SHORT- AND LONG-TERM DYNAMICS
OF THE FOREST PRODUCTS INDUSTRY

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by

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The Outlook for the Next Decade

INTRODUCTION

It is a pleasure to be with you and try and peer a little bit in the future together. As you have just heard, I work for Data Resources, Inc., (DRI) and our business is the business of forecasting. We forecast in great detail, and sometimes we stand accused of selling numbers by the ton. I'm also guilty of that: I have for seven years forecasted a host of lumber and plywood prices, on monthly, quarterly and annual frequency. As you have just heard, I am the author of the FORSIM model, which is designed to forecast lumber and plywood prices, and now we are also working on a pulp and paper model, which will forecast demand, supply, and prices of many grades of paper. We are even going to sample and try to track world demand for pulp, supply, and prices. So you see, we at DRI have many numbers for the future - and in great detail.

Why are we doing this? Obviously, as good economists, we are responding to market demand. We try to satisfy a hunger for quantification, for numbers, and I think, there are two reasons why there is this hunger.

First, we have the computer-fed popularity of econometrics and mathematical economics inside and outside the universities which has led to attempts at economic engineering. The activists, the optimists call it managing the economy. The detractors and conservatives call it tinkering. Regardless of the label, you need numbers, many numbers, to come up with government or corporate economic policies in today's world.

Another source, I think, is the current state of affairs. Quantification gives us a sense of security in an uncertain world. And the more uncertain the world is, the more we need to be reassured - all of these numbers give us, I think, a sense of security, whether true or false.
Modern econometricians try to deal with all of these things, through what we call stochastic equations, behavioral equations. We observe and measure how consumers and business have reacted to past uncertainties and risks, in out-of-equilibrium states. We try to measure how stable - that is how predictable - these reactions were. We derive equations from data capturing that behavior, put them together in a model and see what we get when we run the model out. Econometrics imposes a very strict and systematic approach to forecasting, and it forces you to make your assumptions very explicit.

The Data Resources Forecasting Philosophy

The Data Resources approach to forecasting reflects the ebullience of its President, Otto Eckstein. He is an optimist, he is an activist and he is a liberal. DRI’s Macro-Economic Model of the U.S. economy and the Data Resources forecasts that are derived from simulating with this model mirror these characteristics. By contamination, micro forecasts based on industry models such as FORSIM, also try to resolve most of the issues on the liberal side, on the optimistic side, and on the activist side. However, as Webster says, dynamics deals with contrasts and I want to try and contrast some of the forecasts that we have made with those of the other parties - the conservatives, the pessimists and the passivists.

THE ECONOMIC OUTLOOK

After these introductory remarks, maybe we should turn to the outlook and try to remember that we have to think in terms of dynamics and not of statics; not of equilibrium, but of things out of equilibrium.

The next ten years will be a period of major, but not unprecedented, adjustment and uncertainty. There are strong cross-currents in economic policy and in the immediate outlook. We have the cross-currents between liberals and
conservatives, between activists and passivists, between optimists and pessimists. All of them want to pursue different policies over the next ten years - in this period of major adjustment.

In our outlook, both long- and short-term dynamics have to be considered and dealt with. A further distinction that has to be made is between dynamic forces in the forest products industry itself and those of its markets.

I realize that my allotted time is too short to do full justice to each of these forces. During the question and answer period, you can pin me down on some of the things I've left out.

If our economic system is under-performing for no reason other than adjusting to past shocks, it should recover, and economic growth should move toward potential if the economic policies are the right ones. If the U.S. economy is strained because of a reaction to the speculative commodity boom of 1973-74, and is now in a recession because of it, there shouldn't be any reason why it could not recover toward its full potential. Under a basic law of dynamics, if a system is out of equilibrium, it will move back toward equilibrium, except if equilibrium moves away at a faster rate than it is moving toward it.

The question to be answered is: "Will the U.S. economy recover to its potential?" Our answer is "yes," but a modest yes. We will move slower, more erratic, and we will have waves of inflation. I view the inflation process as a succession of waves; we had the biggest wave in 1973-74 - we'll have other ones but of declining magnitude. This outlook is based primarily on the fact that we won't have the same demand/supply conditions over the next five years as we had in 1973-74. I will get back to that.

What about the rest of the free world's economy? Our answer is again "yes," but a much more modest yes. A more modest recovery than our forecast for the U.S. economy, slower, more erratic, and moving towards a lower potential.

Also, of course, the economic goals of the U.S. and the potential of our economic system are changing. Both quantitatively in terms of lower growth in traditional measures as well as qualitatively - a shift from consumption of bulk and waste of resource to increasing quality of goods, environment and services.
Before saying any more of these generalities, I want to give you some real numbers. The DRI forecast for real GNP growth for this year is 4.8%; next year growth will slow down a little to 4.6%. Between 1979-82 there will be a minor cycle, but we don't know exactly when, and we will have average growth of 4.2%. In the 1980's, we'll have a growth rate of 3.6%. Clearly, we are continuing to recover only slowly, and growth will slow down markedly once the recovery from the 1974-75 recession is complete.

Canada will reflect the growth in the U.S., except it will go a little bit slower in the first couple of years, as it didn't have as deep a recession as the U.S. Japan is forecast to grow at 5-6% over the forecast period, which compares to 10+% in the 1960-73 period. Europe will grow by 2-1/2-3% over the next two years and 2-4% in the 80's, which is only half of what its growth in the period from 1960-73.

U.S. inflation is forecast at 5-6% over the next three years, slowing down to 3-4% in the 80's. For U.S. housing, we are forecasting 1.85 million starts this year, between 1.7 and 1.8 million next year, climbing to 2 million plus in 1979-80, but dropping markedly in the late 1980's.

Now, what are the major differences between the DRI forecast, which is as you see an optimistic one, and others, which mostly are on the lower side? The experience in 1977-78 is going to be critical for what happens over the rest of the forecast period. I think if you call 1977-78 correctly, you can do a good job in forecasting the rest of the decade because a lot of major decisions are going to be made in the next couple of years, which will affect the future for 5-10 years to come. And here, of course, a lot of forecasts differ - not so much this year, but next year.

**Inflation**

First, with respect to inflation. To understand inflation, you have to break it down into demand-pull and cost-push components. Another useful distinction is
between inflation in the food sector, energy sector and industrial sector. In the industrial sector, we have inflation caused by wage push and capacity utilization. Capacity utilization represents the demand pull part: as capacity utilization grows, margins grow and prices go up. Again, we see waves in the future of industrial inflation, but of lower and lower magnitude.

Why are we forecasting that? Why not increasing inflation, as some do? The stock market is very worried now about another wave of inflation which could be of the same magnitude of, or even larger than, the one of 1973-74. So what we have to do is reexamine the inflation of 1973-74. A good econometric model will do that for us. It takes all the factors into account and compares all the factors in place now and in the immediate future with those that were in place in 1973-74. The answer is that we'll have inflation of about half the magnitude, 5-6% instead of 10-12%. Now, why is that? Will the dynamics not be the same as they were in 1973-74? We must answer "no." First of all, we won't have the same worldwide fast growth. We won't have worldwide stimulative policies. The world is very afraid of inflation, here, in Japan and in Europe. We won't have the same wave of commodity speculation. This is on the demand-pull side. We definitely won't have the underlying pressures following price controls that we had in 1972 and 1973.

On the food part in 1973-74, we had crop failures abroad, which caused competition for the available food supplies to balloon. And food prices themselves, farm prices, caught up - they had fallen far behind in the 1950's and 1960's. While it is not possible to forecast the world weather, a normal forecast should include the assumption of normal crops, not everywhere, but on average.

And third, of course, we had energy. And there one might make the same argument as in the case of food. The energy imbalance suddenly caught up with us and world oil prices now more truly reflect the long run demand and supply situation in the world.

The unsettling effects of all this inflation, of course, was exacerbated by a political crisis and a policy error. We had Watergate and we had a liquidity crisis in the business world. The financial world was strained to the limit, and on top of that, we got a very strict monetary policy, causing a major liquidity crisis which translated into interest rates of 12-15%.
None of the above things are in place now, and are unlikely to occur in the next ten years.

To summarize, for food, there are large carry-overs of last year's abundant crops, and we look for good crops this year.

On energy, OPEC is very careful not to kill the goose that lays the golden egg. We look for 5-10% increases in OPEC crude oil prices.

On industrial inflation, wages are going up about 7-8%, productivity is going up about 2%, so we look for basic hard-core cost-push inflation of 4-6% in terms of unit labor cost.

I turn now to the second question that determines our outlook: will there be enough capital investment?

**Capital Investment**

If we don't have capital investment starting sometime in the second half of this year, or next year, we would indeed not be able to grow, and the DRI forecast would not come true.

DRI is forecasting that real business fixed investment will be strong next year, between 6-9%. One major competitor of ours sees real business fixed investment next year going up by only 1-2%. And, they are forecasting a major recession in 1978. So, there we are really far apart.

Now, why do we think ours is right and theirs is wrong? We look again at the ingredients which determine business fixed investment.

**Credit Availability**

First of all, credit availability is very high. Balance sheets have been restructured. In terms of the business cycle, we are not really two and one-half years into a recovery. As far as the financial world is concerned, and as far as the business world is concerned, mid-1976 was the start of the recovery. In 1974–1976
we had a sharp contraction and a subsequent inventory snap-back, but not really a
recovery in the old-time business cycle sense.

If this is the correct diagnosis, then 1977 should be the year of housing and
1978 should be the year of capital investment. The pessimists are thinking that this
will not take place, in spite of the high liquidity, in spite of all this cash that's
building in companies and in spite of increasing capacity utilization rates and a
more stable business environment. All this cash somehow has to be spent, because
you cannot invest forever in short-term securities; the real return on short-term
securities has been negative for quite a while now: prices are going up faster than
the 5% yield on money market instruments.

Business Confidence

We believe that confidence will be restored to sufficiently high levels that all
this liquidity will be translated sometime later this year and next year into business
fixed investment. First, confidence will be buoyed by a stable financial policy. We
won't have as much of the stop-go as we have in the past. I think the Federal
Reserve and the people who determine monetary policy have learned from mistakes
in the past and they have said so. Second, we will have a stimulative, but only
mildly stimulative, fiscal policy. President Carter is not your average liberal
democrat, as labor is finding out, as business to its pleasure is finding out and as
Congress is finding out.

We have already discussed the inflation outlook. Once we get over the initial
jitters we see now reflected in the stock market and some other business sectors,
once we see that the crops are shaping up, that OPEC adheres to a moderate
approach on raising the price of oil, that wage demands are not going to be
outrageous, I think that we will see sharp improvements in business confidence.

Political Stability

Of course, we are looking for a period of stability in politics, nationally as
well as abroad. Thus, the basic confidence ingredients that were so much out of
In the upswing of 1936-51, which was the last Kondratief upswing, we had new technology which opened up the new frontiers, and of course, we had the exploitation of Middle East oil, which was the opening up of a new energy frontier.

What will be the upswing in the next 10-20 years? It has to be new technology. There are no physical frontiers left, I don't think there are the necessary large deposits of minerals or oil left in the world that could pull us through this time. The time of cheap energy is over, the time of cheap commodities is over.

A major commitment to investment has to be made. This doesn't necessarily mean that the standard of living has to recede, though we have to save more for more investment on current account and borrow less from the future.

I think if you are an optimist, if you are an activist and not necessarily a liberal, you will believe with me that this country loves challenges and loves opening up new frontiers. Looking at some of the new technologies that are coming out in computers and in other high-technology areas, I think that there's no doubt but that the necessary investments are already being made and will continue to be made. As for the political climate, I think the awareness is setting in sufficiently strong that indeed we will need to foster this investment in new technology which will eventually solve the energy problem.

Outlook for Forest Products

Now I have a few specifics regarding the intermediate-run dynamics of the paper and wood products sector. I have gone over some of the underlying economy forecast numbers; why we are optimistic, why we are resolving most of the forecast questions on the optimistic side, what are the pessimistic views, what are the uncertainties, what are the risks. You may not agree with me, it is mostly a matter of interpretation of historical events. I've mentioned all the ingredients which are in place now. If you bear with me, I shall now very briefly go over what all of this means, or would mean, for paper and lumber and plywood.
In paper we will see relatively high operating rates in 1978, especially in late 1978. Those will be concentrated in a few areas. For instance, the coated printing papers will be exceptionally tight. Weaker will be the more "commodity" types like newsprint and groundwood. Linerboard and carton, because of the lower growth abroad, will be slower, nevertheless we look for capacity utilization rates in the mid-90's by late 1978.

As Europe and Japan continue to recover, however slowly, import demand for raw materials - pulp, chips, will increase markedly. We have just completed a small chip study for the West Coast of the U.S. which shows that Japanese chip export demand by 1979 will have grown by something like 40%. This is because any increase in overall economic growth (this relates not only to Japan, but to Europe as well) is almost directly translated into sizeable increases for raw material, because these countries have reached their domestic supply limits. Thus a continuation of the recovery of paper and paperboard consumption underway now in Japan and Europe, will eventually lead to a very strong increase in demand for pulp, chips and other raw materials from the U.S. and Canada.

In the early 1980's we believe that there will be major investment in greenfield paper capacity. This results from our belief that paper prices will rise markedly in late 1978 and early 1979, that demand growth and operating rates will be high enough for the investment decisions to be made.

The increasing integration between wood products and paper products has made it possible to consider near greenfield capacity in the paper area. The industry has to be cautious in opening up new areas of raw wood material before committing major sums to greenfield paper capacity. First, a raw material base is established by putting in place low-cost lumber and plywood mills and maybe even reconstituted panel product plants, like particleboard, fiberboard, or hardboard. Then, the shift to paper with its large capital requirement can follow later on.

So we do see significant investment coming on in 1980-85, in response to the high margins of 1978-79.
Lumber and Plywood

On the lumber and plywood side, housing will remain strong through the mid-1980's. There's no way that housing cannot be strong. Housing will be strong relative to almost anything else and this is primarily because of the demographic development that relates to the baby boom of 1950-56. This baby crop is now passing into the age classes where new households are formed. Their demand for housing units is very strong. If there's not enough housing available, political pressures will be brought to bear to make it available. Right now we have a nice recovery in housing; we think it will carry through this year, with possibly a minor slowdown next year, but then going up to two million starts and above in 1979 and 1980.

The peak of the demand for housing will come between 1979 and 1982; we haven't seen the peak in real basic demand for housing yet, not even in the boom years of 1971-1973. Of course, housing could have large swings, but only if we have excesses as in 1972. We were building about 1/2 million units too many in 1972, and the setback in 1972-75 was partly the result of that.

In terms of the dynamics of the lumber producing regions and the raw material sector, we see a continuing shift from the U.S. West to the U.S. South and Canada. On the West Cost a chronic imbalance has developed between raw material (standing timber supplies) and mill capacity in place. This imbalance drives log prices up. This translates into high product prices, therefore into high timber profits and high profitability for investment in Canada and the South. The return on that investment is almost assured by the high raw material prices on the West Coast. This will remain the case at least through the mid-1980's, since under our projection of rising lumber and plywood demand, the imbalance on the West Coast will be maintained until then.

So for the next 10 years, we'll see high demand and product prices, which are translated into high stumpage prices, high prices for forest bearing land, which will continue to make mill and forestry investments in Canada and in the South attractive.