Volume Title: Prices in a War Economy: Some Aspects of the Present Price Structure of the United States

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I THE ECONOMY OF 1939

The conversion of the United States to war has given us an economy with characteristics quite unlike those of the years of peace. This paper deals with aspects of that economy. It is primarily concerned with price relations prevailing in 1943 and with the physical interchanges of goods and services that are conditioned by price relations. Before we trace the changes that came with transition from peace to war we characterize in summary fashion the economy of the United States in the year when the European war broke out. The period 1912-14 is the standard of reference.

OUTPUT OF COMMODITIES

Physical production increased more rapidly than population from

	Percentage change, 1912-14 to 1939	
Total physical production		+75
Agriculture	+28	
Mining	+76	
Manufacture	+97	
Population		+35

1912-14 to 1939. During this quarter century the output of physical goods increased about 25 per cent per capita of the population. National income estimates indicate an advance of 60 to 70 per cent in the over-all output of goods and services, and of 20 to 25 per cent per capita of the population. These were substantial gains, won during a period troubled by world wars and world-wide economic disturbances.

PRODUCTIVITY

Over the quarter century between 1914 and 1939 the effectiveness of labor and management in production had increased at a rate probably surpassing that of any similar period in our industrial history. In 1939 physical output per man-hour in manufacturing industries was approximately 120 per cent greater than in 1914. The amount of labor time that could produce 100 units in 1914 could in 1939 produce 220 units. The basis of this gain is to be found in greater technical knowledge, improved organization, a better trained labor force, better equipment, and fuller use of mechanical power. For nonmanufacturing industries we have less accurate measurements of productivity changes. In agriculture the increase in output per worker between 1913 and 1938 may be estimated at 50 per cent, in mineral extraction 100 per cent. Productivity per man-hour in railroad transportation (freight and passenger operations combined) also increased more than 100 per cent between 1914 and 1939.

The year 1939 was one of industrial expansion. The level of industrial activity was about 20 per cent higher than in 1938, but slightly below the levels of 1929 and 1937. The failure to match the 1929 peak is the more noteworthy because of an increase of some 10 million in population between 1929 and 1939. As of August 1, 1939, approximately 9 million persons were unemployed in the United States, about one-sixth of the total labor force. Employment in all economic activities was substantially higher than it had been in the early and middle 'thirties but lower than in 1929. In effect, we were operating in 1939 with a working force that excluded not only some two million of those who had been employed in 1929, but also excluded the net additions contributed by a growing population to the available labor supply.[1] Our human productive power and our productive machine as a whole were being under-utilized in 1939. They had potential efficiency far above the demands placed upon them.[2]

The decade of the 'thirties was distinctive, also, in the relation be-

[1] Total wage-earner man-hours worked in manufacturing plants in 1939 were about 22 per cent less than the number worked in 1929. In absolute terms the decline amounted to over 4 billion man-hours.

[2] This fact is clearly revealed if we compare the changes in manufacturing productivity and in total manufacturing output that took place during two decades, the 'twenties and 'thirties (Solomon Fabricant, *Employment in Manufacturing, 1899-1939,* National Bureau of Economic Research, 1942, p. 331). An increase in industrial productivity releases productive energy. Such released energy may be used to increase the total volume of production or may be assigned to leisure, voluntary or forced. In the decade 1919-29 the released energy was largely devoted to the increase of total production. The increase of

Change in:	*1919-1929*	*1929-1939*
Output per man-hour in manufacturing	+72	+32
Total manufacturing output	+64	+3
Change in number of wage-earner hours expended per unit of product	−43	−24

72 per cent in man-hour efficiency contributed to an over-all increase of 64 per cent in total output. The energy released between 1929 and 1939 by a 32 per cent gain in productivity was not devoted to increased production. Total output rose only 3 per cent. The released energy was turned loose (for leisure or for employment in nonmanufacturing industries). Other evidence indicates that some of the released energy went to other industries, but that a substantial part went into unemployment (enforced leisure) and into a shorter working week (voluntary leisure).

The choice between enhanced production and greater leisure is not necessarily a conscious decision. Institutional circumstances, the play of cyclical forces, labor legislation, and many other factors influence the use of productive resources and determine whether higher man-hour productivity is to lead to greater total output or to more leisure. When the work week is shortened there is a clear choice of leisure rather than additional goods. More often the consequences of given actions are not clearly foreseen; e.g., when effective demand is reduced by the maintenance of high selling prices on services or goods.

tween consumption goods and capital goods in the national product. Between 1929 and 1939 total consumer outlay, in dollars of constant purchasing power, increased about 8 per cent. Since population also increased 8 per cent, consumers held their own between these two dates. The record is quite different for capital goods. On the average, for the ten years 1929-38, net capital formation constituted 3 per cent of the national income. In no other decade in a record going back to 1879 did this percentage fall below 10.[3] In dollars of constant purchasing power, net capital formation for the 1929-38 decade constituted some 23 per cent of the figure for 1919-28. The absolute addition to capital in the decade 1929-38 was the lowest of any decade from 1879 to 1938. The under-utilization of our productive resources in this period was primarily a failure to create new industrial plants and equipment. Current consumptive needs were being met, but we were falling behind sharply in the building up of plant and equipment with which to produce more goods.[4] The estimated increase of 32 per cent in man-hour productivity in manufacturing in this decade is the more remarkable in the light of the retarded expansion in industrial equipment.

When we compare the terminal years, 1929 and 1939, it is clear that the decade was one of arrested development, so far as volume of final product goes. But to say this, and ignore the difficulties overcome, is to give a quite inadequate account of the accomplishments of these years. In the face of adverse forces that swept the world the level of consumer well-being had been maintained, our industrial plant preserved, and we had made technical advances greatly enhancing industrial productivity and containing the seeds of a vastly increased output.

PRICE RELATIONS

Between 1914 and 1939 there were widely dispersive movements among the elements of the price system (Table 1 and Chart 1). A relatively slight advance in wholesale prices was accompanied by a considerable increase in living costs, a greater increase in construction costs, and a very great advance in the hourly earnings of wage earners in manufacturing industries. The terms on which goods and services

[3] Simon Kuznets, Uses of National Income in Peace and War, National Bureau of Economic Research, *Occasional Paper* 6, p. 31.

[4] This statement is based, of course, on a quantitative record. Qualitative improvements offset, in part, the quantitative deficiencies. We know that the replacements of outworn equipment during this decade were more efficient than the discarded elements.

are exchanged, terms which had remained relatively unchanged during the several decades preceding 1914, suffered violent alterations between 1914 and 1939, with profound implications for the working of the economy and the distribution of its products.

TABLE 1
Price Trends in the United States, 1912-14 to 1939

	1912-14	*Sept. 1938-Aug. 1939*	*Aug. 1939*
Wholesale prices	100	111	109
Cost of living, industrial workers	100	141	140
Construction costs	100	207	208
Per capita earnings, mfg. labor	100	200	204
Hourly earnings, mfg. labor	100	281	279

Sources: The index of construction costs is that of the American Appraisal Company; all other measurements are derived from indexes of the U.S. Bureau of Labor Statistics.

These changes have been discussed in detail in other National Bureau publications.[5] We note here that the 1939 price structure, measured by 1914 standards, was characterized by low prices to primary producers, high prices for the services of fabrication agents, and high prices of finished goods, whether bought for use as capital equipment or for consumption. In unit exchange values farmers lost in relative position, other primary producers held their own, approximately, while manufacturing workers and others engaged in fabricational processes gained substantially.

Consumers as a broad class had gained during this quarter century. Consumption was more varied and living standards were higher in 1939 than in 1914. However, these gains of consumers are to be appraised with reference to the extraordinary advances in industrial productivity between 1914 and 1939. Had the potentialities released by these gains been realized to the full the real income of consumers in 1939 could have been substantially higher than it was. When account is taken of the great advances in technical efficiency there can be no doubt that the prices of consumer goods were high in 1939.[6]

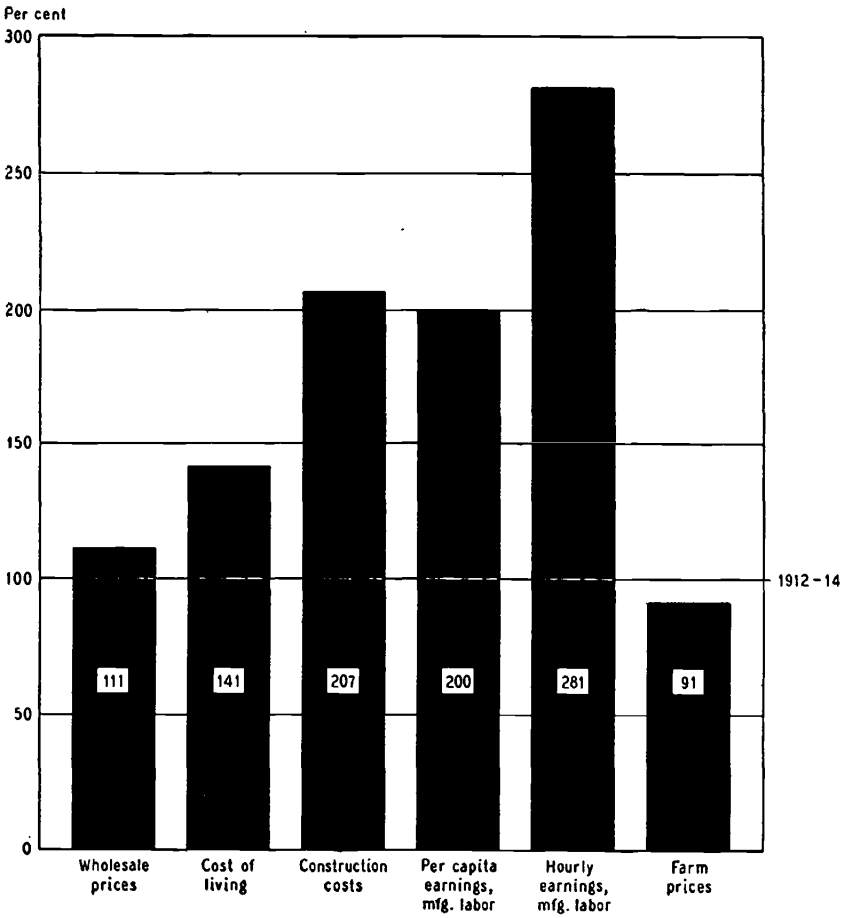
[5] The Anatomy of Prices, 1890-1940, *Bulletin 80,* Sept. 9, 1940; also *Prices in Recession and Recovery,* 1936.

[6] Some of the potential gains of the period 1914-39 were realized by consumers, as shown in the records previously presented. It is not possible to say in detail just where the remainder went, but we know something about the matter. Increased leisure obtained through a general shortening of the working week has been mentioned. Educational facilities were extended and the average period of education lengthened. In addition, there were many outright losses of real and potential wealth. During the decade beginning in 1914 there was a great dissipation of wealth through war and post-war disorganization. There was the sheer destruction of wealth that might have been realized in the form of productive equipment. There were losses through foreign debts that were never repaid. The speculative booms of the 'twenties absorbed energies that might have been productively employed. In the 'thirties great losses were suffered

CHART 1

Relations among Elements of the Price Structure
September 1938 - August 1939

(1912 - 14 = 100)



through prolonged depression and incomplete utilization of our productive resources. The necessary support of unemployed workers and the payment of subsidies to producing groups that were unfavorably affected by world-wide economic demoralization served to lower the real returns of consumers at large. There were, besides, the familiar distributive wastes arising out of duplicated services. In some of the rapidly expanding areas of governmental activity, federal, state and local, there were wastes paralleling the duplications and inefficiencies of some business operations. The forms of loss varied, but both the 'twenties and the 'thirties contributed to the dissipation of potential productive resources. Extraordinary productivity gains provided a rich margin for our generation to play with. That between 1914 and 1939 we improved our position as consumers and added substantially to our stock of productive equipment, despite our economic sins of omission and commission, is evidence of the richness of the vein we had struck.