

FORECAST OF THE NATION



Antidote to the Naysayers: Economic Logic and a Dash of Common Sense

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FORECASTING
CENTER



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ANTIDOTE TO THE NAYSAYERS: ECONOMIC LOGIC AND A DASH OF COMMON SENSE

AUGUST 15, 2005



DR. RAJEEV DHAWAN
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Highlights

Oil is up to \$65/
barrel, the Chinese
were finally pressured
into revaluing the
Yuan in July and long-
term rates are still low.

Is it really fair to
blame China for all
our problems?

Too many people are
screaming:
“recession 2006” -
but I don’t buy it.

FORECAST COMMENTARY

As I began to write this quarterly report, I accidentally left the TV on in the living room and it was tuned to CNBC’s morning watch show. The chatter on the tube seemed to be all about whether oil will get to \$70 per barrel by the end of the day, and why the superb July retail sales numbers were weaker than they appeared. The only good news seemed to be for shareholders of large corporations, who are releasing impressive earnings for the second quarter. Additionally, the Chinese government finally caved into Congress’s political pressure by revaluing the Yuan. In doing so, they broke the sacrosanct dollar peg, which in my opinion exposes their nascent financial system, dependent on state-subsidized loans bordering on cronyism, to the harsh discipline of the world financial order. But hilariously, the talk seems to be the negative impact it will have on long-term treasury bonds.

The prevailing wisdom seems to blame China for all the ills in the US, rightly or wrongly, even though the poor devils are not a model entity by any stretch of imagination. Pick up any newspaper these days and it will scream about the impending collapse of the home price bubble. Despite the fact that Chairman Greenspan has ordered the Nonfat Double Mocha Latte, he has nonetheless expressed his displeasure at finding this not-so-unexpected extra froth while awaiting orderly moderation through measured rate hikes.

They say TV waves interfere with the grinding levers in one’s brain. My own experience is that one’s peers also subtly try to influence you. Par-

ticipating recently at our state’s council of economic advisors meeting, I heard the phrase “recession in 2006” so forcefully that I wondered aloud what their real agenda was. In this profession, unfortunately, people tend to gather around the consensus forecast, which is typically managed by Wall Street firms, with us academic types taking a contrarian stand usually on the pessimistic side. Everyone sticks out their neck at their own risk but that shouldn’t excuse some current “outliers” who do it for all the wrong reasons: media attention and believing too much in the power of the microphone during their fifteen seconds on television. Hence, you wouldn’t be upset if you thought that I was about to spell gloom and doom in the following paragraphs. But I have an antidote designed against this “Pessimism for All the Wrong Reasons” virus.

For the vaccine, I went back and checked the titles of my last four forecast reports. I was heartened to see that in my May 2004 report I was very optimistic about the economy’s prospects in 2005. I did become a bit negative in my August 2004 report when the presidential race was deadlocked and oil had started to creep up, but on the whole, I bet on fast improving corporate *revenues* to project good job growth in 2005. The job estimates were duly upped after the successful conclusion of elections. The global savings glut helping keep US long-term rates down was the central theme in the last two reports this year. This has spurred the frenzy in the housing sector instead of a modest moderation, which I think is the only major thing I missed. (There is still time for this projection to come true!) Now, not having a serious gaffe in a year plus of forecasting in this volatile post-9/11

Acknowledgements

I would like to thank Kristin W. Diver, Emin Hajiyev and Anirudh Wadekar for their assistance in the preparation of this report. Any comments and questions should be sent to forecast@gsu.edu.

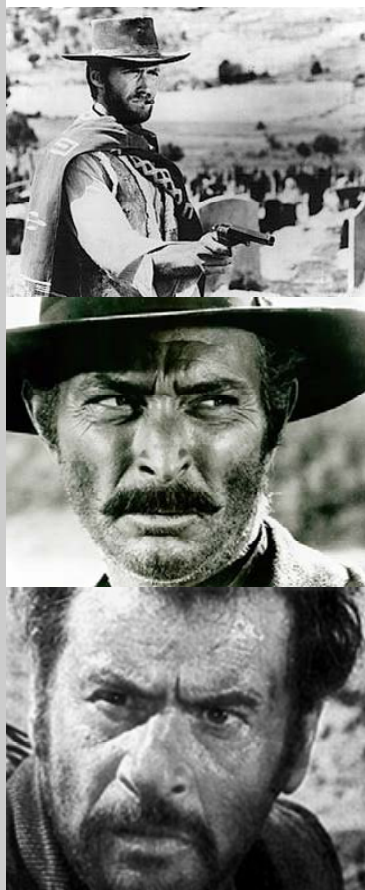
Highlights

Economy's current grade gets a very respectable A-.

Bank lending in the commercial and industrial loan category is growing solidly.

GDP Forecast:
3.7% in 2005,
3.0% in 2006 and
2.4% in 2007.

The Good, the Bad, and the Ugly



Sector or Area	Grade
Construction	A++
Tax Collections	A+
Real Dividend Growth	A+
Bank Loan Activity	A+
Corporate Revenue Growth	A
Health/Finance/Insurance Jobs	A
Weak Dollar (Exports & Earnings)	B+
Overall Job Growth	B+
Euro Zone Malaise	C
Oil Prices	C
Benefit/Health Costs	D
Manufacturing Jobs	D
Auto Over-Capacity	F
Iraq/Terrorism	F
Overall US Economy	A-

era means that this horse's blood has some antidote to outside influences. I say let it flow. Don't worry, I will examine the cost of my beliefs, based on logic and economic principles, after I have penned down this latest forecast. In the last section, which I encourage you to read, I analyze the cost of deviating from the base assumptions made for the current forecast.

So what kind of a grade does the current US economy get? The report card above summarizes the good, the bad and the ugly (with due apologies to Mr. Clint Eastwood) in the current economy, which gets a very respectable grade of A-. The category that heartens me the most is that bank lending in the commercial and industrial loan category is now growing solidly instead of the steady contraction that was seen from mid-2001 until late 2004. The list of negatives is also pretty long and seems to cancel out the positives in a numerical sense. However, one must resist this mathematical summation (a habit from our GPA calculation days) and look at the actual reasons behind these negatives. This is going to be an integral theme of my report this time. The real issue is whether the

economy's grade will go to a C- by early 2006 as the naysayers proclaim or moderate a notch to a respectable B+, as I assert, by mid-2006.

My current projections are for 3.7% real GDP growth in 2005, thanks in part to an inventory build-up that will lift the 3rd quarter's GDP growth substantially above the 4% level. After all, dealers have to fill up their empty lots with vehicles again, both foreign and domestic (the latter despite lacking the oomph-factor). Everything sells at a price! The economy finally starts moderating in an orderly manner by mid-2006 in response to higher short-term rates and the cumulative impact of elevated oil prices of the prior eighteen months. The annual GDP growth rate for 2006 is still a respectable 3.0% but the real impact of moderation is felt in 2007 when the economy grows by only 2.6%.

The lowest period of growth is from mid-2006 to mid-2007 when GDP growth is only 2.4%, much below the potential. Furthermore, in this growth slowdown, it is the residential sector that moderates the most. In 2007, housing starts are expected

US FORECAST SUMMARY

	Quarterly							Annual		
	2005:3	2005:4	2006:1	2006:2	2006:3	2006:4	2007:1	2005	2006	2007
Real GDP (% Ch)	4.4	3.0	3.0	2.6	2.2	2.2	2.4	3.7	3.0	2.6
Crude Oil Price (\$/bbl)	63.9	63.0	58.0	56.0	54.0	52.3	52.0	57.5	55.1	49.0
Industrial Production (% Ch)	7.3	2.4	4.9	3.9	2.3	1.5	0.8	3.8	3.8	2.1
Housing Starts (Mil.)	1.942	1.944	1.86	1.751	1.687	1.657	1.638	1.995	1.739	1.62
Existing SF Home Sales (Mil.)	6.176	5.917	5.613	5.577	5.385	5.307	5.215	6.091	5.471	5.128
Auto and Light Truck Sales (Mil.)	18.1	16.9	16.8	16.6	16.7	16.7	16.8	17.2	16.7	16.9
Net Exports (bil. 2000\$)	-626.2	-646.5	-661.5	-656.1	-641.6	-623.6	-605.1	-629.9	-645.7	-581.5
Real U.S. Dollar--% change	7.1	-9.1	-10.3	-5.9	-4.6	-4.3	-3.1	-3.2	-4.9	-3.6
Nonfarm Employment (mil.)	134.1	134.7	135.2	135.6	135.8	136.1	136.4	133.8	135.7	137.0
Unemployment Rate (%)	4.9	4.9	4.8	4.8	5.0	5.1	5.2	5.0	4.9	5.2
Interest Rates & Inflation										
90-day Treasury Bills	3.3	4.0	4.3	4.3	4.3	4.3	4.4	3.2	4.3	4.2
10-year Treasury Bonds	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
30-year Treasury Bonds	4.7	5.1	5.3	5.4	5.4	5.6	5.6	4.7	5.4	5.7
Moody's Corporate Aaa Bonds	5.3	6.0	6.2	6.4	6.4	6.6	6.6	5.4	6.4	6.6
Consumer Price Index	3.9	3.1	2.5	2.2	1.4	1.6	1.6	3.2	2.6	1.6
Total less Food & Energy	2.5	2.4	2.4	2.0	2.0	2.0	1.9	2.3	2.2	1.9
Consumption Deflator	3.1	2.6	2.0	1.5	1.7	1.8	1.9	2.7	2.2	1.8
GDP Deflator	2.4	2.6	2.2	1.6	1.8	1.9	2.1	2.6	2.1	1.9
Producers Price Index	11.6	5.3	-0.5	-3.0	-2.7	-1.4	-1.0	6.3	1.5	-1.7
Factors Related to Inflation--%change										
Nonfarm Business Sector										
Wage Compensation	3.2	3.8	4.4	4.2	4.4	4.3	4.0	5.9	4.0	4.1
Productivity	2.2	1.1	1.7	1.5	1.8	1.5	1.6	2.4	1.7	1.9
Unit Labor Costs	1.0	2.7	2.6	2.6	2.6	2.7	2.3	3.5	2.4	2.2
Income, Consumption and Saving--%change										
Disposable Income	6.0	5.7	8.0	5.5	5.0	4.3	3.9	4.9	6.0	4.6
Real Disposable Income	2.8	3.0	5.9	4.0	3.2	2.5	1.9	2.1	3.8	2.8
Real Consumption	4.3	2.3	3.1	2.4	3.1	2.9	2.6	3.6	3.0	2.7
Savings Rate (%)	-0.2	-0.1	0.5	0.9	0.9	0.7	0.6	0.1	0.7	0.7
Fiscal Policy										
Revenues	2,277.2	2,314.7	2,350.6	2,373.9	2,401.2	2,435.0	2,500.9	2,258.0	2,390.2	2,541.6
Expenditures	2,537.2	2,556.9	2,641.4	2,682.8	2,720.8	2,743.3	2,794.0	2,528.9	2,697.1	2,834.8
Deficit	-260.0	-242.2	-290.8	-308.9	-319.6	-308.3	-293.1	-270.9	-306.9	-293.2
As % of GDP	-2.1	-1.9	-2.2	-2.4	-2.4	-2.3	-2.2	-2.2	-2.3	-2.1
Details of Real GDP--% change										
Real GDP	4.4	3.0	3.0	2.6	2.2	2.2	2.4	3.7	3.0	2.6
Final Sales	3.5	2.1	2.9	2.6	2.6	2.6	2.6	3.9	2.9	2.7
Consumption	4.3	2.3	3.1	2.4	3.1	2.9	2.6	3.6	3.0	2.7
Business Fixed Investment	10.6	10.7	12.0	8.3	4.5	0.4	1.3	9.3	8.9	3.3
Producers Durable Equip.	12.8	10.0	11.7	7.3	6.7	4.5	4.4	11.5	9.5	5.2
Structures	4.0	12.8	13.0	11.4	-2.0	-11.5	-8.1	2.9	7.3	-2.5
Residential Construction	-0.8	-6.4	-9.5	-9.0	-14.2	-8.0	-6.1	5.3	-7.1	-7.0
Exports	5.5	6.7	7.3	6.7	8.6	9.7	10.4	7.8	7.5	9.9
Imports	9.5	9.0	8.1	3.2	2.6	2.6	3.0	6.7	5.8	3.3
Federal Purchases	2.3	3.1	4.8	1.5	1.4	1.4	1.3	1.9	2.7	1.3
State & Local Purchases	1.6	2.1	2.2	1.8	1.3	1.9	1.9	1.7	1.9	1.7
Billions of 2000 Dollars										
Real GDP	11,211	11,293	11,378	11,451	11,512	11,576	11,644	11,149	11,479	11,778
Final Sales	11,194	11,251	11,332	11,404	11,478	11,551	11,625	11,121	11,441	11,753
Inventory Change	17.7	42.6	45.4	46.6	34.5	24.6	18.9	28.0	37.8	25.3

Highlights

Housing starts will drop to 1.620 million in 2007 from 1.995 in 2005.

Job growth forecast: 2.4 million in 2005, 1.4 million in both 2006 and 2007.

The average tightening cycle is two years with rate hikes totaling 300-basis points.

Figure A
Bursting Bubbles
Dow (2000-2005) vs. Nikkei (1990-1995)

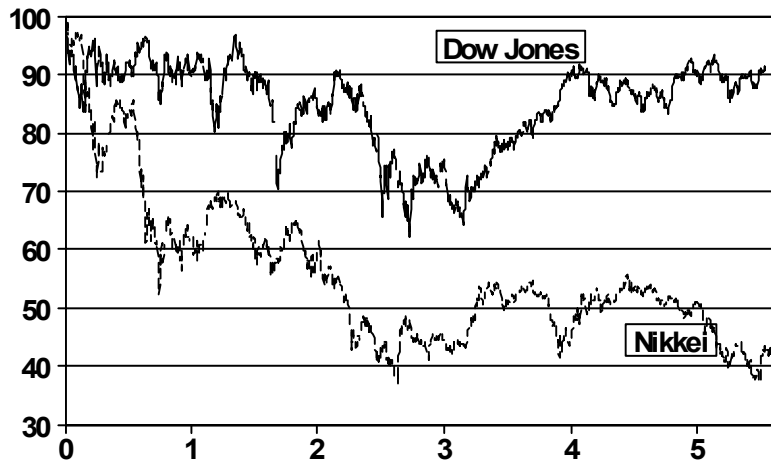
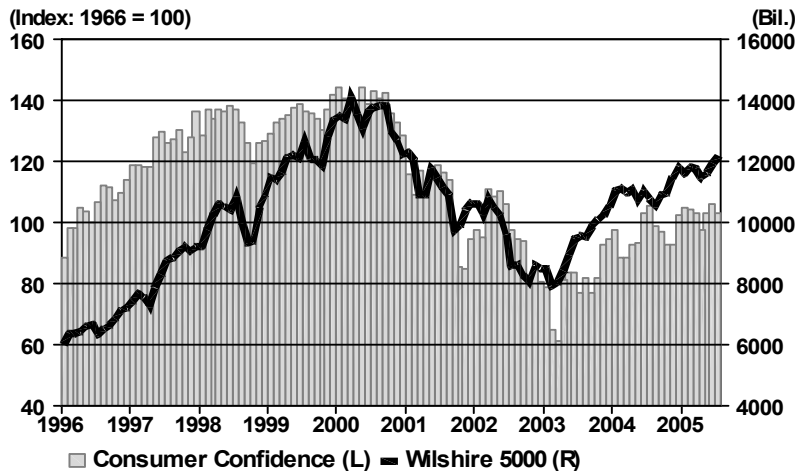


Figure B
Consumer Sentiment and Stock Market Wealth



to average 1.620 million units, a sharp drop from the 1.995 million units of 2005. However, these will still be at a level that is considered healthy by historical standards from not too long ago. This level was last experienced in 1999 during the hey days of the dot-com boom.

Investment remains relatively strong during this entire period. All those plane orders that Boeing got in recent months, helped mostly by a cheaper dollar, will lead to a ripple effect for its suppliers, and thus be a positive for the manufacturing sector in 2006. Job growth is robust in 2005, at about 2.4 million jobs. But this job creation pace will slow in 2006 and 2007 when only 1.4 million jobs are created annually. Consequently, the unemployment rate rises a bit from today's 5.0% level to 5.2% by

regional mortgage bank that the federal funds rate will touch 4% by end of this year instead of his forecast of 3.5%. Keep in mind that at that time the funds rate was 3% and most everybody thought that the economy had hit a soft patch, with the futures market predicting that the FED was almost done for this cycle. The FED can snuff this housing frenzy in a jiffy but won't, as it impacts the consumption side a lot more than their tolerance limit. They did everything in their power to avoid the same fate as the Japanese economy, which suffered a lot after their stock market collapse in 1991. So why undo the good work?

Figure A compares the Japanese experience with the US six years after the stock market bubble deflated. The reflationary policy of the FED pre-

2007. The summary table on the previous page has the forecast details for the major categories.

One didn't see a grade on the FED's behavior. Why this apparent slight? The short answer is that the FED has telegraphed all its moves well in advance so far, whereas Wall Street guys keep guessing where the FOMC will stop. Mind you, this talk started right after the first few rate hikes. Looking back at the FED's tenure under Greenspan, the average tightening cycle is two years with rate hikes cumulating 300 basis points. So he still has about 50 basis points to go by this naïve forecast rule.

However, stock and bond mavens seem to believe too much in the power of the futures market for the funds rate. This market, in my experience, is very unreliable after a two month horizon, just above the average time between each FOMC meetings. That's why I laid a bet on May 25th with the interest rate guru of a prominent re-

vented the Japanese-style carnage in the equity markets. This, in turn, reflatd consumer confidence and the resultant spending boom, unlike the malaise experienced by the Japanese economy. **Figure B** plots domestic consumer confidence against the total stock-market capitalization. You don't have to be an econometrician to figure out that the trend, as well as most of the wiggles in the confidence line, are related to market capitalization shown in the bars. If the FED was so worried about our gluttony they would have removed the word "measured" from the FOMC statements months ago, done a few 50-basis point hikes and the funds rate would have been north of 6% by now. They have the power and they can pop the bubble any time they want. Rather, they are again trying for a soft landing, which, in essence, is what I am predicting. A bold or foolish goal (or forecast in my case)? Only time will tell. In 1995 they achieved their goal but in 2001 the terrorists spoiled the game plan. I can only hope that these extraneous factors are not a problem this time. Keep your fingers crossed on this one.

My slightly bold forecast is of two 25-basis point hikes by the FED at its next two meetings, then signaling the end of this tightening cycle with a dramatic 50-basis point hike at the December meeting.

Remember the 75-basis point hike in December 1994 that signaled the end of that tightening cycle? The 10-year bond will cross 5.0% by year-end but is not expected to cross 6.0% for the three year forecast horizon. Oil will remain high, around the current \$65 per barrel price, until the end of this year. It begins moderating in 2006 but will not get below \$50 per barrel until late 2007. Auto sales moderate in the 4th quarter but not by much. GM's employee discount applying to every customer was a masterpiece of marketing. This single discount didn't always add up to the sum of other multiple discounts but it sure took away the annoying haggling with their dealers. People voted with their wallets, even in the face of sharply climbing gas prices, and snapped up vehicles at a record pace. The average discount of \$4,000 by GM, Ford and Chrysler, expected to continue for some time under one guise or another, pays for the extra gas cost of driving these gas-guzzling SUV's for almost two years!

Oil: Myths, Realities and Conjectures

What has made oil prices shoot up in the last three months and why don't I expect it to cross \$75 and stay there? After all, Goldman Sachs made the call this past spring that oil will touch \$105 by 2007. First let's investigate what made it climb to the same lofty perch as in the mid-1960's.

The Middle East gets most of its imports from the EU but has to earn its living in dollars. Thus, because of the weak dollar, the purchasing power maintenance can explain the move from \$25 to \$40 at best. The rest is still a challenge. One can throw in the usual suspects—hurricane-related crude production disruptions in the Gulf of Mexico, a terror premium, bottlenecks in transportation capacity—but they will explain only part of the froth in the market, say the move from \$55 to \$65 a barrel. We still need to explain the move from \$40 to \$55. Hence, I decided to check the most prevalent thesis in the media that CHINDIA—the combination of the Indian consumer and the Chinese producer—is causing this pressure on limited global supplies.

Table A shows production and consumption of oil by major producers and consumers around the world. The first few columns display production of oil in 2000 and 2004 for the countries listed, and the net change in production over this time period. Similarly, the next three columns show consumption and net change. An interesting thing is that the US, the UK and VIN (Venezuela, Indonesia and Norway) all decreased production for a total of about 2 million barrels per day. But this shortfall seems to have been made up by increased pumping in Russia, OPEC and Africa. Hence, there doesn't appear to be an oil shortage per se. However, this is only part of the story. When one factors in the demand side, one notices that China and US are the two entities that have shown solid increases in consumption during this time. India seems to be somewhat behind by the absolute metric of change in demand (of course, not in percentage terms). The last column is labeled as *net change in supply*, i.e. change in production less change in consumption. This is a metric designed to capture the pressure a country's demand puts on the oil market's clearing price.

By this metric, both China and the US are fighting for new oil supplies coming from non-OPEC sources. Furthermore, given the realities of existing pipelines, shipment logistics and historical

Highlights

Explanation of move from \$25 to \$40: Middle East gets most imports from the EU but sells oil in dollars.

From \$55 to \$65: Hurricane disruptions, the terror premium, bottlenecks in transportation.

From \$40 to \$55: Blame China's production and India's consumption? Is this fair?

Highlights

China and the US increased the most in oil consumption from 2000-2004.

China buying oil on the open market is seen as a “sustained” increase in demand by the futures market.

The oil market is ready for a correction. Mind you, car discounts only delay the inevitable.

Table A

Who Can We Blame for High Oil Prices?

	Production (P)			Consumption (C)			NET Change in Supply
	2000	2004	ΔP	2000	2004	ΔC	(ΔP - ΔC)
US	7.73	7.24	-0.49	19.70	20.52	0.82	-1.31
Canada	2.72	3.09	0.36	1.94	2.21	0.27	0.10
Mexico	3.45	3.82	0.37	1.88	1.90	0.01	0.36
Japan	NA	NA	NA	5.58	5.29	-0.29	0.29
UK	2.67	2.03	-0.64	1.70	1.76	0.05	-0.69
China	3.25	3.49	0.24	4.99	6.68	1.70	-1.46
India	0.78	0.82	0.04	2.25	2.56	0.30	-0.26
Russia	6.54	9.29	2.75	2.47	2.57	0.10	2.65
Middle East	23.38	24.57	1.19	4.60	5.29	0.69	0.51
Africa	7.86	9.26	1.41	2.46	2.65	0.19	1.22
VIN*	8.13	7.29	-0.84	1.75	1.94	0.19	-1.03

* VIN – Venezuela, Indonesia, Norway

Source: BP Statistical Review of World Energy, June 2005

contract relationships, excess oil from Russia and Africa flows more easily to the US and Europe than to China. Thus, when China goes about looking for extra oil in the open market but can't find it from its historical OPEC suppliers, it is forced to bid higher on the spot market. This price signal is then interpreted as a “sustained” increase in demand by market participants who in turn bid up prices in the futures market for delivery three to six months down the road. Add to this mix the desire by US hedge funds to make a quick buck

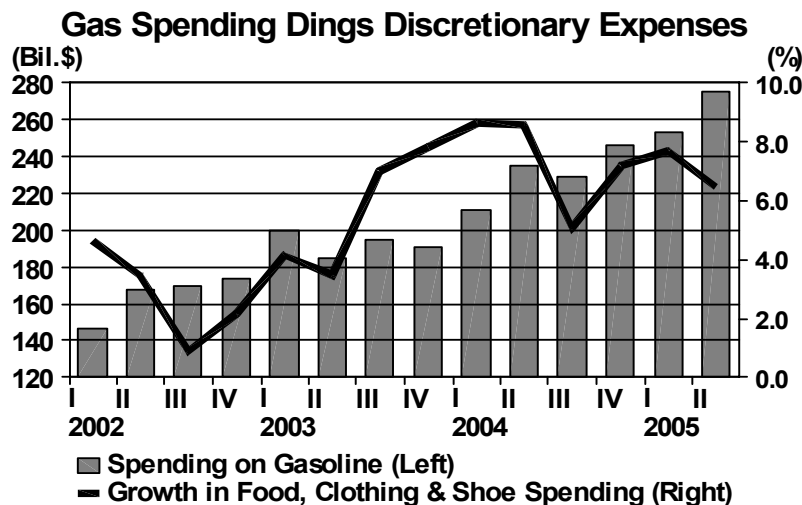
from speculation, and you can understand both the creep up in oil prices and the volatility of oil price futures. So how long will this schizophrenia last?

My view is that the oil market is ready for a correction. As China achieves its goal of orderly moderation in its runaway investment spending and our own Greenspan manages to cool the ardor of local home builders, the resultant drop in global demand will self-correct this problem. Trust me, a sustained \$3 plus a gallon of gasoline at the pump will make

even lead-foots like me drive conservatively.

This force is very strong but it takes while to register. Mind you, car discounts only delay the inevitable. **Figure C**, meanwhile, shows that people's discretionary spending has already been affected by high oil prices. This graph charts gasoline spending by consumers in nominal terms from national income accounts. Since late 2002, of the extra \$120 billion on gasoline spending that the con-

Figure C



sumer had to find to feed its oil habit, about 1/3rd has come out of spending for clothing, shoes and food. Recently, this category's growth acceleration has stopped in its tracks, as the graph clearly shows. The rest has come out of savings, drawing down home equity credit lines, less spending on recreation and the ongoing transfer of auto shareholder's wealth to the consumers via numerous discount schemes. Either way, people have been able to finance this habit much more easily here than I can say for Europe, where high gasoline taxes raise prices exponentially at the pump and crimp their consumption spending.

Now, let's not get the idea that higher fuel taxes will solve our problem and cause a quick correction in the market. High taxes at European levels would not only lead to resentment (or a second revolution if ever implemented) but fill the coffers of local and state governments, who will fritter them away any which way they can. I remember in the heyday of the dot-com boom, the City of Santa Monica redid their perfectly good sidewalks as the city had the money budgeted for the work.

China's bid to buy UNOCAL got a lot of bad press for all the wrong reasons. The charge was that CNOOC was a front for the Chinese military, which is correct, but then again what major Chinese enterprise is not? The paranoid claimed that if China were to get their hands on precious oil supplies, it would allow them to hold the US hostage in the event of a future conflict between these two countries. This is sheer nonsense—but trust politicians to exploit this skewed point-of-view to the hilt for a few lousy anti-foreign votes. China needs a stable supply of oil to feed its voracious production machinery to supply goods that the West consumes. These poor guys are just watching out for their production ability like any capitalist company.

Did anybody even think that this motive will also make China more of a model state, one interested in global peace to ensure oil supplies? This line of thinking might be more productive than berating and threatening them for Taiwan at every

opportunity. The Chinese have simply learnt from Japan's futile attempt at exploration to find domestic supplies after the OPEC oil-embargo in the 70's. If China is unable to buy existing oil companies due to political opposition in the US, it will go to the last frontier, which is Africa. Note also from table A that Africa has increased its net supply at a rapid pace over the last few years. Sudan, as its internal political fratricide abates, is pumping out almost half a million barrels of crude oil! Nigeria is ramping up its capacity and so are South Africa and Angola. This numerical fact explains my amazement when Bush stood with Blair and other G-8 leaders and pledged to increased financial aid to Africa. He gets unjust criticism for pandering to the Saudis whereas the new game in town is the African continent.

And let's not forget Russia. The West is chummy with Putin—Bush's soul mate—and the Chinese have swallowed their disgust at this neighbor's liberalization efforts and warmed up to them.

Another factor that helps consumers weather the current oil-storm is the break in mortgage payments over the last four years since the FED began their reflationary campaign. More importantly, inflation is not a problem this time as it was in the 70's. **Figure D** shows, courtesy of my mentor Prof. Larry Kimbell, effective tax rates in the 70's climbed sharply when inflation led to a bracket creep. This time, whether you liked them or not, Bush administration's tax cuts eased the oil-tax burden. Unfortunately, no new tax cuts are on the horizon but neither is another fifty percent run up in the price of oil.

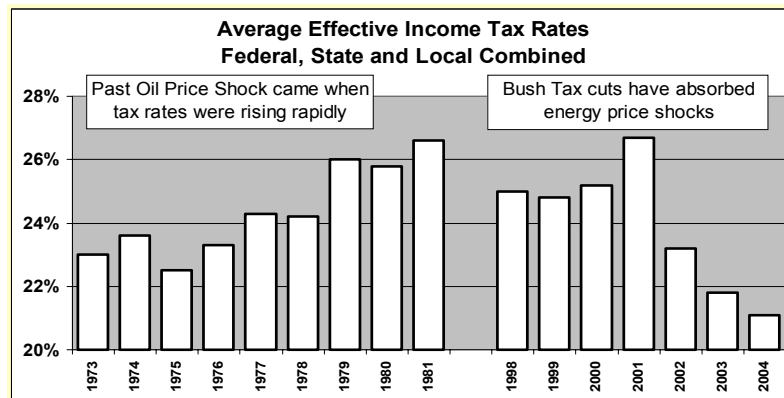
Highlights

If China is unable to buy existing oil companies due to US politics, it will court Africa, the last frontier.

Sudan, Nigeria, South Africa and Angola are ramping up capacity.

Figure D

But Tax Cuts Have Eased the Oil Price Shock this Time



Source: Prof. Larry J. Kimbell, November 2004

Bush's tax cuts have eased the oil-tax burden.

Highlights

Top 20 metro areas on fire are in three states: California, Florida, Nevada.

Figure E, the red zone is where income growth lags home-price appreciation by a wide margin.

The judgment day for option ARM loans and interest-only mortgages is not due for another five years.

Table B

TOP 20 MSAs with HIGHEST House Price Appreciation

MSA	1-Year	1-Qtr	5-Year
1. Bakersfield, CA	33.67	5.52	101.61
2. Las Vegas-Paradise, NV	33.25	2.88	89.06
3. Reno-Sparks, NV	31.78	4.39	85.2
4. Visalia-Porterville, CA	31.6	6.18	77.27
5. Palm Bay-Melbourne-Titusville, FL	31.21	7.72	98.4
6. Salinas, CA	30.94	4.9	117
7. Riverside-San Bernardino-Ontario, CA	28.72	3.85	116.38
8. Stockton, CA	27.71	5.39	110.69
9. Merced, CA	27.45	5.77	118.45
10. Fresno, CA	26.89	5.04	111.23
11. Santa Barbara-Santa Maria-Goleta, CA	26.75	3.52	121.77
12. Yuba City, CA	26.04	4.52	121.96
13. Port St. Lucie-Fort Pierce, FL	26.03	5.5	109.35
14. Sacramento-Arden-Arcade-Roseville, CA	25.84	4.1	112.53
15. West Palm Beach-Boca Raton-Boynton Beach, FL	25.82	5.55	102.17
16. Modesto, CA	25.64	4.57	117.67
17. Los Angeles-Long Beach-Glendale, CA	25.55	3.36	105.52
18. Sarasota-Bradenton-Venice, FL	25.48	5.96	89.39
19. San Diego-Carlsbad-San Marcos, CA	25.11	3.13	117.72
20. Santa Ana-Anaheim-Irvine, CA	24.47	2.94	106.97

Source: OFHEO Report, 1st quarter 2005

Housing Bubble: Reality and Solutions

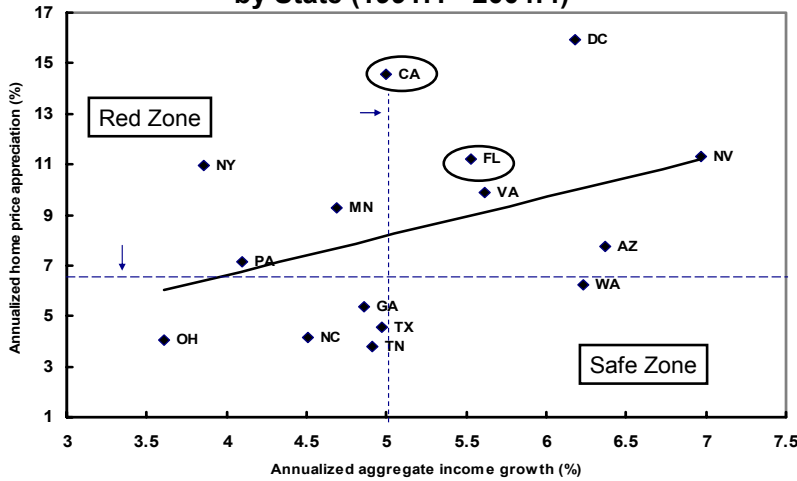
But what about the presence of a housing bubble, especially in the coastal regions and states showing red-hot price appreciation rates? **Table B** shows the top 20 metro areas that are on fire. Note that all of them have shown 20%+ gains in just the past year, and they all belong to just three states--Florida, California and Nevada. These price gains seem absurd at first glance. **Figure E** shows, common sense can also be misleading. This graph shows the home-price appreciation rate plotted against income growth for all the US states over the last 14 years. The red zone is the quadrant where income growth lags home-price appreciation by a wide margin. I expected to see the aforementioned three states in the red zone. But surprises never cease. New York and Minnesota are in the red zone, whereas California falls on the border and Florida is far away from it! This proves the point of a theoretical paper, also echoed by Greenspan in his speech in 1999, that it's difficult to statistically prove that there's a bubble from a policymaker's perspective. It's foolish of me to even try this exercise.

We definitely have a home-affordability problem in coastal areas and a few key inland markets such as Las Vegas and Phoenix. As long as foreigners covet a piece of U.S. property in lieu of us con-

suming their goods, this side-effect of our consumption binge will continue. Why, you ask? To pay for the trade deficit resulting from excess consumption, one has to sell assets to the lender, and they interestingly can be of any type. Only for poor, unfortunate, emerging economies is the range of liquid assets limited to hard US currency. That takes care of the demand side from the preference perspective to quite an extent for these coastal markets. On the financing side, the judgment day for option ARM loans, interest only mortgages, and parents helping grown-up kids buy their first home by using their accumulated home-equity as a down payment--natural tools to combat the affordability problem by unfortunate locals in these states--is not due for another five years or so. This is the typical profile of these types of loans. A lot can happen on the positive side in between. Even if a correction happens before these five years are over, I have a chart that shows what home owners can expect. All they have to do is wait out about five years before their property values (of an average house) regain their lost ground. **Figure F** displays from the aftermath of bubbles in New York and Los Angeles.

This graph, however, motivates a very pertinent query. What was the reason behind the popping of these real estate bubbles? It couldn't have been a reduced desire on the part of foreigners to buy US

Figure E
Home Price Appreciation and Aggregate Income Growth by State (1991:1 - 2004:4)



Source: EFC Calculations

assets as this reasoning would have precluded the steady increase in trade deficits experienced in the last two decades. As it turns out, the culprit always is a regional shock to the manufacturing employment base. When the Berlin Wall came down in 1989, the peace dividend arrived in California in the form of quarter million job losses in the aerospace industry in just under two years! Yes, that figure is correct, and was a massive shock to a single industry's few big firms located within ten miles of each other. As a young grad student at UCLA I was there first hand to witness the deep misery in the lovely city of Angels. The same can be said of home price declines in Houston (caused by the oil crash of 1985), Boston (three big firms in the mini-computer industry with simultaneous layoffs in 1988) and New York City (massive layoffs in response to the stock-market crash in October 1987).

Thus, the common thread is a massive external shock to a premier, well-paying job provider. It always starts at the upper end of the employment scale. It then gets magnified due to other external factors such as a recession caused by an oil shock and coupled with high interest rates, as the FED is often fighting an inflation war at the same

time. I don't see a scenario such as this in the near future. But what if it happened? What if my inoculation was only a placebo and my forecast was more luck than reality? To investigate this possibility one has to do a sensitivity analysis.

Alternate Assumptions Analysis

In this section I will simulate a few experiments that correspond to the major assumptions and risk factors mentioned in the forecast

analysis. These arise naturally from reading my baseline forecast scenario. The assumptions are modified one at a time to generate the first three experiments. The fourth one incorporates these three changes simultaneously.

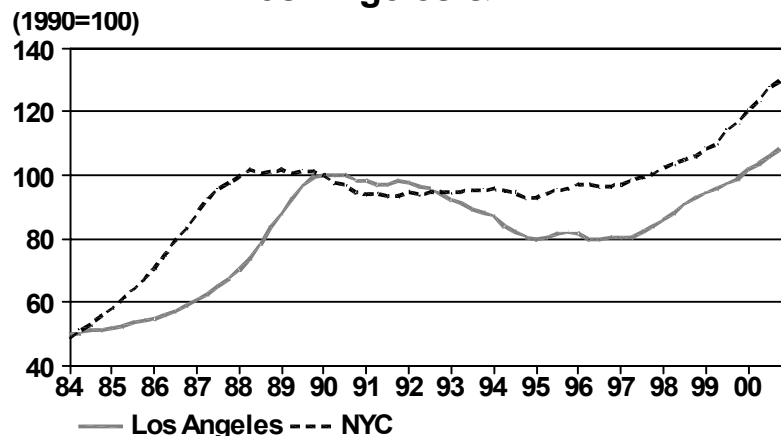
I have a two-fold agenda in undertaking these experiments. The first is to show how you can prevent yourself from getting sick thinking about all the possible bad things that can go wrong. I worry about them too, but how do I figure out which risk factor is more important and which one to discard? Apart from my secret sauce :-), I have access to a macro-model, which serves as a glorified accounting sheet that has hundreds of variables and equations that calculate relationships

Highlights

Red zone states: New York and Minnesota; California is borderline.

A regional shock to the well-paid employment base is always the culprit behind the popping of a real estate bubble.

Figure F
10-Year Real Estate Cycles Los Angeles & NYC



Source: EFC Calculations

Historical Bubble Bursts:
 California 1990 - aerospace layoffs;
 Boston 1988 - tech layoffs;
 New York City 1987 - stock-market crash;
 Houston 1985 - oil crash.

Highlights

These experiments calculate the *marginal impact of a change in assumption* when all other “exogenous” variables are held constant.

Beware of the dangers of double-counting. Pundits will add up all the risk factors and conclude that a recession is near. Additive property is a fallacy.

Experiment #1: *Oil Shock*
\$75/barrel by early 2006 produces only a 0.4% drop in GDP growth rate.

Table C
Sensitivity Analysis

Experiment	Impact on 2006 Growth		
	GDP	Investment	Non-farm Employment
1. Oil Rises to \$75 by 2006q1	-0.4%	-0.1%	-500K
2. Consumer Malaise	-0.5%	-1.1%	-600K
3. Housing Starts Abruptly Drop by 20%	-1.0%	-1.7%	-700K
4. #1 + #2 + #3	-1.3%	-1.9%	-1.2 Mil.

Source: EFC Calculations

among them. Let me say one thing, without providing formal proof, but based on my experience, proper macro-theory matters in the construction of a model. However, it’s a one time effort and one shouldn’t be wedded blindly to econometric tools in building and using them.

Next, when I pull one lever, i.e., change one major assumption, I want to see what happens to the economy when everything else is kept constant, or *ceteris paribus*. We know it’s unrealistic, but bear with me as I want to calculate the *marginal impact of a change in assumption* when all other “exogenous” variables are held constant. For example, in the first experiment I will shock the oil price and raise it to \$75 per barrel by early 2006, hold it there for a while and then gradually bring it down. The reaction of the FED to this development, always an exogenous variable in the short-run in my viewpoint, is kept the same as in the base forecast. Once I have seen the results of this experiment, I can calculate the marginal impact of this change on the economy’s key variables. **Table C** lists these experiments.

My second intent is to show you the dangers of double-counting. People, press and even pundits will add up all the risk factors and come to a conclusion that a recession, or even Armageddon, is around the corner. The fallacy here is that when done simultaneously these things are additive. The only way to find this out is to play with the model by simultaneously changing the assumptions. This is how I learnt forecasting, by experimenting and using the model for logical changes that can be

supported either by historical evidence or common-sense, but not due to whims, fancies (read: Internet blogs) or the pet agendas of some of some of my academic colleagues. When I first asked my mentor about these “what if” questions, he never answered them but merely said “Why don’t you check what the model says about it”. Those exercises would always help me realize either the absurdity of my assumption or its infeasibility.

What if the FED gets aggressive and hikes rates by 50-basis points in each of the next three meetings? The model will answer this question only if you project under which economic conditions this will happen, so one knows which levers to pull in the model. Once you have figured it out to the best of your ability, you will realize that this experiment is most likely a very low probability event bordering on absurdity. However, there will be some scenarios that can’t be ruled out via logic and common sense. And that, my friend, is the secret sauce! This scenario-building discipline is a must and is most of the work in this business.

Coming back to the experiments, the first one is termed *Oil Shock* which puts oil at \$75 per barrel by early 2006. Table C reports the impact of this assumption on GDP growth, investment and job additions in 2006. Not surprisingly (at least to me) the impact is only a 0.4% drop in the GDP growth rate, which I term mild because it doesn’t change my base forecast story substantially. There are two reasons for this mild outcome. First, the reduced coefficient of energy in the GDP production function keeps the cost hit low. Second, this shock is temporary and not a permanent one as prices retreat towards the base case very quickly. This is perhaps not what one had in mind when using the 70’s experience as a benchmark. This is also known by its fancy name of adaptive expectations. However, you have to give me credible evidence and logic for me to simulate a permanent oil shock. The damage then will be more severe but again not to the point of causing a recession or even stagflation.

The second experiment is dubbed *Consumer Malaise*. This captures the belief that consumers will pull back on spending when the national savings rate becomes negative. At the same time, home prices stop appreciating at the national level (not a fall but just stagnation). The outcome is again a somewhat milder impact on GDP when 2006's projected growth falls by only 0.5%.

The third experiment is a critical one and deals with the housing market directly. It assumes that *Housing Starts* moderate by 20% by early 2006 instead of late 2007 in the base forecast. This assumption mimics the impact of a bursting housing bubble without the FED being any more aggressive. Whether this assumption is reasonable or unreasonable depends upon one's subjective probability distribution. From table C, we see that this has quite an impact on GDP as the growth rate gets lowered by 1%.

Now, what if we combined all three experiment assumptions? Will that produce a recession in the economy? This is the objective of experiment number four which produced a drop of 1.3% in GDP growth for 2006. Note this is less than the simple additive response of 1.9% of the first three experiments. Additive property is a fallacy, but why? Because each experiment individually had its own impact on housing starts (see the details of these experiments in the summary tables on pages 12 to 15). If you simply add them up, then the drop in housing starts is almost 30% instead of the desired 20%. This double-counting is what causes confusion when one totals up the assumptions of different risk scenarios. Most scenarios share some common elements and a mechanical addition of them is not justified. This is another form of discipline in the business.

Net-net, we couldn't produce a recession by the text book definition. The economy, did show a kind of malaise but it was nowhere near stagflation. This scenario is what bond gurus like Bill Gross of PIMCO or most of bank economists are clamoring about. You can now see what kind of assumptions and probabilities associated with them (subjective though) will produce this outcome. The sensitivity analysis discipline now hopefully helps you understand what motivates Cassandra-like Gary Shillings and Marc Faber. Hopefully you can also fathom my philosophy. If I turn out to be wrong then what factor, or lack thereof, caused it. (It was the model your honor that made me do it!)

Right now, I am training a young kid, and having fun watching him struggle to produce a recession in the model using logical assumptions. (we forecasters are a bit heartless!) For example, a \$200 billion drop in exports of goods will produce a classic recession with two quarters of GDP declines that are mild. But is this experiment logical, I asked him? He said it summarized his assumptions about a drastic slowdown in the Chinese economy. I reminded him that our total exports to China were only \$35 billion last year so it will require a lot more slowdown than just in China. Furthermore, our total goods exports were \$820 billion last year, so a drop of \$200 billion is a very big shock to the economic system. This kind of a drop in exports only comes from a coordinated recession in the entire world economy, and this might even eclipse the Great Depression.

Is this possible? Yes. But it is an absurd assumption because the combination of factors that will generate this outcome appears to me to be out of the realm of economic logic. In probability terms it's miniscule and I never ever lose sleep over it, never. Ten years ago, I asked a similar question what causes a recession and the self-training I got convinced me that we would make out like bandits from the Asian currency crisis of 1997. I am confident that this new kid will also learn a lot from these types of exercises. So wish him luck.

For my regular readers who made it this far, there is a bonus prize. Please visit my personal website www.rdhawan.com and click on the EMBA class link. There you can download a simple macro-model designed for teaching the basic lessons of macro, specifically long-run and short-run impacts of policy changes (monetary and fiscal experiments). The model has both a short-run output response and a long-run neutrality property to policy changes. This is both a Keynesian and a Monetarist model at the same time! There is a simple theoretical trick outside-the-box that does it and I encourage you to find it.

You can play with this model and learn the basic lessons on your own (listed also in the slides for lectures 5 and 6). You can also do some additional experiments, like a China or world slowdown, on oil shock or a change in productivity, but you will have to be creative to figure out which exogenous levers to move to simulate these scenarios. One thing should be clear from these exercises—thinking up a scenario is easy but implementing it takes a touch of common sense to keep it out of the realm of economic absurdity. Class dismissed!

Highlights

Experiment #2:
Consumer Malaise
Slow spending and home price stagnation produces a 0.5% drop in GDP growth.

Experiment #3:
Housing Starts
Moderate abruptly by 20% produces a large 1% drop in the GDP growth rate.

Experiment #4:
Combo of #1, #2, #3 makes GDP growth drop by 1.3%, and NOT the additive 1.9%.

Summary Table – Experiment #1 (Oil Hits \$75)

EXPERIMENT LEVER		Quarterly							Annual		
		2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2005	2006	2007
Crude Oil Price	Simulation	70.8	75.0	75.0	60.2	60.3	52.2	52.0	62.0	61.8	49.0
	Base Case	63.9	63.0	58.0	56.0	54.0	52.3	52.0	57.5	55.1	49.0
	Δ	6.9	12.0	17.0	4.2	6.3	-0.1	0.0	4.5	6.7	0.0
OVERALL											
Real GDP Growth	Simulation	3.3	2.1	2.3	2.7	2.6	2.6	2.8	3.5	2.6	3.0
	Base Case	4.4	3.0	3.0	2.6	2.2	2.2	2.4	3.7	3.0	2.6
	Δ	-1.1	-0.9	-0.7	0.1	0.4	0.4	0.4	-0.2	-0.4	0.4
Consumption Growth	Simulation	2.8	1.1	1.8	2.0	3.4	3.4	3.2	3.4	2.2	3.2
	Base Case	4.3	2.3	3.1	2.4	3.1	2.9	2.6	3.6	3.0	2.7
	Δ	-1.5	-1.2	-1.3	-0.4	0.3	0.5	0.6	-0.2	-0.8	0.5
Investment Growth	Simulation	10.1	10.2	12.0	9.1	3.8	-0.4	0.8	9.2	8.8	3.4
	Base Case	10.6	10.7	12.0	8.3	4.5	0.4	1.3	9.3	8.9	3.3
	Δ	-0.5	-0.5	0.0	0.8	-0.7	-0.8	-0.5	-0.1	-0.1	0.1
Change in Inventory	Simulation	7.9	24.5	20.1	25.4	22.1	19.6	24.6	21.0	21.8	37.1
	Base Case	17.7	42.6	45.4	46.6	34.5	24.6	18.9	28.0	37.8	25.3
	Δ	-9.8	-18.1	-25.3	-21.2	-12.4	-5.0	5.7	-7.0	-16.0	11.8
Exports Growth	Simulation	5.6	6.6	7.4	7.0	9.1	10.3	10.7	7.8	7.7	10.1
	Base Case	5.5	6.7	7.3	6.7	8.6	9.7	10.4	7.8	7.5	9.9
	Δ	0.1	-0.1	0.1	0.3	0.5	0.6	0.3	0.0	0.2	0.2
Imports Growth	Simulation	6.3	5.3	4.0	2.0	1.9	4.1	5.0	6.1	3.5	4.8
	Base Case	9.5	9.0	8.1	3.2	2.6	2.6	3.0	6.7	5.8	3.3
	Δ	-3.2	-3.7	-4.1	-1.2	-0.7	1.5	2.0	-0.6	-2.3	1.5
Net Exports (bill.)	Simulation	-612.5	-616.9	-613.0	-600.7	-581.3	-568.0	-557.0	-619.0	-590.7	-550.8
	Base Case	-626.2	-646.5	-661.5	-656.1	-641.6	-623.6	-605.1	-629.9	-645.7	-581.5
	Δ	13.7	29.6	48.5	55.4	60.3	55.6	48.1	10.9	55.0	30.7
MAJOR INDICATORS											
Housing Starts	Simulation	1.942	1.870	1.780	1.657	1.604	1.589	1.579	1.977	1.658	1.584
	Base Case	1.942	1.944	1.860	1.751	1.687	1.657	1.683	1.995	1.739	1.620
	Δ	0.000	-0.074	-0.080	-0.094	-0.083	-0.068	-0.104	-0.018	-0.081	-0.036
Autos and Light Truck Sales	Simulation	17.5	15.9	15.6	15.5	15.8	16.0	16.2	16.8	15.7	16.6
	Base Case	18.1	16.9	16.8	16.6	16.7	16.7	16.8	17.2	16.7	16.9
	Δ	-0.6	-1.0	-1.2	-1.1	-0.9	-0.7	-0.6	-0.4	-1.0	-0.3
Industrial Production	Simulation	6.7	1.3	3.8	2.8	3.4	1.9	2.0	3.6	3.2	2.8
	Base Case	7.3	2.4	4.9	3.9	2.3	1.5	0.8	3.8	3.8	2.1
	Δ	-0.6	-1.1	-1.1	-1.1	1.1	0.4	1.2	-0.2	-0.6	0.7
Nonfarm Employment (mil.)	Simulation	134.0	134.4	134.8	135.1	135.4	135.7	136.1	133.7	135.2	136.7
	Base Case	134.1	134.7	135.2	135.6	135.8	136.1	136.4	133.8	135.7	137.0
	Δ	-0.1	-0.3	-0.4	-0.5	-0.4	-0.4	-0.3	-0.1	-0.5	-0.3
INTEREST RATES & INFLATION											
90-day Treasury Bills	Simulation	3.3	4.0	4.3	4.3	4.3	4.3	4.4	3.2	4.3	4.2
	Base Case	3.3	4.0	4.3	4.3	4.3	4.3	4.4	3.2	4.3	4.2
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-year Treasury Bonds	Simulation	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
	Base Case	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consumer Price Index	Simulation	3.9	4.0	4.1	2.0	0.0	2.0	2.0	3.5	2.8	1.6
	Base Case	3.9	3.1	2.5	2.2	1.4	1.6	1.6	3.2	2.6	1.6
	Δ	0.0	0.9	1.6	-0.2	-1.4	0.4	0.4	0.3	0.2	0.0
Total less Food & Energy	Simulation	3.1	2.0	2.0	2.0	2.0	1.9	1.9	2.3	2.1	1.9
	Base Case	2.5	2.4	2.4	2.0	2.0	2.0	1.9	2.3	2.2	1.9
	Δ	0.6	-0.4	-0.4	0.0	0.0	-0.1	0.0	0.0	-0.1	0.0
Producers Price Index	Simulation	15.6	9.4	3.4	-7.8	-3.2	-4.4	-1.9	7.0	2.4	-2.9
	Base Case	11.6	5.3	-0.5	-3.0	-2.7	-1.4	-1.0	6.3	1.5	-1.7
	Δ	4.0	4.1	3.9	-4.8	-0.5	-3.0	-0.9	0.7	0.9	-1.2
POLICY VARIABLES											
Federal Funds Rate	Simulation	3.4	4.2	4.5	4.5	4.5	4.5	4.3	3.3	4.5	4.3
	Base Case	3.4	4.2	4.5	4.5	4.5	4.5	4.3	3.3	4.5	4.3
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fiscal Deficit (bill.)	Simulation	-266.1	-256.3	-313.1	-338.6	-342.3	-331.6	-310.7	-275.9	-331.4	-303.8
	Base Case	-260.0	-242.2	-290.8	-308.9	-319.6	-308.3	-293.1	-270.9	-306.9	-293.2
	Δ	-6.1	-14.1	-22.3	-29.7	-22.7	-23.3	-17.6	-5.0	-24.5	-10.6
Real U.S. Dollar - % Change	Simulation	7.1	-9.0	-10.1	-5.7	-4.4	-4.0	-2.8	-3.2	-4.7	-3.2
	Base Case	7.1	-9.1	-10.3	-5.9	-4.6	-4.3	-3.1	-3.2	-4.9	-3.6
	Δ	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.0	0.2	0.4

Summary Table – Experiment #2 (Consumer Malaise)

EXPERIMENT LEVER		Quarterly							Annual		
		2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2005	2006	2007
Consumer Sentiment	Simulation	94.0	84.6	76.1	81.5	83.9	85.6	87.7	90.7	81.8	91.5
	Base Case	95.2	95.9	93.9	92.5	92.0	92.1	92.1	93.9	92.6	92.8
	Δ	-1.2	-11.3	-17.8	-11.0	-8.1	-6.5	-4.4	-3.2	-10.8	-1.3
OVERALL											
Real GDP Growth	Simulation	3.6	2.0	2.1	2.5	2.2	2.4	3.2	3.5	2.5	3.1
	Base Case	4.4	3.0	3.0	2.6	2.2	2.2	2.4	3.7	3.0	2.6
	Δ	-0.8	-1.0	-0.9	-0.1	0.0	0.2	0.8	-0.2	-0.5	0.5
Consumption Growth	Simulation	3.2	1.0	1.9	2.3	3.2	3.1	3.4	3.4	2.3	3.2
	Base Case	4.3	2.3	3.1	2.4	3.1	2.9	2.6	3.6	3.0	2.7
	Δ	-1.1	-1.3	-1.2	-0.1	0.1	0.2	0.8	-0.2	-0.7	0.5
Investment Growth	Simulation	10.2	9.4	10.1	6.7	3.8	0.3	2.3	9.2	7.8	4.1
	Base Case	10.6	10.7	12.0	8.3	4.5	0.4	1.3	9.3	8.9	3.3
	Δ	-0.4	-1.3	-1.9	-1.6	-0.7	-0.1	1.0	-0.1	-1.1	0.8
Change in Inventory	Simulation	14.9	33.9	28.7	27.1	16.4	14.0	19.5	25.1	21.6	35.3
	Base Case	17.7	42.6	45.4	46.6	34.5	24.6	18.9	28.0	37.8	25.3
	Δ	-2.8	-8.7	-16.7	-19.5	-18.1	-10.6	0.6	-2.9	-16.2	10.0
Exports Growth	Simulation	5.6	6.6	7.2	6.5	8.6	9.7	10.3	7.8	7.4	9.9
	Base Case	5.5	6.7	7.3	6.7	8.6	9.7	10.4	7.8	7.5	9.9
	Δ	0.1	-0.1	-0.1	-0.2	0.0	0.0	-0.1	0.0	-0.1	0.0
Imports Growth	Simulation	8.7	6.2	4.1	0.6	2.1	3.9	4.9	6.4	3.7	4.7
	Base Case	9.5	9.0	8.1	3.2	2.6	2.6	3.0	6.7	5.8	3.3
	Δ	-0.8	-2.8	-4.0	-2.6	-0.5	1.3	1.9	-0.3	-2.1	1.4
Net Exports (bill.)	Simulation	-623.0	-631.1	-628.3	-611.0	-594.0	-581.5	-571.1	-625.2	-603.7	-564.1
	Base Case	-626.2	-646.5	-661.5	-656.1	-641.6	-623.6	-605.1	-629.9	-645.7	-581.5
	Δ	3.2	15.4	33.2	45.1	47.6	42.1	34.0	4.7	42.0	17.4
MAJOR INDICATORS											
Housing Starts	Simulation	1.942	1.937	1.800	1.655	1.627	1.613	1.602	1.993	1.674	1.604
	Base Case	1.942	1.944	1.860	1.751	1.687	1.657	1.683	1.995	1.739	1.620
	Δ	0.000	-0.007	-0.060	-0.096	-0.060	-0.044	-0.081	-0.002	-0.065	-0.016
Autos and Light Truck Sales	Simulation	18.0	16.2	15.8	15.7	16.0	16.1	16.3	17.0	15.9	16.7
	Base Case	18.1	16.9	16.8	16.6	16.7	16.7	16.8	17.2	16.7	16.9
	Δ	-0.1	-0.7	-1.0	-0.9	-0.7	-0.6	-0.5	-0.2	-0.8	-0.2
Industrial Production	Simulation	6.9	1.5	4.0	3.4	2.0	1.5	1.6	3.7	3.2	2.5
	Base Case	7.3	2.4	4.9	3.9	2.3	1.5	0.8	3.8	3.8	2.1
	Δ	-0.4	-0.9	-0.9	-0.5	-0.3	0.0	0.8	-0.1	-0.6	0.4
Nonfarm Employment (mil.)	Simulation	134.0	134.4	134.7	135.0	135.2	135.5	135.9	133.7	135.1	136.6
	Base Case	134.1	134.7	135.2	135.6	135.8	136.1	136.4	133.8	135.7	137.0
	Δ	-0.1	-0.3	-0.5	-0.6	-0.6	-0.6	-0.5	-0.1	-0.6	-0.4
INTEREST RATES & INFLATION											
90-day Treasury Bills	Simulation	3.3	4.0	4.3	4.3	4.3	4.3	4.4	3.2	4.3	4.2
	Base Case	3.3	4.0	4.3	4.3	4.3	4.3	4.4	3.2	4.3	4.2
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-year Treasury Bonds	Simulation	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
	Base Case	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consumer Price Index	Simulation	3.9	3.0	4.1	2.0	0.0	2.0	2.0	3.3	2.6	1.6
	Base Case	3.9	3.1	2.5	2.2	1.4	1.6	1.6	3.2	2.6	1.6
	Δ	0.0	-0.1	1.6	-0.2	-1.4	0.4	0.4	0.1	0.0	0.0
Total less Food & Energy	Simulation	3.1	2.0	1.9	1.9	1.9	1.9	1.9	2.3	2.1	1.9
	Base Case	2.5	2.4	2.4	2.0	2.0	2.0	1.9	2.3	2.2	1.9
	Δ	0.6	-0.4	-0.5	-0.1	-0.1	-0.1	0.0	0.0	-0.1	0.0
Producers Price Index	Simulation	11.5	5.1	-0.8	-3.2	-2.9	-1.5	-0.9	6.3	1.3	-1.7
	Base Case	11.6	5.3	-0.5	-3.0	-2.7	-1.4	-1.0	6.3	1.5	-1.7
	Δ	-0.1	-0.2	-0.3	-0.2	-0.2	-0.1	0.1	0.0	-0.2	0.0
POLICY VARIABLES											
Federal Funds Rate	Simulation	3.4	4.2	4.5	4.5	4.5	4.5	4.3	3.3	4.5	4.3
	Base Case	3.4	4.2	4.5	4.5	4.5	4.5	4.3	3.3	4.5	4.3
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fiscal Deficit (bill.)	Simulation	-265.9	-256.1	-313.4	-333.4	-345.2	-335.1	-310.0	-275.8	-331.8	-303.9
	Base Case	-260.0	-242.2	-290.8	-308.9	-319.6	-308.3	-293.1	-270.9	-306.9	-293.2
	Δ	-5.9	-13.9	-22.6	-24.5	-25.6	-26.8	-16.9	-4.9	-24.9	-10.7
Real U.S. Dollar - % Change	Simulation	7.1	-9.2	-10.3	-5.8	-4.4	-4.0	-2.8	-3.2	-4.8	-3.3
	Base Case	7.1	-9.1	-10.3	-5.9	-4.6	-4.3	-3.1	-3.2	-4.9	-3.6
	Δ	0.0	-0.1	0.0	0.1	0.2	0.3	0.3	0.0	0.1	0.3

Summary Table – Experiment #3 (Housing Starts Drop by 20%)

EXPERIMENT LEVER		Quarterly							Annual		
		2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2005	2006	2007
Housing Starts	Simulation	1.939	1.744	1.527	1.377	1.420	1.406	1.442	1.944	1.432	1.470
	Base Case	1.942	1.944	1.860	1.751	1.687	1.657	1.683	1.995	1.739	1.620
	Δ	-0.003	-0.200	-0.333	-0.374	-0.267	-0.251	-0.241	-0.051	-0.307	-0.150
OVERALL											
Real GDP Growth	Simulation	4.3	2.2	1.2	1.1	1.8	2.2	2.7	3.6	2.0	2.8
	Base Case	4.4	3.0	3.0	2.6	2.2	2.2	2.4	3.7	3.0	2.6
	Δ	-0.1	-0.8	-1.8	-1.5	-0.4	0.0	0.3	-0.1	-1.0	0.2
Consumption Growth	Simulation	4.2	2.0	2.4	1.7	2.7	2.5	2.3	3.6	2.5	2.5
	Base Case	4.3	2.3	3.1	2.4	3.1	2.9	2.6	3.6	3.0	2.7
	Δ	-0.1	-0.3	-0.7	-0.7	-0.4	-0.4	-0.3	0.0	-0.5	-0.2
Investment Growth	Simulation	10.5	10.3	10.1	4.8	1.2	-1.4	1.0	9.3	7.2	2.8
	Base Case	10.6	10.7	12.0	8.3	4.5	0.4	1.3	9.3	8.9	3.3
	Δ	-0.1	-0.4	-1.9	-3.5	-3.3	-1.8	-0.3	0.0	-1.7	-0.5
Change in Inventory	Simulation	17.0	38.5	30.1	23.4	11.1	4.4	7.3	26.8	17.3	28.1
	Base Case	17.7	42.6	45.4	46.6	34.5	24.6	18.9	28.0	37.8	25.3
	Δ	-0.7	-4.1	-15.3	-23.2	-23.4	-20.2	-11.6	-1.2	-20.5	2.8
Exports Growth	Simulation	5.5	6.8	7.3	6.4	8.2	9.7	10.4	7.8	7.4	9.9
	Base Case	5.5	6.7	7.3	6.7	8.6	9.7	10.4	7.8	7.5	9.9
	Δ	0.0	0.1	0.0	-0.3	-0.4	0.0	0.0	0.0	-0.1	0.0
Imports Growth	Simulation	9.2	8.2	5.4	0.1	0.5	2.0	3.3	6.6	4.0	3.2
	Base Case	9.5	9.0	8.1	3.2	2.6	2.6	3.0	6.7	5.8	3.3
	Δ	-0.3	-0.8	-2.7	-3.1	-2.1	-0.6	0.3	-0.1	-1.8	-0.1
Net Exports (bill.)	Simulation	-625.2	-641.8	-644.9	-625.5	-602.2	-581.0	-563.4	-628.4	-613.4	-547.6
	Base Case	-626.2	-646.5	-661.5	-656.1	-641.6	-623.6	-605.1	-629.9	-645.7	-581.5
	Δ	1.0	4.7	16.6	30.6	39.4	42.6	41.7	1.5	32.3	33.9
MAJOR INDICATORS											
Autos and Light Truck Sales	Simulation	18.0	16.8	16.5	16.0	16.1	16.2	16.4	17.1	16.2	16.6
	Base Case	18.1	16.9	16.8	16.6	16.7	16.7	16.8	17.2	16.7	16.9
	Δ	-0.1	-0.1	-0.3	-0.6	-0.6	-0.5	-0.4	-0.1	-0.5	-0.3
Industrial Production	Simulation	7.3	1.9	3.2	2.2	1.5	1.3	1.1	3.8	2.9	2.2
	Base Case	7.3	2.4	4.9	3.9	2.3	1.5	0.8	3.8	3.8	2.1
	Δ	0.0	-0.5	-1.7	-1.7	-0.8	-0.2	0.3	0.0	-0.9	0.1
Nonfarm Employment (mil.)	Simulation	134.1	134.5	134.8	134.9	135.0	135.2	135.4	133.7	135.0	136.1
	Base Case	134.1	134.7	135.2	135.6	135.8	136.1	136.4	133.8	135.7	137.0
	Δ	0.0	-0.2	-0.4	-0.7	-0.8	-0.9	-1.0	-0.1	-0.7	-0.9
INTEREST RATES & INFLATION											
90-day Treasury Bills	Simulation	3.3	4.0	4.3	4.3	4.3	4.3	4.3	3.2	4.3	4.2
	Base Case	3.3	4.0	4.3	4.3	4.3	4.3	4.4	3.2	4.3	4.2
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
10-year Treasury Bonds	Simulation	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
	Base Case	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consumer Price Index	Simulation	3.9	3.0	4.1	1.9	-0.2	1.8	1.8	3.3	2.6	1.5
	Base Case	3.9	3.1	2.5	2.2	1.4	1.6	1.6	3.2	2.6	1.6
	Δ	0.0	-0.1	1.6	-0.3	-1.6	0.2	0.2	0.1	0.0	-0.1
Total less Food & Energy	Simulation	3.1	2.0	1.9	1.9	1.8	1.8	1.8	2.3	2.1	1.8
	Base Case	2.5	2.4	2.4	2.0	2.0	2.0	1.9	2.3	2.2	1.9
	Δ	0.6	-0.4	-0.5	-0.1	-0.2	-0.2	-0.1	0.0	-0.1	-0.1
Producers Price Index	Simulation	11.6	5.1	-1.0	-3.6	-3.2	-1.7	-1.1	6.3	1.2	-1.9
	Base Case	11.6	5.3	-0.5	-3.0	-2.7	-1.4	-1.0	6.3	1.5	-1.7
	Δ	0.0	-0.2	-0.5	-0.6	-0.5	-0.3	-0.1	0.0	-0.3	-0.2
POLICY VARIABLES											
Federal Funds Rate	Simulation	3.4	4.2	4.5	4.5	4.5	4.5	4.3	3.3	4.5	4.3
	Base Case	3.4	4.2	4.5	4.5	4.5	4.5	4.3	3.3	4.5	4.3
	Δ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fiscal Deficit (bill.)	Simulation	-260.8	-249.2	-313.1	-344.9	-360.1	-351.4	-330.6	-272.8	-342.3	-326.3
	Base Case	-260.0	-242.2	-290.8	-308.9	-319.6	-308.3	-293.1	-270.9	-306.9	-293.2
	Δ	-0.8	-7.0	-22.3	-36.0	-40.5	-43.1	-37.5	-1.9	-35.4	-33.1
Real U.S. Dollar - % Change	Simulation	7.1	-9.1	-10.4	-6.0	-4.6	-4.2	-2.9	-3.2	-4.9	-3.4
	Base Case	7.1	-9.1	-10.3	-5.9	-4.6	-4.3	-3.1	-3.2	-4.9	-3.6
	Δ	0.0	0.0	-0.1	-0.1	0.0	0.1	0.2	0.0	0.0	0.2

Summary Table – Experiment #4 (Combo)

EXPERIMENT LEVER		Quarterly							Annual		
		2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2005	2006	2007
Crude Oil Price	Simulation	70.8	75.0	74.9	60.2	60.3	52.2	52.0	62.0	61.9	49.0
	Base Case	63.9	63.0	58.0	56.0	54.0	52.3	52.0	57.5	55.1	49.0
	Δ	6.9	12.0	16.9	4.2	6.3	-0.1	0.0	4.5	6.8	0.0
Consumer Sentiment	Simulation	94.0	84.6	76.1	81.5	83.9	85.6	87.7	90.7	81.8	91.5
	Base Case	95.2	95.9	93.9	92.5	92.0	92.1	92.1	93.9	92.6	92.8
	Δ	-1.2	-11.3	-17.8	-11.0	-8.1	-6.5	-4.4	-3.2	-10.8	-1.3
Housing Starts	Simulation	1.939	1.675	1.470	1.315	1.368	1.356	1.411	1.927	1.377	1.458
	Base Case	1.942	1.944	1.860	1.751	1.687	1.657	1.683	1.995	1.739	1.620
	Δ	-0.003	-0.269	-0.390	-0.436	-0.319	-0.301	-0.272	-0.068	-0.362	-0.162
OVERALL											
Real GDP Growth	Simulation	3.3	1.0	0.8	1.2	2.2	2.5	3.0	3.4	1.7	3.1
	Base Case	4.4	3.0	3.0	2.6	2.2	2.2	2.4	3.7	3.0	2.6
	Δ	-1.1	-2.0	-2.2	-1.4	0.0	0.3	0.6	-0.3	-1.3	0.5
Consumption Growth	Simulation	2.9	0.2	1.6	1.4	2.8	3.0	2.9	3.3	1.8	3.0
	Base Case	4.3	2.3	3.1	2.4	3.1	2.9	2.6	3.6	3.0	2.7
	Δ	-1.4	-2.1	-1.5	-1.0	-0.3	0.1	0.3	-0.3	-1.2	0.3
Investment Growth	Simulation	10.1	9.6	9.8	5.9	0.6	-2.4	0.0	9.2	7.0	2.7
	Base Case	10.6	10.7	12.0	8.3	4.5	0.4	1.3	9.3	8.9	3.3
	Δ	-0.5	-1.1	-2.2	-2.4	-3.9	-2.8	-1.3	-0.1	-1.9	-0.6
Change in Inventory	Simulation	7.6	20.6	7.6	8.0	3.8	3.8	14.3	20.0	5.8	38.5
	Base Case	17.7	42.6	45.4	46.6	34.5	24.6	18.9	28.0	37.8	25.3
	Δ	-10.1	-22.0	-37.8	-38.6	-30.7	-20.8	-4.6	-8.0	-32.0	13.2
Exports Growth	Simulation	5.6	6.7	7.3	6.7	8.7	10.2	10.6	7.8	7.5	10.0
	Base Case	5.5	6.7	7.3	6.7	8.6	9.7	10.4	7.8	7.5	9.9
	Δ	0.1	0.0	0.0	0.0	0.1	0.5	0.2	0.0	0.0	0.1
Imports Growth	Simulation	6.3	5.0	2.1	-0.3	-0.1	3.5	4.9	6.1	2.2	4.6
	Base Case	9.5	9.0	8.1	3.2	2.6	2.6	3.0	6.7	5.8	3.3
	Δ	-3.2	-4.0	-6.0	-3.5	-2.7	0.9	1.9	-0.6	-3.6	1.3
Net Exports (bill.)	Simulation	-612.6	-615.1	-603.1	-581.3	-553.8	-537.7	-526.2	-618.6	-569.0	-525.5
	Base Case	-626.2	-646.5	-661.5	-656.1	-641.6	-623.6	-605.1	-629.9	-645.7	-581.5
	Δ	13.6	31.4	58.4	74.8	87.8	85.9	78.9	11.3	76.7	56.0
MAJOR INDICATORS											
Autos and Light Truck Sales	Simulation	17.5	16.1	15.6	15.2	15.4	15.6	15.9	16.8	15.5	16.4
	Base Case	18.1	16.9	16.8	16.6	16.7	16.7	16.8	17.2	16.7	16.9
	Δ	-0.6	-0.8	-1.2	-1.4	-1.3	-1.1	-0.9	-0.4	-1.2	-0.5
Industrial Production	Simulation	6.6	0.6	2.3	1.4	2.5	1.5	1.9	3.6	2.3	2.7
	Base Case	7.3	2.4	4.9	3.9	2.3	1.5	0.8	3.8	3.8	2.1
	Δ	-0.7	-1.8	-2.6	-2.5	0.2	0.0	1.1	-0.2	-1.5	0.6
Nonfarm Employment (mil.)	Simulation	134.0	134.3	134.4	134.5	134.5	134.7	135.0	133.6	134.5	135.7
	Base Case	134.1	134.7	135.2	135.6	135.8	136.1	136.4	133.8	135.7	137.0
	Δ	-0.1	-0.4	-0.8	-1.1	-1.3	-1.4	-1.4	-0.2	-1.2	-1.3
INTEREST RATES & INFLATION											
90-day Treasury Bills	Simulation	3.3	4.2	4.7	4.7	4.6	4.6	4.4	3.2	4.6	4.2
	Base Case	3.3	4.0	4.3	4.3	4.3	4.3	4.4	3.2	4.3	4.2
	Δ	0.0	0.2	0.4	0.4	0.3	0.3	0.0	0.0	0.3	0.0
10-year Treasury Bonds	Simulation	4.5	5.0	5.3	5.4	5.5	5.6	5.7	4.5	5.5	5.7
	Base Case	4.5	4.9	5.1	5.2	5.3	5.4	5.4	4.5	5.2	5.5
	Δ	0.0	0.1	0.2	0.2	0.2	0.2	0.3	0.0	0.3	0.2
Consumer Price Index	Simulation	5.0	4.0	5.3	0.6	-0.3	0.9	1.5	3.3	2.9	1.1
	Base Case	3.9	3.1	2.5	2.2	1.4	1.6	1.6	3.2	2.6	1.6
	Δ	1.1	0.9	2.8	-1.6	-1.7	-0.7	-0.1	0.1	0.3	-0.5
Total less Food & Energy	Simulation	3.2	2.1	2.1	1.9	1.9	1.7	1.7	2.4	2.2	1.7
	Base Case	2.5	2.4	2.4	2.0	2.0	2.0	1.9	2.3	2.2	1.9
	Δ	0.7	-0.3	-0.3	-0.1	-0.1	-0.3	-0.2	0.1	0.0	-0.2
Producers Price Index	Simulation	15.6	9.3	3.0	-8.3	-3.6	-4.7	-2.0	7.0	2.2	-3.0
	Base Case	11.6	5.3	-0.5	-3.0	-2.7	-1.4	-1.0	6.3	1.5	-1.7
	Δ	4.0	4.0	3.5	-5.3	-0.9	-3.3	-1.0	0.7	0.7	-1.3
POLICY VARIABLES											
Federal Funds Rate	Simulation	3.4	4.5	5.0	4.9	4.9	4.8	4.6	3.3	4.9	4.3
	Base Case	3.4	4.2	4.5	4.5	4.5	4.5	4.3	3.3	4.5	4.3
	Δ	0.0	0.3	0.5	0.4	0.4	0.3	0.3	0.0	0.4	0.0
Fiscal Deficit (bill.)	Simulation	-266.1	-266.0	-340.1	-379.5	-388.3	-380.0	-354.7	-278.4	-372.0	-346.5
	Base Case	-260.0	-242.2	-290.8	-308.9	-319.6	-308.3	-293.1	-270.9	-306.9	-293.2
	Δ	-6.1	-23.8	-49.3	-70.6	-68.7	-71.7	-61.6	-7.5	-65.1	-53.3

Highlights

Auto sales surged to 20.8 million units in July, the highest monthly reading since 1986.

Consumer confidence fell three points in July to 103.2 but still remains substantially above its 2004 average of 96.1.

Existing homes sales rose 2.7% in June to set a new record of 7.330 million units.

RECENT EVIDENCE

Consumer spending remains robust. Sales in July rose 1.8% led by a surge in auto sales and strong growth at gasoline stations, general merchandise and apparel stores. Contributing to this strength were improvements in consumer fundamentals – growth in employment, compensation and a boost in confidence. On a year-over-year basis, retail sales are up by a solid 10.3%, the strongest reading in more than six years. Sales were also very strong on a quarterly basis. In the 2nd quarter of 2005, sales expanded by 2.6% from a quarter before, and by 8.4% from a year ago. However, further growth in retail sales may be undermined by rising interest rates which will somewhat reduce the consumer's ability to borrow and spend.

Auto sales surged from 17.8 million units in June to 20.8 million units in July, the highest monthly reading since 1986. This became possible thanks to the highly successful employee discount campaign introduced by GM in June and followed by Ford and Chrysler in July. As a result of this program, the sales pace in June and July was significantly higher than the average of 16.7 million for the first five months of the year.

Personal income continued to rise fairly rapidly, up by 6.6% on a year-over-year basis in June. This is slightly above the 6.4% average for the preceding five months of the year. On a monthly basis, however, personal income rose at a weaker-than-expected 0.5%, with wage growth up by only 0.2%. Personal consumption also remains solid, as consumers continued their shopping spree in June at 6.7% above levels seen last year. Overall, in June, consumption grew a strong 0.8% with broad-based strength across durable and nondurable categories.

Consumer confidence was affected by the bombings in London and fell three points in July to 103.2 from the upwardly revised figure of 106.2 in June. Both expectation and present situation components of the index fell, with expectations leading the decline. Meanwhile, despite the dip, the index remains way above its 2004 average of 96.1, indicative of continued growth in consumer spending.

Residential construction activity remains strong as homebuilders keep putting homes up at a rapid pace. Total housing starts are holding steady at very high levels, with June starts unchanged from May at 2.004 million units. On an annual basis, housing starts are currently up by 10% from levels seen last year. In the 2nd quarter, however, housing

starts averaged 2.012 million, which is down by almost 13% from the quarter before.

Housing demand remains robust despite May's softening sales, which turned out to be just a hiccup before new record levels. Existing homes sales rose 2.7% in June to set a new record of 7.330 million units, while May's numbers were revised up slightly. Low mortgage rates and rising incomes have also bolstered new home sales. Sales of new homes advanced 4% to 1.374 million units in June. In addition, the levels for March, April, and May were revised up, indicating that the housing market was even stronger than previously thought. New home sales have also hit a new quarterly record, with sales averaging 1.326 million units in the 2nd quarter compared to 1.249 million units in the 1st quarter. Total value of construction came in weaker than expected, falling 0.3% from May. Private residential construction also fell for a fourth straight month in June. The 0.4% drop followed a 1.6% fall in May, 1.5% fall in April, and a 0.5% decline in March. However, this downward trend looks unlikely to persist.

Recent production indicators suggest that manufacturing growth is accelerating. Total industrial production rose a much larger than expected 0.9% in June, on the strength of a significant 5.3% increase in utility output. At the same time, manufacturing output and mining increased a more modest, but still robust, 0.4% each. In the 2nd quarter of 2005, the index has advanced 0.5% from a quarter before and now stands at 3.2% above the level seen last year. Overall, robust demand, combined with spring output cuts, has brought inventories under control, and with stockpiles lean, manufacturing output is now free to resume its upward climb, clearing the way for the factory sector to add to the economy's momentum.

The capacity utilization rate continued its upward trend in June. At the current rate of 80%, it is 4.5% above the level seen last year and the first time this rate has been this high since December 2000. At this point, 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 has finally interrupted a six-month long string of moderation. In June, the index bounced back 2.4 points to 53.8 from 51.4 in May, and strengthened further in July, increasing nearly three points to 56.6. While it is still 9% below the level seen last year, the index hasn't been

Table D
Summary of Recent Evidence

Indicator	Last 4 Months				2nd Qtr.	Comments
	Apr	May	June	July	Average	
Consumer Spending						
Retail Sales (\$billions)	346.1	344.9	350.8	357.0	347.3	Robust Levels
Automobile Sales (million units)	17.18	16.64	17.82	20.80	17.21	Employee Discounts Work
Consumer Confidence (index 1985=100)	97.5	103.1	106.2	103.2	102.3	Cautious Optimism
Personal Income (\$billions)	10,199	10,222	10,275		10,232	Picking Up Nicely
Personal Consumption (\$billions)	8,654	8,651	8,724		8,676	The Shopping Spree Continues
Housing and Construction						
Housing Starts (million units)	2.027	2.004	2.004		2.012	Still Super High
Existing Home Sales (million units)	7.180	7.140	7.330		7.217	Out of Control
New Home Sales (million units)	1.283	1.321	1.374		1.326	Exceptional Strength
Residential Construction (\$billions)	626.2	604.8	602.4		611.1	Downward Trend
Value of Construction (\$billions)	1,115.0	1,096.0	1,093.0		1,101.3	Declining Slightly
Manufacturing						
Industrial Production (index 1997=100)	118.2	118.6	119.7		118.8	Accelerating Again
Capacity Utilization (% of capacity)	79.2	79.4	80.0		79.5	Approaching its Limit
ISM Index	53.3	51.4	53.8	56.6	52.8	End of Moderation
Durable Goods Orders (\$billions)	199.8	212.5	216.7		209.7	Surprising Strength
Deficit & Interest Rates						
Trade Deficit (\$billions)	-56.9	-55.4	-58.8		-57.0	Improving Exports
10-Year Note (% per annum)	4.34	4.14	4.00	4.18	4.16	Softness Worries?
3-Month Bill (% per annum)	2.8	2.9	3.0	3.3	2.9	At a "Measured" Pace
Inflation						
CPI (year-over-year % change)	3.5	2.8	2.5		2.9	End of Energy Price Nightmare
Core CPI (year-over-year % change)	2.2	2.2	2.1		2.2	Moderating?
PPI (year-over-year % change)	4.8	3.5	3.6		4.0	Pressure is Leveling Off
Employment						
Change in Non-Farm Payroll Employment (thou.)	292.0	126.0	166.0	207.0	194.7	See-Saw Pattern
US Layoffs (Challenger Report, thousand units)	57.9	82.3	111.0	103.0	83.7	Manufacturing Jobs At Risk
Unemployment Rate (%)	5.2	5.1	5.0	5.0	5.1	Peachy!

Highlights

The ISM index bounced back to 56.6 in July from 51.4 in May.

In June, the U.S. trade deficit widened to \$58.8 billion.

Employment in 2005: Four "soft" months (100,000–150,000 jobs) and three "strong" months (above 200,000 jobs).

below 50 since May 2003, a generally positive fact. The most recent reports on advanced durable goods showed surprising strength in demand as evidenced by the increase in new orders for both core capital goods and non-transportation goods. Durable goods orders increased 1.4% in June, following a revised 6.4% increase in May. Excluding transportation, orders jumped 2.6% and excluding defense, the increase was 0.9%.

International trade activity remains robust. In June, the U.S. trade deficit widened to \$58.8 billion from May's slightly revised figure of \$55.4 billion, thanks to rising oil prices and increasing oil import volumes. Imports of crude oil mounted to \$14.6 billion in June, up from \$13.7 billion in May. At the same time, U.S. exports were virtually unchanged from May at \$106.8 billion, while imports rose 2.1% from \$162.2 billion in May to \$165.6 billion in June. Over the year, however, imports of goods and services are now up by 11.1%, while exports are up by a stronger 13.4%.

As widely anticipated, the Federal Reserve Board increased the overnight federal funds target rate by another 25-basis points, reaching 3.5% on August 9th. This is the tenth consecutive 25-basis point increase in the target rate since the Fed began its tightening policy over a year ago. The FOMC statements continue to use the term "measured pace" and clearly emphasized that they are worried about inflationary pressure picking up. Meanwhile, Wall Street began to accept the idea that the Fed is not finished raising rates, as within the past several weeks, the yield on a 10-year Treasury bond rose from a low of 3.9% in June to 4.3% in late July.

The June decline in energy prices brought the headline rate of inflation to 2.5%, with core inflation standing at 2.1%. Since peaking at 3.5% in April, overall CPI has decelerated by a full point, hinting that pricing pressures from the most recent round of energy price hikes has already faded away. On a quarterly basis, CPI and Core CPI advanced 2.9% and 2.2%, respectively, from the levels seen last year. The producer price index (PPI) for finished goods was unchanged in June, as falling food prices and a 0.1% decline in core prices offset a 2.0% increase in energy prices. On an annual basis, the index has increased 3.6% and now stands at an annualized rate of 2.4% for the first six months of 2005.

Employment gains have been on a roller coaster ride this year. The year showed four "soft" months with job gains in the 100,000–150,000

range, combined with three "strong" months with job gains above 200,000 in February, April and, most recently, July. Payroll employment rose a solid 207,000 in July, while payrolls for May and June were both revised up by a combined 42,000 jobs. Among sectors of the economy, manufacturers lost another 4,000 jobs, while steadily rising construction and financial service payrolls reflected the booming housing market with 7,000 and 8,500 new jobs, respectively. In addition, professional and business services added 33,000 new jobs in July and about half a million over the past year. On a quarterly basis, the 2nd quarter average of 195,000 was substantially better than the 1st quarter monthly average of 182,000. Over the past 12 months, monthly labor force gains have averaged 185,000.

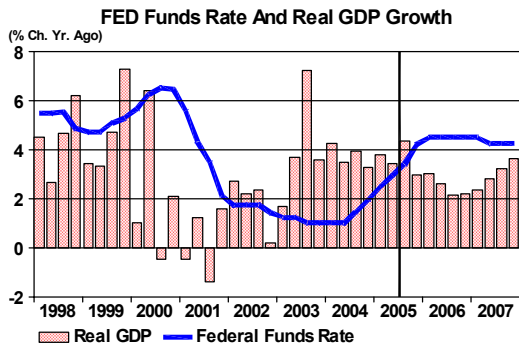
Meanwhile, the unemployment rate, derived from a separate survey, held steady in July at 5.0%. Finally, announced corporate layoffs remained high with 102,971 jobs eliminated in July. This is the second month of cuts exceeding 100,000 and 48% higher than a year ago. So far this year, a total of 641,235 job cuts have been announced.

HIGHLIGHTS OF THE FORECAST

The latest GDP release showed that the economy increased at an annual rate of 3.4% in the second quarter of 2005, following an increase of 3.8% in the first quarter. The major contributors to the increase in real GDP in the second quarter were personal consumption expenditures, exports, residential fixed investment, and government spending. Real personal consumption expenditures increased 3.3% in the 2nd quarter of 2005, compared with an increase of 3.5% in the 1st quarter. Durable goods purchases rose 8.3%, while consumption of nondurable and services grew by 3.3% and 2.3%, respectively.

In the 2nd quarter of 2005, exports of good and services increased by 12.6% while imports decreased by 2.0%. Business fixed investment grew at a very decent rate of 9.0% and real residential fixed investment also increased strongly by 9.8%. Business fixed and residential investments are now up by 9.4% and 10.3%, respectively, from a year ago. At the same time, the real change in private inventories subtracted 2.3% from the 2nd quarter GDP. Finally, federal government spending increased 1.3% while national defense consumption increased 2.0%.

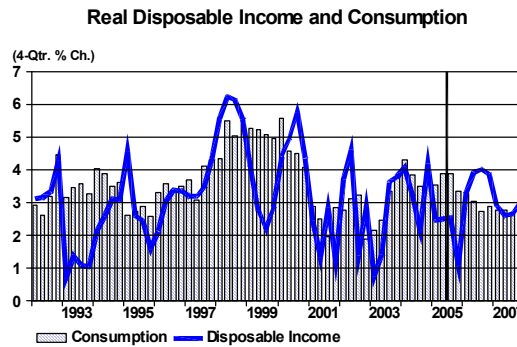
Figure 1



Real GDP will average a stellar 4.4% growth rate in the 3rd quarter of 2005, and then 3.0% in the 4th quarter. In the 2nd half of the year, real GDP will display a strong 3.6% growth rate. For 2005, real GDP growth will be 3.7% and will slow to a 3.0% rate in 2006 as consumption growth moderates. In 2007, real GDP will post 2.6% growth rate as business fixed investment growth moderates as well (see figure 1).

- Overall **consumption** growth is expected to be 3.3% in the 2nd half of 2005, slightly lower than the 3.4% growth rate in the 1st half of the year. For the year 2005, consumption growth will be a strong 3.6% before moderating to 3.0% in 2006 and slowing further to 2.7% in 2007. Consumption growth for **durable** goods will remain unchanged from 2004 to 2005 at 6.0%. It will moderate to 2.0% in 2006 and rebound to 3.8% in 2007. Consumption growth for **nondurable** goods will decline to 4.2% in 2005 from 4.7% in 2004 and drop further to 3.5% in 2006 and to 2.8% in 2007. **Service** consumption is expected to grow by 2.9% in 2005 and 2006, and rise by 2.5% in 2007 (see figure 2).

Figure 2



- For the year 2005, **business fixed investment** is expected to be nearly as strong as it was in 2004 by growing 9.3%. Investment will again show a solid growth rate of 8.9% in 2006 but will moderate substantially to 3.3% in 2007. Investment in **producer's durable equipment** posted a very strong growth rate of 11.9% in 2004. The growth rate for this category will again be a strong 11.5% in 2005 before moderating to 9.5% in 2006 and to 5.2% in 2007. Investment in **structures** is expected to rise by 2.9% in 2005. This growth trend will continue in 2006 at a very strong rate of 7.3%. In 2007, however, this category will decline by 2.5%. **Residential** investment will grow by a modest 5.3% rate in 2005, but decline sharply by 7.1% as housing starts decline in 2006. This category will again decline by 7.0% in 2007 as housing starts moderate towards normalcy (see figure 3).
- In 2004, the economy finally turned a corner in 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 (see figure 4). In 2005, the economy will add new jobs at a very strong rate of 190,000 per month, helping to decrease the

Highlights
 GDP Forecast:
 2005 is 3.7%,
 2006 is 3.0% and
 2007 is 2.6%.

Consumption growth is a strong 3.6% in 2005 but moderates in 2006 and 2007.

Figure 3

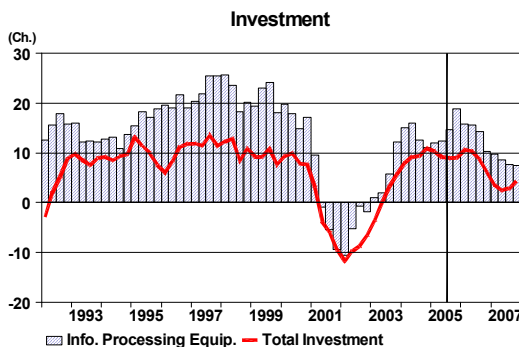
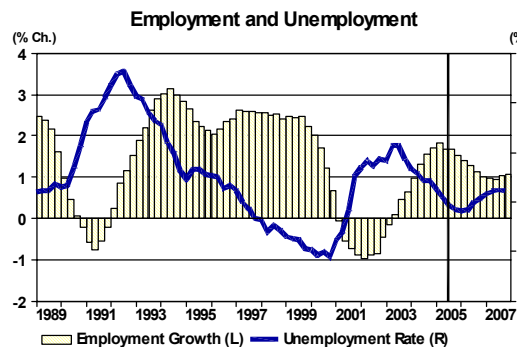


Figure 4



Unemployment will stay around 5% for the next few years.

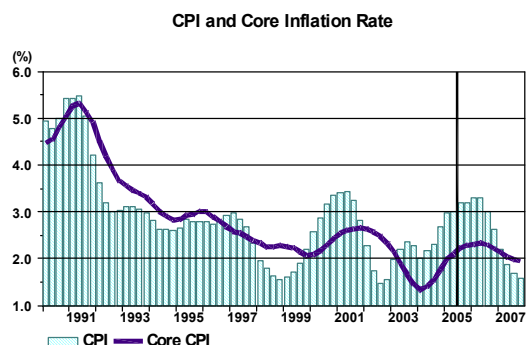
Highlights

Inflation will average 3.2% in 2005 but moderates to below 2.0% by 2007.

Oil prices will average \$57.5 dollars in 2005 and will remain around \$50 dollars a barrel mark for the next few years.

Federal Funds Rate will rise gradually to the 4.5% level by early 2006.

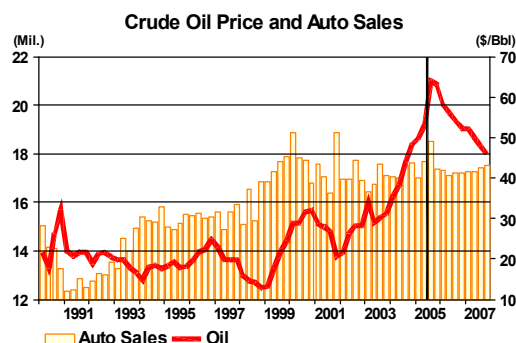
Figure 5



unemployment rate to 5.0%. The unemployment rate will drop further to 4.9% in 2006, before inching up to 5.2% in 2007 as job gains decelerate to 100,000 jobs per month following moderation in GDP growth.

- **CPI inflation** was 2.7% in 2004. In the 1st half of 2005, the CPI inflation rate inched up to 3.3% due to higher oil prices. Inflation will pick up in the coming quarter to 3.9% but moderate in the 4th quarter to 3.1%. For the year 2005, the inflation rate will average 3.2%. CPI will moderate to 2.6% in 2006 and further moderate to 1.6% in 2007 (see figure 5).
- The **core inflation** rate had been steadily trending downward over the last three years, raising fears of deflation. But as job growth turned around, so has this rate. Core inflation will inch up from its 1.8% level in 2004 to 2.3% in 2005. In 2006, it will average 2.2% and will moderate a bit to 1.9% in 2007. **Wage compensation** in the non-farm business sector grew at a 4.8% rate in 2004. It will increase by 5.9% in 2005 as job growth gets stronger. It will grow again by 4.0% in 2006 and by 4.1% in 2007.
- Rising **oil prices** have been a serious problem over the last two years. They increased from \$26.1 per barrel in 2002 to \$31.1 in 2003. The situation worsened in 2004 and 2005, as crude oil prices systematically escalated to \$41.5 in 2004 and to \$53.1 per barrel by the summer 2005. In the next two quarters, expect the price of oil to average more than \$60 per barrel. Thus, in 2005, oil prices will average \$57.5, moderate a bit to \$55.1 in 2006 and drop to \$49 dollars in 2007. Oil prices will remain around \$50 a barrel mark for the coming future (see figure 6).

Figure 6



- **Automobile and light truck sales** will continue to be strong in 2005, increasing from 16.9 million units in 2004 to 17.2 million units in 2005. In 2006, auto sales will experience a modest decline when they average 16.7 million units and then sell at the improved rate of 16.9 million units in 2007 as oil prices moderate.
- The **Federal Funds Rate** was raised to 3.5% at the last FOMC meeting in early August and will rise gradually to the 4.5% level by early 2006 as the FED follows through on its promise of “measured” hikes. In 2006, the FED will pause somewhat before retreating to the 4.25% level by mid-2007 in light of the economic slowdown (See figure 7).
- The **10-year bond** rate averaged 4.2% in the 2nd quarter of 2005. However, it is not expected to cross the 5.0% mark until early 2006. The 10-year bond rate will average 4.5% in 2005 and for 2006 average 5.2%. In 2007, it will average 5.5%, a modest rise from the preceding year.

Figure 7

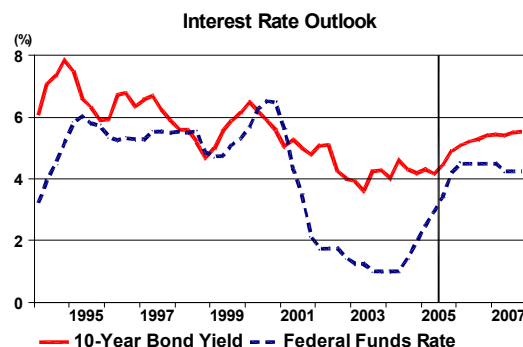
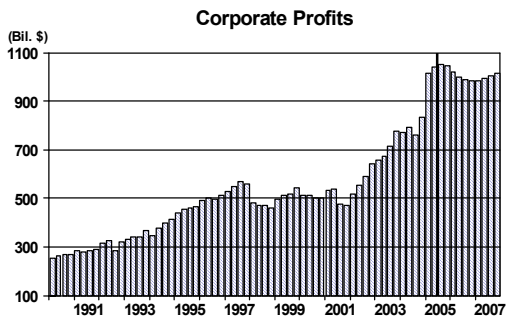
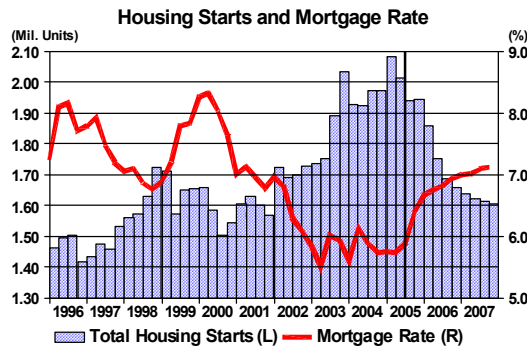


Figure 8



- Pretax **corporate profits** increased by a strong 13% in 2004 and will rise even further this year by 33.2%. This strength is completely absent in 2006 and 2007 when corporate profits decrease by 3.0% and then grow by an anemic 0.2%, respectively (see figure 8).
- **Housing starts**, which averaged 2.083 million units in the 1st quarter of 2005 and 2.012 million units in 2nd quarter, will moderate a bit to 1.944 million units in the 4th quarter of 2005. On an annual basis, housing starts will rise from 1.950 million units in 2004 to 1.995 million units in 2005, as the combination of low interest rates and robust demand morph into a red-hot housing market as never seen before. Housing starts will, however, drop sharply to the 1.739 million unit level in 2006 as mortgage rates edge closer to 7.0%. Housing starts will average 1.620 million units in 2007. The effective **mortgage rate** will average 5.9% in 2005 and rise to 6.8% in 2006. Rates will rise even higher to 7.1% in 2007 (see figure 9).
- The dollar's 2004 slide of 8.1% in the nominal terms will continue in the next couple of years. The **nominal trade-weighted dollar index** is expected to slide by 3.2% in 2005, and then further drop in 2006 and 2007 by 4.9% and 3.6%, respectively. In 2004, due to the weaker dollar, real **exports** grew robustly by 8.4% against a 10.7% increase in real **imports**. In 2005, exports will rise by 7.8%, whereas imports moderate to a 6.7% growth rate. In 2006, imports rise by 5.8% and exports rise again by a strong 7.5%. In 2007, exports rise by an even stronger 9.9% and outdo imports, which are expected to grow by only 3.3% as the dollar gets stronger and investment moderates. The **trade deficit** in

Figure 9



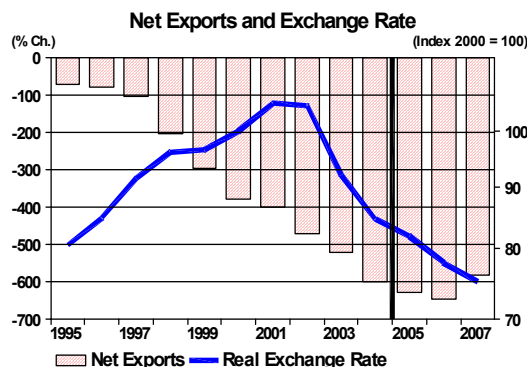
nominal terms will expand significantly to \$713.4 billion in 2005 from \$624.0 billion in 2004. It will grow further to \$756.3 billion in 2006 before it moderates to \$683.7 billion in 2007. These numbers signal the new trade deficit reality which is expected to exist for years to come (see figure 10).

Highlights

The 10-year bond will stay in the mid-4.0% range and not cross the 5.0% mark until early 2006.

Housing starts will be 1.995 million units in 2005 but will moderate in 2006 and 2007.

Figure 10



Exports will continue to grow at a strong pace over the next few years but the trade deficit will continue to get bigger. Welcome to the new reality!

FORECAST OF THE NATION

August 2005 Report

Tables

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	2.9	4.8	6.4	5.5	2.8	1.2	0.8
Money Supply (M2)	4.8	4.9	7.3	7.5	6.1	8.7	7.6	6.9	4.5	3.8	2.1	2.9
Money Supply (M3)	6.8	8.3	10.4	8.7	9.4	11.4	8.0	6.4	5.2	5.2	4.0	3.3
Currency	4.1	6.9	7.6	9.8	7.6	5.9	9.5	6.2	5.1	5.4	3.5	2.5
GDP Deflator	1.9	1.7	1.1	1.4	2.2	2.4	1.7	2.0	2.6	2.6	2.1	1.9
Real GDP	3.7	4.5	4.2	4.4	3.7	0.8	1.6	2.7	4.2	3.7	3.0	2.6
Interest Rates (%) on:												
90-day Treasury Bills	5.0	5.1	4.8	4.6	5.8	3.4	1.6	1.0	1.4	3.2	4.3	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	5.5
30-year Treasury Bonds	6.7	6.6	5.6	5.9	5.9	5.5	5.4	5.1	5.1	4.7	5.4	5.7
Prime Rate	8.3	8.4	8.4	8.0	9.2	6.9	4.7	4.1	4.3	6.2	7.5	7.3
Moody's Corporate Aaa Bonds	7.4	7.3	6.5	7.0	7.6	7.1	6.5	5.7	5.6	5.4	6.4	6.6
Prime Rate Less Inflation	5.3	6.1	6.8	5.8	5.9	4.1	3.1	1.8	1.7	3.0	4.9	5.7
Federal Fiscal Policy												
Effective Tax Rates (%):												
Personal Income	21.5	21.7	21.8	21.4	21.8	23.0	20.0	18.8	18.2	19.3	18.9	19.5
Corporate Profits	5.4	5.1	5.9	5.7	6.0	6.0	5.5	4.8	4.9	4.9	4.9	4.9
Defense Purchases--%change												
Current \$	1.7	-1.4	-1.1	4.3	2.7	6.0	11.3	13.6	11.3	5.6	5.3	2.7
Constant \$	-1.4	-2.8	-2.1	1.9	-0.5	3.9	7.4	8.8	7.0	2.0	2.9	1.0
Other Expenditures--% change												
Transfers to Persons	5.9	3.4	3.0	4.2	5.3	9.0	9.9	6.8	4.8	6.1	7.8	5.8
Grants to S&L Gov't	3.8	3.9	7.1	9.5	6.2	11.6	10.3	11.3	2.7	4.7	5.9	6.0
Billions of Current Dollars												
Revenues	1524.0	1653.1	1773.8	1891.2	2053.9	2016.2	1853.2	1868.6	1974.8	2258.0	2390.2	2541.6
Expenditures	1665.7	1708.9	1735.0	1787.6	1864.4	1969.5	2101.1	2251.4	2381.3	2528.9	2697.1	2834.8
Deficit	-141.8	-55.8	38.8	103.6	189.5	46.7	-248.0	-382.8	-406.5	-270.9	-306.9	-293.2
As Shares of GDP												
Revenues	19.5	19.9	20.3	20.4	20.9	19.9	17.7	17.0	16.8	18.1	18.2	18.5
Expenditures	21.3	20.6	19.8	19.3	19.0	19.4	20.1	20.5	20.3	20.3	20.5	20.7
Defense Purchases	4.5	4.2	4.0	3.9	3.8	3.9	4.2	4.5	4.7	4.7	4.7	4.6
Transfers to Persons	11.4	11.1	10.8	10.6	10.6	11.2	11.9	12.1	11.9	11.8	12.1	12.3
Deficit	-1.8	-0.7	0.4	1.1	1.9	0.5	-2.4	-3.5	-3.5	-2.2	-2.3	-2.1
Details of Real GDP--% change												
Real GDP	3.7	4.5	4.2	4.4	3.7	0.8	1.6	2.7	4.2	3.7	3.0	2.6
Final Sales	3.7	4.0	4.2	4.5	3.8	1.7	1.1	2.7	3.9	3.9	2.9	2.7
Consumption	3.4	3.8	5.0	5.1	4.7	2.5	2.7	2.9	3.9	3.6	3.0	2.7
Business Fixed Investment	9.3	12.1	11.1	9.2	8.7	-4.2	-9.2	1.3	9.4	9.3	8.9	3.3
Producers Durable Equip.	10.6	13.8	13.3	12.7	9.4	-4.9	-6.2	3.2	11.9	11.5	9.5	5.2
Structures	5.7	7.2	5.1	-0.4	6.8	-2.3	-17.1	-4.2	2.2	2.9	7.3	-2.5
Residential Construction	8.0	1.9	7.6	6.0	0.8	0.4	4.8	8.4	10.3	5.3	-7.1	-7.0
Exports	8.4	11.9	2.4	4.3	8.7	-5.4	-2.3	1.8	8.4	7.8	7.5	9.9
Imports	8.7	13.6	11.6	11.5	13.1	-2.7	3.4	4.6	10.7	6.7	5.8	3.3
Federal Purchases	-1.2	-1.0	-1.1	2.2	0.9	3.9	7.0	6.9	5.2	1.9	2.7	1.3
State & Local Purchases	2.3	3.6	3.6	4.7	2.7	3.2	3.1	0.6	0.4	1.7	1.9	1.7
Billions of 2000 Dollars												
Real GDP	8329	8704	9067	9470	9817	9891	10049	10321	10756	11149	11479	11778
Final Sales	8300	8632	8994	9401	9760	9922	10036	10305	10704	11121	11441	11753
Inventory Change	28.7	71.2	72.6	68.9	56.5	-31.7	12.5	15.5	52.0	28.0	37.8	25.3

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
Industrial Production and Resource Utilization												
Production--% change	4.3	7.3	5.8	4.5	4.3	-3.6	-0.3	-0.0	4.1	3.8	3.8	2.1
Capacity Util. Manuf. (%)	81.4	82.8	81.8	81.1	80.6	74.5	73.5	73.7	76.7	78.6	78.5	77.7
Real Bus. Investment as % of Real GDP	14.5	15.2	16.0	16.6	17.1	16.5	15.4	15.5	16.3	17.0	17.0	16.6
Nonfarm Employment (mil.)	119.7	122.8	125.9	129.0	131.8	131.8	130.3	130.0	131.5	133.8	135.7	137.0
Unemployment Rate (%)	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.0	4.9	5.2
Inflation--% change												
Consumer Price Index	2.9	2.3	1.5	2.2	3.4	2.8	1.6	2.3	2.7	3.2	2.6	1.6
Total less Food & Energy	2.7	2.4	2.3	2.1	2.4	2.7	2.3	1.5	1.8	2.3	2.2	1.9
Consumption Deflator	2.2	1.7	0.9	1.7	2.5	2.1	1.4	1.9	2.6	2.7	2.2	1.8
GDP Deflator	1.9	1.7	1.1	1.4	2.2	2.4	1.7	2.0	2.6	2.6	2.1	1.9
Producers Price Index	2.3	-0.1	-2.5	0.9	5.8	1.1	-2.3	5.3	6.2	6.3	1.5	-1.7
Factors Related to Inflation--%change												
Nonfarm Business Sector												
Wage Compensation	3.4	3.1	6.0	4.6	7.0	4.0	3.2	4.1	4.8	5.9	4.0	4.1
Productivity	2.7	1.6	2.7	2.8	2.6	2.6	4.3	4.3	4.0	2.4	1.7	1.9
Unit Labor Costs	0.7	1.4	3.1	1.8	4.2	1.5	-1.1	-0.2	0.8	3.5	2.4	2.2
Crude Oil Price (\$/bbl)	22.1	20.6	14.4	19.3	30.4	26.0	26.1	31.1	41.5	57.5	55.1	49.0
New Home Price (\$1000)	139.8	145.0	152.0	159.8	166.5	172.6	185.0	191.4	217.8	234.6	240.3	242.1
Income, Consumption and Saving--%change												
Disposable Income	5.2	5.3	6.8	4.7	7.5	4.1	4.6	4.3	6.1	4.9	6.0	4.6
Real Disposable Income	3.0	3.5	5.8	3.0	4.8	1.9	3.1	2.4	3.4	2.1	3.8	2.8
Real Consumption	3.4	3.8	5.0	5.1	4.7	2.5	2.7	2.9	3.9	3.6	3.0	2.7
Savings Rate (%)	4.0	3.7	4.3	2.4	2.4	1.8	2.4	2.1	1.7	0.1	0.7	0.7
Housing and Automobiles--millions of units												
Housing Starts	1.469	1.475	1.621	1.647	1.573	1.601	1.710	1.854	1.950	1.995	1.739	1.620
Existing SF Home Sales	3.783	3.973	4.492	4.626	4.607	4.723	4.995	5.441	5.913	6.091	5.471	5.128
Auto and Light Truck Sales	15.1	15.1	15.5	16.9	17.3	17.1	16.8	16.6	16.9	17.2	16.7	16.9
Corporate Profits												
Billions of Dollars												
Before Taxes	733.0	798.2	718.3	775.9	773.4	707.9	768.5	937.1	1059.4	1410.8	1367.8	1369.9
After Taxes	501.4	552.1	470.0	517.2	508.2	503.8	575.8	705.1	788.2	1038.2	997.1	998.0
Percent Change												
Before Taxes	8.7	8.9	-10.0	8.0	-0.3	-8.5	8.6	22.0	13.0	33.2	-3.0	0.2
After Taxes	10.0	10.1	-14.9	10.1	-1.7	-0.9	14.3	22.4	11.8	31.7	-4.0	0.1
International Trade												
Nominal												
U.S. Dollar--% change	4.5	7.7	4.8	-1.6	4.9	6.0	-1.5	-12.2	-8.2	-2.5	-5.3	-4.9
Exports--% change	6.9	10.0	0.1	3.7	10.6	-5.8	-2.6	3.9	12.3	11.6	8.8	9.8
Imports--% change	6.8	9.5	5.6	12.2	17.9	-5.1	2.2	8.1	16.2	12.6	7.8	3.1
Net Exports (bil. \$)	-96.3	-101.6	-160.0	-260.5	-379.5	-367.0	-424.4	-500.9	-624.0	-713.4	-756.3	-683.7
Real												
U.S. Dollar--% change	5.3	7.9	5.0	0.5	3.7	5.4	-0.4	-12.4	-8.1	-3.2	-4.9	-3.6
Exports--% change	8.4	11.9	2.4	4.3	8.7	-5.4	-2.3	1.8	8.4	7.8	7.5	9.9
Imports--% change	8.7	13.6	11.6	11.5	13.1	-2.7	3.4	4.6	10.7	6.7	5.8	3.3
Net Exports (bil. 2000\$)	-79.7	-104.6	-203.8	-296.2	-379.5	-399.1	-471.4	-521.4	-601.3	-629.9	-645.7	-581.5

Forecast Tables - Summary

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

	2005:1	2005:2	2005:3	2005:4	2006:1	2006:2	2006:3	2006:4	2007:1	2007:2	2007:3
Monetary Aggregates, Velocity, GDP--%change											
Money Supply (M1)	0.7	-0.7	6.2	2.0	0.6	-0.7	0.3	0.9	0.7	0.9	1.3
Money Supply (M2)	3.8	1.7	3.2	2.2	2.1	1.5	1.7	2.1	2.8	3.5	4.1
Money Supply (M3)	5.3	5.6	5.5	4.9	4.1	2.9	2.7	2.8	3.0	3.8	4.0
Currency	3.8	2.7	13.7	2.2	2.2	1.8	2.8	1.7	1.1	3.5	4.0
GDP Deflator	3.1	2.4	2.4	2.6	2.2	1.6	1.8	1.9	2.1	1.8	1.8
Real GDP	3.8	3.4	4.4	3.0	3.0	2.6	2.2	2.2	2.4	2.8	3.3
Interest Rates (%) on:											
90-day Treasury Bills	2.5	2.9	3.3	4.0	4.3	4.3	4.3	4.3	4.4	4.1	4.1
10-year Treasury Bonds	4.3	4.2	4.5	4.9	5.1	5.2	5.3	5.4	5.4	5.4	5.5
30-year Treasury Bonds	4.7	4.5	4.7	5.1	5.3	5.4	5.4	5.6	5.6	5.6	5.7
Prime Rate	5.4	5.9	6.4	7.2	7.5	7.5	7.5	7.5	7.5	7.3	7.3
Moody's Corporate Aaa Bon	5.3	5.1	5.3	6.0	6.2	6.4	6.4	6.6	6.6	6.6	6.7
Prime Rate Less Inflation	3.0	1.8	2.5	4.1	5.0	5.3	6.1	5.9	5.9	5.7	5.9
Federal Fiscal Policy											
Effective Tax Rates (%):											
Personal Income	19.5	19.5	19.2	19.1	19.0	18.9	18.9	19.0	19.4	19.5	19.5
Corporate Profits	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	5.0
Defense Purchases--%change											
Current \$	9.8	3.5	4.2	5.2	11.3	2.3	2.2	2.2	5.5	1.5	1.5
Constant \$	3.0	2.1	1.6	3.1	6.0	1.2	1.2	1.2	1.1	0.7	0.9
Other Expenditures--% change											
Transfers to Persons	11.7	0.4	8.4	1.9	16.3	6.4	7.6	3.9	7.9	4.3	4.8
Grants to S&L Gov't	-2.9	2.8	18.4	-4.6	8.4	6.9	5.9	5.7	6.0	6.2	5.9
Billions of Current Dollars											
Revenues	2201.5	2238.6	2277.2	2314.7	2350.6	2373.9	2401.2	2435.0	2500.9	2530.8	2555.5
Expenditures	2494.9	2526.5	2537.2	2556.9	2641.4	2682.8	2720.8	2743.3	2794.0	2821.4	2848.4
Deficit	-293.4	-287.9	-260.0	-242.2	-290.8	-308.9	-319.6	-308.3	-293.1	-290.5	-292.9
As Shares of GDP											
Revenues	18.0	18.1	18.1	18.1	18.2	18.2	18.2	18.3	18.6	18.6	18.5
Expenditures	20.5	20.4	20.2	20.0	20.4	20.5	20.6	20.6	20.7	20.7	20.6
Defense Purchases	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.6
Transfers to Persons	12.0	11.8	11.8	11.7	12.0	12.1	12.2	12.2	12.3	12.3	12.3
Deficit	-2.4	-2.3	-2.1	-1.9	-2.2	-2.4	-2.4	-2.3	-2.2	-2.1	-2.1
Details of Real GDP--% change											
Real GDP	3.8	3.4	4.4	3.0	3.0	2.6	2.2	2.2	2.4	2.8	3.3
Final Sales	3.5	5.9	3.5	2.1	2.9	2.6	2.6	2.6	2.6	2.8	3.0
Consumption	3.5	3.3	4.3	2.3	3.1	2.4	3.1	2.9	2.6	2.5	2.7
Business Fixed Investment	5.7	9.0	10.6	10.7	12.0	8.3	4.5	0.4	1.3	3.9	6.0
Producers Durable Equip.	8.3	11.0	12.8	10.0	11.7	7.3	6.7	4.5	4.4	4.5	5.9
Structures	-2.0	3.1	4.0	12.8	13.0	11.4	-2.0	-11.5	-8.1	1.8	6.5
Residential Construction	9.5	9.8	-0.8	-6.4	-9.5	-9.0	-14.2	-8.0	-6.1	-4.4	-4.9
Exports	7.5	12.6	5.5	6.7	7.3	6.7	8.6	9.7	10.4	10.7	10.8
Imports	7.4	-2.0	9.5	9.0	8.1	3.2	2.6	2.6	3.0	3.3	4.5
Federal Purchases	2.3	1.3	2.3	3.1	4.8	1.5	1.4	1.4	1.3	1.1	1.2
State & Local Purchases	1.6	2.4	1.6	2.1	2.2	1.8	1.3	1.9	1.9	1.7	1.3
Billions of 2000 Dollars											
Real GDP	10999.3	11092.0	11211.4	11293.5	11377.8	11451.1	11512.4	11575.8	11643.7	11725.0	11819.2
Final Sales	10941.1	11098.4	11193.7	11250.9	11332.4	11404.5	11477.9	11551.2	11624.8	11706.2	11792.3
Inventory Change	58.2	-6.4	17.7	42.6	45.4	46.6	34.5	24.6	18.9	18.8	26.9

Forecast Tables - Summary

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

	2005:1	2005:2	2005:3	2005:4	2006:1	2006:2	2006:3	2006:4	2007:1	2007:2	2007:3
Industrial Production and Resource Utilization											
Production--% change	3.6	2.1	7.3	2.4	4.9	3.9	2.3	1.5	0.8	2.4	3.2
Capacity Util. Manuf. (%)	78.1	78.2	79.0	79.2	79.1	78.8	78.3	77.8	77.5	77.5	77.7
Real Bus. Investment as % of Real GDP	16.7	17.0	17.1	17.1	17.2	17.2	17.0	16.8	16.6	16.6	16.5
Nonfarm Employment (mil.)	132.8	133.4	134.1	134.7	135.2	135.6	135.8	136.1	136.4	136.8	137.1
Unemployment Rate (%)	5.3	5.1	4.9	4.9	4.8	4.8	5.0	5.1	5.2	5.2	5.2
Inflation--% change											
Consumer Price Index	2.4	4.2	3.9	3.1	2.5	2.2	1.4	1.6	1.6	1.6	1.4
Total less Food & Energy	2.6	2.0	2.5	2.4	2.4	2.0	2.0	2.0	1.9	1.9	1.9
Consumption Deflator	2.3	3.3	3.1	2.6	2.0	1.5	1.7	1.8	1.9	1.8	1.7
GDP Deflator	3.1	2.4	2.4	2.6	2.2	1.6	1.8	1.9	2.1	1.8	1.8
Producers Price Index	1.2	5.1	11.6	5.3	-0.5	-3.0	-2.7	-1.4	-1.0	-1.8	-1.7
Factors Related to Inflation--%change											
Nonfarm Business Sector											
Wage Compensation	6.9	3.4	3.2	3.8	4.4	4.2	4.4	4.3	4.0	4.1	3.9
Productivity	3.2	2.2	2.2	1.1	1.7	1.5	1.8	1.5	1.6	2.0	2.4
Unit Labor Costs	3.6	1.3	1.0	2.7	2.6	2.6	2.6	2.7	2.3	2.0	1.5
Crude Oil Price (\$/bbl)	49.9	53.1	63.9	63.0	58.0	56.0	54.0	52.3	52.0	50.0	48.0
New Home Price (\$1000)	229.9	224.9	237.5	245.9	236.3	238.8	242.7	243.3	237.9	240.8	243.7
Income, Consumption and Saving--%change											
Disposable Income	-0.7	4.8	6.0	5.7	8.0	5.5	5.0	4.3	3.9	4.6	5.2
Real Disposable Income	-2.9	1.4	2.8	3.0	5.9	4.0	3.2	2.5	1.9	2.8	3.4
Real Consumption	3.5	3.3	4.3	2.3	3.1	2.4	3.1	2.9	2.6	2.5	2.7
Savings Rate (%)	0.7	0.2	-0.2	-0.1	0.5	0.9	0.9	0.7	0.6	0.6	0.8
Housing and Automobiles--millions of units											
Housing Starts	2.083	2.012	1.942	1.944	1.860	1.751	1.687	1.657	1.638	1.623	1.612
Existing SF Home Sales	5.980	6.290	6.176	5.917	5.613	5.577	5.385	5.307	5.215	5.188	5.041
Auto and Light Truck Sales	16.5	17.2	18.1	16.9	16.8	16.6	16.7	16.7	16.8	16.8	17.0
Corporate Profits											
Billions of Dollars											
Before Taxes	1378.3	1411.2	1428.6	1425.0	1395.8	1371.5	1353.6	1350.5	1347.5	1361.0	1376.2
After Taxes	1015.7	1039.5	1051.0	1046.6	1017.4	998.9	986.8	985.1	982.9	992.3	1002.3
Percent Change											
Before Taxes	126.0	9.9	5.0	-1.0	-8.0	-6.8	-5.1	-0.9	-0.9	4.1	4.5
After Taxes	123.1	9.7	4.5	-1.7	-10.7	-7.1	-4.8	-0.7	-0.9	3.9	4.1
International Trade											
Nominal											
U.S. Dollar--% change	-2.6	11.6	7.4	-8.6	-10.1	-7.0	-6.8	-6.2	-4.5	-3.7	-3.5
Exports--% change	12.4	16.7	7.8	9.5	8.3	7.0	8.6	9.7	10.4	10.4	10.5
Imports--% change	10.5	6.7	15.2	11.0	9.7	3.8	2.4	2.4	3.4	2.7	3.6
Net Exports (bil. \$)	-697.5	-679.8	-726.3	-750.0	-772.3	-768.8	-752.4	-731.8	-713.7	-690.9	-671.8
Real											
U.S. Dollar--% change	-2.9	11.5	7.1	-9.1	-10.3	-5.9	-4.6	-4.3	-3.1	-2.8	-3.1
Exports--% change	7.5	12.6	5.5	6.7	7.3	6.7	8.6	9.7	10.4	10.7	10.8
Imports--% change	7.4	-2.0	9.5	9.0	8.1	3.2	2.6	2.6	3.0	3.3	4.5
Net Exports (bil. 2000\$)	-645.4	-601.3	-626.2	-646.5	-661.5	-656.1	-641.6	-623.6	-605.1	-586.1	-571.9

Forecast Tables - Detailed

Table 3A. Gross Domestic Product

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Billions of Current Dollars											
Gross Domestic Product	8304.3	8747.0	9268.4	9817.0	10128.0	10469.6	10971.3	11734.3	12481.0	13126.3	13723.3
Personal Consumption											
Expenditures	5547.4	5879.5	6282.5	6739.4	7055.0	7350.7	7709.9	8214.3	8747.8	9205.1	9627.0
Durable Goods	692.7	750.2	817.6	863.3	883.7	923.9	950.1	987.8	1044.4	1061.8	1098.6
Autos and Parts	305.1	336.1	370.8	386.5	407.9	429.3	439.1	441.8	466.0	464.1	483.6
Nondurable Goods	1619.0	1683.6	1804.8	1947.2	2017.1	2079.6	2189.0	2368.3	2553.5	2684.2	2775.7
Services	3235.8	3445.7	3660.0	3928.8	4154.3	4347.2	4570.8	4858.2	5149.9	5459.1	5752.7
Gross Private Domestic											
Investment	1389.8	1509.1	1625.7	1735.5	1614.4	1582.1	1670.4	1928.1	2098.2	2210.0	2215.4
Residential	349.1	385.8	424.9	446.9	469.3	503.9	572.5	673.8	734.7	702.4	669.2
Nonres. Structures	250.3	275.2	282.2	313.2	322.6	279.2	276.9	298.4	329.9	359.5	356.1
Producers Dur. Equip	718.3	777.3	851.7	918.9	854.2	787.1	805.6	900.4	1004.3	1105.8	1162.5
Change In Inv.	72.0	70.8	66.9	56.5	-31.7	11.9	15.5	55.5	29.3	42.3	27.7
Net Exports	-101.6	-160.0	-260.5	-379.5	-367.0	-424.4	-500.9	-624.0	-713.4	-756.3	-683.7
Exports	955.4	955.9	991.3	1096.3	1032.8	1005.9	1045.7	1173.8	1310.2	1425.9	1565.9
Imports	1056.9	1115.9	1251.8	1475.8	1399.9	1430.3	1546.5	1797.8	2023.6	2182.2	2249.6
Government Purchases	1468.7	1518.3	1620.8	1721.6	1825.6	1961.2	2091.9	2215.9	2348.4	2467.5	2564.7
Federal	530.9	530.5	555.8	578.8	612.9	679.7	754.8	827.6	872.7	916.5	944.0
Defense	349.6	345.7	360.6	370.3	392.6	437.1	496.7	552.7	583.9	615.1	632.0
Other	181.3	184.7	195.2	208.5	220.3	242.5	258.2	274.9	288.8	301.4	311.9
State and Local	937.8	987.9	1065.0	1142.8	1212.8	1281.5	1337.1	1388.3	1475.7	1551.0	1620.7
Billions of 2000 Dollars											
Gross Domestic Product	8703.5	9066.9	9470.4	9817.0	9890.7	10048.9	10320.6	10755.7	11149.0	11479.3	11778.2
Personal Consumption											
Expenditures	5547.4	5879.5	6282.5	6739.4	7055.0	7350.7	7709.9	8214.3	8747.8	9205.1	9627.0
Durable Goods	646.9	720.3	804.5	863.3	900.7	964.8	1028.5	1089.9	1155.4	1178.2	1222.8
Autos & Parts	304.7	339.0	372.4	386.5	405.8	429.0	449.7	457.0	470.7	463.4	477.3
Nondurable Goods	1725.3	1794.4	1876.6	1947.2	1986.7	2037.1	2101.8	2200.4	2293.2	2374.4	2439.9
Services	3468.0	3614.9	3758.0	3928.8	4023.2	4100.4	4183.9	4310.9	4435.6	4563.4	4677.6
Gross Private Domestic											
Investment	1387.7	1524.1	1642.5	1735.5	1598.4	1557.2	1617.4	1809.9	1923.5	1994.5	1980.9
Residential	388.6	418.3	443.6	446.9	448.5	469.9	509.4	561.8	591.4	549.3	510.8
Nonres. Structures	280.1	294.5	293.2	313.2	306.1	253.8	243.1	248.4	255.7	274.2	267.4
Producers Dur. Equip	658.3	745.6	840.2	918.9	874.2	820.2	846.8	947.6	1056.8	1157.3	1217.3
Change In Inv.	71.2	72.6	68.9	56.5	-31.7	12.5	15.5	52.0	28.0	37.8	25.3
Net Exports	-104.6	-203.8	-296.2	-379.5	-399.1	-471.4	-521.4	-601.3	-629.9	-645.7	-581.5
Exports	943.7	966.5	1008.2	1096.3	1036.7	1013.3	1031.2	1117.9	1204.7	1295.1	1423.3
Imports	1048.4	1170.3	1304.5	1475.8	1435.8	1484.6	1552.6	1719.2	1834.5	1940.9	2004.8
Government Purchases	1594.0	1624.4	1687.0	1721.6	1780.4	1858.8	1911.2	1952.3	1986.7	2030.5	2061.7
Federal	567.6	561.3	573.7	578.8	601.4	643.4	687.8	723.7	737.1	756.9	766.6
Defense	373.0	365.3	372.2	370.3	384.9	413.2	449.7	481.3	491.1	505.2	510.3
Other	194.6	195.9	201.5	208.5	216.5	230.3	238.0	242.2	245.8	251.5	256.1
State and Local	1025.9	1063.0	1113.2	1142.8	1179.0	1215.5	1223.3	1228.4	1249.4	1273.4	1294.9

Forecast Tables - Detailed

Table 3B. Gross Domestic Product

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Annual Rates of Change of Current Dollar GDP Components (%)											
Gross Domestic Product	6.2	5.3	6.0	5.9	3.2	3.4	4.8	7.0	6.4	5.2	4.5
Personal Consumption											
Expenditures	5.5	6.0	6.9	7.3	4.7	4.2	4.9	6.5	6.5	5.2	4.6
Durable Goods	6.1	8.3	9.0	5.6	2.4	4.6	2.8	4.0	5.7	1.7	3.5
Autos and Parts	7.1	10.2	10.3	4.2	5.5	5.2	2.3	0.6	5.5	-0.4	4.2
Nondurable Goods	4.1	4.0	7.2	7.9	3.6	3.1	5.3	8.2	7.8	5.1	3.4
Services	6.1	6.5	6.2	7.3	5.7	4.6	5.1	6.3	6.0	6.0	5.4
Gross Private Domestic											
Investment	12.1	8.6	7.7	6.8	-7.0	-2.0	5.6	15.4	8.8	5.3	0.2
Residential	4.5	10.5	10.1	5.2	5.0	7.4	13.6	17.7	9.0	-4.4	-4.7
Nonres. Structures	11.5	9.9	2.5	11.0	3.0	-13.5	-0.8	7.8	10.6	9.0	-1.0
Producers Dur. Equip	10.4	8.2	9.6	7.9	-7.0	-7.9	2.4	11.8	11.5	10.1	5.1
Exports	10.0	0.1	3.7	10.6	-5.8	-2.6	3.9	12.3	11.6	8.8	9.8
Imports	9.5	5.6	12.2	17.9	-5.1	2.2	8.1	16.2	12.6	7.8	3.1
Government Purchases	3.7	3.4	6.7	6.2	6.0	7.4	6.7	5.9	6.0	5.1	3.9
Federal	0.7	-0.1	4.8	4.1	5.9	10.9	11.1	9.6	5.5	5.0	3.0
Defense	-1.4	-1.1	4.3	2.7	6.0	11.3	13.6	11.3	5.6	5.3	2.7
Other	4.9	1.9	5.7	6.8	5.7	10.1	6.4	6.5	5.1	4.3	3.5
State and Local	5.5	5.3	7.8	7.3	6.1	5.7	4.3	3.8	6.3	5.1	4.5
Annual Rates of Change of Constant Dollar GDP Components (%)											
Gross Domestic Product	4.5	4.2	4.4	3.7	0.8	1.6	2.7	4.2	3.7	3.0	2.6
Personal Consumption											
Expenditures	3.8	5.0	5.1	4.7	2.5	2.7	2.9	3.9	3.6	3.0	2.7
Durable Goods	8.6	11.3	11.7	7.3	4.3	7.1	6.6	6.0	6.0	2.0	3.8
Autos & Parts	6.8	11.3	9.9	3.8	5.0	5.7	4.8	1.6	3.0	-1.6	3.0
Nondurable Goods	2.7	4.0	4.6	3.8	2.0	2.5	3.2	4.7	4.2	3.5	2.8
Services	3.3	4.2	4.0	4.5	2.4	1.9	2.0	3.0	2.9	2.9	2.5
Gross Private Domestic											
Investment	12.4	9.8	7.8	5.7	-7.9	-2.6	3.9	11.9	6.3	3.7	-0.7
Residential	1.9	7.6	6.0	0.8	0.4	4.8	8.4	10.3	5.3	-7.1	-7.0
Nonres. Structures	7.2	5.1	-0.4	6.8	-2.3	-17.1	-4.2	2.2	2.9	7.3	-2.5
Producers Dur. Equip	13.8	13.3	12.7	9.4	-4.9	-6.2	3.2	11.9	11.5	9.5	5.2
Exports	11.9	2.4	4.3	8.7	-5.4	-2.3	1.8	8.4	7.8	7.5	9.9
Imports	13.6	11.6	11.5	13.1	-2.7	3.4	4.6	10.7	6.7	5.8	3.3
Government Purchases	1.9	1.9	3.9	2.1	3.4	4.4	2.8	2.2	1.8	2.2	1.5
Federal	-1.0	-1.1	2.2	0.9	3.9	7.0	6.9	5.2	1.9	2.7	1.3
Defense	-2.8	-2.1	1.9	-0.5	3.9	7.4	8.8	7.0	2.0	2.9	1.0
Other	2.6	0.7	2.8	3.5	3.8	6.4	3.3	1.8	1.5	2.3	1.8
State and Local	3.6	3.6	4.7	2.7	3.2	3.1	0.6	0.4	1.7	1.9	1.7

Forecast Tables - Detailed

Table 4. Employment

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Employment (Millions)										
Total	129.6	131.5	133.5	136.9	136.9	136.5	137.7	139.2	141.8	144.2	145.7
Private	103.1	106.0	108.7	111.0	110.7	108.8	108.4	109.9	112.0	113.6	114.8
Mining	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6
Construction	5.8	6.1	6.5	6.8	6.8	6.7	6.7	7.0	7.2	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	14.2
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	21.3	21.4
Financial Activities	7.2	7.5	7.6	7.7	7.8	7.8	8.0	8.1	8.2	8.2	8.2
Education & Health	14.1	14.4	14.8	15.1	15.6	16.2	16.6	17.0	17.3	17.7	18.0
Prof. and Bus. Ser.	14.3	15.1	16.0	16.7	16.5	16.0	16.0	16.4	17.0	17.4	17.9
Information	2.1	2.2	2.4	2.6	2.6	2.4	2.3	2.2	2.2	2.3	2.3
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	22.1	22.2
Federal	2.8	2.8	2.8	2.9	2.8	2.8	2.8	2.7	2.7	2.7	2.7
State & Local	16.9	17.1	17.5	17.9	18.4	18.7	18.8	18.9	19.1	19.4	19.4
	Population and Labor Force (Millions)										
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	149.3	151.7	153.7
Unemployment (%)	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.0	4.9	5.2

Table 5. Personal Income and Its Disposition

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Billions of Current Dollars										
Personal Income	6915.1	7423.0	7802.4	8429.7	8724.1	8881.9	9169.1	9713.3	10314.5	10949.9	11504.5
Wages & Salaries	3877.6	4183.4	4466.3	4829.2	4942.8	4980.9	5111.2	5389.5	5757.1	6080.5	6395.0
Other Labor Income	497.5	529.7	562.4	609.9	642.7	745.1	830.0	895.5	972.8	1016.1	1043.9
Nonfarm Income	541.8	598.4	649.7	705.7	752.2	757.8	782.4	853.8	929.0	985.3	1032.4
Farm Income	34.2	29.4	28.6	22.7	19.7	10.6	27.8	35.8	23.6	21.9	18.2
Rental Income	128.8	137.5	147.4	150.3	167.4	153.0	131.7	134.2	104.8	109.0	125.3
Dividends	333.0	350.0	335.6	376.1	369.0	397.2	421.1	490.6	510.0	554.2	583.2
Interest Income	848.7	933.3	928.6	1011.0	1011.0	936.1	917.6	906.0	943.2	1013.4	1064.3
Transfer Payments	951.2	978.6	1022.1	1084.1	1193.9	1286.2	1344.0	1427.5	1520.6	1643.6	1742.3
Personal Contributions For Social Insurance	297.7	317.2	338.1	359.2	374.5	384.8	396.6	419.5	446.7	474.0	500.0
Personal Tax and Nontax Payments	926.3	1027.0	1107.5	1235.7	1237.3	1051.8	999.9	1049.1	1222.6	1309.3	1416.8
Disposable Income	5988.8	6395.9	6694.9	7194.0	7486.8	7830.1	8169.2	8664.2	9091.9	9640.6	10087.7
Consumption	5547.4	5879.5	6282.5	6739.4	7055.0	7350.7	7709.9	8214.3	8747.8	9205.1	9627.0
Interest	163.9	174.5	181.0	204.7	212.3	196.4	183.2	186.7	210.5	233.4	247.8
Transfers To Foreigners	21.0	24.6	28.3	31.5	33.0	40.0	41.3	42.9	46.7	49.2	52.7
Personal Saving	218.3	276.8	158.6	168.5	132.4	184.7	172.8	151.8	12.2	72.3	73.4
Personal Saving Rate(%)	3.7	4.3	2.4	2.4	1.8	2.4	2.1	1.7	0.1	0.7	0.7

Forecast Tables - Detailed

Table 6. Personal Consumption Expenditures By Major Types

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Billions of Current Dollars											
Personal Consumption	5547.4	5879.5	6282.5	6739.4	7055.0	7350.7	7709.9	8214.3	8747.8	9205.1	9627.0
Durable Goods	692.7	750.2	817.6	863.3	883.7	923.9	950.1	987.8	1044.4	1061.8	1098.6
Autos and Parts	305.1	336.1	370.8	386.5	407.9	429.3	439.1	441.8	466.0	464.1	483.6
Nondurable Goods	1619.0	1683.6	1804.8	1947.2	2017.1	2079.6	2189.0	2368.3	2553.5	2684.2	2775.7
Services	3235.8	3445.7	3660.0	3928.8	4154.3	4347.2	4570.8	4858.2	5149.9	5459.1	5752.7
Billions of 2000 Dollars											
Personal Consumption	5831.8	6125.8	6438.6	6739.4	6910.4	7099.3	7306.5	7588.6	7865.0	8098.7	8319.1
Durable Goods	646.9	720.3	804.5	863.3	900.7	964.8	1028.5	1089.9	1155.4	1178.2	1222.8
Autos and Parts	304.7	339.0	372.4	386.5	405.8	429.0	449.7	457.0	470.7	463.4	477.3
Nondurable Goods	1725.3	1794.4	1876.6	1947.2	1986.7	2037.1	2101.8	2200.4	2293.2	2374.4	2439.9
Services	3468.0	3614.9	3758.0	3928.8	4023.2	4100.4	4183.9	4310.9	4435.6	4563.4	4677.6
Annual Rates of Real Growth											
Personal Consumption	3.8	5.0	5.1	4.7	2.5	2.7	2.9	3.9	3.6	3.0	2.7
Durable Goods	8.6	11.3	11.7	7.3	4.3	7.1	6.6	6.0	6.0	2.0	3.8
Autos and Parts	6.8	11.3	9.9	3.8	5.0	5.7	4.8	1.6	3.0	-1.6	3.0
Furniture	11.8	13.1	14.7	11.5	6.0	9.8	8.8	11.8	8.5	5.2	4.7
Other Durables	6.4	8.1	10.3	8.0	-0.4	5.6	7.0	6.1	8.4	4.2	3.9
Nondurable Goods	2.7	4.0	4.6	3.8	2.0	2.5	3.2	4.7	4.2	3.5	2.8
Food and Beverages	1.3	2.4	3.2	3.5	1.6	1.5	2.7	5.0	4.5	2.7	1.4
Gasoline and Oil	3.1	4.6	3.5	-0.3	1.5	2.1	0.7	1.5	2.4	3.0	3.6
Fuel	-8.1	-5.3	2.3	-3.5	-4.2	2.5	-0.0	-0.2	-5.5	-9.2	-4.2
Clothing and Shoes	3.0	7.0	7.4	5.3	2.0	4.8	5.0	6.3	6.0	4.2	3.4
Other Nondurables	5.5	5.4	5.7	4.8	3.1	3.2	4.0	4.6	3.9	5.2	4.6
Services	3.3	4.2	4.0	4.5	2.4	1.9	2.0	3.0	2.9	2.9	2.5
Housing	2.4	2.9	3.1	2.9	2.7	0.8	0.6	2.9	2.4	2.6	2.5
Household Operation	4.0	4.9	4.1	4.9	0.2	0.6	1.3	1.9	3.1	1.2	2.1
Transportation Serv.	6.3	3.3	4.2	2.8	-1.1	-2.7	-0.1	1.2	1.3	2.7	2.1
Medical Care	2.2	3.0	1.9	3.8	4.7	5.7	4.2	4.1	4.3	4.1	2.8
Other Services	3.0	8.9	3.8	6.4	5.0	2.9	0.9	1.9	-0.3	1.4	1.8

Table 7. Residential Construction and Housing Starts

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Housing Starts (Millions of Units)											
Housing Starts	1.475	1.621	1.647	1.573	1.601	1.710	1.854	1.950	1.995	1.739	1.620
Single-family	1.136	1.278	1.306	1.232	1.272	1.363	1.505	1.604	1.647	1.418	1.286
Multi-family	0.338	0.344	0.341	0.341	0.330	0.347	0.349	0.345	0.348	0.321	0.333
Residential Construction Expenditures (Billions of Dollars)											
Current Dollars	349.1	385.8	424.9	446.9	469.3	503.9	572.5	673.8	734.7	702.4	669.2
2000 Dollars	388.6	418.3	443.6	446.9	448.5	469.9	509.4	561.8	591.4	549.3	510.8
% Change	1.9	7.6	6.0	0.8	0.4	4.8	8.4	10.3	5.3	-7.1	-7.0
Treas. Bill Rate	5.1	4.8	4.6	5.8	3.4	1.6	1.0	1.4	3.2	4.3	4.2
Conventional Home Mortg.											
Rate, Effective	7.6	6.9	7.4	8.1	7.0	6.5	5.8	5.8	5.9	6.8	7.1
Median Sales Price of											
New Homes (Thous \$)	145.0	152.0	159.8	166.5	172.6	185.0	191.4	217.8	234.6	240.3	242.1
Real Disp. Income	6295.8	6664.0	6861.7	7194.0	7333.3	7562.5	7741.8	8004.1	8174.5	8481.9	8717.1
% Change	3.5	5.8	3.0	4.8	1.9	3.1	2.4	3.4	2.1	3.8	2.8

Forecast Tables - Detailed

Table 8. Business Fixed Investment and Inventories

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Billions of Current Dollars											
Business Fixed Investment	968.7	1052.5	1133.9	1232.1	1176.8	1066.3	1082.5	1198.8	1334.2	1465.3	1518.5
Producers Dur. Equip.	718.3	777.3	851.7	918.9	854.2	787.1	805.6	900.4	1004.3	1105.8	1162.5
Nonresidential Structures	250.3	275.2	282.2	313.2	322.6	279.2	276.9	298.4	329.9	359.5	356.1
Buildings (excl. Farm)	184.6	203.1	207.6	222.8	216.4	180.6	174.9	187.7	198.6	211.8	224.9
Commercial	89.2	100.0	109.1	121.3	118.2	97.0	91.9	100.5	105.6	112.3	112.7
Industrial	37.6	40.5	32.6	31.8	29.5	17.8	16.7	18.4	22.7	26.1	32.3
Other Buildings	57.8	62.6	65.8	69.7	68.7	65.8	66.2	68.8	70.3	73.4	79.9
Utilities	33.9	39.5	44.5	51.5	54.4	54.6	48.5	45.5	45.5	50.2	53.1
Mining Exploration	22.4	23.4	20.6	27.2	39.2	35.6	45.5	56.2	76.7	87.1	67.0
Billions of 2000 Dollars											
Business Fixed Investment	934.2	1037.8	1133.3	1232.1	1180.5	1071.5	1085.0	1186.7	1297.4	1413.5	1460.2
Producers Dur. Equip.	658.3	745.6	840.2	918.9	874.2	820.2	846.8	947.6	1056.8	1157.3	1217.3
Nonresidential Structures	280.1	294.5	293.2	313.2	306.1	253.8	243.1	248.4	255.7	274.2	267.4
Buildings (excl. Farm)	209.7	221.2	216.6	222.8	208.4	170.0	160.5	162.8	163.6	168.2	173.2
Commercial	101.6	108.7	113.5	121.3	114.2	91.2	84.1	86.5	86.2	88.5	86.3
Industrial	42.3	43.7	33.9	31.8	28.5	16.7	15.4	16.2	18.9	20.6	24.6
Other Buildings	65.8	68.8	69.2	69.7	65.6	62.1	61.0	60.1	58.5	59.0	62.4
Utilities	35.6	41.0	45.9	51.5	52.8	51.8	45.0	40.6	38.6	41.0	42.1
Mining Exploration	25.3	23.3	21.3	27.2	32.0	24.5	28.8	33.5	39.6	47.1	37.7
Percent Change in Real Business Fixed Investment											
Business Fixed Investment	12.1	11.1	9.2	8.7	-4.2	-9.2	1.3	9.4	9.3	8.9	3.3
Producers Dur. Equip.	13.8	13.3	12.7	9.4	-4.9	-6.2	3.2	11.9	11.5	9.5	5.2
Nonresidential Structures	7.2	5.1	-0.4	6.8	-2.3	-17.1	-4.2	2.2	2.9	7.3	-2.5
Buildings (excl. Farm)	UN	5.5	-2.1	2.9	-6.5	-18.4	-5.5	1.4	0.5	2.8	3.0
Commercial	UN	7.0	4.5	6.8	-5.9	-20.2	-7.8	2.9	-0.3	2.7	-2.6
Industrial	-4.5	3.4	-22.5	-6.1	-10.3	-41.6	-7.4	4.8	16.6	9.3	19.3
Other Buildings	UN	4.5	0.7	0.7	-5.9	-5.4	-1.7	-1.4	-2.7	0.9	5.6
Utilities	-1.3	15.2	12.0	12.1	2.5	-1.8	-13.3	-9.7	-4.9	6.2	2.6
Mining, Shafts & Wells	17.4	-7.8	-8.8	27.8	17.8	-23.3	17.4	16.4	17.9	19.0	-19.9
Related Concepts											
Annual Growth-Price Deflator For:											
Producers Dur. Equip.	-3.0	-4.5	-2.8	-1.3	-2.3	-1.8	-0.9	-0.1	0.0	0.6	-0.1
Structures	3.9	4.6	3.0	3.9	5.4	4.4	3.5	5.5	7.4	1.6	1.5
Moody's AAA Rate(%)	7.3	6.5	7.0	7.6	7.1	6.5	5.7	5.6	5.4	6.4	6.6
Capacity Utilization in											
Manufacturing(%)	82.8	81.8	81.1	80.6	74.5	73.5	73.7	76.7	78.6	78.5	77.7
Final Sales (Bil 2000 \$)	8632.4	8994.3	9401.5	9760.5	9922.4	10036.4	10305.2	10703.7	11121.0	11441.5	11752.9
Change in Business Inventories											
Current Dollars	72.0	70.8	66.9	56.5	-31.7	11.9	15.5	55.5	29.3	42.3	27.7
2000 Dollars	71.2	72.6	68.9	56.5	-31.7	12.5	15.5	52.0	28.0	37.8	25.3

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	1853.2	1868.6	1974.8	2258.0	2390.2	2541.6
Personal Tax and											
Nontax Receipts	744.3	825.8	893.0	999.1	994.5	830.5	774.3	801.8	940.7	1009.0	1104.2
Corp. Profits Tax Accruals	203.0	204.3	213.0	219.5	164.7	150.5	186.7	217.4	300.7	301.7	302.3
Indirect Business Tax and											
Nontax Accruals	78.2	81.1	83.9	87.8	85.8	87.3	89.7	94.0	100.4	107.9	110.7
Contributions For											
Social Insurance	576.4	613.8	651.7	691.7	717.5	734.3	759.1	802.5	855.6	907.8	957.3
Expenditures	1708.9	1735.0	1787.6	1864.4	1969.5	2101.1	2251.4	2381.3	2528.9	2697.1	2834.8
Purchases Goods & Serv.	530.9	530.5	555.8	578.8	612.9	679.7	754.8	827.6	872.7	916.5	944.0
National Defense	349.6	345.7	360.6	370.3	392.6	437.1	496.7	552.7	583.9	615.1	632.0
Other	181.3	184.7	195.2	208.5	220.3	242.5	258.2	274.9	288.8	301.4	311.9
Transfer Payments	918.9	946.5	986.1	1038.1	1131.4	1243.0	1327.7	1391.2	1476.4	1591.1	1682.8
To Persons	704.2	716.9	735.7	770.0	838.7	916.9	962.2	1014.0	1081.0	1172.0	1238.7
To Foreigners	21.0	24.6	28.3	31.5	33.0	40.0	41.3	42.9	46.7	49.2	52.7
Grants-In-Aid To State and											
Local Governments	198.6	212.8	232.9	247.3	276.1	304.6	339.1	348.3	364.6	386.1	409.3
Net Interest	278.5	281.2	264.7	263.2	240.2	213.7	199.0	206.2	218.5	234.4	255.6
Subsidies Less Surplus of											
Govt. Enterprises	32.1	34.9	44.1	46.1	53.1	39.1	44.6	43.5	54.0	52.6	53.2
Surplus (+) or Deficit (-)	-55.8	38.8	103.6	189.5	46.7	-248.0	-382.8	-406.5	-270.9	-306.9	-293.2

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	929.0	972.6	1047.6	1146.8	1202.8	1248.6
As Share of GDP	9.0	9.1	9.1	9.1	9.0	8.9	8.9	8.9	9.2	9.2	9.1
Personal Tax and Nontax											
Receipts	182.0	201.2	214.5	236.6	242.7	221.3	225.6	247.2	282.0	300.3	312.6
Corporate Profits	34.1	34.9	35.8	35.6	30.2	32.2	35.3	41.5	58.2	56.1	56.6
Indirect Business Tax and											
Nontax Accruals	533.8	558.8	590.2	621.1	642.8	675.5	711.7	758.8	806.7	846.4	879.4
Contributions For Social											
Insurance	10.8	10.4	9.8	11.0	13.7	15.8	17.5	19.7	20.0	21.0	21.9
Federal Grants-In-Aid	198.6	212.8	232.9	247.3	276.1	304.6	339.1	348.3	364.6	386.1	409.3
Expenditures	1058.3	1111.2	1186.3	1269.5	1368.2	1444.3	1512.4	1587.5	1689.7	1783.6	1871.2
As Share of GDP	12.7	12.7	12.8	12.9	13.5	13.8	13.8	13.5	13.5	13.6	13.6
Purchases	937.8	987.9	1065.0	1142.8	1212.8	1281.5	1337.1	1388.3	1475.7	1551.0	1620.7
Transfer Payments	227.6	235.8	252.4	271.7	305.2	332.0	351.3	380.5	409.7	439.2	469.9
Interest Received	-0.1	-1.0	-3.8	-4.5	5.2	16.5	20.8	21.9	27.7	33.8	36.0
Net Subsidies	-11.8	-9.8	-10.0	-7.1	3.6	-1.6	0.8	2.9	3.9	2.4	0.1
Dividends Received	1.5	1.7	1.8	1.9	2.0	2.0	2.1	2.4	2.5	2.6	2.6
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	-34.2	-23.8	-5.9	18.1	14.4	9.3

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
	Billions of Current Dollars										
Net Exports-Goods & Serv.	-101.6	-160.0	-260.5	-379.5	-367.0	-424.4	-500.9	-624.0	-713.4	-756.3	-683.7
Current Account Balance	-140.9	-214.1	-300.1	-416.0	-389.5	-475.2	-519.7	-668.1	-808.6	-881.3	-829.8
Merchandise Balance	-197.7	-248.1	-348.3	-459.1	-436.7	-491.8	-559.6	-677.8	-785.6	-847.7	-799.5
Exports-Goods & Services	955.4	955.9	991.3	1096.3	1032.8	1005.9	1045.7	1173.8	1310.2	1425.9	1565.9
Merchandise	687.7	680.9	697.2	784.4	731.2	697.6	724.3	818.1	904.6	978.4	1077.2
Food, Feeds & Beverages	51.5	46.4	46.0	47.9	49.4	49.6	55.0	56.6	60.5	60.3	62.5
Industrial Supplies	152.6	142.9	142.4	166.7	155.3	153.5	168.3	199.5	231.5	246.8	254.7
Motor Vehicles & Parts	73.3	72.4	75.3	80.4	75.4	78.9	80.7	89.3	95.4	104.5	114.4
Capital Goods, Ex. MVP	254.5	246.3	258.4	308.9	269.1	240.0	246.9	281.5	297.5	322.5	366.3
Computer Equipment	49.4	45.3	46.8	55.5	47.6	38.6	39.9	42.8	46.5	52.3	59.2
Other	205.2	201.1	211.6	253.4	221.6	201.5	207.0	238.7	251.0	270.1	307.2
Consumer Goods, Ex. MVP	78.0	80.3	80.9	89.4	88.3	84.4	89.9	103.1	117.5	131.0	152.7
Other	36.5	39.1	41.4	43.1	41.0	40.7	36.8	38.2	43.1	46.6	49.4
Services	267.7	275.1	294.1	312.0	301.6	308.4	321.3	355.7	405.6	447.5	488.7
Imports-Goods & Services	1056.9	1115.9	1251.8	1475.8	1399.9	1430.3	1546.5	1797.8	2023.6	2182.2	2249.6
Merchandise	885.4	928.9	1045.5	1243.5	1168.0	1189.4	1283.9	1495.9	1690.2	1826.1	1876.7
Foods, Feeds & Beverage	39.7	41.2	43.6	46.0	46.6	49.7	55.9	62.1	67.8	73.6	77.4
Petroleum & Products	71.7	50.6	67.8	120.2	103.6	103.5	133.1	180.5	241.4	258.2	235.4
Indus Supplies Ex. Petr	135.3	142.5	147.9	172.8	164.8	158.4	174.4	225.1	257.8	273.2	275.0
Motor Vehicles & Parts	139.5	148.7	179.0	195.9	189.8	203.8	210.2	228.3	237.4	256.3	263.8
Capital Goods, Ex. MVP	236.8	247.6	271.9	320.6	266.7	257.9	271.8	319.1	352.2	388.2	413.5
Computer Equipment	70.2	72.5	81.5	89.8	74.0	75.2	76.5	88.6	93.3	102.3	111.5
Other	166.6	175.2	190.5	230.9	192.7	182.7	195.3	230.5	258.9	285.9	301.9
Consumer Goods, Ex. MVP	194.2	217.2	242.1	282.0	284.5	308.0	334.0	373.1	415.4	449.0	477.6
Other	51.6	59.3	69.5	79.6	80.7	82.8	80.6	83.4	90.3	95.9	98.3
Services	171.6	186.9	206.3	232.3	231.9	241.0	262.6	301.9	333.4	356.2	372.9
	Billions of 2000 Dollars										
Net Exports-Goods & Serv.	-104.6	-203.8	-296.2	-379.5	-399.1	-471.4	-521.4	-601.3	-629.9	-645.7	-581.5
Exports-Goods & Services	943.7	966.5	1008.2	1096.3	1036.7	1013.3	1031.2	1117.9	1204.7	1295.1	1423.3
Imports-Goods & Services	1048.4	1170.3	1304.5	1475.8	1435.8	1484.6	1552.6	1719.2	1834.5	1940.9	2004.8
	Exports and Imports -- % Change										
Current Dollars											
Exports	10.0	0.1	3.7	10.6	-5.8	-2.6	3.9	12.3	11.6	8.8	9.8
Imports	9.5	5.6	12.2	17.9	-5.1	2.2	8.1	16.2	12.6	7.8	3.1
Constant Dollars											
Exports	11.9	2.4	4.3	8.7	-5.4	-2.3	1.8	8.4	7.8	7.5	9.9
Imports	13.6	11.6	11.5	13.1	-2.7	3.4	4.6	10.7	6.7	5.8	3.3
	Production Indicators - % Change										
U.S. Industrial Production	7.3	5.8	4.5	4.3	-3.6	-0.3	-0.0	4.1	3.8	3.8	2.1
	Price Indicators										
Price Deflators (% Ch)											
Exports	-1.7	-2.3	-0.6	1.7	-0.4	-0.4	2.1	3.6	3.6	1.2	-0.1
Imports	-3.6	-5.4	0.6	4.2	-2.5	-1.2	3.4	5.0	5.5	1.9	-0.2
Crude Oil Prices (\$/barrel)	20.6	14.4	19.3	30.4	26.0	26.1	31.1	41.5	57.5	55.1	49.0
U.S. Dollar											
Real Exchange Rate	91.45	96.01	96.47	100.00	105.38	104.97	91.97	84.56	81.84	77.85	75.08
%Change	7.9	5.0	0.5	3.7	5.4	-0.4	-12.4	-8.1	-3.2	-4.9	-3.6

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
Implicit Price Deflators											
GDP	1.7	1.1	1.4	2.2	2.4	1.7	2.0	2.6	2.6	2.1	1.9
Consumption	1.7	0.9	1.7	2.5	2.1	1.4	1.9	2.6	2.7	2.2	1.8
Durables	-2.2	-2.7	-2.4	-1.6	-1.9	-2.4	-3.5	-1.9	-0.3	-0.3	-0.3
Motor Vehicles	0.3	-1.0	0.4	0.4	0.5	-0.4	-2.4	-1.0	2.4	1.2	1.2
Furniture	-5.7	-5.8	-6.2	-4.5	-5.9	-5.7	-6.0	-4.1	-3.2	-2.6	-2.6
Other Durables	-1.0	-0.7	-1.6	-0.8	0.3	-0.8	-1.6	0.1	-0.7	0.7	0.5
Nondurables	1.4	-0.0	2.5	4.0	1.5	0.5	2.0	3.3	3.4	1.5	0.6
Food	2.3	1.8	1.9	2.3	2.9	2.0	1.9	3.1	2.2	2.2	1.8
Clothing & Shoes	0.1	-1.9	-1.6	-1.3	-2.0	-2.7	-2.5	-0.4	-0.9	-1.7	-0.9
Gasoline & Oil	-0.0	-13.0	8.8	27.9	-3.7	-6.1	16.3	17.9	19.2	-0.3	-6.6
Fuel	1.0	-8.7	1.2	37.6	1.7	-9.9	19.6	14.7	23.3	2.5	-4.0
Services	2.7	2.2	2.2	2.7	3.3	2.7	3.0	3.2	3.0	3.0	2.8
Housing	2.9	3.2	2.8	3.2	3.9	3.8	2.5	2.5	2.5	2.3	2.4
Household Operat.	1.7	-0.9	-0.1	1.9	4.6	-0.9	3.9	2.1	4.4	2.5	-0.8
Electricity	0.5	-3.9	-0.7	1.6	8.1	-1.2	2.4	1.9	6.1	3.5	-1.9
Natural Gas	6.9	-2.0	0.5	16.7	19.9	-14.9	22.8	8.4	13.1	6.5	-5.3
Water and Sewer	2.5	3.2	2.2	2.5	2.9	3.2	3.7	6.0	5.4	4.0	3.5
Telephone	0.2	-1.3	-2.4	-3.4	-2.0	0.2	-0.9	-2.0	-1.0	-1.2	-1.3
Domestic Service	2.6	2.8	2.9	4.4	3.8	3.7	2.5	2.2	3.4	2.2	1.4
Other Operations	2.5	2.1	3.3	3.8	4.9	4.3	4.9	2.6	3.7	2.7	2.3
Transportation	2.0	2.2	2.2	2.5	1.7	1.2	2.9	2.2	3.3	3.4	2.5
Other Services	3.1	2.2	3.3	3.6	4.0	4.1	4.4	4.2	4.1	3.5	3.8
Investment Deflators:											
Nonresidential	-1.3	-2.2	-1.3	-0.1	-0.3	-0.2	0.3	1.3	1.8	0.8	0.3
Structures	3.9	4.6	3.0	3.9	5.4	4.4	3.5	5.5	7.4	1.6	1.5
Prod. Dur. Equip.	-3.0	-4.5	-2.8	-1.3	-2.3	-1.8	-0.9	-0.1	0.0	0.6	-0.1
Residential	2.5	2.7	3.8	4.4	4.6	2.5	4.8	6.7	3.6	2.9	2.4
Government Purchases	1.8	1.4	2.8	4.1	2.5	2.9	3.7	3.7	4.1	2.8	2.4
Federal	1.7	1.0	2.5	3.2	1.9	3.7	3.9	4.2	3.5	2.3	1.7
State & Local	1.9	1.7	2.9	4.5	2.9	2.5	3.7	3.4	4.5	3.1	2.8
Exports	-1.7	-2.3	-0.6	1.7	-0.4	-0.4	2.1	3.6	3.6	1.2	-0.1
Imports	-3.6	-5.4	0.6	4.2	-2.5	-1.2	3.4	5.0	5.5	1.9	-0.2
Other Inflation Related Indicators											
Consumer Price Index	2.3	1.5	2.2	3.4	2.8	1.6	2.3	2.7	3.2	2.6	1.6
Producers Price Index	-0.1	-2.5	0.9	5.8	1.1	-2.3	5.3	6.2	6.3	1.5	-1.7
Nonfarm Sector Indicators											
Wage Compensation	3.1	6.0	4.6	7.0	4.0	3.2	4.1	4.8	5.9	4.0	4.1
Productivity	1.6	2.7	2.8	2.6	2.6	4.3	4.3	4.0	2.4	1.7	1.9
Unit Labor Costs	1.4	3.1	1.8	4.2	1.5	-1.1	-0.2	0.8	3.5	2.4	2.2
Crude Oil Prices (dollars/barrel)											
Refiners' Acq. Cost	19.11	12.58	17.42	28.21	22.95	24.00	28.60	36.91	51.82	51.02	44.72

Forecast Tables - Detailed

Table 13. Producers Price Indexes

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Annual Percent Change										
All Commodities	-0.1	-2.5	0.9	5.8	1.1	-2.3	5.3	6.2	6.3	1.5	-1.7
Industrial Commodities	0.3	-2.3	1.4	6.6	0.7	-2.4	5.1	6.1	7.4	1.8	-1.9
Textiles & Apparel	0.2	0.2	-1.5	0.3	-0.1	-1.2	-0.1	1.0	1.4	0.4	-0.3
Fuels	0.3	-12.5	6.9	28.8	1.7	-11.4	21.1	12.5	19.2	4.2	-7.1
Chemicals	1.0	0.2	0.2	4.7	0.6	0.0	6.6	7.8	8.4	1.4	-2.8
Rubber & Plastics	-0.5	-0.5	-0.1	2.4	1.4	-0.3	2.6	2.8	6.6	1.3	-1.2
Lumber & Wood	4.4	-2.5	2.5	-3.0	-2.2	-0.6	2.4	10.2	0.8	-0.6	-1.8
Pulp & Paper	-0.5	2.3	1.4	5.5	0.6	0.6	2.2	3.0	3.5	2.2	1.3
Metals & Products	0.6	-3.0	-2.4	2.7	-2.1	0.4	2.6	15.8	5.2	-3.0	-2.6
Equipment	-0.5	-0.8	-0.5	-0.2	-0.3	-0.6	-0.8	0.1	1.3	0.8	0.2
Trans. Equipment	-0.1	-0.3	0.4	1.4	1.0	-0.4	0.8	2.0	1.6	2.7	2.1
Farm	-7.7	-7.3	-5.9	1.1	4.2	-4.6	12.6	10.5	-4.4	-3.7	-1.1
Processed Foods & Feeds	0.5	-1.8	-0.3	1.5	3.2	-0.8	5.3	5.5	1.4	1.0	0.4
By Stage of Processing											
Crude Materials	-2.3	-13.0	1.6	22.8	0.3	-10.6	25.1	17.5	12.2	0.9	-6.0
Intermediate Materials	-0.1	-2.1	0.1	4.9	0.4	-1.5	4.6	6.6	6.9	0.9	-2.3
Finished Goods	0.4	-0.9	1.8	3.8	1.9	-1.3	3.2	3.6	4.8	2.1	-0.3
Consumers	0.6	-1.0	2.4	4.7	2.4	-1.5	4.3	4.4	5.7	2.2	-0.8
Producers	-0.0	-0.5	0.1	0.9	0.6	-0.4	0.3	1.4	2.3	1.8	1.1

Forecast Tables - Detailed

Table 14. Money, Interest Rates and Corporate Profits

	HISTORY								FORECAST		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Billions of Dollars											
Money Supply (M1)	1069.3	1079.8	1101.5	1103.7	1136.0	1191.0	1266.7	1336.6	1374.2	1390.6	1401.4
Money Supply (M2)	3920.8	4206.2	4523.1	4798.2	5214.9	5609.5	5997.1	6269.1	6508.7	6644.7	6835.4
Percent Change											
Money Supply (M1)	-3.3	1.0	2.0	0.2	2.9	4.8	6.4	5.5	2.8	1.2	0.8
Money Supply (M2)	4.9	7.3	7.5	6.1	8.7	7.6	6.9	4.5	3.8	2.1	2.9
Interest Rates (Percent)											
Short-term Rates											
3-Month Treas. Bills	5.06	4.79	4.63	5.81	3.43	1.61	1.01	1.36	3.17	4.33	4.21
Prime Bank Loans	8.44	8.35	7.99	9.23	6.92	4.68	4.12	4.34	6.24	7.50	7.31
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	4.66	4.52
5 Year Maturity	6.22	5.15	5.54	6.15	4.55	3.82	2.97	3.43	4.19	5.09	5.22
10 Year Maturity	6.35	5.26	5.64	6.03	5.02	4.61	4.02	4.27	4.45	5.25	5.47
30 Year Maturity	6.61	5.58	5.86	5.95	5.50	5.42	5.05	5.12	4.74	5.41	5.66
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	4.64	5.42	5.64
Corporate Bond Yields											
Moodys AAA Corp. Bonc	7.26	6.53	7.04	7.62	7.08	6.49	5.67	5.63	5.44	6.40	6.64
Effective Mortgage Rate	7.60	6.94	7.43	8.06	6.97	6.54	5.82	5.84	5.94	6.80	7.05
Corporate Profits (Billions of Dollars)											
Profits Before Taxes	798.15	718.25	775.88	773.40	707.90	768.45	937.13	1059.35	1410.78	1367.85	1369.92
Inventory Valuation Adj.	14.13	20.20	0.93	-14.08	11.35	-2.23	-13.25	-39.63	-21.41	15.22	17.87
Profits After Taxes	552.10	469.98	517.23	508.20	503.80	575.83	705.05	788.20	1038.22	997.05	998.02

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