5.1	2.4	5.4	4.8	3.7
State and Local	5.5	5.3	7.8	7.3	6.1	5.2	3.7	3.8	5.5	5.6	5.0
<b>Annual Rates of Change of Constant Dollar GDP Components (%)</b>											
Gross Domestic Product	4.5	4.2	4.4	3.7	0.8	1.9	3.0	4.4	3.3	3.1	3.3
Personal Consumption											
Expenditures	3.8	5.0	5.1	4.7	2.5	3.1	3.3	3.8	3.7	3.0	2.9
Durable Goods	8.6	11.3	11.7	7.3	4.3	6.5	7.4	6.7	4.6	3.2	4.5
Autos & Parts	6.8	11.3	9.9	3.8	5.0	5.6	5.5	3.0	1.7	-0.5	2.4
Nondurable Goods	2.7	4.0	4.6	3.8	2.0	2.6	3.7	4.6	4.2	3.0	2.9
Services	3.3	4.2	4.0	4.5	2.4	2.6	2.2	2.8	3.3	3.0	2.6
Gross Private Domestic											
Investment	12.4	9.8	7.8	5.7	-7.9	-2.4	4.4	13.2	7.2	3.7	5.1
Residential	1.9	7.6	6.0	0.8	0.4	4.8	8.8	9.7	0.5	-6.6	-2.5
Nonres. Structures	7.2	5.1	-0.4	6.8	-2.3	-17.8	-5.6	1.4	2.8	11.9	9.7
Producers Dur. Equip	13.8	13.3	12.7	9.4	-4.9	-5.5	6.4	13.6	12.2	8.6	7.4
Exports	11.9	2.4	4.3	8.7	-5.4	-2.3	1.9	8.6	6.3	8.2	9.8
Imports	13.6	11.6	11.5	13.1	-2.7	3.4	4.4	9.9	9.5	6.0	5.8
Government Purchases	1.9	1.9	3.9	2.1	3.4	4.4	2.8	1.9	1.8	2.4	1.6
Federal	-1.0	-1.1	2.2	0.9	3.9	7.5	6.6	4.7	3.1	2.2	0.8
Defense	-2.8	-2.1	1.9	-0.5	3.9	7.7	9.0	7.3	3.7	2.0	0.1
Other	2.6	0.7	2.8	3.5	3.8	7.2	2.4	-0.5	1.8	2.7	2.1
State and Local	3.6	3.6	4.7	2.7	3.2	2.8	0.7	0.4	1.0	2.5	2.1

**Forecast Tables - Detailed**

**Table 4. Employment**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	<b>Employment (Millions)</b>										
Total	129.6	131.5	133.5	136.9	136.9	136.5	137.7	139.2	141.1	143.1	145.3
Private	103.1	106.0	108.7	111.0	110.7	108.8	108.4	109.9	111.8	113.5	114.9
Mining	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Construction	5.8	6.1	6.5	6.8	6.8	6.7	6.7	7.0	7.1	7.2	7.2
Manufacturing	17.4	17.6	17.3	17.3	16.4	15.3	14.5	14.3	14.3	14.2	14.3
Trans. & Util.	4.6	4.8	4.9	5.0	5.0	4.8	4.8	4.8	4.9	5.0	5.1
Trade	20.1	20.4	20.9	21.2	21.0	20.7	20.5	20.7	21.0	21.2	21.3
Financial Activities	7.2	7.5	7.6	7.7	7.8	7.8	8.0	8.1	8.3	8.4	8.3
Education & Health	14.1	14.4	14.8	15.1	15.6	16.2	16.6	17.0	17.4	17.7	17.9
Prof. and Bus. Ser.	14.3	15.1	16.0	16.7	16.5	16.0	16.0	16.4	16.9	17.4	18.2
Information	2.1	2.2	2.4	2.6	2.6	2.4	2.3	2.2	2.2	2.2	2.2
Leisure & Hospt.	11.0	11.2	11.5	11.9	12.0	12.0	12.2	12.5	12.8	13.1	13.3
Government	19.7	19.9	20.3	20.8	21.1	21.5	21.6	21.6	21.8	22.2	22.4
Federal	2.8	2.8	2.8	2.9	2.8	2.8	2.8	2.7	2.7	2.8	2.8
State & Local	16.9	17.1	17.5	17.9	18.4	18.7	18.8	18.9	19.1	19.4	19.6
	<b>Population and Labor Force (Millions)</b>										
Population aged 16+	210.3	213.0	215.8	218.4	221.2	223.9	226.5	229.1	231.7	234.4	237.0
Labor Force	137.6	139.1	141.0	142.6	143.9	145.1	146.5	147.4	148.9	151.0	153.1
Unemployment (%)	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.2	5.2	5.1

**Table 5. Personal Income and Its Disposition**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	<b>Billions of Current Dollars</b>										
Personal Income	6915.1	7423.0	7802.4	8429.7	8724.1	8878.9	9161.8	9673.0	10208.2	10788.9	11394.5
Wages & Salaries	3877.6	4183.4	4466.3	4829.2	4942.8	4976.3	5103.5	5355.7	5639.7	5961.3	6308.9
Other Labor Income	497.5	529.7	562.4	609.9	642.7	729.6	808.9	876.6	930.7	972.4	1004.4
Nonfarm Income	541.8	598.4	649.7	705.7	752.2	759.9	812.3	884.6	957.3	1007.5	1067.8
Farm Income	34.2	29.4	28.6	22.7	19.7	9.7	21.9	18.2	25.1	15.6	12.9
Rental Income	128.8	137.5	147.4	150.3	167.4	170.9	153.9	165.1	153.9	171.0	189.7
Dividends	333.0	350.0	335.6	376.1	369.0	387.9	392.8	441.1	454.1	486.1	510.6
Interest Income	848.7	933.3	928.6	1011.0	1011.0	946.7	929.9	946.2	993.2	1038.3	1094.2
Transfer Payments	951.2	978.6	1022.1	1084.1	1193.9	1282.7	1335.4	1405.9	1498.1	1607.6	1705.9
Personal Contributions For Social Insurance	297.7	317.2	338.1	359.2	374.5	384.7	396.7	420.5	444.0	471.0	499.8
Personal Tax and Nontax Payments	926.3	1027.0	1107.5	1235.7	1237.3	1051.2	1001.9	1038.9	1136.9	1242.0	1340.7
Disposable Income	5988.9	6396.0	6694.9	7194.0	7486.8	7827.7	8159.9	8634.1	9071.2	9546.9	10053.8
Consumption	5547.4	5879.5	6282.5	6739.4	7055.0	7376.1	7760.9	8229.9	8733.3	9174.8	9625.9
Interest	163.9	174.5	181.0	204.7	212.3	197.2	185.3	188.5	216.7	230.0	246.1
Transfers To Foreigners	21.0	24.6	28.3	31.5	33.0	35.7	38.2	42.5	47.1	49.6	53.2
Personal Saving	218.3	276.8	158.6	168.5	132.4	159.2	110.6	102.2	-2.8	9.7	39.6
Personal Saving Rate(%)	3.7	4.3	2.4	2.4	1.8	2.0	1.3	1.2	-0.0	0.1	0.4

## Forecast Tables - Detailed

**Table 6. Personal Consumption Expenditures By Major Types**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Billions of Current Dollars</b>											
Personal Consumption	5547.4	5879.5	6282.5	6739.4	7055.0	7376.1	7760.9	8229.9	8733.3	9174.8	9625.9
Durable Goods	692.7	750.2	817.6	863.3	883.7	916.2	950.7	993.9	1037.7	1068.8	1112.8
Autos and Parts	305.1	336.1	370.8	386.5	407.9	426.1	440.1	447.8	466.4	470.4	487.7
Nondurable Goods	1619.0	1683.6	1804.8	1947.2	2017.1	2080.1	2200.1	2377.0	2544.0	2649.8	2754.4
Services	3235.8	3445.7	3660.0	3928.8	4154.3	4379.8	4610.1	4859.0	5151.6	5456.2	5758.7
<b>Billions of 2000 Dollars</b>											
Personal Consumption	5831.8	6125.8	6438.6	6739.4	6910.4	7123.4	7355.5	7632.5	7915.2	8155.4	8393.1
Durable Goods	646.9	720.3	804.5	863.3	900.7	959.6	1030.6	1099.3	1149.4	1186.3	1239.3
Autos and Parts	304.7	339.0	372.4	386.5	405.8	428.7	452.1	465.9	473.9	471.4	482.5
Nondurable Goods	1725.3	1794.4	1876.6	1947.2	1986.7	2037.4	2112.3	2208.5	2301.3	2370.3	2438.4
Services	3468.0	3614.9	3758.0	3928.8	4023.2	4128.6	4220.3	4338.3	4480.7	4615.9	4737.6
<b>Annual Rates of Real Growth</b>											
Personal Consumption	3.8	5.0	5.1	4.7	2.5	3.1	3.3	3.8	3.7	3.0	2.9
Durable Goods	8.6	11.3	11.7	7.3	4.3	6.5	7.4	6.7	4.6	3.2	4.5
Autos and Parts	6.8	11.3	9.9	3.8	5.0	5.6	5.5	3.0	1.7	-0.5	2.4
Furniture	11.8	13.1	14.7	11.5	6.0	8.7	9.1	11.7	8.0	5.2	7.1
Other Durables	6.4	8.1	10.3	8.0	-0.4	4.7	9.1	6.5	5.1	8.3	4.5
Nondurable Goods	2.7	4.0	4.6	3.8	2.0	2.6	3.7	4.6	4.2	3.0	2.9
Food and Beverages	1.3	2.4	3.2	3.5	1.6	1.9	3.8	4.8	4.8	2.1	1.4
Gasoline and Oil	3.1	4.6	3.5	-0.3	1.5	1.4	0.7	-0.4	1.6	3.7	2.6
Fuel	-8.1	-5.3	2.3	-3.5	-4.2	1.4	0.3	4.4	-2.7	-14.0	-3.8
Clothing and Shoes	3.0	7.0	7.4	5.3	2.0	4.3	4.3	6.7	4.4	3.3	4.3
Other Nondurables	5.5	5.4	5.7	4.8	3.1	3.1	4.1	4.7	4.2	4.7	5.0
Services	3.3	4.2	4.0	4.5	2.4	2.6	2.2	2.8	3.3	3.0	2.6
Housing	2.4	2.9	3.1	2.9	2.7	2.7	1.3	1.7	2.4	2.4	2.3
Household Operation	4.0	4.9	4.1	4.9	0.2	0.8	1.5	2.6	2.5	1.1	2.7
Transportation Serv.	6.3	3.3	4.2	2.8	-1.1	-2.8	-0.8	1.1	2.5	2.0	1.8
Medical Care	2.2	3.0	1.9	3.8	4.7	6.0	4.0	3.7	4.4	4.2	2.8
Other Services	3.0	8.9	3.8	6.4	5.0	2.9	0.9	1.3	1.7	3.7	2.9

**Table 7. Residential Construction and Housing Starts**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Housing Starts (Millions of Units)</b>											
Housing Starts	1.475	1.621	1.647	1.573	1.601	1.710	1.853	1.952	1.889	1.649	1.625
Single-family	1.136	1.278	1.306	1.232	1.272	1.363	1.504	1.605	1.538	1.359	1.306
Multi-family	0.338	0.344	0.341	0.341	0.330	0.347	0.348	0.347	0.351	0.290	0.319
<b>Residential Construction Expenditures (Billions of Dollars)</b>											
Current Dollars	349.1	385.8	424.9	446.9	469.3	504.1	572.3	663.4	695.2	667.9	666.9
2000 Dollars	388.6	418.3	443.6	446.9	448.5	470.1	511.2	560.7	563.3	526.3	513.1
% Change	1.9	7.6	6.0	0.8	0.4	4.8	8.8	9.7	0.5	-6.6	-2.5
Treas. Bill Rate	5.1	4.8	4.6	5.8	3.4	1.6	1.0	1.4	3.2	4.2	4.2
Conventional Home Mortg.											
Rate, Effective	7.6	6.9	7.4	8.1	7.0	6.5	5.8	5.8	6.2	6.7	6.9
Median Sales Price of											
New Homes (Thous \$)	145.0	152.0	159.8	166.5	172.6	185.0	191.4	217.8	227.3	233.9	240.7
Real Disp. Income	6295.8	6664.0	6861.7	7194.0	7333.3	7559.8	7733.7	8007.2	8221.6	8486.1	8766.1
% Change	3.5	5.8	3.0	4.8	1.9	3.1	2.3	3.5	2.7	3.2	3.3



## Forecast Tables - Detailed

**Table 8. Business Fixed Investment and Inventories**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Billions of Current Dollars</b>											
Business Fixed Investment	968.7	1052.5	1133.9	1232.1	1176.8	1063.9	1094.7	1220.5	1370.5	1518.9	1651.5
Producers Dur. Equip.	718.3	777.3	851.7	918.9	854.2	792.4	833.1	942.4	1059.8	1159.1	1241.7
Nonresidential Structures	250.3	275.2	282.2	313.2	322.6	271.6	261.6	278.2	310.7	359.8	409.7
Buildings (excl. Farm)	184.6	203.1	207.6	222.8	216.4	179.2	171.6	179.5	191.5	215.4	241.6
Commercial	89.2	100.0	109.1	121.3	118.2	97.0	91.5	95.3	101.4	114.3	126.3
Industrial	37.6	40.5	32.6	31.8	29.5	16.4	14.2	14.7	19.5	23.1	29.2
Other Buildings	57.8	62.6	65.8	69.7	68.7	65.8	65.9	69.4	70.7	78.0	86.0
Utilities	33.9	39.5	44.5	51.5	54.4	54.3	45.5	45.1	49.2	51.3	56.0
Mining Exploration	22.4	23.4	20.6	27.2	39.2	29.3	35.6	43.5	59.2	80.4	98.1
<b>Billions of 2000 Dollars</b>											
Business Fixed Investment	934.2	1037.8	1133.3	1232.1	1180.5	1075.7	1110.8	1228.6	1351.3	1477.7	1595.5
Producers Dur. Equip.	658.3	745.6	840.2	918.9	874.2	826.5	879.2	998.6	1120.0	1216.2	1306.6
Nonresidential Structures	280.1	294.5	293.2	313.2	306.1	251.6	237.4	240.7	247.4	276.8	303.7
Buildings (excl. Farm)	209.7	221.2	216.6	222.8	208.4	168.6	157.7	157.2	158.4	172.4	187.1
Commercial	101.6	108.7	113.5	121.3	114.2	91.2	83.7	83.0	83.4	91.0	97.4
Industrial	42.3	43.7	33.9	31.8	28.5	15.4	13.1	13.0	16.1	18.4	22.4
Other Buildings	65.8	68.8	69.2	69.7	65.6	62.1	60.8	61.2	58.9	63.0	67.2
Utilities	35.6	41.0	45.9	51.5	52.8	51.5	42.1	39.2	40.3	41.4	44.5
Mining Exploration	25.3	23.3	21.3	27.2	32.0	23.6	29.0	34.5	38.5	49.6	57.0
<b>Percent Change in Real Business Fixed Investment</b>											
Business Fixed Investment	12.1	11.1	9.2	8.7	-4.2	-8.9	3.3	10.6	10.0	9.4	8.0
Producers Dur. Equip.	13.8	13.3	12.7	9.4	-4.9	-5.5	6.4	13.6	12.2	8.6	7.4
Nonresidential Structures	7.2	5.1	-0.4	6.8	-2.3	-17.8	-5.6	1.4	2.8	11.9	9.7
Buildings (excl. Farm)	UN	5.5	-2.1	2.9	-6.5	-19.1	-6.5	-0.3	0.8	8.9	8.5
Commercial	UN	7.0	4.5	6.8	-5.9	-20.2	-8.2	-0.9	0.5	9.2	7.0
Industrial	-4.5	3.4	-22.5	-6.1	-10.3	-46.1	-14.7	-1.2	24.2	14.2	21.8
Other Buildings	UN	4.5	0.7	0.7	-5.9	-5.4	-2.1	0.6	-3.7	6.9	6.7
Utilities	-1.3	15.2	12.0	12.1	2.5	-2.4	-18.2	-6.9	2.7	2.8	7.4
Mining, Shafts & Wells	17.4	-7.8	-8.8	27.8	17.8	-26.3	23.1	18.8	11.5	28.8	15.1
<b>Related Concepts</b>											
Annual Growth-Price Deflator For:											
Producers Dur. Equip.	-3.0	-4.5	-2.8	-1.3	-2.3	-1.9	-1.2	-0.4	0.3	0.7	-0.3
Structures	3.9	4.6	3.0	3.9	5.4	2.4	2.1	4.9	8.6	3.5	3.8
Moody's AAA Rate(%)	7.3	6.5	7.0	7.6	7.1	6.5	5.7	5.6	5.6	6.3	6.5
Capacity Utilization in											
Manufacturing(%)	82.8	81.8	81.1	80.6	74.5	73.5	73.7	76.7	78.2	78.3	78.9
Final Sales (Bil 2000 \$)	8632.4	8994.3	9401.5	9760.5	9922.4	10063.1	10382.1	10796.2	11138.4	11485.9	11857.8
<b>Change in Business Inventories</b>											
Current Dollars	72.0	70.8	66.9	56.5	-31.7	11.2	-1.2	43.4	64.6	62.5	72.8
2000 Dollars	71.2	72.6	68.9	56.5	-31.7	11.8	-0.7	45.7	59.7	56.7	66.8

## Forecast Tables - Detailed

**Table 9. Federal Government Receipts and Expenditures Fiscal Year**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Billions of Current Dollars										
Receipts	1653.1	1773.8	1891.2	2053.9	2016.2	1847.3	1877.0	1965.7	2155.2	2317.3	2484.1
Personal Tax and											
Nontax Receipts	744.3	825.8	893.0	999.1	994.5	831.2	775.8	790.9	868.6	958.0	1043.7
Corp. Profits Tax Accruals	203.0	204.3	213.0	219.5	164.7	143.4	191.4	218.1	274.1	288.2	307.6
Indirect Business Tax and											
Nontax Accruals	78.2	81.1	83.9	87.8	85.8	87.3	89.4	90.1	99.2	106.2	110.9
Contributions For											
Social Insurance	576.4	613.8	651.7	691.7	717.5	733.8	758.2	803.6	849.2	899.3	954.3
Expenditures	1708.9	1735.0	1787.6	1864.4	1969.5	2101.8	2241.6	2341.2	2501.6	2662.6	2794.2
Purchases Goods & Serv.	530.9	530.5	555.8	578.8	612.9	680.9	752.2	809.9	864.3	902.4	924.7
National Defense	349.6	345.7	360.6	370.3	392.6	437.4	496.5	547.9	588.3	613.2	624.7
Other	181.3	184.7	195.2	208.5	220.3	243.5	255.8	262.0	276.0	289.2	300.0
Transfer Payments	918.9	946.5	986.1	1038.1	1131.4	1243.0	1322.5	1378.0	1469.7	1570.5	1660.9
To Persons	704.2	716.9	735.7	770.0	838.7	917.0	956.1	998.5	1065.6	1146.7	1213.2
To Foreigners	21.0	24.6	28.3	31.5	33.0	35.7	38.2	42.5	47.1	49.6	53.2
Grants-In-Aid To State and											
Local Governments	198.6	212.8	232.9	247.3	276.1	304.4	339.9	350.4	368.7	386.4	408.5
Net Interest	278.5	281.2	264.7	263.2	240.2	213.5	197.6	202.6	213.6	238.0	258.7
Subsidies Less Surplus of											
Govt. Enterprises	32.1	34.9	44.1	46.1	53.1	37.7	40.6	35.4	44.4	48.2	50.8
Surplus (+) or Deficit (-)	-55.8	38.8	103.6	189.5	46.7	-254.5	-364.6	-375.6	-346.4	-345.3	-310.0

**Table 10. State and Local Government Receipts and Expenditures**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Billions of Current Dollars										
Receipts	750.0	794.9	840.4	893.2	915.8	926.5	969.3	1039.2	1117.8	1175.4	1227.2
As Share of GDP	9.0	9.1	9.1	9.1	9.0	8.8	8.8	8.9	9.0	9.0	8.9
Personal Tax and Nontax											
Receipts	182.0	201.2	214.5	236.6	242.7	220.1	226.1	248.0	268.3	284.0	297.1
Corporate Profits	34.1	34.9	35.8	35.6	30.2	31.2	34.5	40.2	52.0	54.0	56.1
Indirect Business Tax and											
Nontax Accruals	533.8	558.8	590.2	621.1	642.8	675.3	708.7	751.0	797.5	837.4	874.0
Contributions For Social											
Insurance	10.8	10.4	9.8	11.0	13.7	14.6	15.1	16.6	17.4	18.4	19.4
Federal Grants-In-Aid	198.6	212.8	232.9	247.3	276.1	304.4	339.9	350.4	368.7	386.4	408.5
Expenditures	1058.3	1111.2	1186.3	1269.5	1368.2	1436.9	1498.1	1567.8	1653.3	1746.4	1840.8
As Share of GDP	12.7	12.7	12.8	12.9	13.5	13.7	13.6	13.4	13.3	13.4	13.4
Purchases	937.8	987.9	1065.0	1142.8	1212.8	1275.8	1323.4	1374.0	1448.9	1530.7	1607.0
Transfer Payments	227.6	235.8	252.4	271.7	305.2	331.9	350.3	374.7	403.4	430.2	460.0
Interest Received	-0.1	-1.0	-3.8	-4.5	5.2	14.2	17.6	20.4	21.9	28.1	29.2
Net Subsidies	-11.8	-9.8	-10.0	-7.1	3.6	-2.3	-3.4	-1.9	-2.0	-3.5	-4.3
Dividends Received	1.5	1.7	1.8	1.9	2.0	2.2	2.5	2.8	2.7	2.8	2.8
Net Wage Accruals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Surplus Or Deficit	39.1	52.0	50.4	50.0	4.8	-25.0	-3.2	17.6	41.4	35.9	27.5

**Forecast Tables - Detailed**

**Table 11. U.S. Exports and Imports of Goods and Services**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	<b>Billions of Current Dollars</b>										
Net Exports-Goods & Serv.	-101.6	-160.0	-260.5	-379.5	-367.0	-424.9	-498.1	-606.2	-750.7	-790.5	-775.9
Current Account Balance	-136.0	-209.6	-296.8	-413.5	-385.7	-473.9	-530.7	-665.9	-850.9	-941.7	-968.2
Merchandise Balance	-197.7	-248.1	-348.3	-459.1	-436.7	-492.7	-555.7	-670.5	-819.7	-881.0	-882.0
Exports-Goods & Services	955.4	955.9	991.3	1096.3	1032.8	1005.0	1046.2	1175.5	1296.1	1421.9	1564.4
Merchandise	687.7	680.9	697.2	784.4	731.2	697.0	726.4	820.4	910.7	989.9	1096.2
Food, Feeds & Beverages	51.5	46.4	46.0	47.9	49.4	49.6	55.0	55.9	58.3	59.3	62.0
Industrial Supplies	152.6	142.9	142.4	166.7	155.3	153.5	168.3	198.7	226.2	235.5	246.9
Motor Vehicles & Parts	73.3	72.4	75.3	80.4	75.4	79.0	80.7	88.4	97.8	105.8	119.4
Capital Goods, Ex. MVP	254.5	246.3	258.4	308.9	269.1	240.1	246.9	280.1	298.8	326.6	372.5
Computer Equipment	49.4	45.3	46.8	55.5	47.6	38.6	39.9	42.6	47.3	53.7	59.9
Other	205.2	201.1	211.6	253.4	221.6	201.5	207.0	237.5	251.5	273.0	312.6
Consumer Goods, Ex. MVP	78.0	80.3	80.9	89.4	88.3	84.4	89.9	102.7	122.0	138.0	162.6
Other	36.5	39.1	41.4	43.1	41.0	40.2	38.9	44.3	50.7	57.6	55.3
Services	267.7	275.1	294.1	312.0	301.6	308.1	319.8	355.2	385.4	432.0	468.2
Imports-Goods & Services	1056.9	1115.9	1251.8	1475.8	1399.9	1429.9	1544.3	1781.6	2046.8	2212.4	2340.3
Merchandise	885.4	928.9	1045.5	1243.5	1168.0	1189.6	1282.0	1490.9	1730.4	1870.9	1978.2
Foods, Feeds & Beverage	39.7	41.2	43.6	46.0	46.6	49.7	55.9	62.1	69.9	75.2	77.8
Petroleum & Products	71.7	50.6	67.8	120.2	103.6	103.5	133.1	181.0	233.0	240.2	239.2
Indus Supplies Ex. Petr	135.3	142.5	147.9	172.8	164.8	158.4	174.3	224.7	272.0	294.7	307.4
Motor Vehicles & Parts	139.5	148.7	179.0	195.9	189.8	203.8	210.2	228.0	248.4	264.7	277.0
Capital Goods, Ex. MVP	236.8	247.6	271.9	320.6	266.7	257.9	271.7	318.2	354.6	393.3	423.4
Computer Equipment	70.2	72.5	81.5	89.8	74.0	75.2	76.5	88.3	95.3	103.8	113.3
Other	166.6	175.2	190.5	230.9	192.7	182.7	195.2	229.9	259.3	289.5	310.0
Consumer Goods, Ex. MVP	194.2	217.2	242.1	282.0	284.5	308.0	334.0	371.7	426.4	462.1	499.9
Other	51.6	59.3	69.5	79.6	80.7	83.0	78.8	80.7	97.8	107.3	115.7
Services	171.6	186.9	206.3	232.3	231.9	240.2	262.3	290.8	316.4	341.6	362.0
	<b>Billions of 2000 Dollars</b>										
Net Exports-Goods & Serv.	-104.6	-203.8	-296.2	-379.5	-399.1	-472.1	-518.5	-583.7	-675.6	-690.1	-678.4
Exports-Goods & Services	943.7	966.5	1008.2	1096.3	1036.7	1012.4	1031.8	1120.3	1190.9	1288.8	1414.6
Imports-Goods & Services	1048.4	1170.3	1304.5	1475.8	1435.8	1484.4	1550.3	1704.0	1866.6	1978.9	2093.0
	<b>Exports and Imports -- % Change</b>										
Current Dollars											
Exports	10.0	0.1	3.7	10.6	-5.8	-2.7	4.1	12.4	10.3	9.7	10.0
Imports	9.5	5.6	12.2	17.9	-5.1	2.1	8.0	15.4	14.9	8.1	5.8
Constant Dollars											
Exports	11.9	2.4	4.3	8.7	-5.4	-2.3	1.9	8.6	6.3	8.2	9.8
Imports	13.6	11.6	11.5	13.1	-2.7	3.4	4.4	9.9	9.5	6.0	5.8
	<b>Production Indicators - % Change</b>										
U.S. Industrial Production	7.3	5.8	4.5	4.3	-3.6	-0.3	-0.0	4.1	3.8	3.8	4.3
	<b>Price Indicators</b>										
Price Deflators (% Ch)											
Exports	-1.7	-2.3	-0.6	1.7	-0.4	-0.4	2.1	3.5	3.7	1.4	0.2
Imports	-3.6	-5.4	0.6	4.2	-2.5	-1.2	3.4	4.9	4.9	2.0	0.0
Crude Oil Prices (\$/barrel)	20.6	14.4	19.3	30.4	26.0	26.1	31.1	41.5	51.1	47.5	44.3
U.S. Dollar											
Real Exchange Rate	91.54	96.11	96.40	100.00	105.48	105.08	92.11	84.70	80.03	76.13	74.60
%Change	7.9	5.0	0.3	3.7	5.5	-0.4	-12.3	-8.0	-5.5	-4.9	-2.0

## Forecast Tables - Detailed

Table 12. Implicit Price Deflators and Other Inflation Indicators (Percent Change)

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Implicit Price Deflators</b>											
GDP	1.7	1.1	1.4	2.2	2.4	1.7	1.8	2.2	2.5	2.0	2.0
Consumption	1.7	0.9	1.7	2.5	2.1	1.4	1.9	2.2	2.3	2.0	1.9
Durables	-2.2	-2.7	-2.4	-1.6	-1.9	-2.7	-3.4	-2.0	-0.1	-0.2	-0.3
Motor Vehicles	0.3	-1.0	0.4	0.4	0.5	-1.1	-2.1	-1.3	2.4	1.4	1.3
Furniture	-5.7	-5.8	-6.2	-4.5	-5.9	-5.7	-6.0	-4.1	-2.9	-2.6	-2.7
Other Durables	-1.0	-0.7	-1.6	-0.8	0.3	-0.8	-1.6	0.2	-0.7	0.5	0.4
Nondurables	1.4	-0.0	2.5	4.0	1.5	0.6	2.0	3.3	2.7	1.1	1.0
Food	2.3	1.8	1.9	2.3	2.9	1.9	1.9	3.1	2.1	1.6	1.6
Clothing & Shoes	0.1	-1.9	-1.6	-1.3	-2.0	-2.7	-2.5	-0.4	-0.2	-1.7	-1.1
Gasoline & Oil	-0.0	-13.0	8.8	27.9	-3.7	-6.1	16.3	18.0	11.4	-1.9	-2.6
Fuel	1.0	-8.7	1.2	37.6	1.7	-9.8	19.5	15.1	16.0	1.0	-0.5
Services	2.7	2.2	2.2	2.7	3.3	2.7	3.0	2.5	2.6	2.8	2.8
Housing	2.9	3.2	2.8	3.2	3.9	3.8	2.4	2.5	2.7	2.5	2.4
Household Operat.	1.7	-0.9	-0.1	1.9	4.6	-0.8	3.9	2.1	3.1	1.1	-0.1
Electricity	0.5	-3.9	-0.7	1.6	8.1	-1.1	2.3	2.0	4.0	1.0	-0.3
Natural Gas	6.9	-2.0	0.5	16.7	19.9	-14.6	22.9	8.5	9.7	3.5	-2.9
Water and Sewer	2.5	3.2	2.2	2.5	2.9	3.2	3.7	6.0	5.1	3.5	3.2
Telephone	0.2	-1.3	-2.4	-3.4	-2.0	0.2	-0.9	-2.0	-1.5	-1.7	-1.6
Domestic Service	2.6	2.8	2.9	4.4	3.8	3.7	2.5	2.2	3.2	1.8	1.1
Other Operations	2.5	2.1	3.3	3.8	4.9	4.3	4.8	2.5	3.2	2.3	2.2
Transportation	2.0	2.2	2.2	2.5	1.7	1.2	2.9	1.4	2.0	2.8	2.7
Other Services	3.1	2.2	3.3	3.6	4.0	4.2	4.2	4.1	4.2	3.4	3.8
Investment Deflators:											
Nonresidential	-1.3	-2.2	-1.3	-0.1	-0.3	-0.8	-0.4	0.8	2.1	1.4	0.7
Structures	3.9	4.6	3.0	3.9	5.4	2.4	2.1	4.9	8.6	3.5	3.8
Prod. Dur. Equip.	-3.0	-4.5	-2.8	-1.3	-2.3	-1.9	-1.2	-0.4	0.3	0.7	-0.3
Residential	2.5	2.7	3.8	4.4	4.6	2.5	4.4	5.7	4.3	2.8	2.4
Government Purchases	1.8	1.4	2.8	4.1	2.5	2.7	3.2	3.2	4.1	2.7	2.4
Federal	1.7	1.0	2.5	3.2	1.9	3.3	3.6	2.9	3.5	2.1	1.7
State & Local	1.9	1.7	2.9	4.5	2.9	2.4	3.0	3.4	4.4	3.1	2.8
Exports	-1.7	-2.3	-0.6	1.7	-0.4	-0.4	2.1	3.5	3.7	1.4	0.2
Imports	-3.6	-5.4	0.6	4.2	-2.5	-1.2	3.4	4.9	4.9	2.0	0.0
<b>Other Inflation Related Indicators</b>											
Consumer Price Index	2.3	1.5	2.2	3.4	2.8	1.6	2.3	2.7	2.8	2.1	1.8
Producers Price Index	-0.1	-2.5	0.9	5.8	1.1	-2.3	5.3	6.2	5.4	0.9	-0.4
<b>Nonfarm Sector Indicators</b>											
Wage Compensation	3.1	5.9	4.6	7.0	4.1	3.2	4.0	4.3	4.1	4.3	4.5
Productivity	1.6	2.7	2.7	2.7	2.6	4.3	4.4	4.0	1.8	2.1	2.5
Unit Labor Costs	1.4	3.3	1.8	4.2	1.5	-1.1	-0.3	0.3	2.2	2.2	1.9
<b>Crude Oil Prices (dollars/barrel)</b>											
Refiners' Acq. Cost	19.11	12.58	17.42	28.21	22.95	24.00	28.60	36.91	44.33	43.92	42.23

## Forecast Tables - Detailed

**Table 13. Producers Price Indexes**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	<b>Annual Percent Change</b>										
All Commodities	-0.1	-2.5	0.9	5.8	1.1	-2.3	5.3	6.2	5.4	0.9	-0.4
Industrial Commodities	0.3	-2.3	1.4	6.6	0.7	-2.4	5.1	6.0	6.3	1.2	-0.5
Textiles & Apparel	0.2	0.2	-1.5	0.3	-0.1	-1.2	-0.1	0.9	1.5	0.1	-0.5
Fuels	0.3	-12.5	6.9	28.8	1.7	-11.4	21.1	12.4	11.3	1.1	-2.5
Chemicals	1.0	0.2	0.2	4.7	0.6	0.0	6.6	7.8	10.0	1.8	-2.0
Rubber & Plastics	-0.5	-0.5	-0.1	2.4	1.4	-0.3	2.6	2.8	7.5	1.4	-0.6
Lumber & Wood	4.4	-2.5	2.5	-3.0	-2.2	-0.6	2.4	10.2	0.9	-0.5	-0.5
Pulp & Paper	-0.5	2.3	1.4	5.5	0.6	0.6	2.2	3.0	4.2	2.5	1.8
Metals & Products	0.6	-3.0	-2.4	2.7	-2.1	0.4	2.6	15.8	7.8	-1.8	-1.4
Equipment	-0.5	-0.8	-0.5	-0.2	-0.3	-0.6	-0.8	0.2	2.0	1.0	0.1
Trans. Equipment	-0.1	-0.3	0.4	1.4	1.0	-0.4	0.8	2.0	2.7	2.9	1.6
Farm	-7.7	-7.3	-5.9	1.1	4.2	-4.6	12.6	10.5	-4.5	-4.4	-0.9
Processed Foods & Feeds	0.5	-1.8	-0.3	1.5	3.2	-0.8	5.3	5.5	1.5	0.3	0.3
By Stage of Processing											
Crude Materials	-2.3	-13.0	1.6	22.8	0.3	-10.6	25.1	17.6	9.4	-1.8	-2.3
Intermediate Materials	-0.1	-2.1	0.1	4.9	0.4	-1.5	4.6	6.6	6.1	0.6	-1.0
Finished Goods	0.4	-0.9	1.7	3.9	1.9	-1.3	3.2	3.6	4.2	1.6	0.3
Consumers	0.6	-1.0	2.4	4.7	2.4	-1.5	4.3	4.4	4.8	1.5	0.1
Producers	-0.0	-0.5	-0.6	1.6	0.6	-0.4	0.3	1.4	3.0	1.9	0.9

## Forecast Tables - Detailed

**Table 14. Money, Interest Rates and Corporate Profits**

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Billions of Dollars</b>											
Money Supply (M1)	1069.3	1079.8	1101.5	1103.5	1136.9	1192.0	1268.5	1338.5	1368.7	1377.6	1394.2
Money Supply (M2)	3923.0	4208.2	4525.6	4801.0	5218.6	5613.5	6003.1	6275.5	6501.3	6639.3	6878.2
<b>Percent Change</b>											
Money Supply (M1)	-3.3	1.0	2.0	0.2	3.0	4.8	6.4	5.5	2.3	0.7	1.2
Money Supply (M2)	4.9	7.3	7.5	6.1	8.7	7.6	6.9	4.5	3.6	2.1	3.6
<b>Interest Rates (Percent)</b>											
Short-term Rates											
3-Month Treas. Bills	5.06	4.79	4.63	5.81	3.43	1.61	1.01	1.38	3.23	4.15	4.19
Prime Bank Loans	8.44	8.35	7.99	9.23	6.92	4.68	4.12	4.34	6.22	7.22	7.25
U.S. Government Bond Yields											
1 Year Maturity	5.63	5.05	5.08	6.11	3.48	2.00	1.24	1.89	3.62	4.45	4.50
5 Year Maturity	6.22	5.15	5.54	6.15	4.55	3.82	2.97	3.43	4.23	4.96	5.14
10 Year Maturity	6.35	5.26	5.64	6.03	5.02	4.61	4.02	4.27	4.55	5.21	5.42
30 Year Maturity	6.61	5.58	5.86	5.95	5.50	5.42	5.05	5.12	4.97	5.65	5.89
State and Local Governments Bond Yields											
Domestic Muni. Bonds	5.52	5.09	5.43	5.70	5.15	5.03	4.74	4.68	4.61	5.17	5.38
Corporate Bond Yields											
Moodys AAA Corp. Bonc	7.26	6.53	7.04	7.62	7.08	6.49	5.67	5.63	5.59	6.29	6.50
Effective Mortgage Rate	7.60	6.94	7.43	8.06	6.97	6.54	5.82	5.84	6.21	6.72	6.88
<b>Corporate Profits (Billions of Dollars)</b>											
Profits Before Taxes	798.15	718.25	775.88	773.40	707.90	758.03	874.45	985.35	1116.75	1160.58	1218.48
Inventory Valuation Adj.	14.13	20.20	0.93	-14.08	11.35	-1.23	-14.13	-42.93	-21.52	13.56	11.17
Profits After Taxes	552.10	469.98	517.23	508.20	503.80	574.20	639.58	716.15	779.08	806.77	842.90







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