

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Recent Economic Changes in the United States, Volumes 1 and 2

Volume Author/Editor: Committee on Recent Economic Changes of the President's Conference on Unemployment

Volume Publisher: NBER

Volume ISBN: 0-87014-012-4

Volume URL: <http://www.nber.org/books/comm29-1>

Publication Date: 1929

Chapter Title: Index

Chapter Author: Committee on Recent Economic Changes of the President's Conference on Unemployment

Chapter URL: <http://www.nber.org/chapters/c4970>

Chapter pages in book: (p. 939 - 954)

## INDEX

Page references to Vol. II are in **boldfaced** type.

### A

- Accidents, industrial, causes, 143  
prevention, 142, **525**
- Accounting, for sales expenses, **533**  
methods of costing, **510**  
railways, uniformity, 265
- Acquisitions, (*see* Mergers, Consolidations, and Acquisitions).
- Advertising, (*see* Chapter V, Section 7).  
by chain stores, **543**  
by construction industries, 233, 253  
control of, **535**  
ethical standards, 420  
improvement in quality, 419  
in newspapers, 402  
in magazines, 405  
in trade journals and business papers, 411
- Advertising expenditures, by commodity groupings, 414  
by types of mediums, 402
- Agricultural depression, causes for, **550, 859, 879**
- Agricultural machinery, development of  
power farming, **557, 881**  
installment sales, 397
- Agricultural products, co-operative marketing, 375, 378, 381, 383, **579**  
costs of distribution, **577**  
new uses developed, **595**  
postwar changes in sales volume, **636**  
prices, postwar and prewar trend, **548, 607, 623, 630, 646**  
purchasing power of, 76, **548, 630**
- Agriculture, (*see* Chapter VIII).  
development of large-scale farming, **566, 571, 575, 580, 592**  
exports in postwar period, **551, 860**  
financing and credits, **581**  
future of, **599**  
immobility, **588**
- Agriculture, improvements, factor in overproduction, **555, 881**  
income, 76, **548, 774, 781, 882**  
mechanization of, **556, 557, 561, 569, 572, 575, 590, 881**  
overexpansion of, **550, 553, 859, 879**  
production, index numbers, **448**  
productivity per worker, **551, 881**  
use of child labor, **551**  
(*see also* Farm population).
- Airplanes, commercial development, 323
- Airports, development, 248
- Alford, L. P., 96
- American Construction Council, 252
- Apartment houses, construction in post-war period, 235, 239
- Arbitration, railway wage disputes, 280, 281, 282, 283
- Architectural designs, changes in fashions, 237
- Artificial illumination, *see* Lighting, industrial.
- Associations, business, growth in, **497**
- Automobile industry, changes in production factors, 149  
inventory control, **509**  
productivity per worker, **459**  
real earnings of workers, 14
- Automobiles, cost of operation, 74  
exports, **715, 716**  
fashion changes, 323  
increasing use of, 52, 59, 323, 338  
influence on construction industry, 226, 236, 254  
influence on demand for other products, 323  
influence on food consumption, 28  
influence on shifts in trading areas, 336  
installment sales, 391  
ownership by farmers, 75  
retail sales terms, 61  
types of purchasers, 59  
(*see also* Motor vehicles).

- Automobiles and equipment, advertising expenditures, 416
- B**
- Baking industry, operating costs, 189, 191
- Balance of trade, correspondence of commodity trade with foreign credits, 744, 751
- Balance of international payments of the United States, 736
- Bank clearings, index of, prewar and 1924-27, 904
- Bank credit, increase in, 664, 675  
influence of Federal Reserve System, 697  
relation to commodity prices, 675, 677, 679, 697
- Bank failures, 693
- Bank investments, growth 1875-1928, 664
- Bank loans, growth 1875-1928, 664  
for corporation financing, 664, 681  
interest rates, 659  
rural, 581  
(see also Loans).
- Bank reserves, effect on financial situation, 677  
increases since 1922, 667
- Bankers' acceptances, interest rates, 659
- Banking, change in organization and practice, 690
- Banks, farm-loan, growth in South, 336  
growth of branch and chain banking, 690  
income and its distribution, 775, 802  
influence on business management, 504, 684  
reduction in number, 690
- Bankruptcies (see Failures, business).
- Birth control, 845
- Birth rate, decline, 425, 429, 845, 884
- Bonds (see Securities).
- Branches, increase in, banks, 690  
industrial plants, 209, 718, 751  
(see also Chain stores).
- Brands, use by chain store companies, 543  
use on building materials, 233, 253
- Bridges and tunnels, increase in construction, 248
- British coal strike, 1926, 311
- Brokers' loans, 686
- Budgeting, for business management, 503
- Budgets, family, 14, 51, 71, 74, 78
- Building (see Construction).
- Building materials, changing fashions, 237, 242  
monthly purchases charted, 231  
nationally advertised brands, 233, 253
- Building and loan associations, assets, 673  
growth of, 227
- Business activity, general, index of, prewar and 1924-27, 902
- Business cycles, comparison of prewar, war, and postwar cycles, 891, 900  
cyclical declines in cycle 1924-27, 900  
duration and amplitudes, measurement, 890, 891, 894  
indexes of economic series, 902  
influence of Federal Reserve System, 703  
reduction in fluctuations, 890, 909  
reflected in prices, 616  
relation to size of industry, 203  
(see also Business fluctuations).
- Business fluctuations, after 1922 and before, similarity, 9  
conditions in 17 countries in postwar period compared, 855, 858  
indication of economic maladjustments, 11  
random, relation to size of industry, 200  
(see also Business cycles).
- Buying habits, changes in, after World War, 321  
shift of retail trade from small to large centers, 331
- By-products, farm, development of uses, 595  
industrial, elimination of waste, 123
- C**
- Call money rates, (see also interest rates) 657, 731
- Candy trade, increase in chain stores, 365
- Capital funds, accumulation of, 672, 679  
construction influenced by supply of, 226  
effect of Government debt reduction, 679  
for corporation financing, preferred to bank loans, 664, 681

- Capital investment, railways, changes in, 264
- Carpets and rugs, increase in output of, 56, 69
- Cement manufacturing, changes in production factors, 152
- Censuses, Government, faults in, 29
- Cereals (*see* Grain).
- Chain banks, 690
- Chain stores, brands, use of, 543  
development of, 362  
effects on small retailers, 538  
encouraged by shifts in trading areas, 341  
management of, 542  
sales of compared with unit store sales, 362
- Charities, expenditures for, 18
- Child labor, on farms, 551
- City planning commissions, growth in, 230
- Clocks and watches, advertising expenditures, 419
- Clothing, (*see* Wearing apparel).
- Coal industry, anthracite, wages, 443  
bituminous, wage rates, 440
- Coastal trade, increase in ships' tonnage, 315
- Collateral loans, (*see also* Loans), 682
- Commercial construction, (*see also* Construction), 102, 136, 240
- Commercial paper rates, (*see also* Interest rates), 643, 657, 907
- Committee on national debt and taxation, England, 22
- Committees, as a factor in business management, 500
- Commodity prices, (*see* Prices).
- Common stocks, (*see* Securities).
- Commons, John R., Director's footnote, 758
- Communication systems, accelerating influence on industry, 91  
number of employees, 476  
(*see also* Public utilities; Transportation).
- Company stores, 529
- Company union, (*see* Employee representation).
- Consolidations (*see* Mergers and Consolidations).
- Construction (*see* Chapter III).  
as aid to stabilization of business, 219  
changes in demand, causes, 225  
costs, postwar trend, 638  
effect on prosperity and unemployment, 220  
financing of, 227  
hours of work, 444  
improvement in standards, 65, 233; 237  
income and its distribution, 775, 794  
number of workers, 477  
stabilization of, 220, 225, 230, 232, 234, 243  
union wage rates, 434, 436  
volume of, 63, 102, 136, 219, 221, 223, 229, 235, 239, 243, 248, 638  
(*see also* Building materials; Commercial construction; Housing construction).
- Consumers' Co-operative Societies, 389
- Consumers' goods, distribution, changes in methods, 361  
growth of selected industries, 53  
prices, postwar trend, 629, 646  
prices, prewar trend, (*see also* Prices), 624, 646
- Consumption, an index of standard of living, 24
- Co-operation, between business enterprises, 865  
between department stores, 541  
in construction industries, 252  
railways and shippers, 301
- Co-operative buying, by wholesalers and retailers, 373, 537, 539
- Co-operative marketing, appraisal of achievements, 389, 579  
cotton, 384  
dairy products, 375  
fruits and vegetables, 378  
grain, 381  
growth of associations, 374  
livestock, 383  
tobacco, 386  
wool, 385
- Copeland, Melvin T., 321
- Copeland, Morris A., 757
- Corn farming, mechanization of, 569
- Corporation farming, growth of, 592
- Cost of living, food, 49  
measurements of, 22  
postwar and prewar trends, 625, 632, 646

- Cost of living, (*see also* Prices; Real income; Standard of living).
- Cost of operation, department stores, 370  
 departmentization, **533**  
 farming, decreased by machinery, **563, 566**  
 labor, 102, **445**  
 marketing, 421  
 merchant shipping, 311, 312  
 railways, changes in, 292  
 ratios for production and sales costs, **534**  
 reduction caused by increased efficiency in production, **867**  
 relation to size of industry, 188  
 trend of prime cost since 1899, 102  
 unit costs, reduction in, 87, 104, **867**
- Costing, methods and uses, **510**  
 sales, methods of, **533**
- Cotton, co-operative marketing, 384  
 trend of exports, **714**
- Cotton farming, mechanization of, **572**
- Cotton manufacturing, depression caused by shifts in demand, 326
- Country stores, shift in trade to larger centers, 331
- Credit, bank, increase in, **664, 675**  
 rural, **581**  
 (*see also* Foreign credits; Loans).
- Credit unions, development of, **528**
- Cunningham, William J., 255
- D**
- Dairy products, changes in consumption of, 36  
 co-operative marketing, 375
- Demand, consumer, changes in, 30, 80, 321, **551, 875, 879**  
 (*see also* Standard of living).
- Demand deposits, bank, reductions in, **669, 676**
- Dennison, Henry S., **495**
- Department of Commerce, simplification program, 89, 116
- Department stores, effects of chain store development, 369  
 growth of chains, 367  
 installment sales, 399  
 management of, **539**  
 operating expenses, 370  
 sales and inventories compared, 354
- Depression, agricultural, causes, **550**  
 crisis of 1920-21, **849**  
 (*see also* Business cycles; Business fluctuations).
- Diet, changing content of, 30
- Directors' footnotes, Commons, John R., **758**  
 Laidler, H. W., 389, 390, **758**  
 May, George O., **744, 778**  
 Rorty, M. C., **627, 677, 864**  
 Soule, George, 268, 279, 282
- Discharge, employees, process of, **522**
- Distribution channels, changes in, 361  
 selection, 537  
 (*see also* Marketing).
- Diversification, of industry, by localities, 215  
 of products, need for simplification, 88
- Dividends, changes in rates, **608, 642, 657**  
 distribution by industry groups, **777**  
 proportion of national income, **772**  
 railways, 298  
 relation to wages, **769**
- Division of labor (*see also* Mechanization), 86
- Drug trade, growth of chains, 365
- Dry goods trade, growth of chains, 367
- E**
- Economic goods, classified as consumers' goods and industrial goods, 397
- Economic tendencies, prewar, war, and postwar, **607, 634, 644**  
 (*see also* A Review), **841**
- Education, expenditures for, 16  
 increase in school enrollment, **470**
- Educational buildings, increased construction, 249
- Efficiency, hardships caused by, **555, 867, 881**  
 (*see also* Operating Efficiency).
- Electric power, (*see* Power).
- Electrical appliances, advertising expenditures, **418**  
 growth in use of, 56, 324  
 (*see also* Standard of living; Housing standards).
- Electrification, industrial, 125  
 rural, advance in, **576**
- Employee representation, development of, **484, 529**  
 in department stores, **542**

- Employee savings, plans for encouraging, **527**
- Employee stock ownership, growth of, **488, 527**
- Employment, building labor, by months, **231**  
 decrease in volume, **608**  
 development of personnel work, **517, 541**  
 factory, index of, prewar and 1924-27, **902**  
 postwar trend, **639**  
 number of workers, agriculture, **452**  
 mercantile, **471**  
 professions, **472**  
 public, **471**  
 specified industries, **450, 460, 473**  
 selection, training, promotion and discharge, **518, 541**  
 stability and instability, **462, 465, 524**  
 (*see also* Labor; Unemployment).
- Engel's Law, **51**
- Ethics, business, improvements in standards, **11, 496**
- Excess-profits tax, **535, 854**
- Executives, changes in technique, **502**  
 methods of payment, **503**
- Export trade, effect of foreign credits on, **734, 752, 849**
- Exports, changes in commodity content, **713, 750**  
 changes in geographic distribution, **709**  
 in volume and amount, **636, 709, 750, 857**  
 decline in agricultural exports, **551, 860**  
 increase in postwar period, **849**  
 index of, prewar and 1924-27, **905**
- F**
- Factory standards, improvement in postwar period, **244**
- Failures, business, banks, **693**  
 postwar period, **642, 693, 854, 874**
- "Fair return," railways, **294**
- Farm-loan banks, growth in South, **336**
- Farm loans (*see also* Loans), **581**
- Farm population, condition in postwar period, **547, 879**  
 classification of, **71**  
 family budgets, **71, 74**  
 income, **76, 774, 781, 882**  
 movement to cities, **72, 226, 471, 593, 880**
- Farm population, purchasing power, **76, 548, 630**  
 standards of living, **70**  
 (*see also* Agriculture).
- Farm products (*see* Agricultural products).
- Fashions, shifts in demand caused by, **326**
- Fatigue, industrial, **525**
- Federal Aid Highway Act, 1916, **246**
- Federal Aid highway system, **232**
- Federal land bank system, **691**
- Federal Reserve System, influence in 1920-21 crisis, **452**  
 influence on bank credit, **697**  
 on business cycle, **703, 899**  
 on gold movements and inflation, **696**  
 on interest rates, **659, 663, 702**  
 on international monetary stability, **700**  
 on stock exchange operations, **688**  
 on time deposits, **669**
- Finance companies, automobile, **391**  
 influence on installment selling, **401**
- Financing, agricultural, development of, **581, 584**  
 construction, **241**  
 corporation, **664, 681**  
 railways, **264**  
 (*see also* Banks; Credit; Foreign credits; Loans).
- Flour milling, changes in production factors, **158**  
 operating costs, **191**
- Fluctuations (*see* Business fluctuations).
- Food consumption, changes in American diet, **30**  
 declining per capita requirements, **27**
- Food products, increasing food cost of living, **49**  
 advertising expenditures, **417**  
 public regulation, **48**  
 (*see also* Agricultural products).
- Forecasting services, use in management, **505**
- Foreign competition, in agricultural products, **552, 568**
- Foreign conditions, effect on domestic prosperity, **856, 868**
- Foreign credits, compared with movements of foreign trade, **744**  
 dominance in balance of international payments, **737**

- Foreign credits, effect on American business, **733**  
 effect on export trade, **680, 734, 752, 849**  
 (see also Foreign investments; Foreign loans).
- Foreign credits and foreign markets (see Chapter XI).
- Foreign investments, amount of, **725**  
 effect on financial situation, **680**  
 influence of interest rates, **731**  
 publicly floated capital issues, **730**  
 reasons for increase in, **731**  
 (see also Foreign credits; Foreign loans).
- Foreign loans, amount of, **725**  
 by Federal Reserve banks, **700**  
 (see also Foreign credits; Foreign investments; Loans).
- Foreign markets and foreign credits (see Chapter XI).
- Foreign trade, compared with foreign credit movements, **744**
- Foreigners' investments, in United States amount of, **727**
- Forward buying (see Hand-to-mouth buying).
- "Free gold," **670**
- Free income, public expenditures for social services, **15**
- Free trade, **2**
- Freight car performance, **286**
- Freight rates, changes in, **274**  
 factor in location, **215**  
 shipping cargo, **310**
- Freight train performance, **288**
- Fruits, car-lot shipments, 1920-1928, **45**  
 change in consumption of, **43**  
 co-operative marketing, **378**
- Fuel, consumption, improved efficiency, **79, 130, 289**  
 pulverized coal installations, **133**  
 (see also Coal industry).
- Functionalization, business organization, **498**  
 chain store companies, **542**  
 department stores, **539**  
 marketing, **330, 498, 532**  
 personnel management, **517**  
 production planning, **509**
- Furniture, increase in output of, **69**  
 installment sales, **393**
- Furniture and house furnishings, advertising expenditures, **418**
- Futures, canned goods, decline in sales and purchases, **349**

## G

- Gay, Edwin F., **1**
- General merchandise stores, tendency toward specialization, **340**
- Gold movement, effect on prices, **740**  
 imports and exports, **667, 670**  
 influence of Federal Reserve System, **696**  
 to adjust trade balances, **741, 747**
- Government operation, railways, **257, 275, 279, 303**
- Government ownership, American merchant marine, **313**
- Government regulation, construction, **235**  
 food products, **48**  
 rates in intercostal trade, **317**
- Governments, income derived from and its distribution, **774, 807**
- Grain, co-operative marketing, **381**  
 decline in American exports, **551**  
 in per capita consumption, **31**
- Gregg, E. S., **309**
- Gries, John M., **219**
- Grocery trade, increase in chain stores, **363**
- Group buying, (see Co-operative buying).

## H

- Hand-to-mouth buying, changes in volume for specified industries, **344**  
 effects, **349**  
 history, **344**  
 measured by volume of unfilled orders, **344**
- Handicraft callings, decline in, **84**
- Hardware and cutlery, advertising expenditures, **418**
- Hard-surfaced roads, increased mileage, **338**
- Hazards, industrial, provision for protection of employees, **524**  
 (see also Accidents; Unemployment).
- Health, public expenditures for, **17**
- Heating systems, residential, advertising expenditures, **418**  
 improvements, **324**

Hoch-Smith Resolution, **578**  
 Home ownership, **237**  
 Horse power, measurements of industry  
 in terms of, **175, 456**  
 (*see also* Power).  
 Hospitals and institutions, improvements  
 in, **19, 250**  
 public expenditures for, **18**  
 Hours of work, building trades, **444**  
 changes in, **103, 445, 847**  
 farming, **551**  
 Household appliances, increase in use,  
**56, 68, 239, 324**  
 Housing construction, (*see also* Construc-  
 tion; Housing standards), **63, 235**  
 Housing standards, improvements in  
 architectural design, **237**  
 improvements in construction, **65,**  
**233, 237**  
 sanitary equipment, **66, 238**  
 telephones and electric wiring, **68**  
 (*see also* Construction; Housing  
 construction).

## I

Idle plants, value as index to industrial  
 change, **84**  
 Immigration, changes in, **428**  
 occupations of immigrants, **429**  
 decline for United States, **427, 884**  
 distribution by sexes, **428**  
 index of, prewar and 1924-27, **906**  
 origin changes, **428**  
 restrictive legislation, **426**  
 Immigration restriction, effect on cotton  
 farming, **573**  
 effect on dietary standards, **27**  
 on food consumption, **27**  
 on labor supply, **252, 324, 426**  
 on settlement of undermanned  
 regions, **569**  
 on stabilization of population  
 increases, **226, 254**  
 on wages, **324, 886**  
 Imports, bananas, **46**  
 changes in commodity content, **725,**  
**750**  
 in geographic sources, **719**  
 in volume and amount, **636, 718,**  
**750, 857**  
 index of, prewar and 1924-27, **905**

Income, distribution of, productivity  
 theory, **781, 785, 790**  
 employees', distribution by industry  
 groups, **777**  
 farmers', **76, 548, 882**  
 free, public expenditures for social  
 services, **15**  
 money income and disbursed income,  
**758, 889**  
 railroad workers, **464**  
 real earnings, **14, 770, 848, 862**  
 workers in manufacturing, **92, 463, 639**  
 in printing industry, **93**  
 Income, net corporate, decline in 1920-21  
 depression, **863**  
 railways, changes in, **294**  
 relation to integration in petroleum  
 industry, **194**  
 to size of company in flour milling,  
**191**  
 to size of company in petroleum  
 industry, **192**  
 (*see also* National income).  
 Industrial disputes, decrease in number,  
**490**  
 (*see also* Labor relations, Strikes).  
 Industrial goods, replacing classification  
 as producers' goods, **397**  
 Industrial waste, (*see* Waste, industrial).  
 Industry, changes in new and old (*see*  
 Chapter II).  
 Inland waterways, **317**  
 Installment sales, automobiles, **61, 391**  
 department stores, **399**  
 farm machinery, **582**  
 increase in retail volume, **390, 398**  
 Insurance, life, growth, **485**  
 Insurance, workers' form and extent,  
**485, 526**  
 Integration, in agriculture, **580**  
 in petroleum industry, **194**  
 Interest and commission, paid to for-  
 eigners, **728**  
 received from foreigners, **728**  
 Interest payments, distribution by indus-  
 try groups, **777**  
 postwar trend, **642**  
 proportion of national income, **772**  
 Interest rates, amounts and movements,  
**657**  
 effect of Federal Reserve System in  
 stabilizing, **702**  
 on construction, **227**



- Interest rates, funded debt, railways, 298  
 in money centers, **731**  
 increased stability, **662, 703**  
 postwar trend, **643**  
 (*see also* Dividends).
- International trade (*see* Chapter XI).
- Inventions, effect on economic progress, **843**
- Inventories, effect of hand-to-mouth buying, 350  
 manufacturers' sales and inventories compared, 356  
 postwar period, 637  
 railways, reduction in size, 291  
 reductions in, by improved railway service, 302, 343, 350  
 in, effect on bank borrowings, **664**  
 retail sales and inventories compared, 352  
 wholesale sales and inventories compared, 354
- Inventory control, 350, **508**
- Investment trusts, development of, **688**
- Investments (*see* Capital funds; Capital investment; Employee stock ownership; Foreign investments; Securities).
- Iron and steel, blast furnace operations, 154, 190  
 increase in production in steel industry, 79
- J**
- Jewelry, advertising expenditures, 419  
 installment sales, 396
- K**
- Kimball, Dexter S., 79
- L**
- Labor (*see* Chapter VI).  
 average per capita income, **771**  
 changes in type of farm labor needed, **590**  
 division of, 86  
 income by industry groups, **777**  
 prewar and postwar trends, **625, 632, 639, 770**  
 railroad workers, **464**  
 management of, **517**
- Labor, number of workers, agriculture, **452**  
 general, 101, 167  
 mercantile, **471**  
 professions, **472**  
 public, **471**  
 specified industries, **450, 460, 473**  
 productivity of, **446, 850, 862, 864, 881**  
 proportion of national income received, **766, 788, 792, 795, 798, 802, 805, 807, 809**  
 transfer of skill, 86, 92  
 workers' insurance, 485, 526  
 (*see also* Employment; Hours of work; Immigration; Unskilled labor; Wages).
- Labor costs, changes in, **445**
- Labor relations, employee representation, **484, 529, 542**  
 improvements in as a cause of American prosperity, 5  
 in building trades, 251  
 railways, management and labor, 279
- Labor-saving machinery and equipment, improvements in construction machinery, 234, 242, 247  
 installations for material handling, 139  
 paint spraying, 328  
 time-saving element, 90  
 use by farmers, **553, 556, 557**  
 (*see also* Mechanization).
- Labor supply, effect of immigration, 252, 324, **426**  
 factors affecting, **425, 429**
- Labor turnover (*see* Employment; Unemployment).
- Labor unions, coal industry, **439, 443**  
 company unions, **484**  
 economic policies, changes in, **481, 864**  
 growth and decline, **479**  
 membership by trades, **437, 482**  
 railway shopmen's strike, 281  
 railway, wage disputes, 280  
 union-management co-operation, 6, **482, 531**
- Laidler, H. W., Director's footnote, **758**
- Land values, decline in, **584, 587**
- Large-scale production (*see* Size of industry).
- Leasing, departments in department stores, **540**
- Leather products, changes in output, 55

- Leather tanning, changes in production factors, 159
- Libraries, expenditures for, 17
- Lien merchants, decline in credit to farmers, 336
- Life insurance company, assets, **673**
- Lighting, industrial, codes, 144  
increase in intensities, 143  
relation to production, 143
- Livestock, co-operative marketing, 383
- Loans, bank, **581, 669**  
brokers', **686**  
collateral, **682**  
farm, **581**  
foreign, **700, 725**
- Location of industry, decline in geographical concentration of specified industries, 214  
establishment of foreign plants by American industry, **718, 751, 753**  
geographical shifts, 206, **876**  
headquarters and branch plants, 209  
influence of freight rates, 215  
of Panama Canal, 316  
shift from city to country, 210, **590**
- Locomotive performance, improvement 288
- M**
- McFadden Act, 227
- Machinery, exports, **715, 716**  
improvements in roadbuilding and engineering equipment, 234, 242, 247  
increased use in manufacturing, 103, 137  
power plants, changes in, 91, 129  
purchasing policy for manufacturing equipment, 138, **511**  
use by farmers, **553, 556, 557, 881**
- Magazines, advertising rates, 407  
circulation, 406  
volume of advertising carried, 405
- Mail-order business, 341, 371, 372
- Management (*see* Chapter VII), **495**  
changes in type of executives, **502**  
improvements in, 11, **497, 862**  
of manufacturing, **507**  
of marketing, **531**  
organization, **497**  
use of committees, **500**
- Manufactures changes in consumption of, 51  
production, index numbers, **448**
- Manufacturing, comparison of activity among states, 206, **591**  
differences between urban and rural, 212  
employment and pay-rolls, **463, 639**  
income and its distribution, **775, 790**  
migration of, 206  
number of workers, **450, 452, 454, 456, 460, 478**  
number of workers, geographical distribution, 206  
productivity, by industries, **456**  
per worker, **451**  
technical changes in (*see* Chapter II, Part 2).  
(*see also* Size of industry).
- Market analyses, development of, **536**
- Marketing (*see* Chapter V).  
changes in costs, 421  
management of, **531**  
of farm products, **577**  
(*see also* Co-operative marketing).  
use of functional specialists, 330, **498, 532**  
(*see also* buying habits; Co-operative marketing; Demand; Merchandising; Sales promotion).
- Material-handling equipment, 139
- Materials of manufacture, increase in total value, 102
- May, George O.. Director's footnote, **744, 778, 854**
- Meat, changes in consumption, 33  
decline in American exports, **552**
- Meat packing and slaughtering, changes in production factors, 158
- Mechanization, difficulty of measuring, **461**  
effect on prices, **627**  
on wages, **483**  
of farm work, **553, 556, 557, 881**  
substitution of machine for hand-made products, 52  
(*see also* Labor-saving machinery; Power).
- Mediation (*see* Arbitration).
- Merchandising, changes in products after World War, 322  
(*see also* specific commodities).  
definition, 330

- development as a marketing function, 328, 330, **535**
- Merchant marine, government-owned tonnage, 313
- Merchant shipping, surplus tonnage, 309
- Mergers; and consolidations, effect on earnings, 190  
increase in, 217  
railways, 299  
trend in manufacturing and mining, 181  
(*see also* Size of industry).
- Migration of industry, branch plants, 209, **718, 751**  
from city to country, 210, **590**  
geographically, 206, **876**  
to foreign countries, **753**
- Mills, Frederick C., **603**
- Mining, income and its distribution, **775, 786**  
number of workers, **451, 452**  
productivity per worker, **457**  
(*see also* Coal industry).
- Missionary salesmen, 414
- Mitchell, Wesley C., **841**
- Monetary stability, effect of Federal Reserve System, **700**
- Money and Credit, effect on business (*see* Chapter X).
- Mortality and morbidity rates, a factor in food consumption, 27  
an index of standard of living, 23  
decline in, 23, 27, **430**
- Mother's pensions, 18
- Motor vehicles, effect on railways, 272, 273  
(*see also* Automobiles).
- Multiple-plant companies (*see* Size of industry).
- Musical instruments, advertising expenditures, 419
- National income, definitions of, **757**  
distribution by census regions, **813, 838**  
by income strata, **833**  
by industry groups, **774, 838**  
by labor and property groups, **766**  
by rents, interest, and dividends, **772**  
equality of distribution, **836**  
New industries, growth of, 85  
(*see also* New products).
- New processes, developments, 111
- New products, developments, 111, 322  
(*see also* Demand, consumer).
- New York Stock Exchange, **684, 688**
- Newspapers, advertising rates, 404  
circulation, 403  
volume of advertising carried, 403
- Nourse, Edwin G., **547**

## O

- Obsolescence, housing, 65  
merchant ships, 310  
products or trades, 83  
reciprocating steam engines, 129
- Office management, **543**
- Oil and gas wells, analysis of income, **786**  
(*see also* Petroleum industry).
- Oleomargarine, consumption in various countries, 40
- Operating efficiency, railways, 285  
(*see* Cost of operation).
- Operating revenues, railways, changes in, 292
- Organization, internal, types and changes, 330, **497**  
(*see also* Functionalization; Management).
- Overproduction, of agricultural products, **553, 577, 859**
- Overcapacity, in American industry, 321, 326, **513**

## N

- National Bureau of Economic Research, objects of present survey, 12
- National income and its distribution, (*see* Chapter XII).
- National income, amount and growth of, **757, 762, 838**  
compared with income of United Kingdom, **764**  
with index of commodity production, **761**

## P

- Paints and varnishes, advertising expenditures, 418
- Panama Canal, effect on domestic trade and location of industry, 316  
influence on American shipping, 315
- Panics, (*see* Business cycles; Business fluctuations).
- Paper and wood pulp, changes in production factors, 162

- Pay rolls, manufacturing, postwar trend, **639**
- Pens and pencils, advertising expenditures, 419
- Pensions, industrial, **526**  
mothers', 18
- Personnel management, development of, **517, 541**
- Petroleum industry, changes in production factors, 150  
increase in production, **451**  
integration, relation to profit, 194  
scale of operation, relation to profit, 192
- Phonographs, installment sales, 394
- Pianos, installment sales, 393
- Pig iron industry, changes in production factors, 154  
index of production, prewar and 1924-27, **903**
- Planning, business activities, **503, 509**  
construction improvement, 230, 244
- Plant location (*see* Location of industry).
- Plumbing equipment, advertising expenditures, 418
- Population, birth rate, decline, **425, 429, 845, 884**  
changes in age and sex distribution, 27  
economic consequences of decline in rate of growth, **885**  
growth and distribution, **842, 845, 846**  
mortality rate, decline, 23, 27, **430**  
movement between farms and cities, 72, 226, **471, 593, 880**  
relation to labor supply, **425, 429**  
restricted immigration, effect, 226, 254, **425, 429, 884**
- Post offices, reduction in number of fourth class, 336
- Poultry and eggs, changes in consumption, 35
- Power, increased use of, 79, 91, 102, 104, 119, 204, 250  
industrial changes in utilization, 119
- Power farming (*see* Agriculture, mechanization of).
- Power plants, increase in use of central station power, 119, 127, 244  
types and efficiencies of machinery, 91, 129  
(*see also* Public utilities).
- Price and profit, response of industry to, **780, 783, 787**
- Price fixing, by Federal Government, **859**
- Price movements and related industrial changes (*see* Chapter IX).
- Prices, agricultural products, causes for low level, 550  
agricultural products, prewar and postwar, **548, 607, 623, 630, 646**  
changes in relations, postwar and prewar, **649**  
collusive control in construction industries, 253  
commodity, postwar and prewar trends and comparisons (*see* Chapter IX).  
relation to bank credit, **675, 677, 679, 697**  
relation to savings, **675, 677**  
consumers' goods, prewar and postwar, **624, 629, 646**  
factors preventing increases, **678, 697**  
fluctuations, postwar and prewar, **609, 614**  
increasing margin between producers' and retail prices, 49  
measures of price displacement, **650**  
processed materials, prewar and postwar, **624, 631, 646**  
producers' goods, prewar and postwar, **624, 629, 646**  
raw materials, prewar and postwar, **624, 631, 646**  
reductions caused by increased efficiency, **867**  
securities, causes and effects of increase, **686**  
indexes for selected industries, 196  
postwar trend, **607, 643**  
wholesale, international comparisons. **603, 868**  
wholesale, postwar and prewar trend, **851, 903**  
(*see also* Chapter IX).
- Printing industry, workers' earnings, 93
- Processed materials, prices, postwar trend, **631**
- Producers' goods, growth of selected industries, 53  
prices, postwar trend, **629, 646**  
prices, prewar trend, **624, 646**
- Production, basic economic principles of, 86  
interchangeability of parts, 90  
management, of, **507**

- Production, physical volume, changes in  
for selected industries, 37, 39, 45, 53,  
68, 101, **448, 456, 607, 635, 850**  
physical volume, index of, **761**  
scale of, in terms of horse power, 175  
in terms of wage earners, 168, 170,  
178  
in value of products, 168  
relation to costs, 188  
small scale required in certain indus-  
tries, 188
- Production cycles, trend toward in steel  
industry, 206
- Production factors, changes in (*see*  
Chapter II, Part 2).
- Production Standards, maintenance of  
uniform output, **510**
- Productivity of equipment, railways, 290
- Productivity per worker, attitude of  
labor organizations, **864**  
changes in, general, 103, **447, 461, 512,**  
**852, 862**  
specified industries, 147, **451**  
method of deriving, defects, **447, 460**
- Professional service, number of workers,  
**472**
- Profits, cargo shipping companies, 310  
corporations, distribution by industry  
groups, **778**  
corporations, postwar trend, **607, 640**  
individuals, distribution by industry  
groups, **779**  
reduction caused by increased effi-  
ciency, **867**  
relation to integration in petroleum  
industry, 194  
to scale of operation in flour milling,  
191  
to scale of operation in petroleum  
industry, 192  
(*see also* income; National income;  
Prosperity).
- Prohibition, influence on product con-  
sumption, 39, 42, 47
- Prosperity, affected by volume of con-  
struction, 220  
causes for in United States, 1, **861**  
interdependence of nations and indus-  
tries, **887**  
measured by growth of national  
income, **838**  
mixed conditions in American industry  
after 1922, 322, 328, 342, **841, 867**
- Public utilities, construction programs,  
250  
income and its distribution, **775, 797**  
mergers and acquisitions, 185  
(*see also* Power).
- Public works, improvements in planning,  
244  
volume of construction, 245  
public expenditures for social services,  
15
- Purchasing, manufacturing, methods and  
organization, **507**  
policy in purchase of industrial equip-  
ment, 138, **511**  
railways, improvement in, 291
- Purchasing power, agriculture, 76, **547,**  
**630**  
changes in after 1920, 321, **845, 885**  
labor earnings, postwar and prewar  
trends, **625, 633, 646**  
(*see also* Income; National income;  
Real income; Wages).
- Q
- Quarrying, income and its analysis, **786**
- R
- Radios and equipment, advertising ex-  
penditures, 416  
as an advertising medium, 410  
growth in demand and influence, 58,  
322  
installment sales, 394
- Railroad Labor Board, 280
- Railways (*see* Chapter IV, Part I).  
capital expenditures, 255  
consolidation, 299  
employee and management relations,  
279  
financial organization, 264  
freight rates, 274  
Government operation, 257, 275, 279,  
303  
improvements in roadway and equip-  
ment, 361  
motor vehicle competition, 272  
net income, changes in, 294  
number of workers, **451, 452, 464**  
operating efficiency indexes, 285  
passenger rates, 274  
pay rolls, **464**

- Railways, productivity per worker, **451**  
 quality of service, 301  
 unification, 299  
 volume of traffic, 268, **449, 452**  
*(see also Transportation)*.
- Rates, intercoastal trade, Government regulation, 317  
 joint rail and inland water rates, 317  
 railway, changes in, 274  
   for farm products, **578**  
   simplification by consolidation, 300  
 shipping, conference agreements, 311
- Rating scales, for employment and promotion, **521, 541**
- Raw materials, prices, postwar and prewar, **624, 629, 630, 631, 646**  
 production indexes, **635, 645**
- Rayon, growth in demand for, 327
- Real income, effect of World War on, **848**  
 increase in United States since 1921, **862**  
 indexes of, 14  
 industrial workers, 14  
 wages compared with salaries, **770**  
*(see also Cost of living; Income; Prices; Purchasing power; Wages)*.
- Reclamation and reuse, 121
- Recreation, public expenditures for, 17
- Refrigerators, advertising expenditures, 416  
 installment sales, 396
- Rental, of construction machinery, 235
- Rents, distribution by industry groups, **777**  
 postwar trend, **632**  
 proportion of national income, **767, 769, 772**
- Research, industrial and business, 106, **499, 864**
- Resident buyers, for department stores, **540**
- Retail and wholesale trade, changes in sales volume, 345, 353, 355, 357, 362, 370, 371, 373, 374, **636**  
 income and its distribution, **774, 804**
- Retail trading areas, causes for widening of, 336  
 changes in, 331
- Road construction, improvements in, 232, 244, 246  
 planning and finance, 246
- Rogers, James Harvey, **709**
- Rorty, M. C., director's footnote, **627, 677, 864**
- Rubber tire manufacture, changes in production factors, 149
- S
- Safety devices, 142, **525**
- Salaries, changes in salaries per employee, **770**  
 proportion of national income, **767**  
*(see also Wages)*.
- Sales, billings and unfilled orders for specified industries, 345  
 department stores, 355, 370  
 for specified types of chain and unit stores, 362, 363, 364, 365  
 of co-operative marketing associations, 374  
 of industries, 357  
 of retail establishment, 353  
 of wholesale establishment, 355, 373  
 mail-order companies, 371  
 retail and wholesale, changes in volume, **636**  
*(see also Cooperative marketing; Demand; Installment sales; Marketing)*.
- Sales costs, accounting for, **533**
- Sales promotion, by department stores, **541**  
 missionary salesmen, 414  
*(see also Advertising)*.
- Salesmen, selection, training, control, and payment, **532**
- Savings, employee, plans for encouraging, **527**  
 of individuals, increase in, **672**  
 reflected by bank credit, **675**  
 relation to prices, **675, 677, 679**
- Scale of operation *(see Size of industry)*.
- Scale of production *(see Size of industry)*.
- Schools *(see Education)*.
- Science, influence on economic changes, **842, 862**
- Seasonal stabilization, agricultural, effect on ocean shipping, 311  
 construction industries, 252  
 employment, **524**  
 farm labor, **590**
- Securities, index of sales, prewar and 1924-27, **908**

- Securities, prices, causes and effects of increase, **686**  
 increase in, **607, 643, 686**  
 indexes for selected industries, 196  
 yields of bonds, **657**  
 of common stocks, **657**
- Selling (*see* Marketing).
- Shipbuilding industry, depression in, 312  
 volume of construction, 312
- Shipping (*see* Chapter IV, Part 2).  
 surplus merchant tonnage, 309  
 tramp ships, decline in use, 311
- Shipping associations, for hogs, 383
- Shipping Board, 311, 313, 314
- Shoe industry, changes in production factors, 163  
 hand-to-mouth buying, 347  
 workers' earnings, 92
- Shoes, advertising expenditures, 418
- Silverware, advertising expenditures, 419
- Simplification (*see also* Standardization).  
 89, 116, **536**
- Single-plant companies (*see* Size of industry).
- Size of industry, increase in size of plant, causes, 85  
 large-scale farming, development, **566, 571, 575, 580, 592**  
 scale of operation, relation to business fluctuations, 200, 217  
 of operation, relation to cost, 188, 190, 194, 216.  
 of operation, relation to prosperity, 194  
 small-scale production, 188  
 trends in scale of operation (*see* Chapter II, Part 3).  
 (*see also* Mergers, Consolidations, and Acquisitions).
- Size of orders (*see* Hand-to-mouth buying).
- Skill, change in demands for, **516, 590**  
 transfer of, 86, 92  
 (*see also* Mechanization).
- Soaps and cleansers, advertising expenditures, 418
- Social sciences, application to business, **863**
- Social services, public expenditure for, 15
- Soule, George, director's footnote, 268, 279, 282
- Specifications for purchasing and production control, **510**
- Speculative credit, high interest rates, **659, 663**
- Sprague, O. M. W., **657**
- St. Lawrence waterway project, 319
- Stability of industry, influenced by construction planning, 220  
 relation to size, 200
- Stabilization of volume of construction, 225, 243  
 prices, 206, **609, 614, 654**  
 reductions in fluctuations of business cycle, **890, 909**
- Standard of living, affected by public expenditures, 15  
 consumption and (*see* Chapter I).  
 Europe and United States compared, 76  
 farm population, 70  
 improved by retardation in population growth, **885**  
 through scientific progress, **844**  
 measured by mortality and morbidity rates, 23  
 by product consumption, 24  
 real earnings as a measure of, 13  
 workmen's families in New York City, 32  
 (*see also* Cost of living; Demand; Housing standards; Income; Purchasing power, Real income; Wages).
- Standardization, building materials, construction machinery, and construction, 234, 243, 253  
 of demand, 5  
 of production, 80, 89, 119  
 reaction against product, standardization, 329  
 (*see also* Simplification).
- Statistical records, improvement in, **865**
- Steam power, replacement by electric power, 125  
 (*see also* Power).
- Steel industry, changes in production factors in iron and steel, 155
- Stock exchange operations, expansion, causes, and significance, **685**
- Stocks and bonds (*see* Securities).
- Street car cards, expenditures for, 410
- Strikes, British coal miners, 1926, 311  
 decrease in number, **490**

Strikes, railway shopmen, 1922, 281  
 Sugar, increase in consumption, 41  
 Sugar refining industry, changes in  
 production factors, 160  
 Supply and demand, maladjustment for  
 farm products, **549, 577**

## T

Tariff, benefits, of protection, 2  
 influence on cost of diet, 49  
 Taxes, farm property, **548, 588**  
 Technical advances, effect on economic  
 prosperity, **842, 867**  
 Technical changes in manufacturing  
 (see Chapter II, Part 2).  
 Technological unemployment, 92, **469,**  
**514, 877**  
 Telephones, increasing use in residences,  
 68  
 Tests, use of for employee selection, **519,**  
**541**  
 Textile industry, hand-to-mouth buying,  
 347  
 Textiles, advertising expenditures, 417  
 changes in output, 55  
 Thorp, Willard L., 167, 179, 188  
 Time deposits, banks, increase in, **669,**  
**672, 676**  
 Time money rates (see also Interest  
 rates), **657, 731**  
 Time studies, for production standards,  
**512**  
 Tobacco, co-operative marketing, 386  
 Tobacco products, increase in chain  
 stores distribution, 366  
 shift in consumption, 54  
 Toilet goods, advertising expenditures,  
 419  
 Tourists' expenditures, a factor in the  
 balance of trade, **737, 743, 751, 752**  
 Tractors, farm, increasing use of, **553,**  
**556, 557, 881**  
 Trade associations, influence on  
 standards of construction, 233  
 Trade channels (see Distribution  
 channels).  
 Trade journals, as advertising mediums,  
 411  
 Trade unionists, German, 5  
 (see also Labor unions).  
 Trade unions (see Labor unions).  
 Trading areas (see Retail trading areas).

Training, employee, in department stores,  
**541**  
 in industrial plants, **520**  
 Tramp ships, decline in use, 311  
 Transportation (see Chapter IV).  
 changes in volume, **636**  
 effect on food consumption, 47  
 improvements, effect on industry, 91,  
 302, **343, 350**  
 income and its distribution, **775, 797**  
 number of workers, **476**  
 Transportation Act of 1920, provisions,  
 275, 280, 294, 299  
 Two-family houses, volume of construc-  
 tion, 235, 239

## U

Unemployment, caused by technical  
 advances, **514, 877**  
 effect of age, **522, 527**  
 effect of size of companies, 203  
 methods for registering, **466**  
 time lost by the nominally employed,  
**466**  
 volume of, prewar and postwar, **466,**  
**853, 879**  
 (see also Employment).  
 Unfilled orders, compared with billings  
 for selected industries, 345  
 postwar trend, **637**  
 Unification (see Mergers, consolidations  
 and acquisitions).  
 Unions (see Labor unions).  
 Unit stores, effect of chain store growth,  
 362, 369, **538**  
 (see also Country stores; Department  
 stores; General merchandise  
 stores).  
 Unskilled labor, decline in immigration,  
**428**  
 wages, **437**  
 (see also Labor).

## V

Vacuum cleaners, installment sales, 395  
 Valuation, railways, 294  
 Variety stores, increase in chain stores,  
 366  
 Vegetable oils, change in consumption of,  
 39



- Vegetables, car-lot shipments of 1920-1928, 46  
 change in consumption of, 43  
 co-operative marketing, 378
- W
- Wages, as measure of labor situation, 430  
 coal mining, 439  
 economy of high wages, 523, 866, 885  
 establishment of standard differentials, 522  
 farm labor, 548  
 high level in America, 4  
 in building trades, 251.  
 postwar and prewar trends, 102, 103, 632, 770  
 railways, disputes between labor and management, 280  
 relation to dividends, 769  
 union rates in building trades, 434  
 in selected industries, 432  
 unskilled labor, 438  
 use of incentives, 523, 542  
 (see also Purchasing power; Real income; Standard of living).
- Washing machines, installment sales, 394
- Waste, industrial, diversification of products as source of, 88  
 effect of World War, 846  
 elimination of, 81, 119, 511
- Water consumption, compared for Europe and United States, 69
- Watson-Parker Bill, 282
- Wearing apparel, advertising expenditures, 418  
 fashion changes and their effects, 326  
 installment sales, 396  
 output, value 1914-1925, 55
- Welfare work, employee, 529
- Wheat farming, mechanization of, 561
- Wheat pools, co-operative marketing, growth, 381
- White-Jones Shipping Act, 314
- Wholesale and retail trade, changes in sales volume, 345, 353, 355, 357, 362, 370, 371, 373, 374, 636  
 income and its distribution, 774, 804
- Wholesale prices (see Prices, wholesale).
- Wholesale trade, adversely affected by changes in trading areas, 341  
 effect of chain store growth, 373  
 hand-to-mouth buying, 349  
 new management problems, 537  
 sales and inventions compared, 355  
 situation 1919-1928, 372
- Wolman, Leo, 425
- Wool, co-operative marketing, 385
- Woolen and worsted industries, depression caused by shift in demand, 326
- Workers' insurance (see Insurance).
- Workers' investments (see Investments).
- Works council (see Employee representation).
- World War, building shortage caused by, 63, 220  
 effect on business conditions in 17 countries, 855  
 on consumers' buying habits, 321  
 on economic progress, 846  
 on home ownership, 237  
 on inland waterway traffic, 317  
 on labor management, 517  
 on mass production, 80  
 on mechanization of the farm, 557, 561, 572  
 on shipping tonnage, 309