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Inaugurating the

GENERAL MOTORS - CORNELL

WORLD PRICE INDEX

40 BASIC COMMODITIES

-22

A CO-OPERATIVE EFFORT BY

CORNELL UNIVERSITY AND GENERAL MOTORS CORPORATION



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Inaugurating the

GENERAL MOTORS-CORNELL

WORLD PRICE INDEX HB 40 Basic Commodities 225 Computed Weekly 633 Computed Weekly



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NOVEMBER, 1938

THE GENERAL MOTORS-CORNELL WORLD PRICE INDEX Forty Basic Commodities

1910-1914 equals 100

	World		d States
	in Gold	in Gold	in Currency
1936			
January	64	67	114
February		67	114
March	65	67	113
April		66	112
May		64	109
June		65	110
July		69	117
August		72	122
September		73	124
October		73	124
November	68	73 74	125
December		77	125
December		<u> </u>	130
Year	66	70	118
1937			
January	74	80	136
February	75	80	136
March	77	83	140
April	78	83	141
May	78	82	138
June		79	134
July	77	80	135
August		78	132
September		77	130
October		72	122
November		69	116
December		67	113
Year	75	78	131
038			
January	70	68	114
February		67	114
March		66	112
April		65	110
May		63	107
June		63	107
July		64	108
August	~	63	107
September		63.3	107.2
October		62.8	106.3
Weeks ending:			
October 8		63.3	107.2
October 15	-	63.7	107.8
October 22		62.2	105.3
October 29		62.4	105.6
November 5	61.1	62.6	105.9
November 12		62.4	105.7

(p. - preliminary). The monthly index figures are based on the average monthly prices.

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General mataro Carp 10-18-1940

GENERAL EXPLANATION

THE search for indexes upon which an appraisal of the future trend of business can more intelligently be based has been in progress for years. Among other elements demanding consideration, it is recognized that knowledge of the level and directional movement of world prices is a fundamental factor in all economic thinking. The General Motors-Cornell World Price Index has been developed as a tool designed to measure. continuously and currently, not only the local price levels of the various individual national economies, but also the world price level itself.

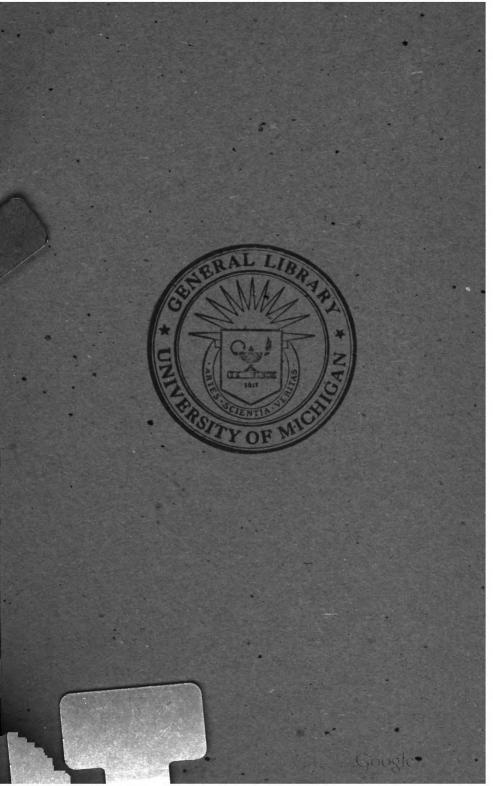
The influence of prices in any free capitalistic economy is dominant and all-pervading. As the determining factor in the process of interchange and distribution, price levels and price movements govern the actions and decisions of producers and consumers alike, with a final and intimate influence on the very food we eat, the clothes we wear, the homes we live in, and the amusements we enjoy.

The price structure itself, which plays so dominant a role in our everyday life, is composed of a wide variety of individual commodity prices. These prices fluctuate widely under the law of supply and demand. If the changes are slow, a minimum of economic disturbance results; if the changes are violent - as they have been in the instance of many individual items during the last quarter of a century-the economic structure is thrown out of equilibrium. In such times as these, reliable index numbers of price fluctuations are an obvious need.

It is significant that whenever wide price movements occur, regardless of the cause, the prices of certain universal basic commodities fluctuate far more rapidly, and to a far greater extent, than do those of most other goods. It is likewise significant that approximately 80 per cent of the persons gainfully employed in the world are engaged directly in the production, processing, and distribution of 40 to 50 of these universal basic commodities and their derivative products.

These basic commodities, which constitute so important a part of the price problem, move freely in national and international trade, and maintain their position as standard staples ¥.X.Y. with few changes from country to country and from decade to decade.

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WORLD PRICE INDEX

40 BASIC COMMODITIES

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Computed Weekly



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November, 1938

THE GENERAL MOTORS-CORNELL WORLD PRICE INDEX Forty Basic Commodities

1910-1914 equals 100

	World	United	States ——
	in	in	in
	Gold	Gold	Currency
1936			
January	64	67	114
February	64	67	114
March	65	67	113
April	64	66	112
May	63	64	109
June	64	65	110
July	67	69	117
August	69	72	122
September	70	73	124
October	67	73	123
November	68	74	125
December	71	77	130
Year	66	70	118
1937			
January	74	80	136
Fahruary	75	80	136
February March	77	83	140
	78	83	140
April	78 78	82	138
May	78 77	79	134
June		80	134
July	77		
August	76	78	132 130
September	75	77	
October	72	72	122 116
November	71	69 67	113
December	70	67	115
Year	75	78	131
1029			
January	70	68	114
February	70	67	114
March	68	66	112
April	67	65	110
May	65	63	107
June	64	63	107
July	65	64	108
August	63	63	107
September	62.2	63.3	107.2
October	61.5	62.8	106.3
Weeks ending:			
October 8	62.1	63.3	107.2
October 8	61.7	63.7	107.8
	61.1	62. 2	105.3
October 22	61.1 61.2	62.4	105.6
October 29	61.2 61.1	62.6	105.0
November 5		62.4	105.7
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[2]

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These basic commodities, which constitute so important a part of the price problem, move freely in national and international trade, and maintain their position as standard staples Y N.N. with few changes from country to country and from decade to decade.

Any reliable method devised to measure the level and directional trend of the prices of these basic commodities must embrace, therefore, a consideration not only of their movement in each individual market, but also of their movement in the world at large. A closer and more accurate knowledge of these price movements is, beyond question, of benefit and use in any forward appraisal that is given to economic and business trends.

The New York State College of Agriculture at Cornell University several years ago undertook a thorough investigation of price phenomena. Painstaking studies were made of prices in the United States and, because of the relationship existing between domestic price levels and the world price level itself, the scope of the studies was extended on a world-wide basis. As a result of these studies, a standard index procedure was developed to measure the price movement of the universal basic commodities, not only for each individual country under examination, but also for the world as a whole. In order for this index to be of effective use, however, the necessity arose for a continuing and current flow of price data from all of the important countries of the world, to which end the General Motors Corporation has extended its co-operation.

General Motors overseas activities center in 27 operations abroad, which are engaged in marketing the Corporation's products in 104 countries. These operations are in constant contact with the home office of the Overseas Operations in New York, and the facilities they possess for the gathering of factual data around the world are unsurpassed.

The co-operative effort of General Motors Corporation and Cornell University — the former providing the "raw material" (factual price data) and the latter the machinery of compilation and computation — has resulted in the development of the General Motors - Cornell World Price Index.

This Index is built upon 40 basic commodities: a comprehensive list of several groups, including grains, livestock and livestock products, miscellaneous foods (coffee, cocoa, tea, sugar, etc.), textiles, fuels, metals, and a list of other miscellaneous materials (rubber, hides, lumber, newsprint, linseed oil, etc.). Each commodity is weighted according to its relative importance in *world production*, and the same weighting is used in the index of each individual country. Thus, though wheat may be of greater importance in the American economy than it is in the Swedish, the weighting is the same in each country. The World Index thus compiled portrays the average movement of prices all over the world of the commodities that are most important in world trade and that constitute the bulk of raw materials used in world industry. The index for each country separately, being expressed in local currency, can be compared with other indexes for that country to ascertain the extent to which local conditions and peculiarities of statistical procedure cause variations, or apparent variations, in local price movements.

The importance of each country is weighted, in turn, according to its importance in international trade.

The price data collected by the General Motors Overseas Operations are entirely factual, and the Index itself does not involve any economic or monetary theory.

The sources of the commodity prices in question—at present embracing such areas as the United States, Canada, the United Kingdom, Australia, New Zealand, The Netherlands, Belgium, France, Sweden and Finland — are reliable and accurate, being the most responsible agencies available in each country, usually a government department. Prices from countries where artificial restrictions on exchange rates exist are not included in the Index.

The prices are collected weekly from the local agencies in each country concerned, and the local index is computed by the General Motors office in that country. The index numbers themselves are then cabled to the New York offices of General Motors Corporation. These individual country indexes are collated in New York and transmitted to Cornell University for consolidation, and the World Price Index is computed from the material so derived. The World Price Index itself is released, in turn, by Cornell University to the General Motors offices in New York, and becomes available immediately for world-wide release, only a few days after the actual incidence of the prices throughout the world on which it is based.

SOME QUESTIONS AND ANSWERS ON THE TECHNICAL ASPECTS OF THE INDEX

Why is 1910-1914 Used for the Base Period of the Price Index?

The choice of a base period is always a difficult one. A good base period should be one of comparative price and currency stability, and should be as near the present as possible. Furthermore, the base period should be long enough so that abnormal fluctuations in prices in any one year will not distort the complete picture for the period.

The wide variety of base periods in use indicates that there is no general agreement as to what is the best base period. Certain countries have used various years in the post-war decade; United States, 1926; Canada, 1923 and 1926; England, 1924, 1925, and 1930; Poland, 1928, and The Netherlands, 1926-30.

Economic and currency conditions within these countries no doubt justified these varying procedures. However, it appeared that, in constructing an international index including many countries, the five-year period 1910-1914 was the period nearest to the present that would reflect comparatively stable economic and currency conditions for all the countries involved.

What Commodities are Used?

Forty commodities were chosen on the basis of their importance in world production and trade. Basic commodities were used because they are concerned with so large a part of the productive economy of the world and it has been established that prices of these commodities are more sensitive than the prices of processed commodities. Consequently the list of 40 basic commodities was drawn up. By comparison of this index, made up of these 40 identical basic commodities in each country, with indexes containing a larger number of commodities, it was revealed that the trends indicated in all cases were strikingly similar.

How are the Commodities Weighted?

The weights for these 40 basic commodities were estimated and assigned in proportion to their relative importance in world production during the five-year period 1924-28. In order to facilitate the procedure of computation, no commodity was given a weight of less than one per cent. Since some commodities actually represented less than one per cent of the total world value of these 40 basic commodities it was necessary to reduce slightly the weights for some other commodities.

The weighting of each commodity has been based upon its value in raw form rather than upon its value in the finished form, because of the difficulty of determining the value added by manufacture and distribution in the amount paid by the ultimate consumer, and because of the greater importance of raw material prices as sensitive indicators of price trends.

The same weights were used in the individual indexes for each country in order to make the world index compiled from them homogeneous and comprehensible. For the same reason the prices used, so far as possible, are taken ex-duty. Another method of weighting might result in a better measurement of the price level of a particular country but the method of uniform weighting gives a more accurate measurement of the world price level as distinguished from measurements of specific country price levels.

(A table of comparative weights of commodities and the weights used for this index appears on the next page.)

	+II S			†World	
I	*U.S. Bureau of Lab Statistics	or †U.S. production	†World	production at world prices	Weight used
Products	weights at U.S. prices	at U.S. prices	production	in grains	in this Index
Foods	0.5. prices	U.S. prices	0.5. prices	or gold	THUCK
Grains					
Wheat	. 6.3	6.1	9.0	8. 2	7
Rye		0.2	1.6	1.5	2
Corn	2.7	12.5	7.0	6.9	5 2 2
Oats	. 0.9	3.2	3.1	3. 3	2
Barley		0.9	2.1	2.6	2
Rice		0.6	6.5	3 .6	2 20
Livestock and live	-				
stock products					-
Cattle		6.9	8.7	8.6	6
Calves		1.1	1.4	1.6	1
Sheep		0.5	1.1	2.0	1
Hogs		7.9	6.5	7.4	5 2
Lard		4.8	5.0	3.7	2 4 19
Butter	. 5.0	4.0	5.0	3.7	-4 19
Vegetable fats	10	0.0	• •	0.7	
Cottonseed oil	. 1.0	0.9	0.8	0.7	1
Olive oil	. 0.1	0.2	0.8	0.5	1
Other foods	15	1 2	1 1	14	
Coffee Cocoa		1.3 0.4	1.1 0.3	1.4 0.3	1
Tea		0.4	0.5	0.5	1
Sugar		3.2	4.7	5.6	4 9
Textiles	. 7.0	0.2	7.7	5.0	<u> </u>
Cotton	9.4	7. 7	4.3	4.2	7
Wool		0.8	2.8	2.6	2
Silk		2.4	1.0	0.9	ĩ
Hemp		0.1	0.3	0.2	î
Jute		0.1	0.6	0.5	1 12
Fuel		•••=			<u> </u>
Coal	10.8	9.3	9.6	11.2	5
Coke		2.7	2.2	1.2	2
Petroleum	9.3	6.2	3.0	4.0	4 11
Metals					<u> </u>
Pig iron	1.0	3.4	2.6	3.0	4
Scrap steel		2.1	1.5	1.2	3
Zinc		0.4	0.3	0.3	ī
Tin		0.5	0.3	0.3	1
Lead		·0.5	0.5	0.4	1
Copper		1.2	0.8	0.7	1 11
Miscellaneous					
Hides	1.2	0.9	1.2	1.3	3
Newsprint	1.7	3.7	2.8	2.3	4
Lumber	5.6	4.2	3.2	5.5	5
Turpentine	0.2	0.1	0.1	0.1	1
Linseed oil	0.5	0.5	0.5	0.3	1
Nitrate of soda		0.3	0.9	0.8	1
Rubber		2.1	0.9	0.7	2
Linseed meal		0.2	0.2	0.1	1 18
Total	100.0	100.3	99.8	100.2	100

COMPARATIVE WEIGHTS OF COMMODITIES

[•] Data in this column are derived from the United States Bureau of Labor Statistics weights for the commodities for 1927-1929 and wholesale prices for the commodities for 1924-1928. All are prorated to total 100 per cent.

Are the Commodities the Same in All Countries?

The commodities used are, as far as possible, the same in each country in order to obtain index numbers for various countries and the world that are not disturbed by changes in weights or changes in the type of commodities included in the index numbers. Occasionally, however, the price of a commodity on the list was not available in a specific country. In this event, the price of some commodity of the same type was substituted. For instance, in The Netherlands cottonseed and olive oil were not available, and rapeseed oil was substituted. In Australia and New Zealand jute was not available, and cornsacks were substituted.

What Countries are Included?

Index numbers of 40 basic commodities have been calculated for 15 countries. At the present time, the World Index number is based on prices in 10 countries: United States, United Kingdom, France, Canada, The Netherlands, Belgium, Australia, Sweden, Finland and New Zealand. Although index numbers of 40 basic commodities have been calculated for Spain, Italy, Germany, Bulgaria and China, for various reasons the prices from these countries are temporarily not included in the World Index. Data for other countries are in the process of being prepared. Countries whose indexes are nearest completion are : Argentina, India, Egypt, Switzerland, Japan, Java, Mexico, Denmark, Norway, the Union of South Africa and Poland.

How are the Countries Weighted?

In preparing the index numbers of the world price level, three different methods were tested. One index number was calculated in which each country was given the same weight. A second index was calculated in which each country was weighted according to the population of that country. A third index was calculated by weighting the index numbers for each country by the total value of the international trade of that country, which was based on the merchandise exports and imports for the five years 1924-1928.

While small differences occur among these index numbers, there is a striking agreement in their direction and rate of

change. It appears that weighting of the index numbers by the total merchandise exports and imports is the most desirable for general use. When data from other countries are included in the Index, this method should facilitate the computations.

The weights assigned to the countries at present included in the Index are as follows:

United States 2	.9.2	Belgium	5.1
United Kingdom 2	29.1	Australia	4.6
France 1	3.7	Sweden	2.6
Canada	7.5	New Zealand	1.5
Netherlands	5.7	Finland	1.0

What is the Field Procedure for Gathering Factual Data?

The world-wide facilities of General Motors Overseas Operations are employed in the accumulation of the basic price data. The field procedure is essentially the same at all operations. The General Motors Overseas Operations have made arrangements with governmental, educational, financial or other agencies commonly dealing with prices, to furnish each week actual prices on the standard list of commodities. These prices are used to calculate the weighted index number. Upon completion, this index number is cabled from each country involved to the New York offices of General Motors Corporation. As soon as received, this information is transmitted to Cornell University, where it is consolidated and the World Index computed. The detailed price records and calculations developed by General Motors Overseas Operations are mailed to the United States for final checking.

How are Currency Exchange Adjustments Made?

The World Price Index is expressed in the gold equivalent of the paper currencies of the various countries. This conversion is made necessary by the fact that paper monies of the various countries have been depreciated in widely varying degrees in recent years. Obviously, it would be quite meaningless to compute a composite world index based upon commodity prices quoted in paper monies of such non-uniform values. The exchange rates quoted in the money markets of the world provide an accurate measure of the value of each currency in terms of gold. Gold is a good common denominator of exchange rates because of its objective nature and world-wide acceptance. Anyone who is interested in measuring the world index in terms of any particular currency can easily convert the index expressed in gold.

In order to reduce the commodity price indexes from the various countries to a comparable basis in gold, the exchange rates for each of the currencies involved are obtained each week from the records of the General Motors Acceptance Corporation, which are the actual market rates prevailing during the period to which the prices specifically apply.

The exchange rates are forwarded with the price indexes to Cornell University each week, and are utilized at that point in calculating the gold equivalent of the currency price indexes involved. These indexes from the various countries — now in terms of gold — are then weighted, as previously described, in accordance with the relative importance of the world trade of each country.

(Historical index tables for the world and for the United States appear on the next two pages.)

WORLD PRICE LEVEL OF 40 BASIC COMMODITIES IN GOLD IN 10 COUNTRIES, WEIGHTED BY INTERNATIONAL TRADE, 1910-1938

1910-1914 equals 100

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1910	100	100	101	100	98	97	96	97	97	95	94	95	98
1911	95	9 5	94	94	94	94	94	95	97	98	98	98	96
1912	97	98	100	104	104	104	103	104	104	104	104	104	103
1913	103	104	104	104	103	101	101	102	103	102	101	101	102
1914	99	100	9 9	99	99	99	99	103	104	100	100	101	100
1915	106	111	113	116	118	117	118	118	116	119	121	127	117
1916	1 3 3	139	143	146	149	148	147	150	152	158	166	170	150
1917	174	179	188	198	207	214	217	217	215	214	214	216	204
1918*	219	222	225	227	227	227	230	232	235	234	231	231	228
1919	227	220	221	221	226	232	239	239	227	223	227	226	227
1920	232	224	243	255	25 9	261	255	239	232	218	197	179	233
1921	178	168	162	156	154	144	138	136	134	133	131	134	147
1922	13 5	140	142	145	149	149	149	148	146	147	148	150	146
1923	15 3	157	162	162	160	155	149	147	151	151	149	149	·154
1924	147	149	145	149	146	142	145	150	148	151	153	157	149
1925	160	160	159	154	155	155	157	156	154	152	151	151	155
1926	150	147	144	142	142	142	142	143	143	142	143	143	144
1927	141	141	140	139	140	140	140	141	141	139	139	139	140
1928	139	138	140	142	143	142	141	138	138	136	136	137	139
1929	138	1 39	140	138	136	13 6	138	138	138	135	132	131	137
19 30	130	127	123	123	120	117	115	114	112	108	106	103	117
1931	100	99	98	96	93	93	91	90	84	80	7 9	76	90
1932	75	75	76	75	73	72	71	72	73	70	68	67	72
19 33	67	6 7	68	67	66	68	68	67	64	63	63	64	66
1934	64	62	62	62	61	62	62	64	63	61	62	62	62
1 93 5	63	63	61	61	62	61	61	62	63	63	63	63	62
1936	64	64	65	64	63	64	67	69	70	67	68	71	66
1937	74	7 5	77	78	78	77	77	76	75	72	71	70	75
1938	70	70	68	67	65	64	65	63	62	61			

^{*} Because of the abandonment of the gold standard by some countries and exchange restrictions by others, it is difficult to determine the gold value of commodities during 1918. The above table is based on the assumption that the dollar remained at par.

INDEX NUMBERS OF WHOLESALE PRICES OF 40 BASIC COMMODITIES IN THE UNITED STATES, 1910-1938

Year	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
GOLD													
1910	104	104	105	103	101	100	98	98	98	97	95	95	100
1911	96	95	95	94	94	94	95	96	97	98	97	96	96
1912	98	97	100	104	106	104	102	102	103	103	103	103	102
1913	103	104	104	103	102	101	101	102	105	103	102	101	103
1914	99	100	99	99	99	98	98	102	103	97	97	97	99
1915	100	104	104	106	107	105	107	105	103	106	107	113	106
1916	119	121	125	126	126	125	125	129	132	141	153	157	132
1917	162	167	177	192	206	214	218	213	210	200	205	205	197
1918	207	209	213	214	211	210	215	216	220	214	212	212	21 3
1919	207	199	205	209	212	216	227	229	221	223	230	238	218
1920	252	249	256	271	274	268	260	250	243	221	197	176	243
1921	167	147	142	1 3 3	130	124	124	121	123	125	126	125	132
1922	126	131	133	135	144	146	147	146	15 3	155	157	155	144
1923	157	160	166	166	158	152	146	145	149	150	148	147	154
1924	149	152	149	146	144	140	146	148	147	151	153	159	149
1925	163	166	166	158	159	160	164	161	160	158	158	158	161
1926	158	156	152	148	149	149	150	148	149	147	146	147	150
1927	145	144	141	141	141	142	142	144	145	144	144	143	143
1928	144	143	144	147	149	146	146	142	144	141	140	141	144
1929	142	142	143	141	137	139	143	143	144	141	136	135	141
1930	133	129	126	126	123	118	114	116	115	111	106	103	118
1931	101	98	97	94	89	88	86	86	84	83	85	82	89
1932	80	78	77	76	73	71	72	75	76	73	71	68	74
1933	66	65	68	68	66	68	67	66	63	62	58	59	65
1934	60	58	58	57	57	58	60	63	63	61	62	64	60
1935	66	67	65	66	66	64	64	66	67	67	67	66	66
1936	67	67	67	66	64	65	6 9	72	73	73	74	77	70
1937	80	80	83	83	82	79	80	78	77	72	69	67	78
1938	68	67	66	65	63	63	64	63	63	63			
					CU	RRI	ΞNO	CΥ					
1933				71	78	83	93	91	93	92	93	92	82
1934	95	98	98	97	97	99	101	106	106	104	105	108	101
1935	111	113	110	111	112	109	109	111	113	114	113	111	111
1936	114	114	113	112	109	110	117	122	124	123	125	130	118
1937	136	136	140	141	138	134	135	132	130	122	116	113	131
1938	114	114	112	110	107	107	108	107	107	106			

1910-1914 equals 100

Before it was finally decided to make the General Motors-Cornell World Price Index available to the public, it was considered advisable to submit a general outline of the Index to a number of persons who had been recommended as being equipped to appraise it properly — to see whether they agreed with Cornell University and General Motors Corporation as to its value. Typical of the general approval given to the preliminary explanation of the Index are the quotations that follow:

"Price movements, without question, play an important role in any attempt to extrapolate trends. Yet, despite the host of statistics in this field, adequate data suitable for the business man's purposes are peculiarly lacking. It would therefore be highly useful if there was made available to him up-to-date price figures showing international commodity movements, presented on a strictly comparable basis and in a convenient fashion. The General Motors-Cornell World Price Index seems to fulfill these requirements. Without actually subjecting the series to the trial of test, unqualified praise must be withheld. The need for such an index exists, however. The fusing of the facilities of a world-wide industrial enterprise with the technique of a large university should permit of admirable results. Both organizations are to be commended on their initiative in offering so eminently worth-while an addition to the growing field of statistics."

> HAROLD L. BACHE, J. S. Bache & Co., New York.

"While I am not in position to comment on the adequacy of the data or the statistical construction of the Index, I can only say that we do regard world price movements as of major importance and any index which reveals the changes in world prices promptly and accurately would be of considerable help in analyzing the domestic economy."

> EARLE BAILIE, Chairman of Board, Tri-Continental Corporation, New York.

"I am in accord with the thought that the Index which you describe should be a very valuable medium through which to appraise business trends."

> CHARLES M. CHUCKROW, President, Fred F. French Investing Co., Inc., New York.

"I am quite familiar with the work Cornell has done. I think it is splendid that Cornell's work is being coordinated with General Motors' knowledge and experience. I am all for it."

> CARLE C. CONWAY, *Chairman of Board*, Continental Can Company, Inc., New York.

"The American business man can point with pride to a marvelous technological development. In the future he must also be able to point with pride to his economic enlightenment. In compiling an index such as this, in cooperation with Cornell, General Motors is, I believe, taking the leadership in helping the business man to operate intelligently in what is proving to be a very confusing world."

> RUSSELL W. DAVENPORT, Managing Editor, Fortune, New York.

"I believe that the General Motors-Cornell World Price Index will be most valuable to economists, business men, and those engaged in investment management and research."

> KENNETH L. ISAACS, *Trustee*, Massachusetts Investors Trust, Boston.

"It seems to me that your plan making available the world-wide organization of the General Motors Corporation for collecting data should greatly enhance the value of the information correlated at Cornell. In view of the increasing effect of world economy on our own economic trend, the 'World Price Index' such as you propose to issue should certainly fill a growing need."

> PAUL LINZ, Partner, Carl M. Loeb, Rhoades & Co., New York.

"G. L. F.'s headquarters are here at Ithaca, of course, and we have had the opportunity of working closely with the Cornell people on prices for many years. Hardly a week goes by but that I check with Dr. Pearson the trend of world prices. I think that, when business men generally realize the influence of the price trend in the world on general economy, more of them will be interested in finding out what factors determine price levels. General Motors is to be congratulated on the forward step that it is taking."

> J. A. MCCONNELL, *General Manager*, Cooperative G.L.F. Exchange, Inc. Ithaca, N. Y.

"There has long been a need for such a regular, factual index of world prices as you propose, and you and your associates are to be congratulated upon making a major step forward in the provision of more adequate price statistics. With the world picture being more important than ever before, your proposed index will provide an invaluable tool in helping economists and business analysts to more accurately interpret and forecast the trend of economic activity."

> J. W. MILLER, *Merchandise Economist*, Montgomery Ward, Chicago.

"Several other members of the Department of Agricultural Economics, as well as myself, have looked over this plan and we all agree that this index will be a valuable addition to the current data we are already receiving."

> C. V. NOBLE, Agricultural Economist, University of Florida, Gainesville.

"I think that such an index would be a valuable contribution to our present list of generally available indexes of business activity, and I trust that you will go through 'with your proposed venture."

> L. J. NORTON, Professor Agricultural Economics, University of Illinois, Urbana.

"I certainly hope you will publish a Price Index as you describe. Millions of people today are suffering because of an impossible price relationship between groups. These people themselves cannot correct this situation but education has corrected great economic wrongs and I feel it can this one. Your proposal to publish an index is a large step in education."

A. H. PACKARD, President,

Vermont State Farm Bureau, Burlington.

"You are providing a reliable world price index which by the nature of its compilation will reflect world supply and demand. This, in my opinion, is a definite step forward. Your index should reflect deterioration and improvement in world conditions—an important concept in relation to our own economy which has heretofore not been generally available in a concrete and reliable form."

> S. K. PLATT, Statistician, Northwest Bancorporation, Minneapolis.

"I think the plan is an admirable one and the figures you will be able to produce very useful to executives generally. I am somewhat familiar with and enthusiastic about the work that has been done at Cornell. With the help of General Motors in collecting current world prices, these studies should be increasingly useful."

> MORRIS SAYRE, Vice-President, Corn Products Refining Company, New York.

"While the usefulness of such a service is beyond question, the advantages of a price index of all important countries as of the same date and made available within a few days of its compilation are too great to be comprehended all at once. The forward-looking business man, I am sure, will develop new methods and ways in which this information will assist him in guiding safely his enterprises. Only a large corporation with world-wide connections and with a fine consideration for the responsibilities entailed by its leadership in industry, assisted by a wellorganized statistical staff, could render a service of the wide scope proposed. In this day of increasingly swift communication and transportation, the necessity for accurate information of this character becomes more and more pressing, and I believe that business men generally will appreciate the co-operative efforts of General Motors Corporation and Cornell University to this end."

> R. S. SCARBURGH, *President*, Scarburgh Company, New York.

"I am sure that the plan outlined in your letter should have beneficial results in keeping the business and industrial interests reliably informed as to price conditions."

> R. D. STARBUCK, Executive Vice-President, New York Central System, New York.

"I have followed the work of the Cornell Agricultural people ever since 1933 when it suddenly became of national significance, and receive their bulletins regularly. I have the highest regard for the kind of work they do and, although I do not subscribe in full to some of their economic and monetary theories, they are entitled to much more recognition from Business than they have heretofore received for their research activities and their stimulating and provocative conclusions. I think, therefore, that the project you have in mind to broaden this work out and bring the proposed price data to public attention is a very worth-while undertaking for your great institution."

> CHARLES L. STILLMAN, Treasurer, Time, Incorporated, New York.

"All history, particularly that relating to the past quarter of a century, indicates the exceedingly important role of general price movements in the behavior of our economic system. Nothing is more basic to a proper functioning of the mechanism which regulates the flow of goods and services from producer to consumer than a knowledge and an understanding of these price movements. The General Motors-Cornell World Price Index will, I am convinced, become an outstanding contribution in this respect."

> HOWARD J. STOVER, Statistician, Farm Foundation, Chicago.

"This is the sort of service which a great private industry and a progressive institution of learning alone can provide. I hope you will release the Index regularly as its use should be a valuable tool in the final solution of the economic problems which confront a world which is rapidly growing in inter-dependence of nations."

> LEWIS L. STRAUSS, Partner, Kuhn Loeb & Co., New York.

"An index of the sort about to be issued by General Motors and Cornell University can give a picture of the movement of prices of staple commodities that is in some respects more illuminating than that given by an index compiled on the basis of prices in any one country. Local indexes are affected by normal seasonal influences and by extraordinary events like crop failures, civil disturbances, political uncertainties, and speculative moods. Comparison of the individual country indexes of international staples can be profitably made, both with the World Index and with other indexes available in the country under consideration. Such comparisons should be of value in appraising the effect of governmental policies, the probable future of exchange rates, and the probable future of prices of finished goods within the country."

> RUFUS S. TUCKER, *Economist*, General Motors Corporation, New York.

"An index such as you propose, compiled over a period of years, should be of tremendous importance in the search for more stable world prices which, according to most economists, is the most desirable end; we hope thus helping to cut down the high peaks and deep valleys which occur with such alarming results in the present economic structure. I am sure such a project merits the appreciation and support of the business men of the world."

> LEONARD H. VAUGHAN, President, Vaughan's Seed Store, Chicago.

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[&]quot;I think an index of the world price of basic commodities in all the leading commercial nations would be extremely valuable to many businesses in this country as well as to certain of our governmental agencies that are

responsible for monetary and commercial policies. It would also have a very decided value for those doing teaching or research work in the field of money and prices."

> F. P. WEAVER, Professor Emeritus of Agricultural Economics, Pennsylvania State College, State College, Pa.

"It long has been my opinion that compilation of such an index would be valuable as indicative of prevailing world economic conditions, if accurate price data could be obtained. I am both interested and pleased to see that the General Motors Corporation has undertaken to make such available to Cornell University."

> W. J. WESSELS, Wessels, Kulenkampff & Co., New York.

"I think the idea is an excellent one and if the integrity of the index number can be maintained irrespective of monetary changes, as you indicate it can be, it seems to me that it would be a helpful index to business."

> F. E. WILLIAMSON, *President*, New York Central System, New York.

"I believe this Index should be of value in appraising world price trends, particularly because of the promptness anticipated in releasing the data."

> R. E. WOOD, *President*, Sears, Roebuck and Co., Chicago.

"I am in very hearty sympathy with the idea expressed in your recent folder concerning the General Motors-Cornell World Price Index. I think this can be made one of the most useful indices for the guidance of business that is in existence anywhere."

> H. N. YOUNG, Department Head of Agricultural Economics and Rural Sociology, Virginia Polytechnic Institute, Blacksburg.

EXPLANATION OF GENERAL MOTORS' INTEREST IN THE INDEX

STATEMENT BY DONALDSON BROWN, VICE-CHAIRMAN OF GENERAL MOTORS CORPORATION

"The advantages accruing to General Motors through the use of the Index in its various divisions, at home and abroad, are obvious. The current availability of price trends of basic commodities in the countries in which the Corporation does business will doubtless be helpful in the proper evaluation of the trend of its business.

"In addition, we feel that through this co-operative effort Cornell University and General Motors Corporation possess the opportunity to make a substantial contribution to business generally through the public dissemination of these Index figures. We sincerely hope that the release of prompt and comprehensive price data will prove of value to financial, educational and commercial institutions, as well as to governmental agencies in the United States and throughout the world."

EXPLANATION OF CORNELL UNIVERSITY'S INTEREST IN THE INDEX

STATEMENT BY DEAN CARL E. LADD OF THE COLLEGE OF AGRICULTURE AT CORNELL UNIVERSITY

"Fluctuations in commodity prices constitute one of the most serious problems with which contemporary society has to deal. During the past quarter of a century, the fluctuations have been unusually violent. From 1914 to 1920, wholesale prices of basic commodities in the United States more than doubled; by 1921, they had dropped about 50 per cent; from 1929 to 1933 they again dropped 50 per cent. They rose more than 100 per cent by 1937, and again declined 25 per cent by 1938. The movements of commodity prices, which occurred not only in the United States but throughout the world, arrayed nation against nation, state against state, class against class. They resulted in all sorts of maladjustments which called for unparalleled

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remedial measures in virtually every country throughout the world.

"Although the inevitable maladjustments and suffering resulting from a rapid decline in commodity prices fall heavily on all parts of society, the major burden is borne by the producers of raw commodities, who in a large part are farmers. It was because of this that the importance of the price problem has long been recognized by the College of Agriculture at Cornell University and became the subject of organized studies in 1917. Since that time, there has been a continuing increase in the time and effort spent on this important problem. The fact that our price laboratory has been in touch with many international authorities and has been consulted by bankers, industrialists, railroad executives, agricultural leaders, other business men and government authorities indicates the widespread interest in this work.

"At the present time, the price problem is important because commodity prices and particularly agricultural prices in the United States and throughout the world have again declined to the low levels of 1934-35.

"Every improvement in the technique of production, manufacture and distribution increases the importance of the price problem because farmers and other basic producers sell commodities that fluctuate widely in price in exchange for the manufactured commodities at retail prices that are relatively inflexible. These producers of manufactured goods, in turn, suffer disastrous declines in volume of sales when the purchasing power of farmers and other raw material producers declines. So fundamental are these maladjustments that the price problem is bound to command continuously the attention of this institution.

"The problem of conducting scientific research work in prices is a particularly difficult one because of the wide variety in and ever changing importance of the many forces which go to make prices of individual commodities and the general price level. Furthermore, the price problem cannot be subjected to the same type of laboratory analysis as is applied in dealing with the problems of physical sciences.

"One of the most important steps in the solution of the perplexing problem has been the construction, dissemination and widespread use of index numbers, which are the best measure of the direction and amount of change in commodity prices. Only a few years ago, index numbers had a relatively limited use. Today, persons in all walks of life watch the daily papers for their favorite index numbers of farm prices, wholesale prices, retail prices, cost of living, stocks, bonds, industrial activity, employment, and the like.

"At Cornell University, we have long desired to find a way to obtain prices of basic commodities from all parts of the world in order to construct a world price index. Work on this important problem has been under way since 1934. A large amount of time and money was expended in the basic research prior to the publication of the index. We are grateful to Wertheim & Company, which sponsored the project in its early stages, and to a large number of government agencies, commercial and educational institutions, and individuals throughout the world who rendered invaluable assistance.

"About a year ago, General Motors Overseas Operations, which had long been interested in this field, indicated a willingness to co-operate with the College on this problem. Since then, the index resulting from this co-operative effort has been compiled weekly on a trial basis, and its usefulness has been so evident that both the College of Agriculture at Cornell and General Motors wish to make the material available to all interested persons. It is hoped that through this work much may be accomplished toward a better understanding of the economic problems with which we are all confronted and that this understanding may in time contribute to the stability of world affairs and international peace."

FORTHCOMING PUBLICATIONS OF DETAILED PRICE INFORMATION

The preliminary spade work has been completed for the preparation of booklets containing price history and detailed explanation of sources, methods of compilation of material, and other pertinent information and data for each individual country participating in the Index. The first of these booklets, treating the price history of The Netherlands, will be released in the near future. Others will follow in due course.

METHODS OF DISSEMINATING THE INDEX FIGURES

Hereafter, the General Motors-Cornell World Price Index will be made available on Monday of each week.

Releases of each subsequent World and United States Index number will be made to the national news services, with the hope of reaching the financial pages of at least the large metropolitan dailies. For further information, or additional copies of this pamphlet, address:

> DEPARTMENT OF PUBLIC RELATIONS General Motors Corporation Broadway at 57th Street New York, N. Y.

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