ECONOMIC OUTLOOK FOR LATE 2005 AND 2006

STRONG GROWTH WITH A BIT OF INFLATION
FED BY THE KATRINA BOOM

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I expect the economy to remain strong through 2006.

Barring Katrina effects, (which are still being calculated,) the forecast I offered to this group in March, 2005 remains sound as far as the basic trends are concerned, and the reasoning I provided in support of those numbers remains the same. Growth a bit above 3 percent was anticipated in that forecast for 2006.

But Katrina has thrown quite a wrinkle into the short term outlook. The main risk it poses is of an inflationary boom, not a collapse. The unexpected spending will begin immediately, but will clearly stretch well into 2006. Below I have put some rough numbers on how large the boom might be and the result is scary. If the boom is too large, the economy can overheat, bringing high interest rates with a resulting downturn. The worst would be if interest rates rose enough to seriously choke a housing boom that was just reaching a natural climax.

Wisconsin continues to perform a bit better than the rest of the Midwestern states. But the entire Midwest continues to have lower population and labor force growth than the nation as a whole, so its long term growth prospects are modest. In my March forecast, I had expected Wisconsin to grow more rapidly than the rest of the country this year. That does not appear to have happened. But it does appear that we will continue to grow strongly, and that we will remain only a little bit behind the nation as a whole.

THE PRE-KATRINA ECONOMY

The strongest sectors of growth this year have been exports and business equipment spending. This is as predicted in my March forecast. Wisconsin benefits disproportionately from growth in these two sectors and the reason for my bullish forecast for Wisconsin in March was based on expected strength in exports and business investment.

I expect the strength in these two sectors to continue, which means that I expect Wisconsin to continue to do well. Growth a bit above three percent should continue, both in Wisconsin and the nation as a whole.

With growth a bit above three percent, unemployment rates should remain stable. Labor shortages should not worsen. Shortages in raw materials were already pervasive last March, and these were expected to continue but not to worsen. Such has been the case. Materials prices seemed to have stabilized before Katrina. Materials shortages existed but did not restrict growth in mid-2005. In the non-Katrina world, I would not expect materials prices to restrain growth in the future.

In this non-Katrina world, The Federal Reserve was expected to continue raising short term interest rates to 4.0%, which they considered to be a neutral level, and once in the neutral range they would look around and decide whether further restraint was needed. The Feds were not expected to cut the expansion short. The expansion was expected to be well controlled at a non-inflationary growth rate close to three percent with the unemployment rate a bit about five percent.
These are the basic economic trends that were ongoing and to which we must now add the Katrina effect.

THE KATRINA FACTOR

Katrina was a natural disaster. It remains an economic disaster. The loss of wealth it caused is astounding. But the need to rebuild from Katrina will provide a surge of spending in the fourth quarter of 2005 that will stretch well into 2006.

Federal Payments are now committed at a level of $65 with known increases in future spending yet to come. The Republican and Democrat leaders of the Budget Committee have announced that spending could go up by a total of $200 billion and $150 billion respectively.

$200 billion is two percent of the annual value of GDP for the whole nation. If $150 to $200 billion of spending was added to fourth quarter spending and nothing was subtracted, it would provide a surge in quarterly income of 6 to 8 percent of quarterly GDP on top of the three percent growth already expected. This cannot happen, because of capacity constraints. But if the money is authorized to be spent and if the money starts chasing what capacity is available, we can expect a surge in the prices of products like plywood.

In addition to increases in Federal spending, private insurance payments have been guesstimated at an additional $40 billion minimum, with one estimate from Wall Street that insurance companies could take a $100 billion hit. Roughly, this is another half to three quarters of a percent of GDP measured at annual rates, or an addition of two to three percent of GDP if it is all pumped into the economy in the third quarter with no offsets. And we can’t forget that private home and business owners will be fixing up their own properties, whether insured or not. I have seen no estimate of how much additional spending to expect from this final source.

At the low end, these estimates add up to increased spending of about one percent of GDP, and at the high end an increase of about three percent. Again, this is the calculated effect if the spending is spread over a 12 month period.

In short, we could see quite a spike in the economic growth rate in the fourth quarter of 2005, and we will probably see strong growth throughout 2006.

STABILIZERS, BUFFERS, EQUILIBRATORS

The economy is simply not going to surge by several percentage points in the next few quarters. Experience tells us that the economy absorbs shocks like these through its built in stabilizers, and the path of growth will be much smoother than implied by the simple arithmetic of the last section. Unfortunately, one of the main stabilizers will be an increase in prices and another will be an increase in interest rates.
Think about plywood. There has been an immediate diversion of existing plywood inventory to the Gulf. Home Depot’s participation in this diversion has been described in the press. As a result, Northern home builders will find less plywood available. They will be asked to stretch out delivery dates for new homes, or if this is not possible, to pay a premium to secure some of the reduced stock that is available. I expect home building costs will rise temporarily and occupancy dates will be delayed. The level of construction activity in non-Gulf states will slow somewhat. Contracts for new houses will have to provide for the risk of material price spikes and for delays in deliveries. These covenants will make the contracts less attractive and I expect to see a slowdown in construction commitments.

Domestic plywood producers have been successful in Washington in keeping out Canadian imports. I expect the political balance to swing somewhat if availability is constrained and I would expect that plywood imports would increase. This natural stabilizing force – increased imports – requires a response from a human finger on the trigger in this case, but I believe the response will be forthcoming.

Similarly, Mexican concrete has been kept down at the request of the domestic concrete lobby. I expect we will see more Mexican concrete come into this country in 2006 than had been previously forecast and that the concrete lobby will simply have to accept it.

But even with increases in production and imports, there will be less material available to non-Katrina builders, and this will cause price increases, though no one can estimate their extent. Clearly Katrina will cause in an increase in demand for construction type economic activity.

**KATRINA AND THE SUPPLY OF GDP**

Questions exist about Katrina’s effect on supply. Can the temporary decline in shipping and the damage to pipelines and industrial facilities cause economic contractions?

I think the effect on agricultural supplies will be minimal. Corn and wheat that are still in the ground will end up being stored in local grain elevators and in farmers’ silos longer than expected. But the corn and wheat were not destroyed by Katrina. It is their entrance to the market that will be delayed, not the size of the harvest. Temporary price spikes could appear and the term structure of prices in futures markets could be tilted, but it is important to remember that the corn itself has not been destroyed.

Industrial chemicals are a different story. If the huge industrial chemical complexes that line the lower Mississippi shut down, there could be widely felt shortages of plastics and textiles. I have seen no estimates of the possible extent of such shutdowns, but these are the kinds of processes that are often fixed quickly in response to shocks.

New Orleans, of course, normally would produce some GDP, and some of that production will be lost. A rough, and I mean really rough, estimate of lost production can be constructed as follows. 500,000 New Orleaneans/300,000,000 Americans is a sixth of a percent. So roughly one sixth of one percent of U.S. GDP could be lost from GDP if New Orleans
produces nothing. This supply cost is trivial compared to the demand boost described above, and I think it can be ignored when making rough estimates of Katrina’s short run effects.

Some of the production of New Orleans can easily be diverted. For example, New Orleans gets 13% of its income from tourism. The money that would otherwise be spent on tourism in New Orleans will probably be spent somewhere else, and this will generate higher incomes elsewhere, offsetting the decline of incomes in New Orleans.

**KATRINA’S NET EFFECT ON GDP**

The minor decrease in supply, combined with the substantial increase in demand should cause GDP to surge on net. Some of the surge will be in the form of real production and some in the form of inflation. The division between higher outputs and higher prices will vary according to the detailed conditions of each industry.

Katrina’s net effect will be to boost GDP substantially in the fourth quarter of 2005 and in 2006.

The major industry to think about from the perspective of a supply disruption is oil. I address this issue next.

**OIL**

Six months ago, the price of a barrel of oil was about $55. Today it’s about $65.

The point is we have been living with high-priced oil through the booming third quarter and there is no reason to believe we can’t live with it for several more quarters. Even Katrina has not led to a huge surge in the price of crude, though it has caused some temporary disruptions of supply.

Gasoline prices on the other hand have soared. How can gasoline prices soar if crude prices don’t? Something between the crude producers and the retail gas buyers is choking gasoline prices. Are refineries down? Whatever it is, these chokeholds have usually been short-lived in the past and I do not expect to see gasoline at $3.00 a gallon throughout 2006, though oil at $65 a barrel is likely.

**Gasoline Arithmetic**

The disconnect between gasoline and crude oil prices is quite remarkable. It lies somewhere in the chain of distribution. The recent surge in gasoline prices is not due to a surge in the price of crude oil.

The historic markup between crude costs and gasoline prices has been in the range of 80 or 90 cents to the gallon. This includes the costs of taxes, marketing and distribution. A chart in my accompanying PowerPoint shows the historic relationship.
Taxes are about 42 cents a gallon on average, 50 cents a gallon in Wisconsin. 18 cents of these taxes are Federal. This means that about 43 cents of the 85 cent differential between crude and gasoline is the cost of refining and distribution, which shows that this has been a quite competitive industry.

So when we see the price of gasoline at the pump close to $2.00 a gallon, and if 85 cents of that was the normal cost of refining, distribution and taxes, we can infer that the price of a gallon of crude is probably near $1.15.

There are 44 gallons in a barrel. Modern technology permits refiners to get almost the entire 44 gallons of marketable products out of a barrel of crude. If crude costs $1.15 a gallon, it costs about $50 per barrel. (i.e. 44 gallons x $1.15.) So $50 per barrel for crude => $2.00 per gallon of gasoline for the U.S., $2.08 in Wisconsin.

Yet, recently we have seen $3.00 gasoline. This is way above what one would expect to find if crude oil costs $65 per barrel. Historically, $3.00 gasoline would be expected if crude were to cost $2.15 per gallon. But $2.15 per gallon of crude x 44 gallons to the barrel means that crude would then cost about $95 per barrel!

That is, if crude oil cost $95 per barrel, and if normal refining and distribution costs were 43 cents and taxes were 42 cents, we would expect gasoline to cost $3.00 a gallon, ($3.08 in Wisconsin.).

The interesting point is that when crude oil cost $65 a barrel and gasoline cost $3.00 a gallon, the markup of 43 cents for refining and distribution was temporarily near $1.10. I have seen no explanation for why this markup nearly tripled.

### Implied Price of gasoline Based on Price of Crude

<table>
<thead>
<tr>
<th>Crude Oil per bbl</th>
<th>Crude Oil per gal.</th>
<th>Taxes per gal.</th>
<th>Refine + Dist per gal.</th>
<th>Implied price of gas per gal.</th>
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<tbody>
<tr>
<td>$30</td>
<td>$0.68</td>
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<td>$0.35</td>
<td>$3.12</td>
</tr>
</tbody>
</table>
Why is gas at $3.00 if Crude is at $65?

$65  $1.48  $0.50  $1.02  $3.00

Expected Future Price of gas
If Crude Stays at $65

$65  $1.48  $0.50  $0.35  $2.33

Gasoline prices have started to fall. For the future, if crude prices remain near $65 per barrel and taxes remain near 50 cents on the gallon, I would expect gasoline prices to be about $2.35 nationally, and $2.43 in Wisconsin. Gasoline prices of $2.35 per gallon will not disturb the ongoing economic recovery.

Gas prices and the Economy

How are we to think about the effect of higher gasoline prices on the economy? Reporters have correctly noted that if consumers have to increase their spending on gasoline, they will have less to spend on everything else. But offsetting the consumers’ woes is the fact that oil producing states are rolling in royalty payments. Oklahoma farmers with oil wells on their properties can buy new pickup trucks this year.

Oil producers can buy more drilling equipment. And they have been doing just that. Part of the strong growth we see in business purchases of machinery is the purchase of oil equipment by oil producers.

The real drain on American purchasing power caused by an increase in the price of crude oil comes about when the cost of imported crude rises. About half our crude is imported. This drain is already computed in our forecast if we note that the drain due to importing oil is already counted in the trade deficit.

Higher gas prices are a drain on the economy to the extent that part of the price increase is a drain of purchasing power to foreigners. There may also be a temporary decline in spending if consumers react more quickly to their reduced spending power than oil producers react to their increased ability to spend.

HOUSING

Is there a housing bubble? Yes. Will it provide an independent threat to the recovery? Maybe, but probably not. The threat will come if the housing boom is mutilated by Katrina re-building, and if the Federal Reserve raises rates well beyond four percent.
INTEREST RATES

Interest rates are much harder to forecast at this time than the growth in demand. It is possible that the Katrina boom could lead to increases in prices of all construction materials, and that it will cause all wages in the upper blue collar (fixer-upper) sector to rise.

In this event, all eyes would be on the Fed. The Fed’s policy has been to be tough on increases in “underlying” inflation or “Core” inflation, but to ride out temporary price increases caused by shocks such as fluctuations in the harvest, strikes, or disruptions in transportation. These temporary spikes are viewed as reversible and not easily corrected with high interest rates.

Would a Katrina inflation be viewed as big enough to be fought by restraining the rest of the economy with higher interest rates, or would Katrina be viewed as a temporary factor despite its large size? No one knows. I expect the answer is that if the economy does come in with 6 or 7 percent growth in the fourth quarter, we would see interest rates keep rising well above the four percent interim target.

Should short rates get too far above long rates, we would then have to worry about the speed of decline from the spike and whether self-fulfilling forces would be set off that could lead to a recession in 2007, or even in very late 2006. I cannot foresee the outcome of this challenge at this time.

WISCONSIN

Wisconsin’s economy is growing strongly and in a balanced manner. Its manufacturing and its agriculture are both doing well. The increase in Ag prices has ended but ag prices remain at a level that can provide life to Wisconsin’s rural communities.

There is a weakness in printing and in paper manufacturing, though Procter and Gamble’s intent is to build a new plant in Green Bay, and this will help the paper sector to perform better in the future.

A new power plant has been authorized and its construction, along with the Procter and Gamble plant will give a boost to Wisconsin’s Construction sector in the future.

New industries such as plastics are growing more strongly than their national counterparts. Wisconsin’s exports are growing rapidly and our exports to China are doing exceptionally well.

On net 2006, will be year of strong growth and Wisconsin will participate in the growth. The risk is of an increase in inflation and interest rates that could tip the economy off its growth track leading to a recession in 2007.