

# Monthly Review

FEDERAL RESERVE BANK OF SAN FRANCISCO

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## AVIATION POLICY AND THE AIRCRAFT INDUSTRY

**R**ECENT consideration by Congress of the national defense has attracted public interest to the status of the aircraft industry and has led toward the formulation of a national long-range aviation policy. No less than three independent investigations by national agencies are currently under way designed to establish the factual basis on which sound policies may be predicated.

The first of these is a Federal interdepartmental Air Coordinating Committee, set up during the war. In October 1945 this committee brought in a recommendation—which has not been followed—for the maintenance of a vigorous rate of military aircraft procurement. The committee has recently launched a survey of the aircraft manufacturing industry to determine the minimum rate of production necessary to maintain the industry capacity on a basis deemed adequate for national defense. A second general survey of the problem is being conducted by the President's temporary air policy commission, which is scheduled to report about January 1. Finally, by an act approved on July 30, 1947, Congress established a temporary joint Congressional Aviation Policy Board charged with the responsibility of studying the needs of American aviation from both the commercial and the military points of view.<sup>1</sup> This Board is to report to Congress by March 1, 1948; its recommendations are expected to form the basis for the development of a national aviation policy.

### *Wartime development and present structure of the Pacific Coast aircraft industry*

The aircraft industry, as everyone knows, experienced a phenomenal increase in physical facilities, personnel, and output during the war years, from 1939 to 1945. Its growth was especially rapid on the Pacific Coast, where a large concentration of airplane plants occurred in southern California and western Washington. From five or six establishments in these areas, with a total volume of employment of around 14,000 at the end of 1938, the industry mushroomed into more than a dozen large plants, including several huge Government installations, which gave employment in 1942 and 1943 to approximately 300,000 persons and turned out a substantial part of the total production of military aircraft during the war. In addition, several Pacific Coast manufacturers undertook to operate a number of large Government-owned plants which had been located for strategic reasons in the Middle West, extending from Texas to Michigan.

<sup>1</sup> H. R. 3587, Pub. No. 287, 80th Congress, 1st Session.

What is, perhaps, not so generally recognized is that despite the drastic reductions in military procurement of aircraft since the end of the war, airplane production still remains one of the principal manufacturing industries of the Pacific Coast region. Even today airframe and aircraft parts plants in this region employ approximately 100,000 persons and constitute the largest single industry group in the Los Angeles, San Diego, and Seattle areas.

The distinguishing feature of the Pacific Coast segment of the aircraft industry is that it is a combination of manufacturing operations, in the fabricating sense, and of assembling operations. The large Pacific Coast aircraft plants design and fabricate airframes, but assemble and install the engines, propellers, landing gear, auxiliary motors, wiring and communication systems, instrument panels, and scores of other parts and special devices, including radio and radar equipment, that are produced elsewhere. Aircraft engines, for example, come principally from Connecticut and New Jersey, propellers and landing gear from Ohio.

A wide range of aircraft types, including both military and commercial planes, are produced by most of the half-dozen larger firms that make up the bulk of the Pacific Coast aircraft industry. This has its drawbacks from the cost standpoint, however, as well as its advantages. In addition, two smaller concerns in the San Diego area specialize in the production of aircraft engine parts, notably exhaust manifolds and other special parts requiring high resistance to heat and corrosion. Diversification of output through manufacture of non-aircraft products has made relatively little headway either among Pacific Coast producers or elsewhere. This is partly because the precision type of industrial process involved in aircraft construction is adapted to relatively few kinds of products in wide demand, and partly because aircraft manufacturers are not equipped with the type of marketing organization required to distribute such products effectively.

### *Current problems of the industry; postwar shrinking pains*

The contraction in procurement of military aircraft since the end of the war has created a serious problem for the aircraft industry, a problem which has not been materially eased by the revival of commercial business. The shrinkage in total volume of plane production since the war peak has, of course, been tremendous. During the war the American aircraft industry reached a maximum production rate of around 100,000 planes per year, practically

all of military types. Total shipment of airplanes in 1946 to the armed services of the United States was only 1,330 planes. The dollar value of industry sales in 1945 was approximately \$10 billion, and in 1946 about one-tenth of that amount. Preliminary estimates indicate a 1947 volume only slightly larger than last year. While some 35,000 planes were shipped in 1946 to other than military customers, about 30,000 of these were small two-place planes having an average weight of less than 600 pounds. The market for this type of plane has apparently been completely saturated, at least temporarily, and four of the six concerns specializing in their production became insolvent last year. Multiple-engine planes shipped to commercial customers in 1946 aggregated 467, with an average weight of about 12,000 pounds.

Shipments of complete aircraft in 1946 represented a dollar value of some \$360 million. The difference between this amount and total industry "sales" of approximately \$1 billion was accounted for by experimental and development work of a confidential military nature, including research on rockets and guided missiles, etc., and by the production of spare parts, conversion and modification work, the operation of airports, and miscellaneous non-aircraft products. Making allowance for these various sources of income and for the retirement of some war-expanded plants from aircraft production, it is fairly obvious that the physical production capacity of the industry is far in excess of the existing or immediately prospective market demand.

#### ***Military requirements still dominate aircraft demand***

In spite of the sharp reduction in military orders after the war, current demand for military aircraft still constitutes much the larger part of the total market. This is particularly true of the Pacific Coast segment of the industry. As of mid-1947 the backlog of outstanding orders of the six leading aircraft producers in this area was approximately \$1 billion, three-fourths of which represented military orders, chiefly for production, but also including large contracts for experimental and development work. There has been some complaint within the industry concerning the uneven distribution of these orders. For example, a large part of the Army Air Force appropriation for 1946-47 was represented by the B-36 heavy bomber program, the contract for which, involving some \$200 million, was placed with a single company. Only one of this group of six Pacific Coast manufacturers currently has a larger backlog of commercial business than of military orders.

#### ***Commercial demand irregular and undependable***

The postwar demand for transport planes from the commercial airlines has been particularly heavy, but it did not bring the aircraft producers as much new business as might have been expected. Over 1,800 transport planes built for war use were made available as surplus property in 1946 and less than 500 new commercial airliners were produced in the country as a whole during that year. About 900 new transports were on order at the beginning

of 1947, of which approximately 300 were large four-engine planes.

The airlines had been largely starved for new equipment during the war years, and at the end of the war they embarked on a policy of rapid expansion in services and equipment, with particular emphasis on larger and swifter planes. As the year 1946 progressed, however, the airlines ran into difficulties: operating problems proved more troublesome than anticipated; costs increased while fares had been reduced; heavy new investments had to be financed; and load factors declined, partly as a result of a series of disastrous accidents which tended to discourage air travel. The net result for the 15 domestic air lines of the country was an operating loss for 1946 in excess of \$15 million.

The financial difficulties of the domestic airlines caused a wave of cancellations of orders for new planes and the postponement of delivery dates for others. The 1946 annual report of one of the larger Pacific Coast aircraft manufacturers points out that its operations were seriously affected by these developments, which involved a number of completed planes and also held up production schedules on new models. Other manufacturers also found their operations hampered by the inability of the airlines to finance the purchase of new equipment.

Intense competition for a volume of commercial business that is relatively small in comparison with the available capacity of the industry tends to keep unit prices on commercial planes to a minimum. Quantity output is the manufacturer's chief reliance if he is to recover his development costs, which may easily run from \$12 million to \$25 million for the larger and more intricate models. Further heavy outlays for tooling and materials are necessary before quantity production can be realized and the total investment recovered. Hence any disturbance of sales contracts or reduction of orders reacts with extreme effect on the profit position of the manufacturer. According to current trade reports, only one of the five principal producers of commercial planes has enough orders from the airlines at the present time to assure a break-even position. For the industry as a whole the immediate outlook for commercial business is bleak.

#### ***The aircraft production cycle is long***

The modern airplane is an extremely complicated and costly mechanism. The cycle of production is necessarily a long one. From the origination of a new design to the quantity production of the finished plane usually involves a period of from three to five years. According to trade sources not a single airplane actually saw service during the last war that had not been designed before the war began. Very large outlays are necessary in the preliminary stages for engineering and testing, and at the intermediate stages for tooling and the procurement of materials and parts.

The proportion of overhead staff, or so-called "non-productive" employees, to the total number employed in aircraft plants is relatively high because of the emphasis on constant improvement in design and the development

of new and improved models. Hence the cost of research and engineering plays an extremely important part in total operating costs. Selling costs, on the other hand, have generally been relatively low, although this situation promises to change somewhat under stress of more intense competition. The problem of inventory control is extremely complex in aircraft manufacture, both because of the length of the production process and because of the great variety of components involved. Constant watchfulness is necessary in order to assure the proper flow of materials and parts. Because of the highly specialized nature of many aircraft components and the relatively small number of concerns equipped to produce them, sometimes even the financial solvency of supply firms becomes a matter of concern to the aircraft manufacturer.

As contrasted with the later war years, when production in the individual plant had settled down to working on large Government orders for relatively standardized types of planes involving practically no market risk, the present position of many aircraft manufacturers involves much uncertainty. The current erratic conditions of demand make it difficult, and in some cases impossible, to schedule a sufficient volume of production to secure the economies of really large scale operations. If the manufacturer should go ahead with the production of any considerable number of planes on the basis of prospects only, and the expected market should fail to materialize, he may find himself with a costly and possibly unsaleable product on his hands. The risk is so great, in fact, that very few concerns can afford to hazard their capital unless certain of recovering total costs, either through firm commercial contracts or from the underwriting of development outlays by Government as part of a national policy of support to the industry.

#### ***Unsatisfactory financial results in 1946-47***

The financial experience of the aircraft industry in 1946 affords an interesting confirmation of the influences just mentioned. Sales of the dozen leading concerns in the industry fell from about \$5,450 million in 1945 to about \$625 million in 1946. Of the six manufacturers specializing in the production of personal planes, over 30,000 of which were sold in 1946, four became bankrupt. The major aircraft producers fared much better, but still experienced an over-all deficit and some reduction in working capital, even after tax refunds. Of seven Pacific Coast companies, three reported net profits in 1946, largely represented by carry-back tax credits, which offset operating losses, while four had net losses in spite of tax refunds.

Financial results for 1947 are likely to be somewhat more favorable for the industry as a whole than were those of 1946. Much of the work actually performed last year was of a developmental or preparatory nature, with relatively small sales realization. Probably much of the engineering and tooling costs, as well as part of the inventory accumulation necessary for the backlog of orders outstanding at the beginning of this year, were charged to 1946 operations. Delays in the supply of materials and

parts seriously hampered operations last year, but production has gone forward somewhat more rapidly this year and it is probable that greater output will be achieved by the leading concerns in the industry. On the other hand, sharply increased operating costs will tend to cut down profit margins this year, while tax credits have largely been used up and little relief from that source is now available.

#### ***Proposals for a national air policy***

The aircraft industry takes the position that present conditions do not secure enough continuity of demand for the industry's products to assure efficient use of man power and equipment. Spokesmen for the industry, in fact, go further and say that the total volume of airplane procurement must be greatly enlarged if a vigorous aircraft industry is to be maintained in this country. The Federal interdepartmental Air Coordinating Committee recommended in October 1945 a minimum production rate of military aircraft of 3,000 planes per year, with a total weight of 30.5 million pounds, under conditions of world peace and substantial disarmament. Until such conditions are realized, the Committee recommended a program twice as large. In contrast with these recommendations the actual output last year was 1,330 military aircraft, with a weight of 12.5 million pounds; budgeted for 1947-48 were 1,500 aircraft.

In a statement on air policy issued August 18, 1947, the Air Coordinating Committee stressed the need for a long-range program of aircraft procurement by the military services to replace the present system of year-to-year appropriations of limited sums. This change was advocated by the Committee in the interest both of economy in the use of public funds and as promoting greater stability and efficiency in the aircraft industry. The Committee also pointed out that basic aeronautical research had been seriously neglected during the war years and that it was necessary to make up the lost ground by a policy of intensive Government support to fundamental research projects if the country was not to risk falling behind other nations in aeronautical progress.

The recent creation of a Congressional Aviation Policy Board as authorized by the Henshaw Bill (Public Law 287) is expected to hasten the development of a long-range procurement program. The advocates of this measure point out that Government purchases of military planes are well below the minimum safety limits recommended by the Air Coordinating Committee in its 1945 report. They argue that an expanded national program is necessary both from the standpoint of immediate security and for the preservation of sufficient aircraft industrial capacity to maintain adequate research and assure the basis for needed expansion in time of emergency.

Another proposal, designed to assure the aircraft industry a substantially larger volume of business and also to provide the nation with a reserve of transport planes and trained personnel, is that Government loans or subsidies be granted the airlines in order to enable them to buy enough new transports to carry all first class mail and

parcel post by air. This innovation, it is said, would permit at least doubling the current rate of commercial aircraft production and, by requiring that the new subsidized planes be enrolled in the military reserve, would greatly strengthen the military security of the nation.

Obviously national security is the overriding consideration in determining the future of aircraft production.

It seems highly probable that the country will soon have to decide between taking measures that can be defended, ostensibly at least, on the ground of their contribution to the national defense or, by a policy of hands off, leaving the aircraft industry to face a future which appears likely to become increasingly critical for many units in the industry.

## AGRICULTURAL POSITION AND OUTLOOK IN MID-1947—TWELFTH DISTRICT

**B**OTH in the Twelfth District and in the United States as a whole, continued high agricultural production and rising prices pushed farmers' income to higher levels in the first half of 1947. In the United States during that period total cash receipts from farm marketings were \$11.9 billion, or 35 percent more than during the same period in 1946. Receipts from livestock and livestock products were up 39 percent, receipts from crops up 27 percent. In spite of setbacks from flood and drought in the Middle West during the summer, it appears probable that American agriculture is headed for very large crop production in 1947 and that cash receipts will be at an all-time high. The second half of 1947, however, will probably not see such a large percentage increase over the second half of 1946 as occurred in the first half of 1947 compared with the first half of 1946, because the price differential between the two years will be less marked in July-December than it was in January-June.

### Cash receipts by states

Cash receipts of District farmers during the first six months of 1947 were \$1,455.8 million, as against \$1,203.3 million in the first half of 1946. The following table shows percentage increases in cash receipts by states, for the two main categories of agricultural production—livestock and crops.

TABLE 1—PERCENTAGE INCREASE IN FARMERS' CASH RECEIPTS, JANUARY-JUNE 1947 OVER 1946<sup>1</sup>—TWELFTH DISTRICT

State	Livestock	Crops	Total
Arizona .....	+17.4	-13.0	-1.4
California .....	+30.6	+ 2.7	+13.5
Idaho .....	+31.9	+36.2	+34.0
Nevada .....	+64.0	+ 1.9	+52.1
Oregon .....	+28.0	+38.7	+32.8
Utah .....	+17.4	+25.1	+18.8
Washington .....	+29.3	+64.1	+48.8
TWELFTH DISTRICT.....	+29.1	+14.7	+21.0
United States.....	+39.3	+26.8	+34.9

<sup>1</sup> United States Department of Agriculture (Bureau of Agricultural Economics), *Farm Income Situation, 1946 and 1947*.

All states of the District except Arizona showed an increase in total cash receipts, but the rate of increase varied widely, ranging from 13.5 percent for California to 52 percent for Nevada. Nevada and Washington showed increases above the average for the United States; Utah, California and the Twelfth District as a whole showed smaller increases.

Throughout the District livestock income rose, but the percentage increase was smaller in each state than in the United States with the exception of Nevada. For most

types of livestock in most states of the District, the number of livestock animals was lower on January 1, 1947 than it had been on January 1, 1946.

Income from crops was off substantially in Arizona, up slightly in California and Nevada, and increased markedly in the other states of the District. The great rise in crop income in Washington, Oregon, and Idaho was caused chiefly by the rise in the prices of grains, primarily wheat.

The increase in farmers' total cash receipts in the District was considerably smaller than in the country as a whole. Both livestock income and crop income increased less in the District than in the United States, but the difference was greater in the case of crop income than in the case of livestock income. This appears to have been due to fruit prices, which as a whole were lower in the first half of 1947 than in the first half of 1946. It will be noted (Table 1) that California did not show the marked percentage increase in crop income that took place in Idaho, Oregon, and Washington.

### Price trends in first half of 1947 reversed last winter's predictions

The movement of agricultural prices since June 1946 is shown in Table 2.

The index of prices received by farmers reached a record figure of 255 on October 15, 1946. It tended to be lower during the next four months, rose to a new record of 262 in March 1947, declined in each of the next three months, and rose again in July. The index of prices paid by farmers rose steadily from June 1946 until April 1947, but remained practically unchanged between that date and July 15. The more rapid rise, between June and Octo-

TABLE 2—INDEXES OF AGRICULTURAL PRICES ON SELECTED DATES, JUNE 15, 1946-JULY 15, 1947<sup>1</sup>—UNITED STATES  
(1935-39=100)

Commodity	1946		1947						
	June 15	Oct. 15	Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15
All crops .....	230	252	244	253	275	278	277	271	272
Food grains .....	212	232	237	250	301	295	294	269	267
Feed grains & hay .....	207	234	194	195	223	235	229	253	266
Fruit .....	314	251	236	244	259	269	267	275	259
Truck crops .....	180	148	233	270	293	289	280	211	185
Livestock and livestock products .....	183	256	241	238	250	242	236	238	245
Meat animals .....	194	267	257	268	290	278	275	284	288
Dairy products .....	174	252	245	227	226	216	203	196	205
Poultry & eggs .....	164	236	184	176	183	187	186	188	202
Prices received by farmers (all products) .....	203	255	243	245	262	258	254	253	258
Prices paid by farmers (including interest and taxes) .....	147	162	168	173	177	180	179	180	180

<sup>1</sup> United States Department of Agriculture (Bureau of Agricultural Economics), *Agricultural Prices, 1946 and 1947*.

## BUSINESS INDEXES—TWELFTH DISTRICT

1935-39 Average = 100<sup>1</sup>

Year and month	Industrial production (physical volume) <sup>2</sup>										Factory employment <sup>4</sup>		Factory payrolls <sup>4</sup>	
	Lumber		Petroleum <sup>3</sup>		Cement <sup>3</sup>		Wheat flour <sup>3</sup>		Electric power		California		California	
	Ad-justed	Unad-justed	Unad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed
1929		148	121	193		110		115		83		100		111
1930		112	95	168		96		107		84		86		93
1931		77	78	140		74		110		82		73		73
1932		46	74	134		48		98		73		61		54
1933		62	72	127		54		97		73		66		53
1934		67	73	123		70		106		79		79		64
1935		83	86	140		68		113		85		87		78
1936		106	89	151		117		109		96		99		96
1937		113	99	163		112		114		105		112		115
1938		88	104	159		92		111		102		98		101
1939		110	93	160		114		123		112		104		110
1940		120	93	158		124		118		122		122		134
1941		140	96	172		164		120		136		173		224
1942		140	103	175		194		120		167		270		400
1943		133	118	194		160		132		214		363		705
1944		138	129	226		128		136		231		325		694
1945		108	135	213		131		152		219		246		497
1946		118	131	219		165		147		219		177		339
1946														
June	117	137	132	219	161	175	167	147	212	216	180	180	344	345
July	107	120	132	228	165	175	124	109	213	222	180	180	345	345
August	113	139	131	234	167	182	136	136	222	231	184	185	362	364
September	120	139	131	222	170	182	129	154	227	227	184	185	360	361
October	122	133	131	229	161	175	130	154	236	229	187	188	372	375
November	128	122	132	227	182	176	133	146	237	232	192	193	372	373
December	133	100	133	221	182	170	166	166	243	240	192	193	387	388
1947														
January	155	106	134	219	191	164	174	174	250	246	194	191	386	379
February	172	121	136	227	182	166	162	162	249	244	192	191	387	384
March	143	124	137	255	207	190	165	162	252	248	193	192	390	389
April	132	135	137	259	193	196	173	153	254	252	192	192	392	392
May	130	151	138	267	193	195	179	158	251	253	190	190	392	394
June	131	151	139	264	186	202	179	157	251	257	187	187	394	396
July	126	140	139	261			164	144	252	262				

Year and month	Carloadings (number) <sup>3</sup>						Department store sales (value) <sup>2</sup>					Dept. store stocks (value) <sup>4</sup>		Consumers' prices <sup>4</sup>						
	Total		Merchandise and miscellaneous		Other		District		California	Pacific North-west	Utah & So. Idaho	District		All items	Food					
	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Ad-justed	Ad-justed	Ad-justed	Unad-justed	Unad-justed	Unad-justed	Unad-justed				
																	Ad-justed	Unad-justed		
1929		112		114		109		112		109		115		124		132		121.8		132.0
1930		96		105		84		104		103		106		111		125		118.1		124.8
1931		75		89		57		94		94		91		97		110		108.2		104.0
1932		57		74		37		71		72		68		69		89		98.8		89.8
1933		58		70		43		68		68		66		72		80		93.6		86.8
1934		66		81		48		77		75		78		82		85		95.3		93.2
1935		72		85		56		86		86		85		89		89		97.0		99.6
1936		85		97		70		100		99		100		99		97		97.9		100.3
1937		90		102		75		105		106		105		104		103		102.2		104.5
1938		79		90		65		100		100		100		98		101		102.0		99.0
1939		85		96		72		109		109		110		110		106		101.0		96.9
1940		90		99		79		116		117		117		116		113		101.1		97.6
1941		105		116		91		139		136		146		138		137		106.3		107.9
1942		113		121		103		169		160		189		174		187		119.4		130.9
1943		109		119		97		201		192		219		212		172		126.1		143.4
1944		115		130		97		221		217		232		217		177		128.3		142.1
1945		110		131		83		244		242		252		237		182		131.7		146.3
1946		111		132		86		306		304		310		304		238		142.1		167.4
1946																				
June	113	122	137	145	84	93	315	288	315	310	300	217	221	136.8	154.5					
July	121	124	138	147	101	96	322	266	316	327	331	250	265	143.1	170.8					
August	102	118	125	140	74	90	324	291	311	333	364	240	263	145.7	176.1					
September	109	126	125	148	90	100	313	326	308	312	319	249	281	147.7	179.7					
October	109	128	125	151	89	99	319	330	320	313	301	270	299	150.6	186.2					
November	111	112	134	134	83	84	319	376	325	307	289	296	313	156.2	199.9					
December	121	107	145	129	91	79	317	503	310	329	305	334	273	156.9	198.4					
1947																				
January	136	108	146	122	124	89	313	249	307	318	326	315	277	156.7	195.7					
February	134	111	150	125	113	93	330	278	317	352	335	330	290	156.7	193.5					
March	117	109	129	120	103	96	325	295	318	336	314	331	308	158.2	196.6					
April	120	117	130	122	108	111	315	297	314	312	313	308	304	159.0	197.8					
May	112	112	131	123	88	98	323	301	321	332	279	287	293	158.7	197.3					
June	115	124	134	142	91	101	320	294	317	325	294	280	285	157.6	194.8					
July	122	124	133	142	107	102	329	272	323	334	349	267	283	156.5	196.5					

<sup>1</sup> The terms "adjusted" and "unadjusted" refer to adjustment of monthly figures for seasonal variation. Excepting department store statistics, all indexes are based upon data from outside sources, as follows: Lumber, various lumber trade associations; Petroleum and Cement, U.S. Bureau of Mines; Wheat flour, U. S. Bureau of the Census; Electric power, Federal Power Commission; Factory employment, Factory payrolls, and Consumers' prices, U. S. Bureau of Labor Statistics and cooperating state agencies; and Carloadings, various railroads and railroad associations.

<sup>2</sup> Daily average. <sup>3</sup> 1923-25 daily average=100. <sup>4</sup> Wage earners only. Excludes fish, fruit and vegetable canning.

<sup>5</sup> At retail, end of month or end of year. <sup>6</sup> Los Angeles, San Francisco, and Seattle indexes combined.

<sup>7</sup> Base changed from 1923-25 to 1935-39, and seasonal factors revised, beginning in July issue. Back figures by months, beginning January 1922, available on request.

## BANKING AND CREDIT STATISTICS—TWELFTH DISTRICT

(amounts in millions of dollars)

Year and month	Condition items of all member banks <sup>1</sup>									
	Loans and discounts					Investments <sup>2</sup>		Demand deposits adjusted <sup>3,4</sup>	Time deposits (except U.S. Gov't) <sup>4</sup>	U.S. Gov't deposits <sup>4</sup>
	Total <sup>5</sup>	Coml., ind. & agric.	For purch., carry'g secs.	Real estate	All other	U.S. Gov't securities	All other securities			
1929	2,239			647		495	458	1,234	1,776	36
1930	2,218			721		467	561	1,158	1,915	49
1931	1,898			711		547	560	994	1,667	99
1932	1,570			635		601	528	840	1,515	148
1933	1,486			668		720	510	951	1,453	233
1934	1,469			670		1,064	575	1,201	1,759	228
1935	1,537			662		1,275	587	1,389	2,006	167
1936	1,682			686		1,334	614	1,791	2,078	96
1937	1,871			730		1,270	498	1,740	2,164	90
1938	1,869	663	82	798	327	1,323	486	1,781	2,212	127
1939	1,967	664	76	864	362	1,450	524	1,983	2,263	118
1940	2,130	735	65	931	399	1,482	590	2,390	2,351	68
1941	2,451	933	59	1,000	460	1,738	541	2,893	2,417	144
1942	2,170	870	51	974	275	3,630	538	4,356	2,603	307
1943	2,106	934	62	899	211	6,235	557	5,998	3,197	842
1944	2,254	956	184	885	223	8,263	698	6,950	4,127	1,442
1945	2,663	1,103	343	908	309	10,450	795	8,203	5,194	2,050
1946	4,068	1,882	195	1,431	560	8,426	908	8,821	5,781	303
1946										
June	3,030	1,283	246	1,090	411	9,673	861	8,328	5,494	1,213
July	3,184					9,651	882	8,488	5,521	1,125
August	3,334					9,624	888	8,566	5,570	1,122
September	3,601					9,171	900	8,630	5,609	853
October	3,794					9,157	891	8,757	5,669	808
November	3,954					8,815	889	8,801	5,696	610
December	4,068	1,882	195	1,431	560	8,426	908	8,821	5,781	303
1947										
January	4,140					8,303	911	8,704	5,761	308
February	4,254					8,058	893	8,367	5,804	370
March	4,364					7,909	894	8,327	5,820	396
April	4,479					7,677	876	8,334	5,837	286
May	4,558					7,662	862	8,260	5,851	235
June	4,644					7,425	868	8,285	5,883	118
July	4,755					7,375	874	8,366	5,888	123

Year and month	Member bank reserves and related items <sup>6</sup>								Bank debits index 31 cities <sup>8</sup>	
	Reserve bank credits <sup>6</sup>	Commercial operations <sup>6</sup>	Treasury operations <sup>6</sup>	Coin and currency in circulation		Reserves <sup>7</sup>				Unadjusted
				Total <sup>6</sup>	F.R. notes of F.R.B. of S.F.	Total	Required	Excess		
1929	- 34	0	+ 23	- 6	189	175	171	4	146	
1930	- 16	- 53	+ 89	+ 16	186	183	180	5	126	
1931	+ 21	- 154	+ 154	+ 48	231	147	154	- 4	97	
1932	- 42	- 175	+ 234	+ 30	227	142	135	8	68	
1933	- 2	- 110	+ 150	- 18	213	185	142	37	63	
1934	- 7	- 198	+ 257	+ 4	211	242	172	84	72	
1935	+ 2	- 163	+ 219	+ 14	280	287	201	100	87	
1936	+ 6	- 227	+ 454	+ 38	335	479	351	119	102	
1937	- 1	- 90	+ 157	- 3	343	549	470	70	111	
1938	- 3	- 240	+ 276	+ 20	361	565	418	142	98	
1939	+ 2	- 192	+ 245	+ 31	388	584	459	138	102	
1940	+ 2	- 148	+ 420	+ 96	493	754	515	257	110	
1941	+ 4	- 596	+ 1,000	+ 227	700	930	720	245	134	
1942	+ 107	- 1,980	+ 2,826	+ 643	1,279	1,232	1,025	262	165	
1943	+ 214	- 3,751	+ 4,486	+ 708	1,937	1,462	1,343	103	211	
1944	+ 98	- 3,534	+ 4,483	+ 789	2,699	1,706	1,598	104	237	
1945	- 76	- 3,743	+ 4,682	+ 545	3,219	2,033	1,878	136	260	
1946	+ 9	- 1,607	+ 1,329	- 326	2,871	2,094	2,051	59	298	
1946										
June	+ 35	- 2	+ 55	- 52	2,931	2,038	1,929	84	307	
July	+ 11	- 272	+ 128	- 42	2,894	2,000	1,936	66	291	
August	+ 28	- 73	+ 95	0	2,890	2,045	1,958	54	292	
September	- 26	- 15	- 20	- 9	2,878	2,005	1,987	55	306	
October	- 162	- 29	+ 223	- 2	2,875	2,040	2,002	56	310	
November	+ 74	- 136	+ 111	- 2	2,866	2,092	2,030	54	313	
December	+ 37	+ 37	- 62	+ 7	2,871	2,094	2,051	59	339	
1947										
January	+ 109	- 35	- 168	- 81	2,800	2,081	2,043	60	322	
February	+ 14	- 25	- 133	- 32	2,765	1,981	1,982	51	325	
March	- 62	+ 3r	+ 50	- 30	2,735	2,003	1,940	61	332	
April	- 2	- 69	+ 47	- 18	2,716	1,997	1,934	63	309	
May	+ 34	- 14r	+ 49r	+ 10	2,714	1,993	1,934	59	297	
June	- 21	- 41r	- 7r	- 13	2,695	1,992	1,944	51	322	
July	- 234	- 213	+ 381	- 23	2,669	1,963	1,956	60	305	

<sup>1</sup> Annual figures are as of end of year; monthly figures are as of last Wednesday in month or, where applicable, as of call report date.<sup>2</sup> Monthly data for 1946 partly estimated.<sup>3</sup> Demand deposits, excluding interbank and U.S. Gov't deposits, less cash items in process of collection.<sup>4</sup> Monthly data partly estimated. <sup>5</sup> End of year and end of month figures. <sup>6</sup> Changes only.<sup>7</sup> Total reserves are as of end of year or month. Required and excess: monthly figures are daily averages, annual figures are December daily averages.<sup>8</sup> Debits to total deposit accounts, excluding interbank deposits. 1935-39 daily average=100.

p-preliminary. r-revised.

ber 1946, of prices received than of prices paid, pushed the ratio between the two to its record high in October 1946. Since then, due to a greater rise in prices paid, the ratio has been lower, and has shown little change in recent months.

On June 15, 1947 the index of prices received by farmers was 25 percent above June 15, 1946 and that of prices paid was higher by 22.4 percent. During this twelve-month period the index of fruit prices declined 12.5 percent, but all other groups showed an increase. The greatest single increase was a rise of 46.4 percent in the prices received for meat animals.

Changes in prices of some types of dried fruits have been extremely wide over the past year. Dried apples and peaches started to ease in the summer of 1946 and are now quoted at much lower prices than in June of that year. Dried figs, pears, and apricots showed no great changes between June 1946 and June 1947, but current price quotations are at a considerably lower level than the 1946 prices. Prunes and raisins, on the other hand, rose more than 100 percent between June and December 1946 and remained at this high level until April 1947, but at the beginning of August they were quoted at about 50 percent above June 1946. The dried fruit industry has asked the Government to include dried fruit in relief shipments abroad and to subsidize exports of dried fruit.

The general upward trend in agricultural prices during the first half of 1947 reversed the predictions made last winter, when many observers expected a recession in agricultural prices. Three basic factors caused this unexpected development. First, employment not only stayed high, but actually increased, so that personal income payments in June 1947 were at an annual rate of \$193 billion, compared with \$177 billion in June 1946. Second, exports were large, especially exports of grains, and this influenced the whole agricultural price structure. Third, unfavorable planting and crop growing conditions in some parts of the country, accompanied by predictions of a much smaller feed crop output, also exercised a strengthening influence on prices.

For most commodities, prices received by farmers were well above support prices during the first half of 1947, and it appears unlikely that Government support action will be needed during the rest of the year.

### Crop production estimates

August 1 estimates of total United States production of all crops for 1947 ran about 2 percent below 1946 production. Record crops of wheat, hay, and certain other commodities are expected. Drought during July and August, however, may cause an even greater decrease in feed grain crops, especially corn, than was anticipated. Reduced crops have already led to sharp rises in the prices of these commodities, and will tend to keep the prices of meat and other livestock products at a high level.

In the Twelfth District, total production of leading crops in 1947 may be considerably lower than in 1946 (Table 3). Among field crops barley, corn, dry peas, hops,

TABLE 3—ESTIMATES, AS OF AUGUST 1, OF 1947 PRODUCTION OF LEADING CROPS; 1946 ACTUAL PRODUCTION, AND 1936-45 AVERAGE PRODUCTION—TWELFTH DISTRICT<sup>1</sup>

Commodity	Unit	(in thousands)		
		Estimated production 1947	Actual production 1946	Average 1936-45
<b>Field Crops</b>				
Barley	bu.	73,754	76,753	62,628
Beans, dry	bags	6,557	5,913	6,602
Corn	bu.	6,130	6,302	8,307
Cotton, lint	bales	890	616	628
Flaxseed	bu.	3,127	2,274	2,712
Hay, all	tons	14,514	14,769	13,589
Hops	lbs.	49,520	53,171	40,743
Oats	bu.	31,704	31,249	30,955
Peas, dry	bags	5,685	6,151	4,171
Potatoes	bu.	89,433	116,573	76,601
Rice	bu.	15,343	16,728	10,982
Sugar beets	short tons	5,087 <sup>2</sup>	3,921	3,338
Wheat, all	bu.	152,479	158,669	120,999
<b>Fruits</b>				
Apples	bu.	49,178	44,925	40,674
Apricots, fresh	tons	193	339	232
Cherries	tons	84	116	81
Grapes	tons	2,969	2,941	2,401
Grapefruit	boxes	7,410 <sup>2</sup>	7,450	5,304
Lemons	boxes	14,100 <sup>2</sup>	14,450	11,520
Oranges	boxes	54,900 <sup>2</sup>	45,220	46,012
Peaches	bu.	41,158	41,603	29,332
Pears	bu.	27,272	28,122	21,830
Plums	tons	78	100	72
Prunes, dried	tons	212	213	201
Prunes, fresh	tons	95	152	131
<b>Nut Crops</b>				
Almonds	tons	30	38	17
Walnuts	tons	69	72	61
Filberts	tons	9	8	4

<sup>1</sup> United States Department of Agriculture (Bureau of Agricultural Economics), Crop Production, August 1, 1947.

<sup>2</sup> Estimates as of July 1.

<sup>3</sup> Does not include estimated production in Oregon and Washington, which are not reported separately. Reported acreage planted in these two states is 39,000 acres as against 303,000 acres in all other states of the District combined.

rice, potatoes, and even wheat show smaller estimated production; hay and oats are expected to be at approximately the same level as in 1946. The substantial reductions in potatoes and dry peas, and the estimated increases in dry edible beans, cotton, flaxseed, and sugar beets, are in line with Department of Agriculture suggestions made last year regarding 1947 production.

In fruit production the prospects for apples and oranges run considerably higher than the 1946 figures, while the production of apricots, cherries, pears, plums, fresh prunes, and almonds is expected to be lower. Grapes, grapefruit, lemons, peaches, dried prunes, walnuts, and filberts will run close to the 1946 quantities. Because the prices of most fruits and nuts are lower than in 1946, however, total cash receipts from these commodities may be considerably lower.

Data on expected truck crop production are very scanty. Generally speaking, in the country as a whole the production of vegetables is running considerably lower than in 1946. Partly as a result of lower vegetable prices in 1946, farmers have planted a smaller acreage to vegetables this year. Canteloupes and watermelon, however, are expected to show higher production.

### Livestock production

For the country as a whole, estimates of the production of livestock and livestock products have been issued. These figures forecast a slight increase over 1946 in the production of meat animals and dairy products, and decreases in the production of poultry, eggs, wool, and mo-

hair. No comparable estimates of District livestock production can be made, because data on 1947 production through June are fragmentary. District figures showing federally-inspected slaughter of meat animals in the first six months of the year are available, but figures covering the same period in 1946 are distorted by the market conditions then prevailing and cannot be used for comparison. District egg production during the first six months of 1947 was 2,511 million as against 2,630 million last year. Production rose slightly in Idaho and Arizona and fell in all other states of the District.

Indications are that sheep raising, in the District as in the United States, will continue its decline. The lamb crop was 5.2 million compared with 5.6 million in 1946, and

an average of 7.5 million during 1936-45. According to preliminary data the 1947 wool clip in the District will amount to 56.7 million pounds, grease basis, as against 60.4 million pounds in 1946 and an average of 85.4 million pounds in the period 1936-45.

After wool price support by the Commodity Credit Corporation, in force since 1943, ended on April 15, 1947, Congress passed new wool price support legislation.<sup>1</sup> As finally enacted, the law provides that the CCC shall continue through 1948 to support wool at the 1946 support price. In addition, it enables the CCC to dispose of its 450 million pounds' stockpile of wool at prices in competition with imported wool.

<sup>1</sup> S. 1498, Pub. No. 360, 80th Congress, 1st Session.

## EARNINGS AND EXPENSES OF THE FIFTEEN LARGEST TWELFTH DISTRICT BANKS, JANUARY-JUNE, 1946 AND 1947

**I**N SPITE of lower earnings on securities, and rising expenses and taxes, higher loan earnings of the 15 largest Twelfth District banks kept aggregate net profits after income taxes at about the same level for the first half of 1947 as they were for the first half of 1946. Considerably lower earnings, on the other hand, are reported by major Eastern banks, which have not had as marked a rise in loans over the past year as have banks in the Twelfth District. Even in the District, year-period changes in net profits varied widely among the 15 banks, with higher profits reported by only five of them.

### Loan earnings much higher, earnings in securities decline

The loan increase that has been taking place since mid-1946 raised earnings on loans for the first six months of 1947 by 67 percent over a year ago, undoubtedly a record increase. Service charges on deposit accounts were also well up. Partially offsetting these increases, interest and dividends on Government securities fell 20 percent; for

the first time in several years they were smaller than loan earnings. Government security holdings have declined steadily since early 1946, largely because of Treasury debt retirement.

### Expenses continue to rise

Salary and wage payments were up 20 percent over last year, reflecting an increase both in employment and in average salary payments, as indicated in Table 2.

Interest paid on time deposits was similarly affected. Somewhat larger deposits and one or two increases in the rate of interest paid resulted in a 26 percent rise in total interest payments.

### Net current earnings up somewhat, little change in net profits

Although expenses increased more, relatively, than earnings, the dollar increase in expenses was smaller, and net current earnings increased 7 percent. Recoveries and profits on securities were higher this year. There were net losses and charge-offs on loans, however, in contrast to net recoveries last year. Consequently, net recoveries

TABLE 1—EARNINGS AND EXPENSES OF THE FIFTEEN LARGEST TWELFTH DISTRICT BANKS COMBINED, JANUARY-JUNE 1946 AND 1947

Item	Amount <sup>1</sup>		% change 1946-47
	1946	1947	
Earnings on loans.....	\$45.9	\$76.8	+ 67.1
Interest and dividends on Gov't securities	54.7	43.7	- 20.2
Interest and dividends on other securities	7.9	7.8	- 0.9
Service charges on deposit accounts.....	6.5	8.6	+ 33.2
Other earnings .....	14.5	14.7	+ 1.5
<b>TOTAL EARNINGS .....</b>	<b>129.4</b>	<b>151.5</b>	<b>+ 17.0</b>
Salaries and wages.....	40.0	48.1	+ 20.1
Interest on time deposits.....	17.2	21.7	+ 26.1
Other expenses .....	24.0	29.9	+ 24.7
<b>TOTAL EXPENSES .....</b>	<b>81.2</b>	<b>99.7</b>	<b>+ 22.7</b>
Net current earnings.....	48.3	51.8	+ 7.4
Net recoveries on loans.....	+ 2.8	- .8	...
Net recoveries & profits on securities.....	+ 2.3	+ 5.8	+154.5
Other recoveries and profits—net .....	+ .6	+ .5	- 9.1
<b>NET RECOVERIES AND PROFITS</b> .....	<b>+ 5.6</b>	<b>+ 5.5</b>	<b>- 2.0</b>
Profits before income taxes.....	53.9	57.3	+ 6.4
Taxes on net income.....	12.7	15.8	+ 24.7
Net profits after income taxes.....	41.2	41.5	+ 0.8

<sup>1</sup> In millions.

TABLE 2—EMPLOYMENT, SALARIES, AND WAGES IN THE FIFTEEN LARGEST TWELFTH DISTRICT BANKS, JANUARY-JUNE 1946 AND 1947

Employee group	Persons on payroll <sup>1</sup>		Salary and wage payments—Average per person <sup>3</sup>			
	Number	Percent increase	Total Amount <sup>2</sup>	Percent increase	Amount	Percent increase
<b>All employees</b>						
1946 .....	28,851	...	\$40,031	...	\$2,780	...
1947 .....	32,369	12.1	48,088	20.1	2,980	7.2
<b>Officers</b>						
1946 .....	3,763	...	11,830	...	6,280	...
1947 .....	4,191	11.4	13,303	12.4	6,340	1.0
<b>Other employees</b>						
1946 .....	25,088	...	28,201	...	2,240	...
1947 .....	28,178	12.3	34,786	23.4	2,460	9.8

<sup>1</sup> Number employed for the half year is average of December 31 and June 30 employment in each instance.

<sup>2</sup> In thousands.

<sup>3</sup> Annual rate. Salary payments and average earnings do not reflect year-end distributions to employees, since they are first half-year figures only.

and profits on all non-current items were somewhat smaller this year than last. There was a substantial increase in income taxes, mostly in one bank. As a result, aggregate net profits after taxes were at about the same level as in the first half of 1946.

***Wide variation in individual bank earnings***

The year-period changes in earnings, expenses, and profits for the 15 banks combined do not reveal the wide differences among individual banks. Loan earnings rose in each of the banks, but the percentage increases were strikingly dissimilar and scattered over a wide range. Interest and dividends on securities declined in every

bank. There was no especially typical change, although the range and variation were less than in loan earnings.

On the other hand, the relative increase in each of the major expense items was similar in most of the 15 banks. Most of them experienced about a 20 percent rise in wage and salary payments and a 10 percent increase in interest paid on time deposits.

Net current earnings of the 15 banks combined increased 7 percent. Although there was a very wide range in individual bank changes, the most frequent change was a decline of 15 percent. Changes in net profits declined in ten banks and increased in five, with no typical gain or loss apparent.



### National Summary of Business Conditions

Released August 27, 1947—Board of Governors of the Federal Reserve System

**I**NDUSTRIAL production was at a lower level in July than in June, owing in part to influences of a temporary nature. Retail trade was generally maintained. Prices advanced during July and also the first half of August.

#### INDUSTRIAL PRODUCTION

Production of manufactures and minerals both declined in July and total industrial production, according to the Board's seasonally adjusted index, was at 178 percent of the 1935-39 average. This was 6 points below the June level and 12 points below the March postwar high of 190. Scattered information now available indicates a somewhat higher level for August than for July.

Output of durable manufactures generally decreased in July. There was a marked reduction in steel output during the first two weeks of the month, when a coal shortage seemed imminent. Activity in ship-building was sharply reduced by work stoppages, and there was a moderate decline in activity in the machinery industry. Automobile output declined somewhat in July, and showed a further reduction in the first half of August, with production still limited by the sheet steel shortage. Nonferrous metal manufacturing continued to decline in July, partly as a result of some reduction in demand. Output of lumber and of stone, clay, and glass products was also at a lower level than in June.

Nondurable goods production continued to decline in July. There was a further reduction in textile output, owing in part to vacations of production workers but also to earlier slackening of demand. Output of rubber products also continued to decline. Production of paperboard was lower in July but increased in August to the earlier high level. In the canning industry production rose more than is usual in July but was considerably below the unusually high level of last season.

Mineral output declined in July. There was a sharp drop in bituminous coal and anthracite output, accounted for largely by vacations early in the month. Output of crude petroleum declined slightly but was still at a very high rate.

#### EMPLOYMENT

Factory employment declined somewhat further in July, after allowance for seasonal changes, while employment in most other nonagricultural lines continued to show little change. Total government employment was reduced by 120,000 to about 5,300,000 persons in mid-July, reflecting a reduction in Federal employment and also a decline of a seasonal nature in other government employment.

#### CONSTRUCTION

Value of construction contracts awarded, according to the F. W. Dodge Corporation, rose in July, reflecting increases in awards for most types of private construction. Awards for private residential work were one-fourth larger than in June as contracts for hotels, apartment hotels, and one-family houses for sale or rent increased substantially. Value of awards for commercial and manufacturing building increased by about one-third. Federal controls on private construction were largely eliminated as of June 30.

#### DISTRIBUTION

Department store sales showed the usual seasonal decline in July, and the Board's adjusted index remained at the high May and June level. In the first two weeks of August, sales showed less rise than usual and were 4 percent below the corresponding period of a year ago whereas in July sales were 5 percent higher than last year. This difference reflected in part the sharp temporary rise in sales which occurred in August a year ago, and unfavorable shopping weather in many sections this year.

#### COMMODITY PRICES

Prices of basic commodities in the middle of August were generally at about the advanced levels reached on July 15. Prices of corn, hides, and wool tops rose further in this period, while prices of cotton and vegetable oils declined. Higher corn prices resulted in part from deterioration of the corn crop, which on the basis of August 15 conditions was estimated at 2.4 billion bushels as compared with the record crop of 3.3 billion last season. Lower cotton prices were attributable in some part to more definite prospects for a crop substantially above last season.

The general level of wholesale commodity prices advanced somewhat further from July 15 to the middle of August, reflecting chiefly further increases in prices of meats, dairy products, and fuels, and a general advance of about 10 percent in prices of iron and steel products. Prices of new automobiles were generally raised in this period. Steel scrap prices declined in the middle of August, following sharp advances in preceding weeks.

#### BANK CREDIT

Further additions to monetary gold stock, an inflow of currency from circulation, and purchases of government securities by the Reserve Banks increased member bank reserve balances in July and the first three weeks of August. In August these additions to bank reserves were partly offset by a shift of funds to Treasury balances at Reserve Banks as a result of an excess of Treasury receipts over expenditures. Required reserves increased over the period, reflecting continued expansion of deposits at member banks.

Commercial and industrial loans at banks in leading cities increased sharply during July and the first half of August, particularly at banks outside New York City. Real estate and consumer loans showed further sustained growth. Government security holdings declined somewhat at banks in New York City but showed little change at other city banks.

