Some Aspects of the Price Recession of 1929-1930

By FREDERICK C. MILLS

The current recession of commodity prices in the United States may be dated from July, 1929. Between that month and October, 1930, average prices at wholesale dropped approximately 16 per cent. During this period there have developed striking inequalities among different classes of commodities, in the degree to which they have fallen in the general level of prices. These inequalities have a profound bearing on the immediate economic situation, and on the probable course and character of economic recovery.

While there is as yet no evidence that the bottom of the decline has been reached, the rate of recession has been retarded in recent months. Taking the situation as it stands, we may review some general aspects of the current events. If prices and production adjust to investigate certain important points: one is the shifts in purchasing power that inequalities of recent price movements have entailed.

Comparison of Three Periods of Recession

The price declines occurring in 1907-08, 1920-21 and 1929-30 have been the most severe ever recorded in this country during the last thirty years. These declines are compared in the following table.

![Figure 1](https://example.com/figure1.png)

Comparison of Price Changes during Three Periods of Recession, with Respect to Degree, Duration and Intensity of Decline

<table>
<thead>
<tr>
<th>Period</th>
<th>Degree of decline (per cent)</th>
<th>Duration of decline (months)</th>
<th>Intensity of decline (average monthly rate of decline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1907-08</td>
<td>8.2</td>
<td>4</td>
<td>3.0</td>
</tr>
<tr>
<td>1920-21</td>
<td>45.3</td>
<td>20</td>
<td>3.0</td>
</tr>
<tr>
<td>1929-30</td>
<td>20</td>
<td>1.2</td>
<td>3.0</td>
</tr>
</tbody>
</table>

The degree of price decline up to October, 1930, exceeded materially the drop occurring in 1907-08, but falls far short of the great drop of 1920-21. With respect to duration, also, the current price recession stands between the two earlier drops. It exceeds by eleven months the sharp drop that accompanied the panic of 1907, but there was five months shorter than the decline of 1920-21. Most indices of the three price declines, as well as the longest, was the drop that followed the brief post-war boom. For twenty months the monthly rate of fall was 3.0 per cent. In 1907-08 the monthly declines averaged 2.1 per cent. The current drop has been less severe, in respect to this characteristic; the monthly rate of fall has averaged 1.1 per cent.

These changes appear in greater detail in Figure 1, which shows the movement of the Bureau of Labor Statistics index numbers of wholesale prices during each of those periods. In each case the index numbers are expressed as relatives of the value prevailing ten months before the recession began.

There are marked differences between those periods, with respect to the behavior of general prices. Prior to 1907-08, prices were rising throughout the period, with the exception of the months of January and February, 1908. In the current recession, on the other hand, prices have been falling continuously since July, 1929.

The differences in the behavior of prices in these two periods are reflected in the movements of certain key commodities. Coffee, for example, has been rising steadily since July, 1929. The price of cotton has declined sharply in recent months, reaching a new low in October, 1930, of 12.00 cents per pound. The price of sugar has fallen from 20.00 cents per pound in July, 1929, to 6.00 cents per pound in October, 1930.

In computing the rate of decline, the recession has been looked upon as a cumulative process. The average monthly rate is therefore a compound interest rate.
The beginning of the actual decline of 1907-08 the price level moved upward slowly; prior to the recession of 1920-21 the price level rose sharply. Before the beginning of the current recession the price level sagged slightly. It is noteworthy that about 15 months after the beginning of the recession the price level moved steadily upward in 1906, was in 1921 practically constant at a low point for many years, and then jumped rapidly. The current recession is a more severe case of deflation than have occurred since 1914.

### Current Price Inequalities

It is not movements of the general level of prices but changes in the prices of individual commodities and, more particularly, the inequalities of price changes which follow in the wake of such general movements that often affect the business community are also. A commodity that rises in price less rapidly than the general average during a period of rising prices or falls more rapidly during a period of declining prices, has an inflationary character in purchasing power, per unit, and unless the deflation is compensated by increases in the purchasing power of other goods, the economic group engaged in producing and selling that commodity will suffer a loss of aggregate purchasing power. The stream of other goods flowing to such producers in exchange for their wares will decline in volume. The reverse is true of a commodity that rises in price more rapidly than the general average, during a period of price advance, or falls in price less rapidly during a period of price decline. It is thought that such changes in aggregate purchasing power that the economic center of gravity shifts from time to time, as economic power passes from group to group. Per unit purchasing power, of course, just one element in the aggregate; changes in volume may be of even more important part in the shifts of economic power. But during periods of rapid price movement changes in the price factor may dominate. In tracing actual changes in purchasing power during the present recession of prices we may first take as the standard of reference the situation prevailing at the peak of prices in July, 1929. The figures in Table 2 indicate the magnitude of certain of the changes in purchasing power, per unit, that occurred during the fourteen months between July, 1929, and September, 1930.

### Recent Changes among Producers' and Consumers' Goods

These broad categories conceal important changes among the price movements of individual units in each stage—producer goods represent a commodity or group of commodities that are produced for another business, usually for other businesses; consumer goods are those produced for sale to the final consumer. The classification relating to producers' goods and consumers' goods, which is of major economic significance, may be investigated further.

Although producers' goods as a general class have suffered a loss in real value, certain commodities in this group have gained in purchasing power during the current recession. Producers' goods destined for use in the construction of new houses have, for the most part, increased in purchasing power. (The classes referred to in this and other statements are not necessarily mutually exclusive.) Liquidation has been severe among raw producers' goods, among producers' goods destined for human consumption, and in the sub-group of the latter class which includes goods subject to further processing. Among goods in shape for consumption, which as a class gained in real value, raw materials declined, while processed goods advanced 3.9 per cent in purchasing power during the fourteen-month period.

A suggestive comparison may be drawn between price changes of goods bought by manufacturers for further processing, but intended for ultimate consumption, and price changes among fabricated goods in shape for consumption. There is not exact identity among the goods in these two classes, but the two groups are representative of commodities at successive stages of fabrication and distribution. The aggregate stage, as represented by prices paid by manufacturers for goods intended for consumption, after fabrication, there has been a sharp decline in price, real values—a decline of 6.6 per cent in purchasing power fourteen months. Commodities representing humans' goods have dropped somewhat in price, but since this drop has been less than the decline in general prices they have retained 3.9 per cent of their real value during the same period.

Among the 133 commodities intended for ultimate consumption but still in the producers' goods stage, 54 are foods and 79 are non-foods. The former dropped 10.7 per cent in purchasing power during the present price decline, the latter 6.8 per cent. Of the 166 processed goods, 54 are foods, and 112 non-foods. The food group gained slightly in real value (0.9 per cent) during the recent drop, while the non-food group declined in real value, or real cost, about 7.3 per cent. The commodities in this group, processed non-foods in shape for use by the final consumer, have been most inflationary in price during the current recession.

### Price Obstructions to the Flow of Goods

The margin which has thus developed during a period of only fourteen months between the prices at which goods intended for ultimate consumption are bought by manufacturers for fabrication and the prices at which manufactured goods are bought by merchants for sale to final consumers does not necessarily represent profits to fabricators. The volume of output has declined, various elements of fabricating cost and of overhead cost have advanced (in terms of constant dollars), partly as a result of the decline in volume, partly because of inherent fixity. The situation illustrates perfectly the log-jam that develops during such recessions. The drop in the prices of the goods bought by producers for fabrication lowers the income and curtails the purchasing power of the ultimate consumers. The drop in the incomes of final consumers, and the failure of the prices of the goods bought by such consumers to decline correspondingly, check the free flow of goods to ultimate consumers. The disparity between buying prices and selling prices of manufacturers, a disparity which might be interpreted as a condition conducive to high prices, is in part due to the time lag between the purchase of materials for production and the sale of final product; in part it reflects the difficulty of reducing selling prices when volume of sales is declining and when important elements of expense are fixed. The situation can be broken by the gradual re-establishment of earlier price relations, or by the gradual adaptation to new conditions of the different economic elements involved. Unlike readjustment of either type takes place economic strains and stress persist, and the free flow of goods is impeded.

### Price Changes and Pre-War Purchasing Power

The changes discussed above have been those which occurred during the brief period between July, 1929, and September, 1930. The situation prevailing at the peak of prices preceding recession is in some respects
TABLE 4
Economic Elements in 1913 and 1929

<table>
<thead>
<tr>
<th>Economic Element</th>
<th>1913</th>
<th>1929</th>
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<tbody>
<tr>
<td>Wholesale price</td>
<td>100</td>
<td>140</td>
</tr>
<tr>
<td>Cost of living index</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>Retail food prices</td>
<td>100</td>
<td>146</td>
</tr>
<tr>
<td>Per capita earnings</td>
<td>100</td>
<td>111</td>
</tr>
<tr>
<td>Manufacturing labor</td>
<td>100</td>
<td>211</td>
</tr>
</tbody>
</table>

The index numbers are based on the prices of a large number of index numbers for the Bureau of Labor Statistics, being an average of the retail prices of 12 commodities on the 1st of the month, weighted according to the consumption of the average family. The index of farm prices is that compiled by the Department of Agriculture from the prices received by farmers for their commodities and products. The index of manufacturing labor has been secured by the Federal Reserve Bank of Chicago from a monthly index of employment. The reading index of per capita earnings has been applied to Douglas' index of average annual earnings of manufacturing wage-earners.

Among producers' goods it is raw materials which have kept down the post-war price index. In 1921 these materials were worth 23 per cent less, in terms of commodities, than in 1913. Part of this loss was regained in 1922 and the index fell 10 per cent below their pre-war real value. Such materials were hard hit in 1921 and 1930, stood 21 per cent below their 1913 parity with other goods.

The shifts attendant upon the sweeping fluctuations of the price level during 1920 and 1921 were reflected in the general average of wholesale prices and the general average which those which occurred during the present recession. In 1921 raw materials were worth, on the average, 19

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</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>106</td>
<td>95</td>
<td>96</td>
<td>97</td>
<td>98</td>
<td>99</td>
<td>100</td>
<td>101</td>
</tr>
<tr>
<td>Manufacturing goods</td>
<td>200</td>
<td>102</td>
<td>103</td>
<td>104</td>
<td>105</td>
<td>106</td>
<td>107</td>
<td>108</td>
</tr>
<tr>
<td>Consumers' goods</td>
<td>173</td>
<td>103</td>
<td>104</td>
<td>105</td>
<td>106</td>
<td>107</td>
<td>108</td>
<td>109</td>
</tr>
<tr>
<td>Food</td>
<td>100</td>
<td>102</td>
<td>103</td>
<td>104</td>
<td>105</td>
<td>106</td>
<td>107</td>
<td>108</td>
</tr>
<tr>
<td>Non-foods</td>
<td>100</td>
<td>103</td>
<td>104</td>
<td>105</td>
<td>106</td>
<td>107</td>
<td>108</td>
<td>109</td>
</tr>
</tbody>
</table>

The index numbers in the following table permit a more detailed interpretation of the price movements of producers' and consumers' goods.

| TABLE 5
Changes in Purchasing Power, per unit, between 1913 and September, 1930, Selected Commodity Groups |
<table>
<thead>
<tr>
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<td>102</td>
<td>103</td>
</tr>
<tr>
<td>Non-foods</td>
<td>100</td>
<td>103</td>
<td>104</td>
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by goods in the course of their fabrication and distri-
bution.\footnote{The index numbers are brought together below.\footnote{They show graphically in Figure II.}}

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
\textbf{Index Numbers of Purchasing Power} & \textbf{1913} & 1919 & 1921 & 1923 & 1928 & 1939 & 1950 \\
\hline
\textbf{Producers' goods, domestic consumption} & 100 & 100 & 100 & 100 & 100 & 100 & 100 \\
\hline
\textbf{Food} & 30 & 20 & 10 & 20 & 30 & 20 & 30 \\
\textbf{Non-foods} & 70 & 80 & 90 & 80 & 70 & 80 & 70 \\
\textbf{Consumers' goods, domestic consumption} & 100 & 100 & 100 & 100 & 100 & 100 & 100 \\
\hline
\textbf{Food} & 50 & 60 & 70 & 60 & 50 & 60 & 50 \\
\textbf{Non-foods} & 50 & 40 & 30 & 40 & 50 & 40 & 50 \\
\hline
\end{tabular}
\end{table}

\section*{Producers' goods, domestic consumption}

\begin{itemize}
\item Foods
\item Non-foods
\end{itemize}

\section*{Consumers' goods, domestic consumption}

\begin{itemize}
\item Foods
\item Non-foods
\end{itemize}

\section*{Summary}

During a period of rapidly declining prices all groups suffer, whether their relative position be strengthened or weakened as a result of the change. Subsequent economic developments, however, are materially affected by the character and price policy of the groups, and by changing conditions that affect their relative shares in the general price changes. The general rule that the larger the group the more beneficial the effects of price changes holds, in terms of earlier standards, and raw materials undervalued; it left producers under-valued and consumers over-valued; it left agricultural products with low purchasing power, per unit, and non-agricultural products with high purchasing power. The present recession, like that of 1920-21, has materially affected agricultural products, raw materials generally, and producers' goods intended for agricultural use. It has enhanced the real values per unit of non-agricultural products and of manufactured goods. Although the figures are not now available, it has certainly increased important elements of manufacturing costs, per unit of product. Finally, it affects the cost of living, in terms of other commodities, of processed consumer goods, a group which has been consistently high-priced during recent years. Consequently, it may be expected that consumers, in course, mutually exclusive.) At present prices goods in shape for consumption and used in home, and in parts, in terms of commodities, than they were in 1913. Among these goods those which were in good shape for consumption and used in the home, increased in 1913 purchasing power, and 3.9 per cent above the level of July, 1929, highest in price among these goods are non-foods, which have been purchased relatively to the drop in general prices. Stood in September

\section*{Notes}

\begin{itemize}
\item The index numbers from which the above measurements of purchasing power changes are derived are the goods
\item The implicit deflator for the index numbers is the price of goods, as measured by the revised index of the Federal Reserve Board, which is not used for the construction of the index numbers. For this reason it is not always comparable with the index numbers. Commodities of this class are relative to price-cutting during the recent recession which is not re-
\end{itemize}