

To Our Clients

Recent Developments

1. Disclosure of Compensating Balances and Effective Rates of Interest. The S-X requirements for disclosure of compensating balances and effective rates of interest have been revised and new guidelines have been issued in ASR No. 148. Compensating balances are to be segregated on the balance sheet only if there is an enforceable agreement for compensating balances, otherwise footnote disclosure will suffice and compensating balances will be deemed material so as to require disclosure if more than 15% of liquid assets (cash plus marketable securities) or if they have a significant impact on the cost of financing. The proposed disclosure as to effective rates of interest after taking into account compensating balances has been withdrawn as impractical, although the Release states that the SEC encourages such disclosure. The amended rules also require disclosure of time deposits with rate of interest; special purpose funds which have been earmarked for a particular use such as debt repayment or capital expenditure except that approval of a capital expenditure budget alone does not constitute earmarking; balances maintained to support lines of credit; commercial paper (which must be shown as a short term liability even though intended to be rolled over unless there is a binding agreement for the rollover) and unused lines of credit and loan commitments. The Release notes that companies should reflect the various credit and balance arrangements in letters confirmed by the lenders so as to facilitate audit review. Accountants should not rely on oral company descriptions of such arrangements.
2. Short Swing Profits - Settlement of Actions. The test for settlement of a 16(b) action, even though no suit is brought, is the fairness test of Rule 23. Where there is a more than colorable legal or factual issue, a 16(b) action may be settled for less than the amount of the profit realized. Morales v. Holiday Inns, Inc., CCH ¶94,219 (S.D.N.Y. Nov. 14, 1973).

Financial Implications of Material Shortages

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Economists would point out that the title of this Report is inaccurate. In a market economy, it is impossible to have "shortages." Theoretically, the price on any particular product will move to that level that will clear the market, allocating limited supplies to those users whose needs are most insistent and who, therefore, are willing to pay the market price. It probably offers only cold comfort to those many businesses whose operations are presently limited by an inability to get delivery of needed materials or components to learn that there really are no shortages.

Leaving economic equilibrium theory aside, there are extensive shortages here and abroad of basic materials, and these shortages at the raw material or semi-processed goods level have generated bottlenecks throughout industry. Until capacity in the materials industries has been enlarged, the limited supply of many critical products will have a restraining influence upon the total economy's ability to grow. This Report will focus primarily upon the financial implications of the needed new investment.

The Underlying Assumptions

It is necessary to specify some of the assumptions upon which the analysis is built. First and most immediately, it is assumed that the American economy will be little affected by energy and other materials shortages this winter and through all or most of 1974. In the case of energy, both voluntary and mandatory restraints on consumption should, unless the winter is unusually cold, be able to bridge the energy shortage even if the flow of petroleum products from the Middle-East to the U.S. is not resumed. Looking beyond the winter months, the virtual certainty that economic growth in 1974 will be very slow, due to normal economic influences rather than to capacity shortages, suggests that additional pressures upon energy and other basic materials will be nominal. Meanwhile, even if a normal flow of oil to Western Europe and Japan resumes shortly, which probably is a likely prospect, the economies of the other major

developed countries also are likely to slow very appreciably next year, further reducing world-wide pressures upon capacity.

A second assumption is that some form of detente in the Middle-East will, during the course of 1974, lead to a lifting of the embargo upon oil shipments to the U.S., but this by itself will not be sufficient to assure an adequate supply of energy for our economy to return to an historically normal growth rate in 1975 (and perhaps 1976). As pointed out in earlier issues of this Report, the principal energy problem for the U.S. over the next few years will be a shortage of refining, shipping, and port capacity even if imported crude oil should be abundantly available. As of the beginning of this year there were no new domestic refineries under construction. However, announcements of additions to refining capacity thus far in 1973 would add about three to four million barrels per day to our available supply of refined petroleum products within three years. Meanwhile, the relatively slow rate of economic growth in the next few years will provide the breathing spell during which new mines, smelters, and other facilities may be built to help correct other materials shortages.

The third assumption is that the pressure of necessity will lead to some backsliding in achievement of our environmental objectives. Specifically, it is assumed that electric utilities and others will be permitted to revert to high sulphur coal, where it is possible for them to do so, and that environmental restraints on strip mining will be relaxed sufficiently to make possible a sizable increase in the output of coal. The coal industry itself is presently operating close to capacity, but with the proper encouragement this source of energy can be increased more rapidly than any other to bridge the energy shortfall during the next few years.

Finally, it is assumed that the overdue awareness of the critical shortages we have encountered in petroleum and other materials will have a permanent accelerating effect on changes in both our consumption patterns and our sources of supply. Specifically,

the impetus to conserve energy through a shift toward smaller automobiles, lower thermostat settings, and other such measures is a permanent (and desirable) phenomenon which will simultaneously lead to greater economizing in our consumption of all materials, not just energy sources. On the supply side, the recognition of our vulnerability so long as we plan our future upon a highly unstable source of energy will greatly shorten the time before the U.S. (and the rest of the industrial world) is once again self-sufficient in energy. In the absence of recent events, including the Mid-East embargo and skyrocketing price of natural crude, it probably would have been at least a decade before a commercially meaningful amount of oil from shale deposits and synthetic gas from coal gasification would have been available. That time horizon probably has been shortened by at least a few years, while at the same time it is to be expected that construction of present generation nuclear power facilities will be speeded up. Top priority will be given to exploration and development of the probably vast but still unproven oil and gas reserves off our shores and on the mainland itself. More exotic energy sources such as the breeder reactor, solar energy, nuclear fusion and others are still many years away, but their commercial development also will be very significantly accelerated by the necessity that recent events have underscored.

Forecast

In the short-run, the American consumer will be mildly inconvenienced by our present shortages, and the economy will be curtailed in its growth potential for the next few years. Over the longer-run—and not too long a run at that—the U.S. and the other developed countries probably will prove to have benefitted from recent events by having been forced to recognize the uncertainty of their energy supply sources before they had become so deeply committed to that source that adaptation would have been far more difficult. A decade from now, hindsight might very well show that the big net losers in this episode were the oil producing countries that weakened their future markets by forcing an accelerated shift to other, and ultimately more efficient energy sources.

The Energy Capital Requirements

One common characteristic of all sources of energy in the years ahead is that the amount of capital required to produce one additional kilowatt of electric energy, one barrel of oil, 1,000 cubic feet of natural gas, or whatever will be substantially larger than has been true in the past. Starting with oil and gas, there are three reasonably abundant sources of additional fuel available in the continental U.S. First, there is the development of new natural fields further off-shore and at greater ocean depths, deeper mainland wells

than have yet been drilled, and increasing production further north into the Arctic. It has been estimated that exploration could uncover very large as yet unproved resources in these places, but at exceedingly high exploration and development cost.

Second, is the production of oil from shale deposits. Estimates of the amount of oil available from shale deposits are enormous, and at present prices for foreign crude delivered into the U.S., production of oil from shale is now economically feasible. However, initial capital cost for a facility capable of producing any given volume of oil is many times the cost of a conventional pumping facility for natural crude.

Third, there is coal gasification, the technology of which is known but which has not yet been used for commercial production of synthetic gas. Again, the cost of producing a given quantity of gas once the gasification facility is in place makes synthetic gas competitive with imported liquefied natural gas, but the initial capital outlay required is immense. It is difficult to know how to treat imported liquefied natural gas in a discussion of the development of domestic energy sources. Since movement now underway toward developing imported LNG will no doubt continue, the capital requirements for this source of energy probably should also be included.

In addition to the cost of exploration and development of petroleum energy sources, there is the cost of new refinery capacity to process the liquid fuels. To the extent that LNG, synthetic gas, and new natural gas fields are developed to supplement crude petroleum, refinery capacity is not a consideration. Pipelines and gasification facilities for LNG will, however, require large capital investment. In any case, the bulk of the addition to our petroleum energy resources for the next decade, at least, will necessarily be products refined from crude oil. This will mandate very large outlays for new refinery capacity, a substantial part of which have begun this year.

In total, the capital requirements for the fossil fuel industry, including coal (where capital outlays per ton produced will not escalate as in the petroleum industry) may amount to more than \$400 billion in the fifteen years 1973 through 1985, in 1971 dollars, not allowing for inflation. This total compares with capital spending by the industry of \$10 billion in 1971. In other words, the petroleum and coal industries are expected to increase their average annual capital outlays by 2½ times the 1971 level in real terms, and 1971 was itself a record year.

Electric Utility Requirements

Over the past many years, the annual rate of growth in the consumption of electric energy has been in the neighborhood of eight per cent, almost double the rate of real economic growth for the entire economy. The recent voluntary and forced shifts toward con-

ervation of energy probably will reduce this two to one ratio between the growth in energy consumed and the growth in the economy in the years ahead.

While every effort will be made to make the U.S. self-sufficient in fossil fuel sources, it must, nonetheless, be assumed that the trend toward nuclear energy will continue, with nuclear power, which in 1972 accounted for only about two per cent of all electric energy generated, rising to something more than 20 per cent by the early 1980s. This shift toward nuclear power, already underway before the recent escalation of fossil fuel prices and the uncertainties as to supplies of fossil fuels, will obviously be accelerated by the recent events. While it should be anticipated that individual communities will continue to resist having a nuclear facility located nearby, and while it should be expected that environmentalist groups will continue to battle nuclear power, it seems likely that the pressure of necessity will force the public and the courts to move into the nuclear age more rapidly than they have been willing to in the past.

Nuclear Power Plants

The initial capital outlay required to generate electric energy in a nuclear facility is far greater than that required for a conventional, fossil fuel plant. For example, official sources estimate that in 1971 dollars an additional kilowatt of generating capacity in a gas fueled plant cost about \$150, while an additional kilowatt of capacity in a nuclear fueled plant cost about \$300 in original capital expenditure. Over the life of the facility, the cost per kilowatt balances out, but the point is that a nuclear facility requires as an initial capital outlay the purchase of radioactive core that, in a sense, represents several years of fuel that would be purchased year by year in a fossil fuel generating plant. From the point of view of the financial implications of energy, the more important consideration is the initial capital cost as the industry moves steadily toward greater reliance upon nuclear power.

It is estimated that by 1985 electric energy capacity in the United States will be in the neighborhood of 775 thousand megawatts, up from 367 thousand in 1971. Of the total increase, considerably more than half is expected to be in nuclear power, perhaps including some breeder reactor power generation by the mid-1980s. It should be noted that the increase in generating capacity projected here implies a compound growth rate lower than that of recent years, which in turn implies an assumption that electric energy conservation will be successful in holding down energy consumption. On the basis of this projection, a conservative estimate of capital outlays by the electric power industry in the 15 years 1971 through 1985 probably would be on the order of \$350 billion in 1971 dollars. Continuing inflation will no doubt make the actual total significantly larger.

In wrapping up the discussion of capital requirements for the public utilities, a reference should also be made to the capital requirements of the communications industry, another large user of capital. In order to meet the constantly growing demands upon telephone facilities, including the many new ways in which telephone lines are being used, the telephone industry including the independent companies as well as the Bell Telephone System, probably will spend something on the order of \$200 billion on capital expenditures in the 15 years 1971 through 1985, inclusive. Assuming that the foregoing estimates are all somewhere within range of actual developments, the prospect is that the electric, telephone, gas, oil and coal industries will have total outlays between 1971 and 1985 of something like \$950 billions of 1971 dollars. This compares with totals of spending in the years 1966 through 1970 of roughly \$87 billion, so that the outlays projected for the 15 years beginning in 1971 is nearly four times the annual amount of spending for the preceding five years.

Other Minerals

While the current shortage of gas and oil has received primary attention in public discussion because of the central role that energy plays in a modern industrial economy, shortages of nearly equal severity have emerged in the mining and refining capacity of all other minerals, including iron and steel and non-ferrous metals. Very large capital outlays by U.S. companies in this country and abroad will be necessary in the years just ahead to increase supply of these minerals. Meanwhile, the world-wide shortage of minerals has shifted the balance of bargaining power as between the raw material exporting and importing countries. As a consequence, prices of metals have shot steeply upward during the past year, and further price increases are anticipated. One consequence of higher prices in the raw material exporting countries where the richer deposits still remain will be to stimulate development of lower quality domestic resources, side-by-side with steeply growing imports. The capital cost involved in mining the lower quality ores will, unavoidably, be greater per unit produced than has been the case of the richer ones.

As in the case of petroleum refining, there has until recently been the appearance of excess capacity in the metal industries, with the result that capital outlays in mining and primary metal processing have been virtually flat for a number of years. For example, capital spending in the mining and primary metals industries totaled approximately \$4.9 billion in 1971, unchanged from the levels of 1967 and 1968. In the five years 1967 through 1971, inclusive, capital spending by these industries totaled \$25 billion. Now that what had been thought to be excessive capacity has been found to be shortage of capacity, it is obvious

that capital outlays will have to increase appreciably.

If capital spending in the metals industries in 1971 dollars were to continue at the level of recent years, it would amount to a total of \$75 billion in the years from 1971 through 1985. A conservative guess is that in constant 1971 dollars such spending will be at least double this figure, or \$150 billion. Considering the lower quality ores that will be worked, the less accessible location of mines and smelters, and transportation costs for freighters to carry the ore or semi-processed products, the actual number could turn out to be very significantly greater than this.

Financial Implications

The total estimated capital spending by the energy, communications and metals industries alone in the 15 years 1971 through 1985, in constant 1971 dollars, adds to approximately \$1.1 trillion. It should be stressed that all of the estimates included in this total are very crude projections and could be significantly off target; if they are, it is more likely that they understate rather than overstate the level of capital spending. In the five years 1967 through 1971, capital spending by this group of industries equalled approximately 40 per cent of total plant and equipment spending by American industry, with the proportion steadily increasing from 36 per cent in 1967 to 45 per cent in 1971. In view of the extent of the need for new capacity, it is likely that this proportion will continue to increase, perhaps averaging about 50 per cent over the 15 years 1971 through 1985. If this should prove to be the case, total capital spending in fixed 1971 dollars would amount to \$2.2 trillion over the period, or \$147 billion annually. Total spending on plant and equipment in 1971 was \$81 billion, and by 1973 had climbed to \$92 billion in 1971 prices.

Even on all of the very conservative assumptions, that have been employed in this analysis, it is quite clear that the urgent need to improve our supply capability in energy and other basic industries will impose very considerable demands upon the financial system. Of the total capital spending projected here, perhaps as much as one-half will be covered from internal cash flow sources—an assumption which in turn assumes a liberal government policy toward price increases that will permit these industries to generate the profits necessary to encourage the needed investment and to develop the needed cash flow. This would still leave \$65-\$70 billion per year to be raised from external sources. In the three years 1970-1972, which were record years for capital financing by industry, U.S. corporations raised an annual average of \$26 billion in the bond and equity markets. On the most optimistic assumptions with respect to growth in savings flows available to the longer-term capital markets, it would not seem possible that industry will be able to meet its external

requirements for long-term capital in the domestic bond and equity markets.

To some extent, the international market might be tapped to provide part of the shortfall in the U.S. market. In particular, if the Mid-Eastern oil producing countries accumulate capital reserves of the magnitude suggested by recent estimates, these countries could be an important source of long-term money. However, it should be remembered that every developed country will be going through a similar explosion in capital spending on energy, placing persistent demands upon capital markets world-wide that even the expected huge throw-off of Mid-Eastern oil money will not be fully adequate to handle.

One obvious implication of this prospect is that there will be unremitting upward pressures on long-term yields, both on equity and fixed income securities, so that for the foreseeable future a return to interest rate levels that this country has enjoyed historically would seem to be a most remote possibility. Not only is a protracted period of high interest rates suggested by the indicated supply-demand balance in the capital markets, but also by the fact that the higher prices on raw materials and the need for evermore capital to extract a unit of such materials will, no doubt, generate levels of price inflation for many years ahead higher than we have been accustomed to. Both the fact and the expectation of such inflation will require relatively high rates of interest.

Another implication is that sources of money other than long-term investment flows will have to supplement the total supply of funds. The only visible way that such a supplement can be developed is through a process of "funds conversion," whereby essentially short-term money becomes long-term capital. This process will involve a growing volume of longer-term loans by U.S. banks, through the Eurodollar market, and through leasing companies. In all cases, the lending institutions will be borrowing short-term money and committing it at long-term, on the underlying assumption that as it is necessary to roll over the short-term borrowing at maturity there always will be funds there to replace the maturing debt.

There is nothing in this prospect that calls for a Cassandra-like prediction of the ultimate collapse of the system. The U.S. and the international financial systems in recent years have already gone a very long distance in this direction. There is no reason to think that the borrowing short-lending long process has reached anything like a critically dangerous point. At the same time, one must be concerned about the growing vulnerability of the financial system to unanticipated shocks. The management of financial institutions here and abroad must assume even greater than usual responsibility for guiding their operations along paths that will minimize the risk of serious dislocations.

December 3, 1973

3. Mutual Funds - Disinterested Directors. An advisory relationship between the fund adviser and the wife (separate property) of a fund director raises a question as to whether the director is disinterested within §2(a)(19) of the 1940 Act. Transamerica Capital Fund, CCH ¶79,561 (Avail. Nov. 11, 1973).

4. Managed Accounts - Conflicts of Interest. The SEC Staff position with respect to the broker-adviser dealing with discretionary and managed accounts appears to be in the process of being formalized. In Hartzmark & Co., CCH ¶79,653 (Avail. Nov. 11, 1973) the Staff takes the position that §206(3) requires prior written consent by the client to each transaction initiated by an adviser subsidiary of a broker in which the broker was the principal or the broker for a person other than the advisory client. Thus the Staff is equating crosses with principal transactions.

5. The attached report by Tilford Gaines of the Manufacturers Hanover Trust is the best short discussion of the macro-economics of the next decade I have seen and I commend it to you.

M. Lipton

Attachment