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TO: Federal Open Market Committee FROM: Normand Bernard N.S. DATE: August 18, 1983

Enclosed are the greenbook and supplementary information prepared at the Federal Reserve Banks, including a special report on inventories.

Enclosures

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#### FIRST DISTRICT - BOSTON

#### SPECIAL DISTRICT REPORT ACADEMIC PANEL

Professor Eckstein was available for comment this month. He believes the Fed should say "I'm sorry" and "cap interest rates at their current levels, then allow yields to fall as economic growth declines later this year." Even before yields rose, economic growth would have slowed after this summer. "The recent increase in interest rates will slow the economy even more." "If yields rise much further, the tone of consumer and business confidence will sour in four to six weeks --- the stock market has already backed away." As the investment yield on bill rates approaches 11 percent and the mortgage rate approaches 15 percent "the unemployment rate will get stuck near current levels." Eckstein believes that "MI means nothing right now," and the Fed will have to recognize that its pursuit of narrowly interpreted "financial wirtue" is a "continuing campaign of destruction of American industry." Authorized for public release by the FOMC Secretariat on 3/25/2022

August 1983

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# SECOND DISTRICT-NEW YORK SPECIAL REPORT-FINANCIAL PANEL

This month we have comments from James J. O'Leary (U.S. Trust Company), Francis H. Schott (Equitable Life Assurance Society), and Robert W. Stone (Irving Trust Co.):\*

O'Leary - Unless the Federal Reserve moves more resolutely to slow down the rate of monetary growth than it has to date, long-term rates will increase further and possibly quite sharply. In spite of the impressive decline in the basic inflation rate during the past two years, there is today a strong general conviction that the low inflation rate will not hold and that the odds are high that by 1985 or 1986 the inflation rate will be back in double-digit numbers and that interest rates will reach new historical highs. Much of the long-term, fixed-rate debt which has been acquired in the past two years is not in firm hands. Thus, there is a potential for very large moves of long-term rates based on expectations about the future. The most important job that the Fed now has is to cool down the expectation of inflation by a clear, resolute move to reduce the rate of monetary expansion. It would be enormously helpful if the Federal deficit were reduced by a significant amount, but this seems politically not in the cards. The focus of Fed policy must now be on cooling down the inflationary expectations which are a powerful force in the money and capital markets.

<u>Schott</u> - Reliquification to satisfactory levels is an accomplished fact at financial institutions, but the process has only begun at nonfinancial

"Their views of course are personal, not institutional.

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corporations. Continued recovery is essential domestically as well as internationally. Recent Federal Reserve moves have been a well judged precaution against excessively rapid economic and money supply growth. The meed to evaluate results suggests caution in the near term.

<u>Stone</u> - In my view it is appropriate that the Fed now pay more attention to MI than it has over the preceding several months. Market participants well understand the distortions in MI that made it desirable for the Fed to deemphasize it earlier, and few such participants felt the Fed was compromising its long-term objectives in doing so. The distortions now, however, are probably much less than was the case before and I think the Fed would have a creditability problem if it did not react to the current position of MI relative to its prescribed range. The reaction thus far seems to have been aimed at getting MI within range over a period of time, and not at trying to force it within range immediately. This approach seems wholly appropriate, since the costs that could be associated with trying to force MI within range over a short space of time could be substantial.

August 10, 1983

### Summary of Theme Reports on inventories submitted by Research Departments of the Federal Reserve Banks Prepared at Federal Reserve Bank of Chicago

Introduction. District reports indicate that, with some conspicuous exceptions, business inventories are in reasonable balance with current and prospective levels of sales and output. The massive inventory liquidation of late 1982 and early 1983 was largely completed by midyear, except for excessive stocks of coal, iron ore, oil pipe and drilling rigs, and farm equipment and supplies. Popular autos, aluminum, and certain electronic components are tight, but, overall, few sales have been lost because deliveries could not be made. Inventory increases have been occurring on a selective basis, and will occur on a broadening front, if the expansion of final sales continues. Inventory policies will remain cautious, with little probability of speculative buildups. In general, retailers are less concerned about keeping inventories lean than are manufacturers. But inventory policies for each line of products are governed by circumstances and industry practices. Most businesses are attempting to push the burden (especially interest cost) of carrying inventories "upstream" to suppliers of finished goods or materials. There is extensive reliance on foreign supplies, either as prime or supplementary sources.

To sum up, the inventory sector made its major contribution to the expansion as the general liquidation came to an end. No rapid buildup is likely because there is little fear of either acceleration of inflation or shortages that would impede normal deliveries. Technological improvements, especially computer controls, have helped keep inventories lean, but this factor is less important than price stability and ready availability. 2

<u>Factors Keeping Inventories Low</u>. Although below past peaks, interest rates remain high by historical standards and continue to exert a powerful force holding inventories down.

Second, with a few exceptions, there are no shortages, and, therefore, no incentive to lay in precautionary supplies. Additional goods can be obtained from warehouses, foreign sources (often already in the U.S.), or by raising factory operating rates that are generally well below capacity.

Third, prices are relatively stable and are expected to remain so, and there is little speculative motive to add to stocks.

Fourth, many companies remain sceptical about the expansion and do not wish to be caught with surplus stocks on hand or on order if sales fail to match expectations. They remember the costly experiences of 1974-75, 1980, and 1981-82. Such caution was justified, recently, in the case of lumber where demand dropped and prices declined in July, after a sharp runup.

Fifth, various companies in the capital goods industries, under severe financial stress, have cut inventories to lower levels than would be dictated merely by the drop in demand.

Sixth, most companies are relying on improved inventory management techniques to help keep inventories relatively low.

<u>Managerial Improvements</u>. A number of techniques to keep inventories low have evolved in the past decade or so. This has been an evolutionary development, and no revolutionary changes are expected in 1983. New techniques are less important in the general inventory picture than the factors outlined in the previous action. Moreover, there are questions as to how well these methods would hold up if current buyers' markets turned to sellers' markets. 3

Most commonly mentioned are computerized accounting, which permits close monitoring of sales and stocks to prevent excesses or stockouts. Use of computers is widespread and still growing. Aside from more exact knowledge of the actual level of stocks, up-to-date knowledge of sales trends helps guide orders and production schedules.

Other managerial changes include improved transportation, communications (both within the firm and with suppliers and customers), and warehousing arrangements. In manufacturing, changes that speed or increase flexibility of production (e.g. in steel and oil refinery) reduce the required level of goods-in-process and finished goods.

<u>High Inventories</u>. Sectors reporting high inventories reflect special circumstances rather than conditions in the general economy. In all cases corrective actions are reducing the excess more or less rapidly. Large stocks of coal reflect the mild winter, but heavy use of power for cooling during the hot summer is working to correct the imbalance. Huge supplies of oil pipe and idle drilling rigs reflect the collapse in energy exploration last year, but production was cut back and usage is increasing gradually. Large stocks of farm equipment, fertilizer, chemicals, and other farm supplies reflect the low level of farm income in recent years, the 1983 acreage reduction programs, and the summer drought. There are also excess supplies of used transportation and construction equipment because of liquidations of troubled companies. 4

Low Inventories. The spurt in demand for large domestic cars has meant higher prices and stockouts despite increased production. Sales of popular Japanese cars are limited by the export quota. Aluminum is tight, and prices strong, following increased demand. High-cost aluminum smelters have been closed down, and most are not likely to be reopened. The surge in demand for computers and other electronic equipment in recent months has caused a shortage of semiconductors and other components. Prices have increased and production schedules are being raised.

# FIRST DISTRICT - BOSTON

#### SPECIAL REPORT ON INVENTORIES

Ratios of inventories to sales are generally at desired levels for both retailers and manufacturers in the First District. Retailers tend to emphasize the importance of having an adequate supply of goods in stock. Manufacturers are more concerned with maintaining low ratios of inventories to sales, but mone of those contacted believes sales have been lost because of short supplies. Computer-based technologies have helped both retailers and manufacturers manage inventories more efficiently and support a given level of business with lower inventories. A number of the technological changes which are currently underway in the manufacturing sector have production control rather than inventory management as their primary goal, but lower inventories will be a side benefit of shorter, more efficient production cycles. Retail Trade

Retailers feel comfortable with current inventory-to-sales ratios. Those contacted seem to place a little more emphasis on having products in stock than on keeping inventories lean. However, vigorous sales are holding inventories down anyway. One major retailer finds inventory-to-sales ratios a little lower than expected, at the low end of the normal range. Another says "I tell my buyers 'Buy, buy, buy,' but sales have been so good that inventories never increase". This firm has substantially raised its sales forecast for the rest of 1983 and is buying more stock to support the higher forecast. Sales of seasonal products, such as air conditioning and lawn furniture, have been especially strong; this devleopment is very important to maintaining low inventories, since the selling period for these products is I-2

very short. One chain did report that inventories were a little higher than planned, despite very good sales. However, these higher inventories are not seen as a problem, since the chain is launching a major promotion which involves having products well stocked.

Retailers have improved their inventory management by installing electronic point of sale (EPOS) registers and on-line inventory systems. One chain plans to introduce mini-computers in its stores over the next a couple of years.

#### Manufacturing

Although the pace of recovery has been modest in the manufacturing sector, most manufacturing respondents, like the retailers, are satisfied with current inventory levels relative to sales. The exceptions are a manufacturer in the packaging business, which had previously cut inventories to bare minimums and now must build up to meet stronger than expected sales, and a maker of machine tool accessories, which has seen no recovery but is building inventories to provide employment for its workers and to be in position to respond rapidly when orders finally pick up. Several firms have minor imbalances in the composition of their inventories. One firm increased its inventories of metals beyond the levels meeded to meet current orders because metal prices were very depressed and were expected to rise. In general, however, manufacturers have not made any major changes in the composition of their inventories.

As a group, manufacturers seen more concerned with keeping inventories low relative to sales, less concerned with servicing customers than the retailers. Although generally pleased with inventory-to-sales ratios,

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manufacturers are watching inventories very closely. According to one, "There is always a push to get inventories low; carrying costs for this firm were estimated at 30 to 40 percent. None of the firms contacted feels sales are being lost because of low inventories.

Hanufacturers have invested in-avily in recent years in computers and software systems which enable them to manage inventories more efficiently. In some cases, lower inventory-to-sales ratios are the primary goal. In others, more efficient production management is the motivation, but lower inventories will be a secondary benefit of shorter production cycles and delivery times. Management information systems which provide shop floor control of production, CAD/CAM systems which integrate design with manufacturing and machine configurations which speed up the production cycle are some of the ways firms are increasing overall productivity while lowering inventory levels.

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### SECOND DISTRICT-NEW YORK SPECIAL REPORT ON INVENTORIES

Inventories of Second District firms generally are in line with desired levels. Retailers have begun to rebuild their stocks from the lesn levels of the past year. While some stores have adopted policies aimed at reducing carrying costs, most are unwilling to take any measures which risk losing sales. In contrast, most manufacturers have chosen not to increase inventories yet. They are still watching expenses closely and prefer to produce on demand. In housing, inventories of unsold homes also have not risen much; most builders are finding buyers before starting construction. Only automobile dealers are having trouble achieving desired inventory levels. Their stocks are very low, and new cars are being delivered at a slow rate.

#### Retailing

Until recently, most retailers had been keeping inventories lean, that is, year-over-year increases were less than ten percent. Department stores, however, are now beginning to build up their stocks. Some of our contacts are even allowing inventories to rise more rapidly than sales. In some instances, desired levels, which generally are being achieved, are now as high as 15 percent above a year ago. The more aggressive stores want to ensure that sales are not lost due to incomplete stocks. As one merchant put it, "We're not going to starve our stores" even though carrying costs are high.

Retailers are willing to adopt management and control measures which they feel will not reduce customer choice and thereby cut into sales. One 11-2

store noted that it has started buying for shorter durations but more frequently. This change has enabled it to control its product mix better as well as to take advantage of vendor specials. A retailer of photographic supplies recently installed a computer system which will track sales better and improve the transfer of surplus goods between locations, thereby enabling the firm to reduce inventories.

#### Manufacturing

Menufacturers generally have not increased their inventories from the low levels maintained over the past several months. Firms in many industries, including metal supply, electrical equipment, and chemicals, still are watching expenses closely, and most prefer not to incur higher carrying costs yet. Even some local companies whose profits have risen substantially have expressed a reluctance to replenish stocks. Although firms are convinced the recovery will continue, they remain fearful that they will be caught with excess supplies. One of our contacts in western New York noted that businessmen there are remembering stories of Chrysler's huge inventories during the 1974-75 recession and are taking every precaution to avoid being caught with similar excesses.

Many firms have been increasing production but primarily in response to specific orders rather than to build their stocks. Consequently, as orders have risen, delivery times have lengthened and late deliveries have become more common. According to one of our contacts, this situation will necessitate an increase in inventories late in the third quarter or the fourth quarter. By that time, customers will be demanding faster shipment, and producers will have to have finished goods available more quickly.

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Although management of inventories is not very sophisticated at most companies, some firms have reduced the costs of holding inputs through better control. For example, an electronics producer which uses large quantities of precious metals radically altered its inventory policy during the recession. The firm halved its input stocks, stopped committing to purchases several months in advance, and began using more scrap. Furthermore, the company started buying options for metals to reduce the risk from price fluctuations. Housing

Inventories of unsold homes have been held down due to little speculative building. While residential construction activity has been very high, most homebuilders are lining up buyers ahead of time. In fact, many builders already have enough contracts to last them through the end of the year and do not have the capacity to put up units in anticipation of future sales. The little speculative building which has occurred has been mostly of townhouses and condominiums. These projects frequently must obtain zoning variances or approval of planning boards; delays associated with these requirements have limited construction of this type. Consequently, developers foresee no problems selling the available units at current interest rates. But some builders are concerned that if rates rise, they will be caught with excess inventories.

#### Automobiles

Automobile dealers are characterizing their inventories as undesirably low. All sizes appear to be in short supply; some dealers reported that large cars are tight while others indicated that small and mid-size cars are especially difficult to keep in stock. Dealers have found that order times have become longer and they believe that their requests for

#### 11-4

1984 models will not be filled entirely. Two respondents attributed the tightness to caution on the part of auto producers, who do not want dealers to get stuck with excess supplies as in the past. Another contact observed that manufacturers had not anticipated the surge in sales and therefore were not prepared to meet the higher demand. Despite the low stocks, dealers feel that relatively few sales have been lost to others since almost all are facing the same shortages.

## SUMMARY

## THIRD DISTRICT - PHILA DELPHIA

Representatives of Third District manufacturing and retail firms report mixed inventory conditions in August. All of the retailers contacted, and some of the nondurables manufacturers, indicate that their stocks are at desirable levels. Many manufacturers, however, presently find their stocks too low. They had been cautious with stocks recently and were caught off-guard by a stronger-than-expected pickup in demand. Still others report that inventory levels for some or all of their products remain disturbingly high. No contacts foresee dramatic change in this area over the near term, regardless of their particular inventory situation. Those with short supply lines expect to barely meet demand, while firms with excess stocks anticipate only gradual reductions.

All contacts express a desire for low inventory-sales ratios. High carrying costs and uncertainty over future demand have been mentioned as the prime motivating factors. Although only a few firms report sales losses due to short supplies, many contacts report having had close calls and express a willingness to risk sales losses in order to keep inventories tight.

Over the past few years, most retailers and producers have implemented much stricter inventory control programs. Technological change has allowed for closer measurement of retail stocks, but managerial innovations reportedly are more responsible for efficiency gains in the manufacturing sector, according to contacts. Ш-1

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#### INVENTORY CONDITIONS

Inventory conditions in the Third District vary widely among business contacts. Retailers unanimously report that stocks are currently at desirable, albeit lean, levels, but inventory conditions among manufacturers are mixed. Although many **Ⅲ-**2

producers of nondurable goods are satisfied with current inventory levels, most of the remaining soft-good and hard-good manufacturers feel that their inventories are too low. The leanness, according to producers, has resulted from a combination of their own recent cautious behavior and the surprising strength of consumer demand. A few manufacturing contacts report inventory levels to be unsatisfactorily high. The reason being cited is lagging or quickly changing demand in their particular industries.

There is little expectation, either among retailers or manufacturers, that inventory levels will change significantly over the near term. Firms with acceptable stock levels plan to keep them closely in check while those with undesirable conditions do not see any signs of major change that will alleviate their problems. The companies whose stocks are too high are not optimistic about a big enough pickup in demand to turn their stocks around in the near term, and the businesses with less than satisfactory levels anticipate having trouble just keeping pace with demand.

### CURRENT INVENTORY POLICY

All businessmen contacted express a strong desire to maintain low inventorysales ratios. In most cases, this reflects a drive, inspired by the painful experiences of the recent recessions, toward more efficient operation. Both the high cost of financing inventories and uncertainty over future demand conditions have been responsible for the shift in policy toward relatively leaner stocks. Generally, producers and retailers of higher cost items are placing more importance on interest rates and carrying costs in making inventory decisions, whereas those who handle less costly or quickly outdated products are relying more on conservative projections of future demand. It is also Ш-3

apparent that businesses that weathered the recent recessions relatively well are exercising the more aggressive inventory growth policies as the economy strengthens.

Despite maintaining leaner inventories relative to sales, only a handful of producers, and none of the retailers, indicate any loss of sales due to short supply. Some manufacturers report some close calls due to tightening, but most of these producers reveal a willingness to risk some sales losses in an effort to avoid a possible unwanted accumulation of stock.

#### POLICY ADJUSTMENT IN RECENT YEARS

The overwhelming majority of contacts report that, due to the combined impact of the two most recent recessions, they have expanded their inventory management and control programs in order to facilitate operation with relatively smaller stocks. Retail executives say that technological change has allowed much better measurement and control of stocks and enabled them to keep inventories leaner. Manufacturing representatives, on the other hand, feel that recently improved management practices have had a greater impact on inventory efficiency than the more gradual effects of technological-change. Several manufacturers also say they have changed the composition of their inventories in an effort to increase efficiency. One such change is the carrying of high cost goods in shorter supply despite the possibility of longer delivery times to customers. Another adjustment has been the elimination of speculative production of more expensive goods.

Even with the vastly improved, more efficient inventory management practices presently being employed, the prevailing attitude toward inventory levels is one of caution. Regardless of the degree of sophistication in inventory management, inventory Ⅲ-4

decisions are ultimately based on sales and interest rate forecasts, and therefore remain risky.

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#### FOURTH DISTRICT - CLEVELAND

Special Report on Inventories

<u>Summary.</u> Most manufacturers report inventories are at desired levels and are lean relative to sales. In a few cases inventories are still too high. Manufacturers plan no near-term major changes in inventories. There appears to be a universal determination to keep inventories leaner relative to sales than in the past. This change is more in response to high carrying costs and concern about future demand than to improvements in inventory control technology. Only a few manufacturers report sales losses because of small inventories. Coal inventories are high and will be reduced over the next six months. Retailers plan to keep inventories lean relative to sales for the same reasons as manufacturers. Only retailers of foreign and large domestic cars report sales losses because of inadequate stocks.

<u>Manufacturing.</u> Host manufacturers report inventories are at desired levels and are lean relative to sales. None reported inventories too low, but in the following few cases, inventories are still too high. Inventories of steel pipe for oil field use remain much too high. A major steel producer would also like to see other product inventories reduced a little more. A major producer of electrical equipment reports additional cutting of inventories to bring them in line with sales volume. A producer of chemicals reports excessive inventories of some byproducts, because production mix and

## IV-2

demand mix are not aligned. A tire manufacturer is continuing to reduce inventories. An aluminum producer reports his inventories are at the desired level but customer inventories are a shade high.

Manufacturers plan no near-term major changes in inventory. Stocks will be built cautiously as sales grow. There appears to be a universal desire to keep inventories leaner relative to sales than in the past. Most firms cite the high cost of carrying inventories and the fear of having excessive stocks if the recovery falters.

Only a few firms report loss of sales from short supplies. An automobile producer reports turning back some orders for large 1983 model cars. Steel producers report loss of some sales because of low stocks but plan to keep inventories low because they are still losing money. A chemical producer reports some sales losses in products where the shortage is industry-wide.

A few firms report fundamental changes in inventory policy. A major producer of aluminum reports a leaner inventory policy because the ingot aluminum market has become more competitive. Aluminum is now traded on the London Metal Exchange and many smelters in developing nations have access to cheap electrical energy. In this competitive environment, it is difficult to pass on to customers the cost of carrying large inventories. A producer of steel and bearings reports a two-year effort to improve inventory policies to make them more cost-effective. One steel producer commented that automaker policies of holding lower material inventories may force steelmakers to carry higher-than-desired inventories of flat-rolled steels.

Few manufacturers report technological changes playing a key role in their current shift toward leaner inventories. One auto parts producer noted

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that increased use of computers to aid inventory control has been underway for several years. A few firms report some inventory reduction has resulted from pruning less important items from their product lines.

<u>Mining</u>. A major coal producer reports abnormally high coal inventories, both at the mine head and with customers because of weak demand. These inventories will be worked down over the next six months. Desired coal inventories have been lowered because of higher carrying costs, but technological changes in inventory control have not been significant.

<u>Retailing.</u> Virtually all major retailers report lean inventory positions. The only retailers reporting sales losses due to inventory shortages are domestic auto dealers who cannot readily obtain larger models, and Japanese import dealers who are feeling effects of quota-induced shortages. General merchandisers unanimously report lean inventory levels, but no significant sales loss as a result. Broad-based inventory accumulation is expected by District retailers by year-end, but less than would be typical for a recovery phase, due to continuing high carrying costs and the potential for economic slack by the fourth quarter. V-1

#### Fifth District - Richmond

## Summary

In the Fifth District, inventory levels appear to have stabilized in recent months and may even have begun to drift upward more recently. In general, current inventory levels are viewed as satisfactory, but are widely expected to rise, in absolute terms, as sales continue to pick up. There is no consensus, however, as to whether they will rise relative to sales or relative to historical levels. Most respondents expressed a desire to keep inventories lean, but several doubt whether this intention will survive to stronger markets many expect. Customers are expected to put pressure on suppliers to build inventories and cut delivery times.

Many firms now believe that they can operate efficiently with smaller stocks. They have a better feel for which lines move better and have been able to cut overall inventories by changing the mix. In addition, of course, there remains quite a bit of uncertainty about business prospects and most firms appear unwilling to bet heavily on continued strength by building substantial inventories. There are scattered reports of lengthening lead times on orders from certain industries, lumber and textile products in particular. Despite this stretching out of orders, however, there were no reports of actual lost sales.

In some industries normal inventory levels have probably been permanently reduced by improved control and accounting procedures, but this does not appear to be the case in all industries. Such changes, in addition Authorized for public release by the FOMC Secretariat on 3/25/2022

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to some technological changes, will undoubtedly reduce inventories in some industries. There is little evidence, however, on the scope or magnitude of these effects.

- 1. Inventories at most firms and in most industries appear to be at satisfactory levels.
  - b. Most significant changes are expected to result from inventories keeping pace with sales.
- Most firms currently desire to keep inventories "lean" relative to sales.
  - a. Many firms believe that they can cut costs without hampering operations or efficiency by continuing to operate at low (relative to the past) inventories-tosales levels.
  - b. There is no indication of sales being lost as a result of short supplies.
- 3. There have been fundamental changes in inventory policies in some firms and industries in recent years.
  - a. Technological changes such as better inventory control and accounting, communications, etc. have been a factor. They are likely to continue to influence stock levels, but that influence is thought to be related to the overall strength of the markets. The buyers' market of the recent past has allowed some firms to push the inventory burden back along the production and distribution process. If the economy continues to strengthen and shift toward a sellers' market, some of these effects might well be reduced.
  - b. Better control and accounting have allowed some firms to get a better feel for how individual merchandise lines move. Consequently, the mix of inventories has been changed, and the level reduced.

# VI-1

# SIXTH DISTRICT - ATLANTA SPECIAL SURVEY ON INVENTORIES

A survey of retailers, manufacturers, and trade association representatives reveals little evidence of serious inventory imbalances in the Southeast. This pollstrongly suggests that an expansion of inventories, particularly in retail businesses, is underway. Some firms seem willing to expand their ratio of inventories to sales in order to take advantage of opportunities in the economic recovery. More cautious firms, largely in housing-related industries, say they will continue to keep inventories "lean" relative to sales. They fear that rising interest rates will limit further improvement of the housing industry. Irrespective of the level of sales, many firms expect recently introduced technological changes to permit greater efficiencies in inventory control.

<u>Current Inventory Levels</u>. Retailers' inventories of both soft and hard goods are generally at satisfactory levels in the Southeast, although a spokesman for Sears remarks that inventories are temporarily slightly higher than desired. A contact at J. C. Penney reports that some of its suppliers are experiencing tight inventories. Autos also are in very short supply; a Ford Motor Company representative observes that "... dealers are crying for new units."

Manufacturers in certain regionally important industries are satisfied with their current inventory levels. The president of the Southeastern Lumber Manufacturers Association states flatly that inventories are at desired levels. According to the president of the Georgia Textile Manufacturers Association, textile producers are keeping inventories lean. In contrast, an economist for a pulp and paper trade association says that manufacturers in that industry are building inventories to keep pace with rising demand. An aluminum manufacturer notes that his inventory is tight because of the **VI-2** 

surprising speed of the recovery. Chemical manufacturers, who do not keep much inventory, have adjusted to weak orders by closing plants.

The most substantial imbalance exists in extractive industries. The Florida Phosphate Council reports that phosphate inventories are still much too high despite sharp cutbacks in mining activity. Drilling suppliers for the oil and gas industry would also like to work off excessive inventories. The Tennessee Valley Authority, a major purchaser of coal, reports that its coal inventories are 10-20 percent higher than desired for current operations, but the utility is optimistic about correcting this imbalance.

Expected Inventory Changes. Large department stores and small shops, although skittish about accumulating excess inventories, anticipate strong sales during the fall and winter buying seasons. At this year's major southeastern apparel show, retailers recently made heavy pre-season commitments. According to a representative of the region's biggest merchandise mart, larger retailers are likely to increase their inventories of gift and accessory items as well, but ". . . Mom and Pop stores are too timid . . ." to undertake such moves this early. The shortage of auto inventories, coupled with strong demand, has enabled dealers to reduce discounts and thereby improve their profit margins substantially. They expect no significant changes in this situation in the near term. Automakers are now retooling to produce 1984 models. In manufacturing, representatives of the timber, pulp and paper, and aluminum industries definitely expect to build inventories in anticipation of continuing economic recovery.

<u>Desired Inventory/Sales Ratios</u>. Our respondents express varying degrees of concern about keeping inventories "lean" relative to sales. Despite the current resurgence in sales of lumber and textile products, industry spokesmen are apprehensive about the recent rise in mortgage rates and the effect of that rise on housing demand. Textile producers, in particular, are reportedly determined not to build excessive stocks. On the other hand, a regional representative of Federated Department Stores, which VI-3

has stores in three District states, says that as a result of the present strength of the economic recovery the company intends to expand inventories relative to sales. Our poll indicates that some retailers, including automobile dealers, have recently lost sales of especially popular items because of insufficient inventory. They would now like to carry heavier stocks of specific items to take advantage of potential opportunities.

<u>Structural Changes in Inventory Policies</u>. Several retailers and manufacturers cite technological changes and better linkages in communications and transportation as factors that have improved inventory control. In retailing, improved transportation has increased the turnover rate of goods; this has generated higher dollar sales for a given level of inventories. In addition, computerized price and label readers have made possible an immediate inventory update with each sale. The introduction of microcomputers has helped retail establishments, particularly smaller stores, calculate how fast merchandise is turning over. As microcomputers proliferate, efficiency gains—buying smaller quantities at more frequent intervals—are likely to continue to influence stock levels.

In addition to these structural changes, an important innovation in production technology has helped the region's textile producers reduce inventory levels: by using high-technology equipment, producers are able to respond quickly to order changes and provide buyers with specialty weave products, practically on demand. As a consequence, textile makers can fill specialty orders for these "highly engineered" products with reduced overall material inventory requirements. Theme report on inventories Summary prepared by FRB of Chicago August 8, 1983

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#### SEVENTH DISTRICT-CHICAGO (Theme report on inventories)

<u>Summary</u>. Inventories are generally considered lean. Managers intend to keep them lean mainly to hold down carrying costs. There is no evidence of rebuilding to anticipate higher prices or shortages. Inventories are generally adequate to handle current and expected demand without losing a significant volume of sales. Of course, there are exceptions to the generalization that inventories are "in good shape." There are a few items in short supply and some are in substantial excess. But such situations reflect special circumstances, rather than general conditions.

Inventory Data. Available data on aggregate inventories lack precision and probably always will. There are important gaps. The oil industry, for example, has good data on refiners' "primary" inventories, but almost no information on "secondary" stocks held by dealers and jobbers or "tertiary" stocks held by customers. Tertiary stocks of oil products have become more important since fuel shortages developed after the oil embargoes and during severe winters of recent years which caused users to add storage facilities. Lack of accurate data on total inventory holdings is also a problem in steel, chemicals, paperboard, cement, and appliances. Only rough estimates are available of grain, animals on feed, and other commodities on farmers' premises. Finally, large stocks of imported products ranging from fasteners and line pipe to finished machine tools are held in the U.S. to compete with domestic products on delivery time. Independent brokers and jobbers handling imported products have little interest in cooperating with data collection programs.

To sum up, important gaps exist in inventory data. There is little likelihood that these gaps will be filled.

Much is said and written about the usefulness of computer control to minimize inventory requirements. Unfortunately, the computer readings are often inaccurate. An important cause is stealage, both in retailing and factory operations. Computers do not record theft and burglary automatically as they record receipts, shipments, and orders.

Why Inventories are Lean. Business inventories are generally low relative to sales or levels of production, as judged by historical comparisons. There are several reasons:

- Most items can be obtained on relatively short leadtimes because substantial excess capacity exists in most industries.
- (2) Foreign sources of supply are available for a widening range of products.
- (3) Costs of carrying inventory, especially interest charges, remain high by historical standards.
- (4) Prices are expected to be relatively stable for the next 3-6 months. Thus, there is little incentive to hold excess stocks hoping to profit from price appreciation, unlike the situation prevailing in most years since the mid-1960s.
- (5) In many industries, especially capital goods and components, inventories are too low to support a rapid rise in output should demand warrant. This reflects, in part, stringent financial pressures to hold down borrowing.

- (6) Programs dating back several years have provided strategically located warehouse or other storage space (often highly automated) which has reduced total inventory requirements.
- (7) Computerized controls provide management with current information that permits inventories to be fine-tuned to requirements, thereby preventing costly excesses or unplanned stockouts. (However, there are significant problems in these systems, and it remains to be seen how well they would work in a period of widespread shortages.)
- (8) Various companies report that inventory reductions have been achieved with various managerial improvements-such as better work scheduling, improved transportation planning, closer coordination with customers and suppliers, etc.

Continuous Process Industries. In some industries tight control of inventories is impossible because production cannot be closely regulated as sales fluctuate. Examples include paper and paperboard, chemicals, and cement. These are "continuous process industries" operating 24 hours per day, 7 days per week. Operations continue at optimum (usually meaning full capacity) rates until the plant is shut down. Reopening plants after they have been shut down may be extremely costly. Inventories of these products tend to become excessive when final demand declines and inadequate when demand rises. Production can be decreased or increased only as whole plants are closed or reopened. The problem has intensified in recent years as older plants have been replaced with fewer, more efficient plants with larger, often much larger, capacity.

Just-In-Time. U.S. manufacturers have been urged to emulate the Japanese systems of "kanban" (just-in-time) delivery of parts and supplies to the next stage in production, a method of keeping inventories at a minimum. There are a number of reasons why the benefits of kanban cannot be fully realized here. (1) Japanese OEMs, unlike their U.S. counterparts, usually own or control their suppliers, and are able to demand full cooperation. (2) The Japanese plants are located in close proximity to one another to make kanban work. (3) U.S. distances are vastly greater than in Japan. (4) Transportation in the U.S., especially by rail, is often uncertain. (5) Unlike the Japanese, U.S. OEMs often must hold inventory as a strike hedge.

Good managers have always tried to keep inventories at a minimum. However, their paramount concern is not low inventories, but having the goods on hand needed to satisfy customers' demands without unnecessary delays that might give the business to competitors. One way of meeting both objectives is to transfer the burden of carrying inventories to the next stage back on the path of production and distribution--i.e. from retailers to wholesalers, to manufacturers of finished goods, to producers of materials and components. This process has limitations determined by bargaining power and other market conditions.

<u>Purchasing Managers</u>. Reports of the Chicago and Milwaukee purchasing managers associations show the proportion of the membership liquidating inventories exceeding the proportion increasing inventories from August 1981 to February 1983. Since then these proportions have been about even. The proportion of members reporting faster deliveries exceeded those reporting slower deliveries from late 1981 through December 1982.

Since then reports of slower deliveries have increased, but not much.

Autos, Trucks, and Trailers. Many large and luxury cars are in short supply, despite production near capacity. Stocks of some small domestic cars are well in excess of desired levels, and auto makers continue special sales incentives on these models. Various new Japanese models are in short supply. At midyear, a somewhat slim 54-day supply of light duty trucks was on hand. Sales of the smallest compact trucks have been brisk. Dealer stocks of medium and heavy duty trucks have been worked down considerably. A large number of late model used heavy trucks continues to depress the market for new trucks. A producer of truck trailers with a good order backlog has very little inventory.

<u>Coal</u>. Coal stocks are excessive mainly because of reduced industrial use of electric power associated with the recession, and reduced industrial and residential use associated with the mild winter of 1982-83. Some coal mines remain closed. This oversupply probably will be largely corrected by year end.

<u>Farm Equipment</u>. Industry stocks of farm tractors and most other farm equipment are very large relative to sales. Some tractor plants have been closed all year. High inventories reflect low sales to hardpressed farmers, but also a strike-hedge build-up last spring by the largest manufacturer.

<u>Fertilizer</u>. Producers' inventories of fertilizer raw materials range from normal to high. Excesses are attributed to effects of the PIK program and the weak export market. Inventories held by retailers are thought to be extremely low. Farmers ordinarily spread fertilizer

immediately and do not carry significant stocks.

<u>Gypsum Board</u>. Demand for gypsum board is very strong and there is virtually no inventory. Most closed plants have been reopened, and operations are at or near capacity. Some market areas are on allocation, but it is not believed that construction activity has been hampered significantly. Gypsum board inventories normally are built up during the winter, but, by mid-summer, all new production is shipped immediately.

<u>Household Appliances</u>. At the manufacturer and distributor level, appliance inventories are normal to "a bit light." Dishwashers, microwaves, and ranges are in the latter group. Shortages of some models of room air conditioners developed in some localities during the recent heat wave. Output of all appliances can be increased sharply from current levels if demand warrants. An improved network of regional warehouses and computer controls permit smoother movement of appliances from factory to consumer.

<u>Machine Tools</u>. A sizable stockpile of Japanese machine tools warehoused in the U.S. reportedly overhangs the market. There is also an overhang of good used machines. At machine tool factories, stocks of both work-in-process and finished machines are low. Financial stringencies have forced a larger liquidation of inventories than can be attributed to depressed markets alone.

<u>Packaging Materials</u>. Paperboard and box inventories equaled 10 weeks supplies at the worst of the recession. Increased demand, including foreign, has reduced this to about 7<sup>1</sup>/<sub>2</sub> weeks. This is still somewhat excessive but the situation will be rectified by year end if demand continues to rise gradually.

<u>Petroleum</u>. In days supply, oil product inventories are below last year and below the 1974-80 average. Inventories are judged lean but there are no shortages. Little price change is expected in the months ahead. It is safer to carry low inventories of products because of closings of older refineries that had been kept going by the "entitlements" regulations. Newer refineries are much more flexible as to product mix. This means holding somewhat more crude oil, but less finished products. Many users have reduced holdings of fuel oil in recent years because they have installed dual systems that enable them to switch from oil to gas or vice versa as prices and availability change.

<u>Railcars</u>. A rail car producer, with <u>all</u> of its railcar plants closed, holds minimal inventories of materials and work in process. A large fleet of used railcars—some idled, others leased at disadvantageous terms—overhangs the market. Orders for new cars are virtually nonexistent.

<u>Retailing</u>. Major retailers, with outlets in various parts of the country, increasingly use point-of-sale terminals to record details of transactions. This information is transmitted to headquarters almost immediately. Buyers are able to track shifts in consumer preferences promptly, and adjust stocks and orders accordingly. Currently, general merchandise inventories are on the low side, but new supplies of most items can be obtained from manufacturers or distributors warehouses on short notice.

Steel. Inventories of steel products are generally low. Except for cold rolled and coated sheet, leadtimes are short. Oil country steel

is still in vast over supply, but stocks are gradually being reduced. Increased use of warehouses has reduced inventory needs of many customers. Continuous casting, increasingly important, reduces in-process stocks at the mills by eliminating steps in the production process. Authorized for public release by the FOMC Secretariat on 3/25/2022

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## EIGHTH DISTRICT - ST. LOUIS

#### SPECIAL REPORT ON INVENTORIES

In general, inventories at business firms in the Eighth District are in the desired range. It is widely expected that inventories will rise in the near future, but less than the anticipated increase in sales and production. Businesses generally are attempting to keep inventories "lean" relative to sales because of expected relative price stability, the ready availability of additional stocks, and the high costs of financing. The longer-run trend has been to reduce inventories relative to sales by more aggressive management, the use of improved technology and the elimination of speculative additions.

## Do respondents consider inventories at desirable levels?

Nearly all respondents in the Eighth District stated that their inventories were near desired levels in early August. Inventories of particular items rose when sales fell more than had been anticipated, but these exceptions are now small compared with total inventories, and they have occurred more often at the manufacturing than the retail level.

In other cases, when sales exceeded expectations, inventories have fallen below desired levels. Efforts to rebuild these stocks are under way, but will take some time with cautious buying and sales continuing to expand. One District oil company is in an unusually low inventory position with a large refinery shut down for maintenance during the season of high demand.

## VIII-2

There has been a remarkably small amount of speculation in inventories recently because of the relatively firm expected prices and the relative ease in obtaining materials or merchandise. A major automobile dealer, however, admitted to building his stock of cars beyond current needs in anticipation of continued record sales.

The business inventory contraction in the current cycle is apparently over. About a third of the manufacturing firms and half of the retail and wholesale firms expect to expand inventories in the near future, while less than 5 percent of the respondents seek to lower inventories materially. Most of the increases will be to facilitate expected greater sales and production volumes, though, in many cases, these increases are seasonal. Retail stores are enlarging inventories for the fall and Christmas seasons. The planned additions to stocks are considered conservative in that they are not expected to rise as fast as sales.

## Do firms currently desire to keep inventories "lean"?

Most businesses are now attempting to keep inventories at historically low levels relative to sales. Many furniture stores hold inventories down by stocking only floor samples. Businessmen believe that prices are likely to be stable, that most stocks can be quickly obtained when needed and that financing costs are high.

Few sales have been sacrificed in recent months because of Short supplies on hand. This is partly because of the greater effort devoted to controlling inventories and the availability of additional stocks on short notice. On the other hand, four automobile dealers said that they could have sold more of the popular models if they had foreseen Authorized for public release by the FOMC Secretariat on 3/25/2022

## VIII-3

the demand. Some contractors have complained about brief shortages of selected building materials.

# Has there been a fundamental change in inventory policy over the past several years?

Over the past several years, there has been an attempt to lower inventories relative to sales, and, except when sales declined more than expected, some progress has been made. When inflation was rapid, there was some holding of stocks for price speculation and to insure availability, but most of this activity has been discontinued.

Businessmen devoted more effort to controlling inventories during the recent recession because of sales uncertainties and high financing costs. Some firms accomplished this, in part, by completely eliminating less profitable goods or entire divisions.

Greater efficiencies also have resulted from technological improvements. There are more firms using computers and air freight than there were a few years ago. Such improvements, however, have had only a moderate impact on total inventories in any one year.

## Special Redbook on Inventories

Inventories of district merchants, auto dealers, and manufacturers are generally satisfactory to low in relation to current sales. In part, this is related to recent sales being better than expected. It also stems from a conscious effort to pare inventories relative to sales. Many firms are unsure of the recovery's durability and don't want to be burned by excess inventories as they were in the recent recession.

## Inventories in Relation to Sales

District merchants, auto dealers, and manufacturers are maintaining inventories that are generally satisfactory to low in relation to sales, but district iron ore and home inventories are generally high in relation to sales.

<u>Merchants.</u> Ninth District merchants report that their inventories in relation to sales are satisfactory to lean. One large Minneapolis/ St. Paul merchant indicates that its current inventories are satisfactory while another large Twin Cities merchant characterizes its inventories as lean. This merchant attributes these lean inventories to sales being higher than expected as well as to conscious efforts to cut inventories. According to our Bank directors, merchants outside the Minneapolis/St. Paul area are also tending to keep their inventories lean because they are skeptical about the recovery's durability.

<u>Autos</u>. New car inventories are satisfactory. According to the regional sales manager for one of the nation's largest auto manufacturers, his firm's new car inventories in this region are just right. He did, however, report a shortage of good used cars.

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<u>Manufacturing</u>. Our Bank directors and a diverse group of manufacturers indicate that manufacturing inventories generally are satisfactory to lean. A large Minneapolis manufacturer of temperature controls and a manufacturer of microwave ovens, for example, report that their inventories are lower than desired because of unexpectedly high sales. On the other hand, a manufacturer of large tractors and a large manufacturer of products ranging from coated abrasives to printing equipment have both adopted deliberate policies to lower their inventories relative to sales. There are, however, some exceptions. A Minnesota paper manufacturer reports that its inventories of raw kraft pulp are twice as high as normal, but this is due to concern that workers at its supplier will go on strike.

<u>Iron Ore.</u> In contrast to manufacturing inventories, iron ore inventories are much higher than desired. This is despite the fact that district iron ore inventories are down about 39 percent from a year ago. But the ratio of inventories to shipments is currently about 29 percent higher than in 1979, iron mining's last good year.

<u>Homes</u>. The number of homes for sale appears to be high as well, even though sales have risen dramatically. According to the Minneapolis Board of Realtors, the number of homes listed for sale in Minneapolis and the surrounding suburbs in July was up 22 percent from last July. One realtor states that there are two homes for every prospective buyer.

## Inventory Policies

Many district firms are making a conscious effort to hold down their inventories. A large Minneapolis operator of discount and department stores indicates that it is deliberately holding down its inventories and would rather scramble to meet demand than risk being caught with excess inventories. According to a South Dakota bank director, many small re- 3 -

tailers in farm areas are holding down inventories, even though their sales have started to pick up, because the prospects for agriculture are uncertain. According to this director, many small manufacturers are now filling orders out of production and maintaining only small inventories. He attributed this to the firms' devastating experiences with excess inventories during the recent recession. Big manufacturers are also curbing their inventories. The district's largest manufacturer has instituted inventory reduction programs, and a large manufacturer of cranes and hoists has used computerized inventory procedures to reduce its inventories. X-1

#### TENTH DISTRICT—KANSAS CITY THEME REPORT: INVENTORIES

Overview. The vast majority of respondents, in both the trade and manufacturing sectors, currently consider their inventories to be at generally satisfactory levels. Few firms expect significant changes in the near term, other than keeping inventory growth in line with growth in sales. Both high carrying costs and fears of overstocking influence firms' desire to keep inventories "lean" relative to sales. Few fundamental changes in inventory policy were reported, but the use of computers in inventory control continues to expand.

<u>Retail Trade</u>. Although generally regarding their inventory positions as satisfactory, a number of retail firms continue to make marginal changes in the levels of their stocks to bring them into line with sales and to take account of seasonal variations. One major national retailer, reporting on a regional basis, was the only respondent to report inventories too high, with consequent attempts to trim them significantly. Among automobile dealers, the current inventory situation is colored by some end of model year shortages and by strong demand for larger cars. Retailers in general do not expect significant changes in inventories in the near term.

Most retail respondents state that they desire to keep inventories "lean" relative to sales. High carrying costs and concern about future demand (i.e., fears of overstocking) were both cited as reasons for that position. No one indicated any loss of sales as a result of short supplies.

Auto dealers are especially interested in keeping inventories "lean" relative to sales, both because of high carrying costs and because of having X-2

been "burned" badly in the past with excessive inventories. Dealers are attempting to exert tighter, more cautious management of inventories.

A majority of retailers contacted noted an expanded use of computers in inventory control in the recent past. Beyond this factor, few fundamental changes in inventory policy were noted. A top-of-the-line department store in Kansas City reported a company decision to reduce inventories in relation to sales. As a result, their inventory level was regarded as satisfactory although stocks were down while sales were up. Several respondents stated that their product mix was being closely scrutinized with a careful watch on low turnover items.

Manufacturing and Transportation. About two-thirds of manufacturing and transportation industry respondents reported inventories at a satisfactory level. Those with unsatisfactory levels were about evenly split between "too high" and "too low". A railroad and a paper box manufacturer were in the "too high" category while the "too low" group included a manufacturer of asphalt shingles and insulation, an apparel manufacturer, and a maker of electrical items with some ties to the auto industry. As was true with retailers, manufacturers generally expect no great changes in inventories in the near term, as they attempt to keep stocks in line with sales. High carrying costs was the most often mentioned reason for holding the stock-sales ratio down. And with a great deal of excess capacity among suppliers, ease in getting materials on a timely basis lessens the need for increasing their own inventories in most cases. There was no indication of a loss of sales as a result of short supplies.

X-3

Other than a general move towards keeping smaller inventories for cost reasons, no fundamental changes in inventory policy were reported by manufacturers or transportation firms. Greater use of computers has brought more efficiencies in inventory control. While one firm suggested that further gains in that area appear to be limited, other firms are still expanding their use of computers and in some instances are adding new hardware for inventory control purposes.

## SPECIAL REPORT ON INVENTORIES

## ELEVENTH DISTRICT-DALLAS

Most sectors of the District economy are now maintaining inventories at planned levels. There are a few exceptions. Producers of oil field equipment report continued large inventories relative to current and projected demand. On the other hand, manufacturers of electronic components, new car dealers, and some construction suppliers report undesirably low stocks. Inventory plans of all sectors have either been reduced to or kept at levels considered lean in relation to inventory/sales ratios. With the exception of semiconductor manufacturers, apparel producers, new car dealers, and some construction materials suppliers, none of the firms contacted want to increase inventories over the next several Major reasons were uncertainty over continued increases in months. economic activity within each industry, and a desire to preserve the lower costs of leaner inventories.

<u>Primary Metals</u>—Aluminum producers consciously reduced inventories during the past two years. Although orders and production have increased markedly since March, uncertainty about future demand has led producers to decide against raising inventories. A number of producers expect to hold their stocks below pre-recession levels. Steel producers also reported deliberate reductions in inventories during the past year. The sudden decline in drilling activity and an ebb in the demand for construction-related producers, coupled with increasing foreign competition, XI-2

resulted in undesirably high inventories for most of 1982. Currently, however, only drilling-related products remain in excess supply.

Fabricated Metals--Inventories of fabricated steel products are well above desired levels because of large stocks of drilling equipment. Excess available product is the result of overproduction during a period of falling demand rather than revisions in planned inventory/sales ratios. The stocks of oil field tubular goods held by producers, distributors and consumers are estimated to be a 12 to 14 month supply, compared to a normal supply of 5 to 7 months. Inventories of drill bits are estimated at an 11 month supply while the desired level is roughly an 8 month supply. Neither of these two types of steel products currently are being produced in any significant amount. One respondent estimated that between 85 and 92 percent of all sales are inventory drawdowns rather than new product. Drilling rigs are also in excess supply. Almost half of the U.S. stock of rigs is inactive, even with the estimated decline in existing rigs to 3700 from a peak of about 4500. Based on current and projected drilling rates, inventories of both tubular goods and drill bits will not be reduced to desired levels until well into 1984. Inventories of structural steel and steel for auto production are generally in line with plan although some holes exist. Small steel reinforcing bars used in residential construction are in short supply and producers will attempt to increase their stocks of this product during the present quarter.

<u>Electronics-Producers'</u> and distributors' inventories of semiconductors are well below plan as a result of a sharp increase in orders during the past four months. Production for inventory is expected XI-3

to occur in the third quarter and continue in the fourth quarter, but stocks will only increase slowly as most production will be directed toward sales. Since the 1974-75 recession, semiconductor firms have attempted to maintain lean inventories. This has been achieved through closer monitoring of inventory levels and automation of inventory records. The increase in the variety of products held in inventory reflect technological changes that have occurred in the electronic components industry over the past several years.

Construction Materials--Inventories of lumber and wood products have been reduced to normal operating levels because of the surge in residential construction. Shortages of some products, including masonite doors and sheetrock, are delaying delivery dates but are not significantly hampering seles. Planned inventory/sales ratios have not been changed, but inventory levels of scarce products are being increased in accordance with current sales rates. Fiberglass insulation manufacturers report that inventories are far below intended levels, owing to backlogs in orders. Because of the magnitude of order backlogs, producers are unlikely to be able to increase their own stocks until late in the fourth quarter. By then, an expected decline in new orders resulting from rising interest rates will allow inventory accumulation without aggravating backlogs. Desired inventory levels have not been changed but are generally considered lean.

<u>Apparel</u>—Manufacturers' inventories of apparel are in line with current plans after reductions last year. Desired inventory levels also have been reduced during the past few years in order to lower production XI-4

expenses. Inventory carrying costs are a large part of total costs in the apparel industry. Inventory control has been tightened and the degree of automation is steadily increasing. Planned and actual inventory levels will increase in the third quarter more than seasonally to meet rising sales levels.

<u>Automobiles</u>--New car dealers report that strong sales this spring have reduced current stock below desired levels. Protracted shortages are concentrated in the more popular models, but inventory levels of all models are well below a year ago. Manufacturers' production schedules will limit dealers' ability to increase stocks before the new model year begins. Desired inventory levels were generally lower this spring than last, owing to low sales expectations and not to planned inventory/sales ratio reductions. Dealers plan to place larger orders for the new model year this year than last because they expect continued high sales rates. No changes are planned in intended inventory/sales ratios.

<u>Retail Trade</u>—Department store managers report that overall store inventory levels are on plan, but that cost cutting efforts during the past year have sharply lowered planned inventory/sales ratios. Store profits are up as a result. Sales increases during May and June will lead to a "loosening of the order book," but only in those product lines which have experienced particularly strong demand. Home appliances were mentioned as one of the product lines with the strongest sales growth. Store managers are waiting for the August sales results before deciding whether to increase Christmas orders above last year's. Inventories will be increased in the fourth quarter to meet holiday demand, but there is no indication yet as to the size of the increase.

## TWELFTH DISTRICT-SAN FRANCISCO Special Topic--Inventories

The process of inventory liquidation which began in earnest in the first quarter of 1982 has virtually come to an end in the Twelfth District, leaving inventories at their lowest levels in almost ten years. This does not signal the beginning of a period of rapid inventory accumulation, however. The firms we contacted indicated that such low levels of inventory were generally desirable in light of the substantial uncertainties regarding the strength of future sales. Even firms that are currently experiencing strong demand for their products--most notably, electronics firms and retailers--are not inclined to rebuild inventories significantly until there is evidence that such strong sales increases will be sustained. In general, most firms are rebuilding inventories only very cautiously, relying not on annual sales forecasts, but on actual orders or forecasts of sales no more than two months ahead.

As sales pick up, of course, the firms we contacted expected to increase the level of their inventories. However, most indicated that they intend to keep inventories "lean" relative to sales. Uncertainty about future demand as well as the high cost of carrying inventory--high interest rates and low expected inflation, in particular--are primary reasons firms are attempting to enhance turnover and reduce (or at least maintain) current inventory/sales ratios. Only in a few instances did our respondents feel that such efforts had reduced (or were likely to reduce) supplies sufficiently that sales would be hurt. Rather, firms have sought greater efficiencies by making substantial investments over the past few years in enhanced internal communications and computerized inventory control systems. Such investments are likely to provide Western firms with the ability to operate with lower levels of inventory relative to sales than was true in the past. Lower overall inventory/sales ratios, moreover, are likely to persist even if carrying costs should fall significantly simply because of these past investments in inventory control.

#### XII-2-

Responses by industry follow:

#### Retail Trade

Retailers in the Twelfth District are currently experiencing a strong rebound in sales. They have responded by rebuilding depleted inventories. Because of the high cost of carrying inventory, however, these firms continue to try to keep inventory/sales ratios low. In fact, at all the retailers we contacted, inventory control had become a primary focus of top management. The larger retailers have invested in sophisticated inventory control systems which permit them to track inventories and sales on a monthly basis. One large retailer also indicated that it was trying to reduce the cost of carrying inventory by stretching out its payables to get, in essence, an interest-free loan from its suppliers.

#### Automobile Dealers

Inventories at automobile dealerships are down substantially compared to past levels and may be lower than optimal, given current and anticipated sales patterns. In some cases, dealers' creditors have forced drastic liquidations of inventory. In general, however, these firms are likely to begin rebuilding inventories soon, but at a cautious pace since the cost of carrying inventory is still high and demand remains less than strong.

#### Wholesale Trade - Heavy Equipment

One heavy equipment wholesaler we contacted indicated that inventories were somewhat lower than desired and that some sales had been lost as a result. This firm was planning to rebuild its inventories at a cautious pace and was installing a larger computer system to enhance its ability to track inventory. Demand for heavy equipment is still not strong, however. In fact, this wholesaler has had to increase its inventory of replacement-parts relative to its inventory of new equipment to meet the changed demand among its customers.

#### XII-3-

#### Manufacturing - Heavy Equipment

Contrary to the experience of most other industries, inventories of heavy equipment manufacturers were still somewhat higher than desired. As mentioned above, demand for heavy equipment is still weak, as the mining, timber and transportation industries are not currently embarking on capital spending programs. No further liquidation in heavy equipment inventories is anticipated, however, because demand is expected to pick up within the next few months.

#### Manufacturing - Clothing

New orders have been rising recently, causing clothing manufacturers to attempt to increase the absolute level of inventories to meet increases in sales. One manufacturer reported that it had been caught short in the inventories of certain lines and sales had been hurt as a result. In general, inventories are monitored carefully in an effort to maintain a stable inventory/sales ratio.

#### Electronics

The semi-conductor industry is currently experiencing overwhelming increases in new orders. Inventories have not been able to keep pace even though these firms have stepped up production substantially. There is no indication that sales have been hurt by short supplies; prices have risen instead.

In other facets of the electronics industry, inventories appear to be matched fairly closely to current sales. Inventory rebuilding is occurring cautiously, with new orders providing the impetus for increased production.

## Energy

Inventories of oil are currently very low. The industry has drawn down its supplies over the past few years in response to declining demand and falling oil prices as well as high interest rates. Some rebuilding should begin in the next few months as firms stock up for the winter heating demand. Significant rebuilding of inventories will not occur, however, until the spot price of oil begins to rise above the official price. XII-4-

#### Forest Products

Inventories of lumber are currently higher than desired, given the recent softening in demand. With the rise in mortgage rates and the consequent decline in the homebuilding industry, the current level of lumber production has caused a buildup of inventories and a decline in lumber prices. One firm we contacted was anticipating a cutback in production to bring inventories in line with sales.

Inventories of pulp and paper are also generally somewhat higher than desired, but are approaching desirable levels as the current surge in sales is outstripping increased levels of production. Demand for pulp and paper products has been stronger than expected due to inventory rebuilding on the part of users of these products. Short supplies of a few products have even been reported. Nonetheless, producers of pulp and paper products are attempting to keep inventories lean due to the high cost of carrying excess inventory.