

Leasing's Role in Machinery Financing

Manufacturers are seeking new techniques of financing machinery purchases. They wish to replace obsolete equipment with new, improved types that will reduce operating costs and increase profits.

Internal sources such as retained earnings provide most of the funds for manufacturers' machinery purchases. External sources of funds, however, are extremely important for firms that are relatively new and small or are in the growth industries. Their internal funds finance current operations, and they find it difficult to use these funds to purchase costly equipment. Established external sources, such as borrowing on collateral and buying on instalment, fail to adequately provide equipment financing.

A rather recent development in external financing which meets this need is leasing. It provides financing for almost all of the equipment's cost so that the firm can retain working capital. Its potential usefulness in reducing obsolescence, however, is not generally recognized by manufacturers.

A substantial amount of obsolete equipment is in use in New England today. A 1959 survey of New England manufacturers by the Federal Reserve Bank of Boston found that about half of their machinery had been installed before 1950. Some

Foreign Trade and the Business Cycle, Page 6

Tables showing details on extent of lease activity in New England and reasons for leasing may be obtained from the research department of the Federal Reserve Bank of Boston.

progress has been made since 1959 in replacing older equipment, and manufacturers are concentrating their outlays on machinery rather than new plant and on modernization rather than expansion. But the need to modernize still exists. New processes and technology, particularly in the growth industries such as electronics and plastics, continually create obsolescence.

To evaluate leasing as a means of reducing obsolescence, a questionnaire survey of 60 New England manufacturers was recently conducted by the Federal Reserve Bank of Boston, in addition to personal interviews with 18 other New England companies which provide equipment on lease.

Over the past decade renting and leasing (which is renting for a specified length of time under contract) of various types of equipment have grown. From 1954 to 1958, for example, the number of establishments in the United States conducting a business of renting or leasing automobiles and trucks doubled. During this time their receipts from this activity more than doubled. In 1958 firms whose principal business was leasing received over \$900 million. New England firms accounted for about 3 percent of the total.

Today many families rent cars, lawn rollers, party supplies, etc. for use on special occasions. In industry an analogous situation exists. Manufacturers lease vehicles, office equipment, and production machinery, often to meet temporary, specialized needs. For example, they will lease if they have a contract to manufacture a product which they do not expect to continue producing. They will also lease if they fear that the equipment will become obsolete in a short time, or if they wish to try out a new machine before buying one. By leasing the manufacturer avoids the problems of disposing of equipment no longer needed and of servicing machines for which he is not technically trained.

For these advantages, however, a price must be paid. Leasing is not a low cost method of financing. The one who provides the equipment, the lessor, is taking a risk for which he expects compensation. At the end of the lease he must find another party, another lessee, for the machine, or he must sell it outright, if only for scrap. If improved machines appear on the market—new types of electronic computers being an outstanding example—during the original lease term, the lessor may find that obsolescence

has indeed turned the machine into scrap. The lessor's money is invested in the machine over the lease period, and his profit will come only after a considerable time. He will, therefore, expect a return on his money for this period of waiting.

The Mechanics of Leasing

Not all types of equipment are available for lease. Some items have too short a life or are too low in cost to make leasing feasible. Generally the machine must be above \$5,000 in price and have a life longer than the lease term. In addition, lessors are reluctant to offer a machine for lease that is of a specialized nature. They may not be able to find a market for the equipment at the end of the lease. Machines that are in general use in industry, such as metalworking, molding, and material handling equipment are the ones most often leased.

Leasing plans vary considerably in length, cost, and inclusion of provisions for renewal, purchase, maintenance, and insurance coverage. On the average, the original lease is for 5 years. with the length varying with the equipment's useful life. Most leases contain an option to renew for periods ranging from 1 to 5 years. Also, an option to purchase at the end of the lease is sometimes included. But this option creates problems in some cases because of the difficulty of determining the market value of the used equipment. Unless the purchase price approximates the market price, the lease may be declared a conditional sales contract. This judgment would make the lessee liable for additional taxes. since instalment payments are not considered a deductible expense for tax purposes, whereas lease payments are deductible. Consequently, most lessors prefer to exclude purchase options from the lease contract.

In order to lease a manufacturer must show that he is financially responsible.

Leasing is not a method of saving a firm from insolvency. In general, the credit requirements of the lessor will be comparable to those required for buying on instalment or other types of credit. This is because the lessor receives virtually no down payment. Lease payments are generally on a fixed basis. Even with the small security deposit, returnable at the end of the lease, required by some lessors, the initial payment is less than under any other financing method.

A financially weak firm may, however, be able to lease even though it cannot obtain credit from other sources. The lessor may accept a greater credit risk because he has closer contact with his customers and has greater knowledge of their prospects than the various financial insti-

tutions. The lessor may be able to realize more in the used equipment market in the event of default. He has more knowledge of the resale and lease renewal markets than do banks and finance and insurance companies, which infrequently enter these markets. The lessor will, however, charge so as to cover the greater credit risk involved.

Instalment financing is the most closely related alternative source of credit. One-fourth of the purchase price is usually required in instalment purchases. The purchasing manufacturer acquires the machine and agrees to pay the balance in instalments over a specified time, generally 3 to 5 years. This agreement is a conditional sales contract which stipulates that the seller retains title until payment is made in full. Payments are set to recover the market value of the machine plus all costs, including interest at the market rate.

Instalment purchases are used primarily for industrial production machinery such as lathes, grinders, and presses. Among manufacturers surveyed, 82 percent of instalment purchases were in this category. Most of the remainder was for the purchase of motor vehicles; less than 1 percent was for office equipment.

The Extent of Leasing

Most equipment is purchased with internal funds. Therefore, leasing accounts for a small proportion of total machinery purchases. Only 8 percent of total machinery outlays by New England manufacturers in 1960 were financed from external sources. These sources include sale of stock, direct borrowing, and instalment purchase, in addition to leasing.

Machinery purchases through external sources represent more than 10 percent of total purchases in only six industries. These six are primary metals, electrical machinery, lumber, food, textiles, and printing. The latter has the largest proportion, 20 percent.

Leasing represented less than 4 percent of total machinery purchases by New England manufacturers in 1960, but 47 percent of externally financed purchases. This spring the region's manufacturers reported they planned to finance 2 percent of 1961 machinery purchases through leasing arrangements.

Although leasing is not large in relation to total equipment purchases, it is an important type of financing for certain manufacturers. Surveys of New England manufacturers' capital spending since 1957 have shown that almost a third of the firms which lease are in the machinery industries. Another third are in the food, lumber, textile, and apparel industries.

In general industries which lease are also the

ones that rely on external financing to the greatest extent. The printing industry is a notable exception to this generalization. It has done little leasing in New England over the 1957-1960 period. Almost all of its external funds are borrowed, and printing plants report that they are able to obtain adequate credit. However, there have been rapid changes in printing machinery in the past few years and printers are becoming increasingly aware of the possibilities of leasing to overcome obsolescence.

Leasing in the food, lumber, apparel, and electrical machinery industries accounts for a very large proportion of their externally financed purchases. In none of them was the proportion lower than 40 percent in 1960. The food industry used leasing for three-fourths of its externally financed purchases in 1960, compared to a fifth in 1958. A tenth of the textile industry's machinery purchased through external means was leased in 1960, compared to 6 percent in 1958.

Except in the electrical machinery industry, leasing is used primarily by the small manufacturer. Over four-fifths of the New England firms that have leased equipment employ less than 500 workers. Half of the firms that employ more than this number are found in the electrical machinery industry.

The Lessor

Machinery can be leased from two sources. Many manufacturers lease their product directly to the customer. Other manufacturers sell their products to a broker who in turn leases the equipment. Lessees in New England divide their leases about equally between the manufacturer and the leasing broker.

New England manufacturers are quite willing for their customers to lease through a broker, and they will aid them in contacting one. For, after all, the manufacturer is interested in selling his product, not in conducting a financing business. Also, some manufacturers do not have the capital available to offer their products for lease directly.

Those manufacturers who lease their products directly do so to increase sales. They feel that leasing enables them to broaden their market and to maintain contact with their customers. They also point out that leasing, since it generates

VALUE OF LEASES PLACED IN 1960 Survey of 60 New England Manufacturers

	Sale Price of	Percent of Total				
	Leased (\$ thousands)	Office Equipment	Motor Vehicles	Industrial Machinery 38 26 62		
All Manufacturing	7,262 4,817 2,445	49 66 16	13 8 22			

CONSIDERATIONS IN LEASING Survey of 60 New England Manufacturers

	Percent
Advantages	Firms
Conserves Working Capital	
Eliminates Equipment Disposal	. 38
Has Tax Advantages	
Preserves Bank Credit	. 30
B Eliminates Maintenance Problems	
Provides for Temporary Equipment Needs	. 25
Provides Flexibility in Operations	. 23
S Is Low Cost	21
Disadvantages	
Is High Cost	. 55
Does Not Build an Equity	43
Increases Fixed Obligations	
Has Tax Disadvantages	

ates a steady flow of funds, can help to stabilize their revenues over the business cycle. This, however, would have a noticeable effect only if they were leasing on a large scale. Most of them feel that their current volume of leasing is not large enough to create this effect.

The value of equipment placed on lease in 1960 by six New England manufacturers averaged only 4 percent of total machinery sales. They all would like to do more business through leasing, but customer interest is lacking.

Most of these firms introduced leasing plans into their selling techniques within the past 6 years, although some began leasing before 1950.

Most manufacturers that offer leasing plans first established an instalment financing plan. This is an older and more established external financing technique than leasing. As in the case of leasing, conditional sales contracts account for a small proportion of a manufacturer's total sales. Generally they represent no more than 5 to 8 percent of sales.

Leasing through brokers began to develop in the early 1950's. New firms have entered this field at a rapid rate in recent years. Some of them will lease only cars and trucks; others will lease anything of a durable nature. Their funds to buy equipment and to carry the leases are borrowed from various sources such as banks, insurance companies, and the security market.

The cost of leasing is similar between brokers and manufacturers. Most manufacturers expect to recover the machine's market value plus interest at the market rate as a return on their investment over the initial lease period. They will also recover all costs for insurance, state and local taxes, maintenance, etc., which are connected with the lease. Leasing brokers also charge so as to recover the equipment's market value and all costs, including interest on borrowed funds. Charges will vary because of varying judgments as to the lessee's credit, the equipment's resale potential, and the risk of obsolescence.

Both groups expect to make most of their profit from lease renewals and from sales of returned equipment. The manufacturer may lease to customers with a lower credit rating more often than the broker. This is because he has a more intimate knowledge of the customer's firm and industry. On the other hand, he may make leases less often than the broker because of a lack of knowledge concerning potential resale and lease renewal markets. The broker must maintain much wider contacts in these markets since leasing is his primary business.

Considerations in Leasing

The specialized nature of leasing is indicated by the types of equipment leased and the industries using this type of financing. Among manufacturers surveyed, one-half of the equipment leased is office machines and computers, two-fifths is production equipment, and the remaining tenth is motor vehicles. The electrical machinery industry accounts for a large proportion of the leases in each category, but is predominant in office machines. The food industry accounts for more than half of the leased motor vehicles and for a third of the production machinery. Another tenth of the production machines is accounted for by the textile industry.

What determines the extent of leasing among manufacturers? To answer this question manufacturers questioned in the survey were asked to indicate the advantages and disadvantages of leasing. Firms which had indicated in past surveys that they lease constituted two-thirds of the sample. The remaining third consisted of firms that had used other external financing methods such as instalment purchases.

Some of the respondents indicated that their experience with leasing was limited and that their use of this technique was an experiment to determine its advantages and disadvantages. Still others said that much of the machinery they use is not available on a lease basis.

The principal reason for using leasing is to conserve working capital, according to four-fifths of the respondents. This is of prime importance to small firms and to rapidly growing companies who need funds to meet payrolls, provide for inventories, and carry on product development.

More than half of the respondents said that the greatest disadvantage of leasing is its high cost. This method also has the additional handicap that it increases the firm's fixed obligations to pay. Twenty-two firms said that this disadvantage applied to leasing. In using leasing the firm is preserving its working capital by paying higher costs and losing financial flexibility.

High cost was also listed as a disadvantage in instalment financing by more than half of the

respondents. Instalment buying also has the handicap that it increases the firm's fixed obligations

to pay, and this was noted by 27 firms.

There is a special case in which leasing may be a low cost method of financing. It is of particular significance to firms filling government defense orders. Government procurement agencies allow lease payments as a cost in cost-plus-fixed-fees contracts, whereas interest on money to buy equipment is excluded from the cost calculations.

Leasing has several other advantages which the firms consider, but they are not as important as conserving working capital. One of these is that it avoids the problem of disposing of idle, obsolete equipment. Two-fifths of the firms indicated

this as an advantage of leasing.

If a firm wants just the equipment's use, not its ownership, equipment disposal becomes a problem. Manufacturers in growth industries, for example, electronics, where products are changing rapidly, may wish to avoid ownership. Their equipment needs may change rapidly, requiring a flexibility in their machinery acquisitions. Likewise, firms that do job work may need different machines for each job and would find ownership undesirable. A fourth of the respondents, primarily in the machinery industries, reported that leasing has the advantages of providing for short run equipment needs and flexibility of operations.

Still, many manufacturers prefer to acquire ownership from their machinery outlays. Twofifths of the firms said that lack of an equity was

a drawback to leasing.

Many of the same advantages for leasing were also cited for instalment financing. The manufacturer can use the equipment while paying for it, thereby maintaining most of his working capital intact. This was cited as an advantage by four-fifths of the survey's respondents.

Instalment financing has an additional feature which may or may not be a net advantage over leasing, depending upon the circumstances. That is, it builds up an ownership, or equity, in the equipment being financed. Money can be borrowed on the purchaser's investment in the machine. At the end of the payment period, ownership is transferred to the purchaser and the machine's future disposition becomes his responsibility. Sixty percent of the firms listed building up an equity as an advantage of instalment financing.

Disposal of equipment is not considered a handicap of instalment buying by most firms. Only 16 percent cited this as a disadvantage. If a firm wishes ownership, it will consider equipment disposal a minor problem. Firms that have

a stable product line are likely to desire ownership.

Tax advantages for leasing were reported by a third of the firms, while 8 percent felt that leasing actually has tax disadvantages. Lease payments are fully deductible as an expense for tax purposes. This deduction may or may not exceed the amount that can be taken as depreciation on purchased equipment. It depends upon the method of depreciation used and the useful life of the equipment. Leasing seldom reduces a firm's taxes, below what would be paid under ownership, but it may postpone some tax in the early years of the lease to the later years. For firms who expect business to improve over time, leasing may have an advantage in that they will be better able to meet payments in the future.

The major tax disadvantage that arises in leasing is the legal question of whether a lease contract is a true lease or is in fact a conditional sale. As was mentioned earlier, the inclusion of certain types of purchase options in the lease contract may create a conditional sale. Some firms are hesitant to lease because of this danger.

Another frequently cited advantage of leasing is that it preserves bank credit. This was listed by 30 percent of the survey's respondents. If the financial community considers lease payments as a current expense, they do not substantially affect the lessee's credit standing. However, if the payments over the entire lease are treated as a contingent liability, the firm's credit position is weakened. Formerly leases were usually listed inconspicuously in a footnote to the firm's balance sheet and were given little attention. Now, however, both the accounting and banking professions recognize that lease commitments should receive careful attention in considering additional credit. The preservation of bank credit, therefore, is no longer a major advantage of leasing.

Another of leasing's advantages is that it may eliminate servicing and maintenance problems for the lessee. Twenty-six percent of the firms listed this as an advantage of leasing. Firms that use highly technical equipment such as computers may not have the staff available to service the machines.

In summary, the major advantages to leasing are that it conserves working capital, gives flexibility of operations by providing for short-term needs and eliminating equipment disposal problems, and avoids maintenance problems. All these problems are particularly acute for the small, growing firm. Leasing's major disadvantage is its high cost.

Foreign Trade and the Business Cycle

The gold outflows of late 1960 and early 1961 subsided at about the time the U.S. business economy began to turn upward. The improved condition of the U.S. balance of payments with the rest of the world stems from several sources, but an important influence has been the reduction of outflows of capital.

Many observers have expressed fears that the reduction of capital outflows in the balance of payments will be replaced with a new problem — increased imports. They reason that as the economy turns upward increased demand will spill over into imports. The increased spending abroad might not be matched by increased sales abroad, and consequently the surplus of exports over imports would be reduced.

In the postwar years the United States has experienced a continuing surplus of merchandise exports over imports (the trade balance) and this surplus helps to make up for outflows of capital in the nation's balance of payments. Any reduction in the trade surplus offers a potential threat to the nation's gold stock as the size of the U.S. balance of payments deficit is increased.

The Trade Balance

The argument that the trade balance is threatened by improved business is based on an old premises, i.e., that imports depend on domestic business conditions while exports depend on foreign demand. In the postwar years, however, imports have shown less sensitivity to the domestic business cycle, while exports have become more unstable. Consequently, exports are the most important influence on the trade surplus, as the chart on page 7 shows.

Drastic improvement in the surplus in 1960 was the result of both declines in imports and increased exports, but exports exerted the strongest influence. Merchandise imports in 1960 were 4 percent below the previous year, but merchandise exports rose 19 percent.

Business was generally rising from the trough of the third quarter of 1954 to the fourth quarter of 1957. Contrary to what might be expected in a period of domestic prosperity, the trade surplus improved, increasing from \$600 million in the trough to \$1.1 billion in the peak quarter. The cause of the improved surplus was a 41 percent increase in exports between the two periods. Imports increased also, but at a lesser rate (33 percent). Thus expanding business did not bring with it a deterioration in the trade balance. In the recession year of 1958 the trade balance decreased sharply, contrary to what might

be expected when domestic demand is falling. The decrease was caused, however, by falling exports with fairly stable imports. The trade surplus fell in the recovery year of 1959, but this was partly due to stimulation of steel purchases by a domestic strike and by the popularity of foreign cars in that year.

Export Instability

A recent study by the National Bureau of Economic Research showed that fluctuations in merchandise exports are becoming more pronounced, though swings of 18 percent in a year have been typical as far back as 1880.* Since World War II variations in foreign sales have accounted for 6.1 percent of changes in national output. Between the first and second World Wars exports contributed only 5 percent to domestic fluctuations. The increased proportion of export fluctuations to output changes is caused by a combination of both export instability and the success of stabilization measures in reducing fluctuations in the domestic economy. The instability of exports is apparently the result of the effects of world tension on trade, such as the fluctuation in exports associated with such events as the Suez crisis.

U.S. exports in the past decade have fluctuated more than exports of the rest of the free world. U.S. exports are particularly vulnerable because of the large proportion of raw materials in its foreign sales. About 60 percent of U.S. exports are manufactures, whereas in the United Kingdom and West Germany, for instance, the proportion exceeds 80 percent. Since business recessions usually affect trade in raw materials more than other goods, a world recession is likely to react more on this country than other industrial nations. Another destabilizing influence is the tendency for this country to supply peaks in foreign demands because of its huge capacity. As demand tapers off abroad, U.S. sales are cut before sales of domestically produced goods in the foreign country.

The U.S. export cycle has averaged about three and one-fourth years. The total rise and fall of exports over the business cycle has averaged about 30 percent.

Since World War I the cycle in U.S. exports has shown an increased conformity to the business cycle in this country, i.e., rising with domestic prosperity and falling with domestic recessions. The principal explanation for the close

^{*} Ilse Mintz, American Exports during Business Cycles, 1879-1958, New York, 1961.

association of changes in exports and domestic business appears to be the fact that there is some coincidence of timing of business cycles in the United States and the rest of the world. Thus if world business conditions improve at the same time as an upturn in the U.S. economy, exports will increase because of rising world demand. In 1960 business was buoyant in Europe and exports turned upward while the United States experienced some recession. U.S. exports nearly always move in the same direction as imports of the rest of the world, regardless of the domestic cycle stage.

Imports and Domestic Business

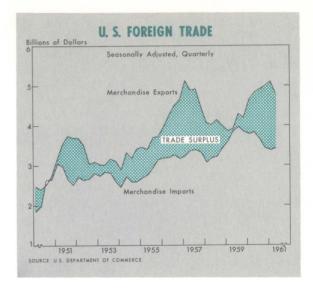
In contrast to increased fluctuations of U.S. exports, imports have shown greater stability in the postwar period. Imports have shown a long run tendency to grow with gross national product, but a Department of Commerce study in 1955 showed that fluctuations in imports have been smaller than in the pre-World War II period, and imports have shown a decreasing sensitivity to domestic business activity.

It is true that imports have declined in time of domestic business contraction, but the decreases are partly explainable by factors not related to the business decline. In the recent business recession merchandise imports declined 11 percent between the second quarter of 1960 and the first quarter of this year, the peak-to-trough periods of the domestic recession. Part of the decline can be explained by falling steel imports which may have been associated with an earlier domestic strike and by the decline in popularity of foreign cars.

In the recession years of 1954 and 1958 imports declined 6 and 2 percent, respectively. The quarterly peak-to-trough decline in 1957-58 was 9 percent, and part of this was caused by drops in coffee and silver imports not associated with the recession. There was a 13 percent decline in imports in 1953-54. Much of this decline can be attributed to changes in government stockpiling, a drop in coffee and cocoa imports because of price rises, and again the effects of a strike on steel imports prior to the recession.

Gross National Product rose 2.8 percent between the first and second quarters of this year, but imports rose only 1.5 percent. The trade balance decreased 20 percent, but the dominant influence was a 5.9 percent drop in exports.

One reason for the decreased sensitivity of imports to domestic business is the competitive position of foreign materials, such as copper, lead, zinc, and iron ore. Imports of raw materials sold in competition with domestic production account for more than 35 percent of imports. The

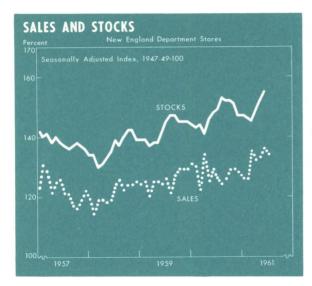


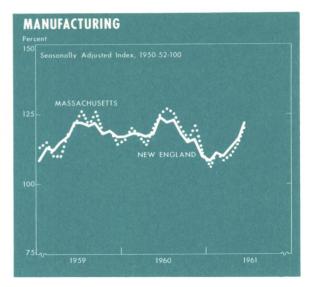
brunt of changes in domestic demand for materials may be borne by higher cost domestic sources rather than by foreign sources.

The greater price flexibility of some foreign materials may contribute to import stability. These are commodities, such as rubber, which are agricultural abroad but are produced in capital intensive industries in this country. The U.S. product is likely to have less price flexibility than the foreign product and thus more sensitivity to changes in demand. There is a growing tendency for man-made materials to substitute for natural raw materials. Man-made fibers have been substituted for cotton and wool, and plastic materials for a wide range of traditional products such as textiles, paper, softwood, hides, and metals. As evidence of increased substitution, a recent study showed that the total value of the supplies of 16 major materials consumed in the industrial countries rose 38 percent between 1950 and 1957, while exports of materials from primary producing countries gained 1 percent.

Because of the greater instability of exports than of imports, business expansion has not always brought with it a deteriorating trade balance. Exports have tended to fluctuate with the business cycle, but principally because of some coincidence of U.S. cycles with world cycles.

If import fluctuations were the dominant element in changes in trade balances, it would be expected that the trade balance would improve in recessions and deteriorate in expansions. Trade balances of the post World War II period have not always behaved in this fashion, as exemplified by the high trade balances of 1956-57 and the low trade balances from mid-1952 through the third quarter of 1954. An exception is 1960, but again exports, rather than imports, dominated the U. S. trade balance.





MANUFACTURING INDEXES	MASSACHUSETTS (1950-52 = 100)		NEW ENGLAND (1950-52 = 100)			UNITED STATES (1957 = 100)			
(seasonally adjusted)	July '61	June '61	July '60	July '61	June '61	July '60	July '61	June '61	July '60
All Manufacturing Primary Metals Textiles Shoes and Leather Paper	123 110 44 124 112	120 106 48 131 110	127 99 48 131 110	122 98 66 124 128	122 102 69 128 129	122 90 70 128 129	113 96 n.a. n.a.	110 92 112 n.a. 118	110 85r 113 103 112
	July 1961 f	igures for M	assachusetts	and New E	ngland are p	reliminary			

	NEW ENGLAND Percent Change from:			UNITED STATES Percent Change from:			
BANKING AND CREDIT	July '61	June '61	July '60	July '61	June '61	July '60	
Commercial and Industrial Loans (\$ millions) (Weekly Reporting Member Banks)	1,467	— 1	0	31,466	0	+ 1	
Deposits (\$ millions) (Weekly Reporting Member Banks)	4,618	0	+ 4	116,793	0	+ 7	
Check Payments (\$ millions) (Selected Cities)	10,066	— 9	+16	247,906	-17	+11	
Consumer Installment Credit Outstanding (index, seas. adj. 1950–52 = 100)	262.7	- 1	+ 3	285.6	0	+ 1	
TRADE							
Department Store Sales (index, seas. adj. 1947–49 = 100)	134	— 2	+ 7	151e	+ 1	+ 2	
Department Store Stocks (index, seas. adj. 1947–49 = 100)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
EMPLOYMENT, PRICES, MAN-HOURS, & EARNINGS							
Nonagricultural Employment (thousands)	3,724	0	+ 1	53,198	0	0	
Insured Unemployment (thousands) (excl. R. R. and temporary programs)	147	— 2	+ 11	1,974	— 5	+17	
Consumer Prices	131.1	+ 1	+ 1	128.1	0	+1	
(index, 1947-49 = 100)	(Mass.)						
Production-Worker Man-Hours (index, 1950 = 100)	83.9	— 2	— 4	94.8	- 1	— 2	
Weekly Earnings in Manufacturing (\$)	86.15	+ 1	+ 3	94.00	0	+ 3	
OTHER INDICATORS	(Mass.)						
Construction Contract Awards (\$ thous.) (3-mos. moving averages May, June, July)							
Total	167,780	— 4	— 5	3,530,839	+ 2	+ 2	
Residential	78,952	— 7	+ 1	1,535,226	+ 1	+ 8	
Public Works	24,912	— 8	- 7	651,069	+ 4	— 2	
Electrical Energy Production (index, seas. adj. 1947–49 = 100)	234	+ 1	+ 6	289	+ 1	+ 4	
Business Failures (number)	55	— 4	+45	1,275	— 9	± 11	
New Business Incorporations (number)	874	— 7	- 1	14,382	-13	— 2	
,,		t available		e = estima r = revise	te	_	