Pennsylvania has more carpet and rug mills than any other state. The rug industry is undergoing revolutionary changes by utilizing modern man-made fibers and new high-speed tufting machines.

Capital spending plans of Philadelphia manufacturers have changed little since last fall. Inventory liquidation, however, has become more widespread than expected.

The present recession has not gone so far as the 1949 recession.
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Revolutionary changes are taking place in the carpet and rug industry. For many years not much seemed to be happening in carpets and rugs other than conventional semi-annual offerings of new styles, minor improvements in technology of manufacture, and the perennial efforts of manufacturers and distributors to sell more rugs—encouraged to some extent by the style trend of wall-to-wall carpeting. Within the past few years, however, really remarkable changes have taken place.

Wool, which for years was king of the carpet domain, is encountering growing competition from cotton and some of the new man-made fibers like rayon, acetate, saran, and others, which are blended with wool or substituted for wool. Man-made fibers, with unique qualities of their own, open new opportunities in the design and construction of carpeting. Pile surfacing, either hand or machine sculptured, produces effects of unusual beauty which add to the variety of decorative floor covering available to present-day consumers. Recently, a new tufting machine has been developed to make tufted rugs at an ever-so-much faster rate than the age-old loom makes woven rugs.

Some of the world's finest rugs and tales originated in 16th and 17th century India, Persia, and Arabia. Remember the yarn about Prince Houssain and his magic carpet, told in the Arabian Nights—how for forty purses of gold he bought a small very ordinary-looking carpet that turned out to have fantastic transport facilities; no gas, no oil, no parking problems—all he had to do was sit on the rug and express the wish as to his destination and the carpet would instantly transport him thither. His quest was none other than the bower of the unspeakably beautiful princess. The quest of American carpet and rug manufacturers is profit. The question is, can the industry build enough magic into its products to gratify the wish.

The carpet and rug industry is the only major division of the Pennsylvania textile industry in which employment has increased since 1939. The gain was 21 per cent, as pointed out in our February Business Review, whereas employment in other branches of textiles declined from 24 to 60 per cent during this period.

Metes and bounds
The Bureau of the Census label, "Carpets, rugs, and other floor coverings," covers everything that covers floors, other than rubber goods. The term embraces, first, soft-surface coverings like wool carpets, rugs, and carpet yarns; second, hard-surface coverings like linoleum; and, third, a miscellaneous classification of things like door mats, art squares, etc., made principally of jute, paper, or reeds, instead of wool. This article is concerned primarily with the first, the largest class—namely, the Woven Carpet and Rug In-
industry, which uses wool as its principal raw material. Incidentally, about the only difference between a rug and a carpet is that a rug is made to a predetermined size whereas a carpet is cut from a roll at the length desired.

**So big**

The carpet and rug industry is one of the smaller members of the great family of textiles. For completely comparable data, unfortunately, it is necessary to go back to the year 1947. In that year the carpet and rug industry of the United States consisted of only 95 of the textile industry’s more than 8,000 establishments. The industry employed only 35,600 of the more than a million production workers in the textile industries of the country. Value added by carpet and rug manufacturers was $217 million, in contrast with over $5 billion, value added, by all textile concerns. It does not take a big industry to carpet the country.

In 1953, the industry turned out 67 million square yards of carpeting, which if sewed into one huge rug would just about cover Manhattan Island. By contrast, the cotton textile industry—the largest member of the textile family—turned out almost 10 billion square yards of cotton products, enough to cover Manhattan with 145 layers of cotton fabrics.

**An Atlantic Seaboard industry**

Most of the country’s carpet mills are east of the point where eastbound jet pilots shut off their motors so that they do not overshoot the Atlantic Coast. There is only one mill west of the Mississippi, and most mills are within 200 miles of the eastern seaboard.

Pennsylvania has more carpet mills than any other state; it had 40 of the country’s 95 mills, as reported in the last census. New England had 23, and the state of New York had 14; but three of the New York mills are the largest in the world, so New York outranks Pennsylvania in carpet production and employment.

**Have you any wool?**

One reason why carpet making is an Atlantic Seaboard industry is that for years, carpets were made only of wool and what is more significant, of imported wool. Not a pound of domestic wool goes into carpets because domestic wool is too soft, too fine, and too costly to go into rugs; hence all of the carpet wools are imported, and have been for many years. True, wool is wool, but there are almost as many different kinds of wool as there are bonnets in the Easter parade.

Quotations listed in the daily press reveal the foreign origins of carpet wools. The following is typical:

- **B.A. 5s and 6s**................. $0.72-.75
- **Aleppo** ...................................... .86-.90
- **Indian yellow**....................... .83-.85
- **Indian super white**............ .87-.91
- **Awassi-Karadi washed**........ .85-.88

The first item above means that early in March 1954, carpet wools from Buenos Aires in Argentina of the grade indicated were quoted at 72 to 75 cents a pound, clean basis. Aleppo is the New York City of Syria; and Awassi-Karadi wool comes from Iraq.

Before China went Communist, we imported a lot of carpet wools from China. In 1953, more than half of our carpet wools came from Argentina. New Zealand wools rank next in importance, accounting for about one-tenth of last year’s imports. Carpet wools from these two countries may be regarded as the “bread-and-butter wools,” that is, the big-tonnage wools. To continue the analogy, the honey, strawberry jam, and other special preserves to sweeten the bread-and-butter wools come from places like India, Pakistan, Syria,
Iraq, Iran, Afghanistan, the United Kingdom, Yugoslavia, Italy, and other far-away places.

Wool from Argentina, though good for carpet making, is just a little too soft; other types of wool must be added to give the necessary lift. Each country produces wool having its own unique characteristics with respect to qualities like strength, length of fiber, kinkiness, wiriness, color, resistance to abrasion, and so forth. A carpet manufacturer never uses wool from one country alone; he blends wool from various sources to get the precise combination of qualities desired. Price, or cost, of course, is another element never overlooked in the blending process.

Buying wool is a tricky business, especially foreign wools, and the process is full of pitfalls. Carpet wool, as you might guess, comes into this country duty free, but it is bonded under careful Treasury regulations to assure that all such wool really goes into carpets and not into blankets or other products. The obstacles to buying foreign wool are many. Certain countries impose export licenses or other controls. Wool merchants in some distant corners of the world have standards of business conduct unlike our own. Imports of wool from Communistic countries are strictly forbidden; but it is not always easy to keep out Communistic wool masquerading as a friendly wool. Then there are exchange difficulties, blocked and depreciated currencies. Once there has been a meeting of minds as to quality and quantity, there is the inevitable haggling over price. No wonder the American rug manufacturers leave the buying and importing of foreign wools to the country’s 25 or 30 special dealers who know their way around the world. Philadelphia is the country’s carpet-wool center and the leading point of import.

Jute, the principal backing or base material used in the manufacture of rugs, also comes from abroad—chiefly Pakistan.

Between Delaware Avenue and Fifth Avenue

A lot of things take place between the time the stevedores unload bales of wool at Philadelphia’s Delaware Avenue waterfront and the time the interior decorator conducts a customer through one of New York’s Fifth Avenue color rooms where the very latest multi-colored creations in floor coverings are on exhibit.

The wool that comes out of the bale at the factory in, let us say, Bridgeport, Pennsylvania, is just the way it went into the bag in Bagdad—dirty, greasy, and smelly. The first job is to wash it. This is done in the scouring department, which is equipped with long, narrow, steel tanks full of water, wool, and scouring compounds. This is where blending is done, and when the wool emerges it is as clean and fluffy as new-fallen snow. A slight amount of oil is added to replace the natural grease washed out, which gives the wool a nice “hand” and a wooly kind of fragrance.
A tour through a carpet mill affords an opportunity to observe a nice blend of the creative arts, skilled craftsmanship, and machine technology. “What goes on here?” you ask the guide, as you see a rapidly vibrating bar lifting from a revolving drum a thin cloud of wool. As if by magic, the gossamer film emerges in the form of a continuous thick, rope-like strand of wool. The guide tells you that this is the carding department, where the seemingly hopelessly tangled mass of fibers becomes an endless strand of fibers placed in neatly parallel formation. In the spinning department, you see men walking to and fro following the mule carriage, or women at the spinning frames where thousands of spinning spindles impart the final drawing and twist to the yarn.

In the next department, the weaving shed, you are confronted with compound magic, where the din and clatter of hundreds of flying shuttles force your guide to resort to impromptu manual sign language, and you are more or less on your own to observe what goes on. The looms are neatly arranged in rows with an expert operator in charge of each. Inch by inch, hour by hour, beautiful rugs with multi-colored floral decorations slowly take form and wind on the beam by the feet of the operator. To the tyro, a big broadloom looks like a prehistoric player-piano without a keyboard. Indeed, the many-colored strands of yarn are inserted automatically to create the pattern in a manner somewhat analogous to the principle of a player-piano.

Entering the finishing department, where it is again possible to hear the guide speaking, you are told what you saw. It was a Jacquard loom weaving a Wilton (a vari-colored, deep-pile rug)—the kind that sends luxuriance through your body when you walk over the rug—named after the city in England where it originated. The guide tells you that the outstanding feature of the loom is the endless chain of punched cards mounted on the top that automatically plays the pattern into the rug. Upon leaving the loom, the rug is finished except for shearing, steaming, inspection, and packing for shipment.

To be sure, on the tour through the factory you missed many of the fine points and perhaps some of the major intermediate operations such as dyeing, spooling, twisting, cop-winding (preparing yarn for the shuttles), beaming, and loom dressing (setting up the loom for operation); but one is not expected to learn the whole trade on one trip through the works. As a matter of fact, rug weaving is a highly skilled trade and it takes months before the boss will permit a learner to go it alone on one of these $20,000 looms.

Mills, like rugs, come in all sizes. It takes at least one loom to go in business; the largest mills have about a thousand looms each. Mill size also depends upon whether the manufacturer buys or spins his own yarn. An integrated concern in this business is one that does both spinning and weaving. Some, of course, are partially integrated; that is, spin some of their own yarn requirements and buy some from specialized spinners.

Pennsylvania—the carpet keystone

The country’s first carpet mill was established in 1791 in Philadelphia during George Washington’s first term. Philadelphia owes its early rise and growth as a carpet manufacturing center to the fact that it soon became the leading metropolis, with the largest population of hereditary artisans and operators, with probably the highest level of manual skills in the country. In Massachusetts and Connecticut, carpet making also got an early start as a by-product of the woolen and worsted industry. Coarse grades of wool discarded by the
weavers of cashmeres and broad cloths were utilized there by the carpet manufacturers.

In 1839, Erastus Bigelow succeeded in inventing a power loom to weave ingrain carpets (a double fabric pileless carpet) that excelled those woven on hand looms. During the next few years he adapted power weaving to the manufacture of Brussels carpeting (a looped pile carpet, first made in Brussels, Belgium). Thus Erastus Bigelow became the patron saint of the industry.

Philadelphia mills were somewhat slow in shifting from hand to power looms, unlike their New England and New York competitors. As a matter of fact, one reason why the New York mills grew so big was their ownership of the original patent rights on the machinery. In the early 1870's, however, several large mills in the Kensington section of Philadelphia put in power looms on which patent rights had expired. By 1889, Philadelphia is said to have had seven power looms for every hand loom.

Major developments between 1899 and 1914 were as follows:

1. Displacement of cheaper ingrain carpets by more expensive fabrics.
2. Substitution of rugs for continuous floor coverings.
3. The growing popularity of hardwood floors.
4. Higher standards of living and more exacting canons of good taste.
5. Mechanical improvements making it possible to weave pile fabrics in large dimensions more economically.

These developments affected the geography of the industry. Philadelphia manufacturers made the mistake of sticking to ingrain carpets too long when demand was definitely shifting to the newer types of pile fabrics. This hastened the decline of Philadelphia as the country's carpet manufacturing center. Meanwhile, manufacturers in New York and Massachusetts forged ahead. In 1899, only one-eighth of the carpeting produced was in the form of rugs, but by 1914 rugs were three-fourths of all carpeting.

To this day, Philadelphia and other Pennsylvania carpet mills are small and moderate in size, in contrast with the big New York mills. Although Pennsylvania has almost three times as many mills as New York, Pennsylvania mills employ only two-thirds as many workers. That the big mills are the most successful does not necessarily follow, of course. More about this after considering other pertinent characteristics of the business.

Rugs are apparel for floors

Although many developments of great importance in the carpet industry are of recent origin, it is not to be assumed that the industry was dormant between World War I and our time. Things were happening all right, and the kind of an "upsey-downsey" life a rug manufacturer leads is revealed
in the chart of carpet and rug sales and disposable income of the United States. It is apparent that there is some relationship between the amount of money people have to spend and how much of it they spend on rugs; but the relationship is not quite so close as the carpet people would like to see it. One reason is that replacement of a rug is so easily postponed. A good rug will wear and wear and wear if the family budget does not permit replacement on schedule. If family finances compel a choice between a new car and new rugs, the new car usually wins. When people are short on cash, as they were during the early thirties, rug sales lag.

When people are flush, rug sales leap, as they did after World War II. Many a rug is a thing of beauty, but no rug is a joy forever. Carpeting is apparel for floors and, like personal apparel, it serves a dual purpose—utility and adornment. There are times when considerations of beauty rise above mere utilitarian purposes; at other times, beauty must give way to utility. And so carpet and rug manufacturers “shoot the chutes.”

During World War II, carpet and rug mills turned their textile facilities to making canvas goods such as tarpaulins, truck covers, hospital tents, and similar war equipment; and their machine shops turned out machine-gun parts and other warlike hardware. For the time being, rug making was secondary—and rugs in use became threadbare.

With the end of the war there was a terrific stored-up demand and, as one manufacturer said, “at that time any piece of burlap would sell if it had printing on it.” On top of the war-end’s replacement demand came the original-equipment demand, stimulated by the great building boom. Then came the Korean war, and wool prices “jumped over the moon.” Argentine carpet wools, which sold for 37 cents a pound in January 1948 and 67 cents in January 1950, jumped to $1.68 by December 1950, and in March 1951 soared to $2.25 a pound.

**Enter rayon**

What a grand opening for rayon at 40 cents a pound! Producers of rayon and cellulose acetate seized the opportunity, and put their technicians to work to develop fibers specially adapted for carpeting. Rug manufacturers made carpeting with either all rayon or acetate facing, or wool blended with rayon or acetate.

**Enter cotton**

What a grand opening for 45-cent cotton, so chronically abundant in the United States that Uncle Sam is always bailing out farmers buried under mountains of the stuff! Cotton likewise “seen her chance” and took it.

Cotton rugs, especially throw rugs, had been made long before this by what is virtually a separate industry; but when wool prices became prohibitive, the old-line, wool carpet industry beckoned to cotton.
**Enter rayon's cousins**

What was there to prevent acrilan, dacron, dynel, nylon, orlon, saran, and other synthetics from coming to the banquet table? Certainly, there was no harm in trying, and some of these man-made fibers met with moderate success—especially nylon and saran.

All these competing fibers, of course, have in wool a redoubtable competitor to dethrone, and we are not saying that wool was or will be dethroned, but the fight of the fibers is interesting to watch—especially from the sidelines.

Some of these fibers have special qualities of outstanding character. Cotton is plentiful and cheap; nylon is tough and versatile; rayon is easily dyeable and steady in price. Saran is the most washable of all the fibers—ink inadvertently spilled on a saran rug can be completely removed with a damp cloth as easily as wiping the egg stain off the baby's face. There is always wool, however—which is resilient, abrasion-resistant, and deeply anchored in tradition, though sometimes a bad actor, price-wise.

**Enter tufted carpets**

Along with cotton came the tufted rugs, most of which are made with cotton facing. A tufted rug is not made on a loom, but on a tufting machine which looks somewhat like a cross between a stripped-down loom and a big telephone switchboard. In action it sounds like Paul Bunyan's sewing machine. A roll of canvas fabric is fed into the machine and as the fabric passes under the needle bar, extending across the width of the fabric, cotton tufts are sewed right into the fabric by as many as 900 needles buzzing simultaneously. Strands of yarn from spools mounted on a creel behind the machine are fed to each needle through small metal tubes converging on the needle bar.

You should see the speed with which carpet emerges from this machine—about twenty times as fast as on a Velvet loom and almost fifty times as fast as on a Wilton loom. All that needs to be done after the tufted carpet comes off the machine is to rubberize the underside to anchor the tufts, plus the usual inspection and mowing the loops if a cut pile is desired. Production of tufted carpeting is gaining steadily year after year.

**MANAGEMENT PROBLEMS**

Earlier it was said that the carpet and rug industry is undergoing a kind of revolution; the revolution has also multiplied management problems for manufacturers.

**Styling and selling**

How the carpet and rug industry has changed! After ingrains went out of style, carpet fabrics were all rather similar. Wilton, Velvet (a warp pile construction usually of solid color), and Axminster predominated and they varied chiefly according to quality. The implanted pattern or design may have been added through the use of colored yarns or of colors printed thereon. Today, there is a variety of machinery, a profusion of fibers which react differently to dyes, modern ideas of design, together with a variety of constructions and surfacing techniques. Rugs, like motion pictures, now come in technicolor and three dimensions.

Marketing begins with styling. Strange as it may seem, it is hard to tell precisely where patterns and designs originate. Early handwoven Orientals featured such designs as floral forms and arabesques in Turkish carpets; birds and leaping quadrupeds in Persian rugs; medallions in carpets from Chinese Turkistan; and arches are predominant features in prayer rugs.
In a rug, the fabric is part of the pattern. There has developed in the last decade or so a "style" more closely approximating American in origin and nature than anything prior thereto. It is a style that calls for a product of a rather simple nature, usually in soft colors which tie in the fabric itself with the pattern. We have yet to see a pattern featuring an atom smasher or "hot dog" vendors pushing their way through the crowds in a football stadium, but maybe that is only because we have not been around much. Designers must know, of course, what looms can do, but new machines and new synthetics have vastly enlarged styling potentialities.

To be sure, styling is just one phase of marketing rugs and carpets. This is one of our oldest industries, and marketing—except in periods like that immediately after the war—is a constant uphill battle. New industries and products like electronics, helicopters, air conditioning, television, and automobiles, by the very nature of their newness, find it easier to capture the consumer's dollar. The long-run trend in per capita consumption of rugs is downward. Around the turn of the century the industry produced one square yard of wool carpeting per capita; in recent years, the output has been less than half a square yard per capita. Carpet and rug people go the automobile industry's annual model change one better by having a spring and fall showing of new lines, but that is a practice of long standing. Perhaps the revolutionary changes now taking place in the industry may arrest or reverse the declining trend in per capita consumption. We shall see.

**Buying and inventories**

To make money in the rug business, it is necessary not only to have the ability to design and manufacture the kind of rugs that people will buy, but also to know when and how to buy wool. Raw materials make up from one-third to one-half of the cost of making a rug. That is enough reason to buy carefully, and there are others.

The manufacturer has his money tied up in wool for a long time—six or eight months may roll by between the time he buys the wool and the time he gets paid for the finished rugs. It is hard to keep raw wool inventories at a minimum in view of the fact the materials come from remote places in southern and eastern hemispheres. Wool flows into the United States every month of the year. Sometimes the heaviest imports arrive in October and sometimes in January. Prices usually decline from mid-February until May or June and rise during late summer and autumn except for a slight dip at the time of the November Argentine clip.

In addition to seasonal fluctuations in prices of wool there are also sharp cyclical fluctuations, as already observed. Not only does the size of the clip vary from one country to another, but also from one season to another in the same country. Furthermore, there are substantial variations in the quality of the clip because of variations in climate and other natural causes. Sharp buyers watch the Philadelphia and Liverpool markets closely and vary their buying policies accordingly. If they think the time propitious, they load up heavily and when they think prices are too high they let their inventories run off and operate on a hand-to-mouth basis. We heard of one Pennsylvania manufacturer whose profits are derived largely from strategic wool buying. Differences in wool-buying policies are reflected in the financial statements. For example, in 1952 the ratio of inventories to total assets ranged from 30 to 50 per cent among the various companies in the industry—large, medium, and small sized. Of
course, inventory policies are also influenced by future expectations of the rug market.

**Prices and imports**

Rugs come in all prices. Retail prices range from as low as $6 a square yard for a cotton broadloom to as much as $40 a square yard for a Chenille. Price depends upon construction, materials, and workmanship. Rare works of art like the so-called Spring and Winter Carpet of Khusraw, which was an 84-foot square job for the royal palace, are “out of this world.” Woven into the design was a formal garden with water courses; blossoming fruit trees, green meadows in solid emeralds, and birds in pearls embellished this fabulous rug—appraised at $200 million. Here we are not speaking of rare works of art, but the United States carpet and rug industry as defined at the outset.

It is difficult to portray price trends in rugs. There are so many different kinds and constructions—some manufacturers sell direct to retailers, others sell through distributors, and on occasion the issue becomes still more confused when price changes in different directions are announced simultaneously. Late last year, for example, one large manufacturer announced price reductions when other manufacturers posted higher prices. There must have been differences of opinion about the outlook and perhaps also differences in inventories.

One thing on which carpet manufacturers seem to be agreed is the tariff. They don’t like it. It was reduced from 60 per cent *ad valorem* in 1930 to the present 25 per cent in line with the national policy of promoting trade with other nations. As a consequence, more carpets are coming into this country from Belgium, the United Kingdom, Italy, France, and other countries. Total imports of machine-made rugs last year amounted to a little over 3 million square yards. Although this is only about 5 per cent of domestic production, carpet manufacturers nevertheless do not like it.

**Profits and prospects**

It is impossible to say just how profitable the rug industry is because so many of the companies are relatively small, family-owned concerns that do not publish financial statements. Judged by published statements, however, it appears that 1946 was one of the best recent years, based upon reports of net earnings expressed as a percentage of sales. In that year the ratios ranged from 3 to 13 per cent. During succeeding years, reported earnings were generally lower, and in 1951 and 1952 deficits were reported by some of the companies. This seems to indicate that the post-war “honeymoon” is over, that the carpet and rug manufacturers—like producers of other textiles—are again facing severe competition and hard going in their quest for profits. This was freely admitted by the manufacturers we consulted.

There is no clear-cut evidence that the large companies have an advantage over their smaller competitors. We asked the president of one Pennsylvania concern, that has been in business for many years, what size company he would set up if he had to do it all over and start in business today. He replied that he would not go into the carpet business; but, on second thought, he said he would set up a small integrated mill. There does seem to be a trend toward integration in recent years. Some of the smaller concerns that had been in the habit of buying their carpet yarns have bought spinning mills or set up their own spinning departments. With the advent of synthetics some of the large mills have acquired facilities for manufacturing their own rayon fibers. Integration has the advantage of greater control over the whole operation.
The giants may enjoy advantages that go with advertising, marketing, large-scale buying, and finance; however, the smaller producers seem to have more flexibility in an industry where styling and craftsmanship may conceivably pay off better than mass production. Style is gripping the industry harder than ever, and with the multiplicity of new fibers and new constructions now available there is diminishing opportunity to cash in on some of the benefits of large-scale production, such as the reduced cost per square yard obtained from long runs on a standard construction before a loom has to be knocked down and redressed for another pattern. Moreover, the smaller manufacturer does not have the headaches that go with large inventories of finished goods in regional warehouses all over the country. Whatever the advantages or disadvantages of small-scale operation, Pennsylvania manufacturers seem to be holding their own in the competitive struggle.

**CAPITAL SPENDING PLANS SURVIVE INVENTORY LIQUIDATION**

*A re-survey of planned outlays by Philadelphia manufacturers*

Manufacturers in the Philadelphia metropolitan area still expect to make capital outlays in line with the record volume planned last fall. But inventory liquidation has been more widespread than they anticipated in September and it does not appear to have run its course. This, in brief, is our conclusion after a spot check of local concerns.

Last September, manufacturers in this area told us they planned to spend $372 million on plant and equipment during the ensuing year. This represented an increase of 18 per cent over actual outlays made during the preceding twelve months. In commenting on the difference between spending plans for inventories and those for capital equipment, we said in our November 1953 Business Review: "Capital expenditures change less dramatically. Like icebergs, they build up slowly and melt away slowly." Quite frankly, when the spot check of spending plans started there was some feeling that we might have to drink those words. They were spoken at a time when economic readjustment was something most people were expecting, rather than experiencing. Declines in employment and working time had not started; neither had inventory liquidation.

Last month, in analyzing employment trends in Pennsylvania from September 1953 to January 1954, we found that work forces in factories in the Delaware Valley area declined by about 6 per cent. This was in excess of the less than 1 per cent slip in employment forecast by manufacturers in the capital expenditure survey of this Bank last September. The rather large difference made us wonder whether capital spending plans have been affected by the changed business climate. We also wondered whether inventory trimming in the area
had been more widespread and persistent than the September survey indicated.

As a result, the Bank selected a representative sample of the manufacturers in the area that reported to us last fall and asked them three basic questions: (1) Has there been any change in your planned expenditures for plant construction and equipment? (2) Seasonal considerations aside, what has been your inventory policy since September? (3) What are your inventory plans for the next few months? This is what we learned:

**Capital spending programs haven't melted**

At the half-way point—March 1954—last fall’s spending intentions for new plant and equipment show a surprising degree of firmness. As the chart indicates outlays were proceeding just about as originally planned in slightly over 60 per cent of the sample covered. Almost one-quarter of the firms told us their capital outlay programs had been revised upward in the past six months. Only 15 per cent apparently had seen or experienced anything in the subsequent business situation that warranted a downward adjustment of initial spending plans for the year ending September 1954.

Manufacturers of durable goods appear more prone to change their minds about capital outlays than producers of nondurables. This, to be sure, is a logical reaction to the changing business picture of the past six months. Readjustments in the durable goods industries have been especially pronounced. Employment declines have been on a larger scale; cutbacks in working time have been sharper, and inventory liquidation thus far has been more widespread. About half of the durable goods producers are adhering to their original spending plans. Over one-quarter of them are allocating more funds for plant and equipment, but one-fifth of those interviewed plan to spend less than the amounts earmarked last September.

Among producers of nondurable goods the intention is to spend about the same, or even more than, the sums programmed six months ago. About three-quarters of them expect to stick to their original plans. Nearly one-fifth of them have raised their sights on capital outlays to be made in the year ending next September. Less than one-tenth of the manufacturers of nondurables covered in our sample have discovered any reason for making downward revisions in their plans.

As between large and small concerns there is little difference in the case of those whose plans have not changed. Slightly over 60 per cent of the firms in both categories indicate the firmness of their September 1953 spending intentions. Twice as many large manufacturers, however, expect to increase outlays as contemplate reductions. Among small producers the percentages are 17 per cent for heavier spending as against 22 per cent for curtailment.
Many more pared inventories than intended

There is little doubt that manufacturers were overly “bullish” in reports on prospective inventory buying last September. As the chart shows, twice as many manufacturers trimmed inventories in October, November, and December as reported such intentions. Also, a larger percentage of firms increased inventories. About two in five producers who said that aside from normal seasonal changes they would probably maintain stocks, decided against that policy. Apparently, these producers were actually announcing a “wait and see” policy in September, and many did not like what they saw.

Durable goods firms seemed to have had a better idea of what was in store for them than makers of nondurables. One out of three in the durable goods group last September expected to trim inventories, and about 46 per cent did just that. Of the makers of nondurables, only one in seventeen intended to cut stocks, as against one in three who actually followed that policy. There appeared to be little difference in the accuracy with which small as compared with large firms projected inventory policy.

STOCK LIQUIDATION GATHERED SPEED IN THE FIRST QUARTER OF 1954

Inventory liquidation has increased

Stock cutting, which was widespread in this area in the final quarter of 1953, persisted and even picked up momentum over the first three months of this year. About two in five manufacturers trimmed stocks in the September to December period, whereas nearly half cut inventories over the first quarter of this year—seasonal considerations aside. The smaller proportion of manufacturers who added to their holdings was about the same in both quarters. As a result, there was a reduction in the percentage of firms that maintained inventories.

A rather sharp cleavage between manufacturers of durable and nondurable goods was apparent. In both quarters, a higher percentage of durable goods makers reduced inventories. Also, the
number of nondurable goods makers cutting inventories did not change in the periods measured. Just about the same proportion of nondurable firms—about one in three—whittled stocks in the first quarter of this year as in the latter part of 1953. On the other hand, the proportion of durable goods manufacturers cutting back increased from 46 per cent to 59 per cent.

Measured by size of firm, there was little difference in the policies followed by small and large manufacturers before the turn of the year. About 39 per cent in each case trimmed stocks. Experience thus far this year, however, is sharply different. The proportion of small firms paring inventories has dropped to about one in three, but roughly one-half of the large units cut back stocks.

**Still the trim is not close enough**

Despite the widespread whittling away of stocks that has taken place, about three and a half times as many manufacturers forecast further decreases rather than increases in their inventory buying.

**MORE DECREASES EXPECTED NOW THAN LAST SEPTEMBER**

Of the firms questioned, about 38 per cent say they will cut back purchases. This is about the same proportion as actually followed that policy in the final quarter of 1953, but is below the proportion cutting back in the first quarter of this year.

Durable goods firms have done the most cutting thus far, and they anticipate that the situation is going to stay that way. About 49 per cent of the durable and 26 per cent of the nondurable concerns say they see stock cuts ahead. The difference between the plans of large and small firms is wide indeed. Of the large firms in the survey, 45 per cent intend to liquidate more inventory as against 22 per cent of the smaller units.

A comparison between last September's forecast and this one in March indicates that many more manufacturers now say they are going to decrease inventory buying. About the same proportion as in the fall has decided to step up stock purchases. Experience seems to suggest that many of those indicating they are going to maintain buying actually may be adopting a wait-and-see policy. After September, most of those who changed their plans cut inventory buying, apparently in response to the slide in business activity. If business barometers should edge upward over the next few months, it is likely that many who
say they are going to stand pat will add to their holdings.

**Conclusion**

The picture that emerges from this survey is not clear cut, but on balance it seems to be one of strength. Capital spending plans, which are higher than a year ago, appear firm. Inventory trimming, although it is more widespread and persistent than expected, has not achieved epidemic proportions; neither has it run its course. Apparently, the moderate decline in business activity that has taken place has not appreciably shaken manufacturers' confidence.

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**CURRENT TRENDS**

*The current recession compared with 1949*

More and more business analysts seem to be getting up enough courage to predict that the recession will be over soon. Some say business will level off, others that it will increase, sometime after mid-year. They admit, however, that evidence thus far is not conclusive; the situation is still mixed. The preceding article provides a good example; businessmen seem optimistic about capital expenditures but somewhat pessimistic about inventories.

Mixed trends, of course, are typical of business most of the time. It is only because we have gone

<table>
<thead>
<tr>
<th>Current recession</th>
<th>Percentage change</th>
<th>Number of months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953 peak to latest figure</td>
<td>1949 recession Peak to trough</td>
<td>During same number of months as in current period</td>
</tr>
</tbody>
</table>

These show a more unfavorable picture than in 1949:

- Unemployment +221 - 5 + 93 | 5 | 16
- Retail sales - 5 +185 |

This shows about the same picture as 1949:

- Industrial production +10 - 11 - 10 | 7 | 12

These show a better picture than in 1949:

- Business failures +43 +120 +102 | 13 | 7
- Employment +3 - 6 - 5 | 7 | 9
- Inventories +2 - 9 - 4 | 5 | 11
- Personal income +2 - 5 - 4 | 7 | 12
- Wholesale prices +1 - 8 - 3 | 5 | 16

These have recovered their 1953 losses:

- New construction +1 * |
- Stock prices +1 - 17 - 13 | 11 | 12

* No clear turning points evident.
10 INDICATORS of current business compared with the 1949 recession
through so many years when almost everything seemed to be going up, and because we are now watching all available information so closely, that we are especially aware of the diversity among various indicators.

The first column in the table on page 16 illustrates this diversity quite clearly. In this column, percentage changes for ten important statistical series have been computed from the 1953 peak (not necessarily the same for all series) to the latest available figure. The range is quite wide. Unemployment has more than tripled, business failures are up by two-fifths, and industrial production has declined 10 per cent. But incomes, employment, inventories and prices have declined only moderately. Construction and stock prices have been rising for some time, and have more than recovered their 1953 declines. The London Banker, discussing the contrast between declining business and a bull market in stocks, entitled its article, “This Booming Recession.”

But is this really a “booming recession”? To answer this question, many analysts turn to 1949. That is the only recession still strong in most memories. We have shown in the other columns in the table and in the charts, therefore, a comparison of the current recession with 1949. The second column in the table gives the percentage change from peak to trough for each series in 1949. The third column shows the percentage change for 1949 during the same number of months for which we have figures on the current recession. The fourth column shows the number of months from the peak to the latest figure available on the current recession and the fifth column gives the number of months from peak to trough in 1949.

The table and charts reveal these facts:

1. Practically all the indicators show that the economy is now operating at a considerably higher level than it was at the time the 1949 recession began. Unemployment is greater, but these figures should be interpreted cautiously because of seasonal influences and recent revisions in the data. Moreover, it should be remembered that the labor force today is considerably larger than it was in 1949 and that unemployment at the start of the current recession was lower than at the start of the 1949 recession.

2. Most of the indicators show that the declines have not been so severe as in the comparable time period during the 1949 recession. Unemployment, again, is an exception. Retail sales also have gone down this time, whereas in 1949 they never did really fall off. Industrial production has dropped at about the same rate as in 1949. Construction fell very little in both periods, but somewhat more in the current period; very recently, however, it has more than recovered its 1953 decline. All the other indicators show a more favorable experience. Prices, particularly, have not declined to speak of.

3. These figures suggest that the current decline has not yet gone so far nor lasted so long as the 1949 decline.

These are facts, and while they might be altered somewhat by a different choice of indicators or turning points, they seem fairly clear cut. How they should be interpreted is up to the reader. The most accurate conclusion probably is that while an analysis like this can shed some light on the question “How bad is the current recession?”, it cannot answer the questions, “How far will it go, and how long will it last?” It shows mainly that all areas of the economy not only do not behave in the same way at the same time, but also not in the same way at different times.
FOR THE RECORD...

**OUTPUT**
- Manufacturing production: 0* -12* -12* +1 -9 -8
- Construction contracts: +5 -4 -9 +4 11 +7
- Coal mining: -8 -17 -13 -8 -12 -10

**EMPLOYMENT AND INCOME**
- Factory employment: -1* -9* -8* -1 -8 -7
- Factory wage income: 0* -9* -9*

**TRADE**
- Department store sales: +1 -5 -5 +2 -3 -5
- Department store stocks: 0 -1 -1 -3

**BANKING**
- (All member banks)
  - Deposits: +1 +2 +2 -1 +2 +3
  - Loans: +1 +8 +8 +1 +4 +4
  - Investments: 0 -3 -3 -2 +9 +2
  - U.S. Govt. securities: 0 -3 -3 -2 +9 +2
  - Other: +1 0 0 +2 +6 +4
  - Check payments: -5§ +6§ +3§ -8 +10 +8

**PRICES**
- Wholesale: +0 +1 +1 +1
- Consumer: 0 +1 +1 +1

*Pennsylvania 1 Philadelphia 20 Cities
**Adjusted for seasonal variation. *Based on 3-month moving averages.

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**LOCAL CHANGES**

<table>
<thead>
<tr>
<th>Factory*</th>
<th>Department Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Payrolls</td>
</tr>
<tr>
<td>Per cent change February 1954 from</td>
<td>Per cent change February 1954 from</td>
</tr>
<tr>
<td>mo. ago</td>
<td>year ago</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
</tr>
<tr>
<td>Allentown . . .</td>
<td>-2</td>
</tr>
<tr>
<td>Harrisburg . . .</td>
<td>-1</td>
</tr>
<tr>
<td>Lancaster . . .</td>
<td>0</td>
</tr>
<tr>
<td>Philadelphia . . .</td>
<td>-1</td>
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<tr>
<td>Reading . . .</td>
<td>0</td>
</tr>
<tr>
<td>Scranton . . .</td>
<td>-1</td>
</tr>
<tr>
<td>Trenton . . .</td>
<td>-2</td>
</tr>
<tr>
<td>Wilkes-Barre . . .</td>
<td>+3</td>
</tr>
<tr>
<td>Wilmington . . .</td>
<td>-1</td>
</tr>
<tr>
<td>York . . .</td>
<td>-1</td>
</tr>
</tbody>
</table>

*Not restricted to corporate limits of cities but covers areas of one or more counties.
THIRD FEDERAL RESERVE DISTRICT