Published by Authority of the Rt. Hon. C. D. Howe, M.P.,
Minister of Trade and Commerce

CANADA

DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

LABOUR AND PRICES DIVISION

PRICES SECTION

PRICE INDEX NUMBERS

OF

RESIDENTIAL BUILDING MATERIALS

1926 TO 1948

(BASE, 1935-39:100)

(A special bulletin. See "Prices and Price Index Numbers" for later figures in this series)

OTTAWA
March 23, 1949

Price 10 cents

18-7080

ATYV DDN: 3784852

PRICE INDEX NUMBERS OF RESIDENTIAL BUILDING MATERIALS

C O N T E N T S

DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS - CANADA

PRICES SECTION

Dominion Statistician:	Herbert Marshall
Director, Labour and Prices Division:	H. F. Greenway
Acting Chief, Prices Section:	F. H. Leacy

DESCRIPTION OF THE RESIDENTIAL BUILDING MATERIALS PRICE INDEX

(Base 1935-39=100)

A Residential Building Materials price index has been developed to meet the need for a more precise measurement of this important part of housing costs. The Dominion Bureau of Statistics has computed and published for many years a General Building Materials price index designed to measure changing price levels for basic materials required in all types of building and construction work. The new index measures the change in price levels of only those materials required in residential construction. It is an average measurement for the Dominion, and regional figures are not presently available.

The new Residential Building Materials price index is described in some detail in this bulletin, which also contains a record of the new index by years back to 1926 and monthly figures since January 1946. In future, figures in this series will appear regularly in the Bureau's monthly bulletin "Prices and Price Indexes". The older General Building Materials price index, which has been published back to 1890, will also be continued in the same bulletin. It should be noted that figures in the older series are related to 1926 levels, i.e., 1926=100. The reference level for the new Residential Building Materials price index series is an average of prices in the five-year period 1935 to 1939, i.e., 1935-39=100.

The importance of individual residential material items and groups of items has been determined from on-the-site survey data and National Housing Administration experience. A composite of 17 housing unit types was utilized in this procedure, i.e., in computing weights for the new index. The weights have been based upon units of material requirements valued at 1946 prices for the national housing target for that year. Estimates of these material requirements were prepared by the Department of Reconstruction and Supply, and published in the handbook "Manpower and Material Requirements for a Housing Program in Canada, 1946". It has been calculated in this document that building materials, on the average, comprise 52.5 per cent of residential building costs excluding builders' commissions and real estate costs.

There are 90 price series in the new residential building materials price index, and these have been classified into 9 groups. The total value of each group of materials relative to the total cost of the program, provides value percentage weights for each group. Value percentage weights have also been applied to individual commodity components within the 9 groups. To provide regional coverage in pricing, the commodity weights within groups were sub-divided in accordance with regional production weights obtained from Census of Industry records of the Dominion Bureau of Statistics. The problem of changing commodity specifications since 1926 was met by entering the substitute item at the same price index level as the one it replaced. In so far as possible from existing records, wholesale price series were utilized.

Minor improvements related to the precision of price series represented in the index, may be possible as time goes on. Experiments related to the need for regional series of residential material price index numbers may also be made.

INDEX BEHAVIOUR SINCE 1926

The index of Residential Material prices remained relatively stable from 1926 to 1929. Thereafter, in common with the general commodity price level, it fell progressively to touch a depression low of 87.5 in 1932. An intermittent advance subsequently moved building material prices back to an index level of 102.3 by 1939. From 1939 to the beginning of 1946, general wartime activity in the construction industry pushed the index up 47.5 points, although residential construction was sharply reduced. From the first quarter of 1946, strong demand on both export and domestic markets coupled with the gradual removal of price controls, contributed to a sharp rise from 149.9 (March 1946) to a peak of 229.2 in November, 1948. While the upward movement in this period was general in all component materials, the magnitude of the increase was dominated by a gain of 132.1 points to 325.1 in lumber prices. Lumber has a weight of 42.6 per cent in the Residential Building Materials price index.

A comparison of the movement of the Residential Building Materials index with the General Building Materials index, reveals that residential construction material prices have been slightly less flexible as a group than those included in the General Wholesale Building Materials index. It should be repeated that the conceptual basis of the two indexes is different. The General Wholesale Building Materials series is weighted by 1926 quantities of materials marketed, and includes a representative range of items in the whole construction industry encompassing heavy building and highway construction. The Residential Building Materials index is weighted by material requirements for a particular use, valued at 1946 prices.

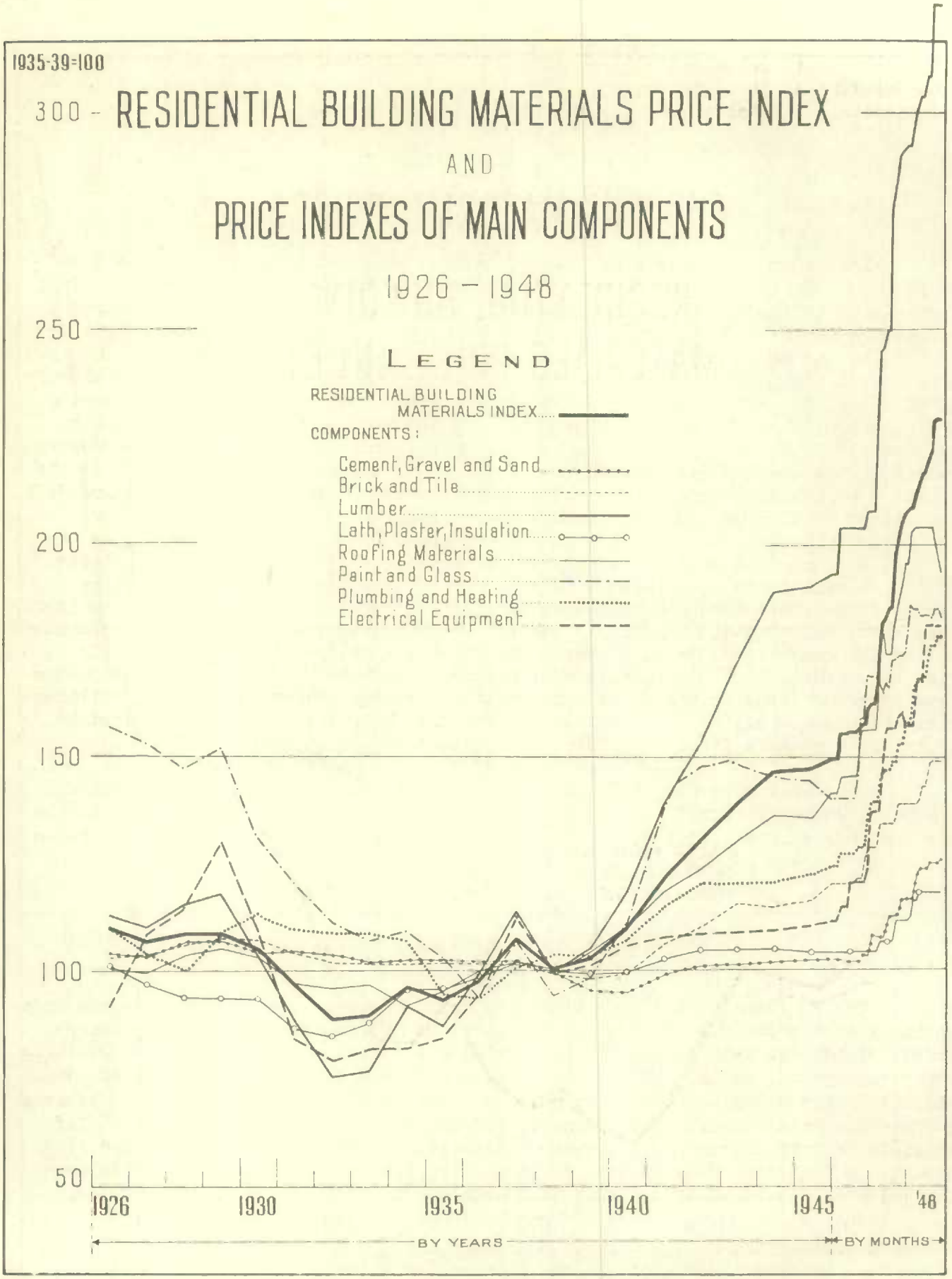
Generally from 1926 to 1946 the two indexes moved very closely together. The General Wholesale Building Materials index showed a slightly greater rise in the early post-war period, but by June 1948 the two indexes had resumed the former relationship (see chart on page 4).

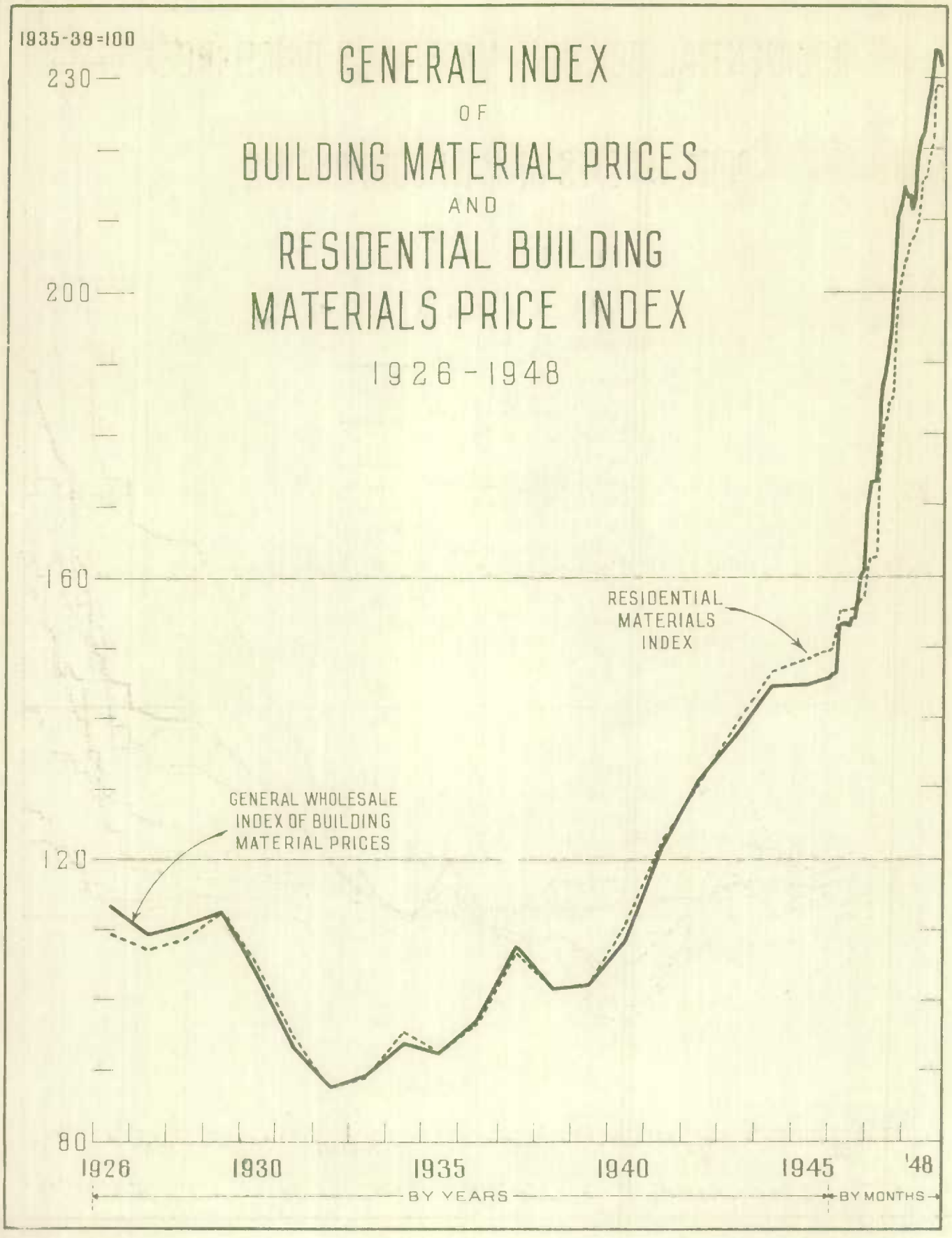
COMPARISON WITH WAGE-RATE INDEX

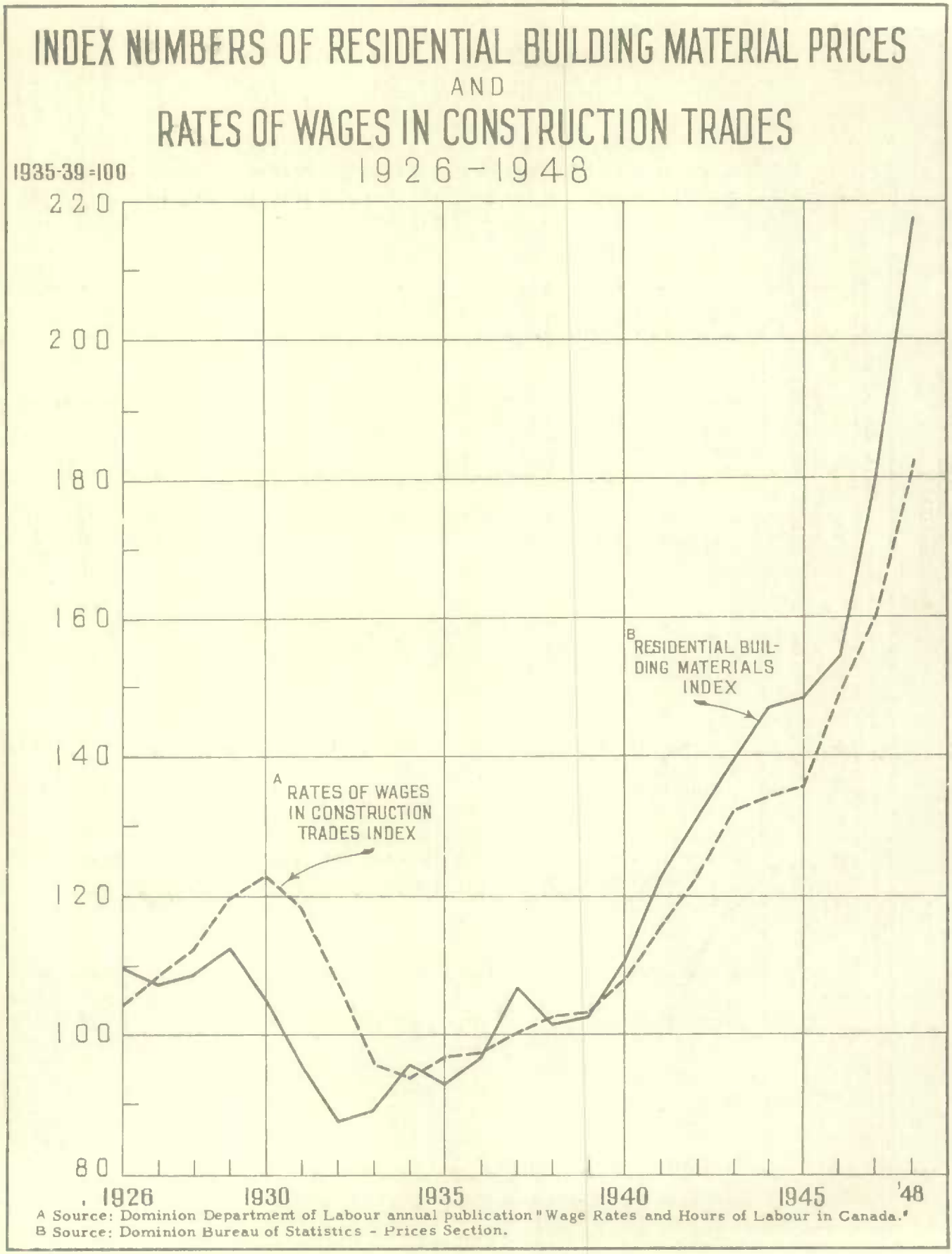
The Residential Building Materials index has been placed alongside the wage-rate index of the Dominion Department of Labour to give a comparison of the general movement of the two main components of housing costs (see chart on page 5). Building materials comprise, on the average, 52.5 per cent, and labour 37.5 per cent of total residential construction costs.* It must be remembered in interpreting these indexes, that they are based on national averages, and may be modified by regional cost differentials in both labour and materials. Attention is drawn to Chapters I and II "Manpower and Material Requirements for a Housing Program in Canada" which deals at length with this problem of regional differentials in housing construction costs.

---

* Page 78, "Manpower and Material Requirements for a Housing Program in Canada".


1935-39=100
RESIDENTIAL BUILDING MATERIALS PRICE INDEX
AND
PRICE INDEXES OF MAIN COMPONENTS
1926 – 1948
300
250
200
150
100
50
LEGEND
RESIDENTIAL BUILDING MATERIALS INDEX
COMPONENTS:
Cement, Gravel and Sand
Brick and Tile
Lumber
Lath, Plaster, Insulation
Roofing Materials
Paint and Glass
Plumbing and Heating
Electrical Equipment
1926
1930
1935
1940
1945
'48
BY YEARS
BY MONTHS


1935-39=100
GENERAL INDEX
OF
BUILDING MATERIAL PRICES
AND
RESIDENTIAL BUILDING
MATERIALS PRICE INDEX
1926-1948
230
200
160
120
80
RESIDENTIAL MATERIALS INDEX
GENERAL WHOLESALE INDEX OF BUILDING MATERIAL PRICES
1926
1930
1935
1940
1945
'48
BY YEARS
BY MONTHS



A Source: Dominion Department of Labour annual publication "Wage Rates and Hours of Labour in Canada."
B Source: Dominion Bureau of Statistics - Prices Section.

PRICE INDEX NUMBERS OF RESIDENTIAL BUILDING MATERIALS, 1926-1948
(1935-1939=100)

Year	Composite Index	- Main Components - Cement, Sand and Gravel	Brick, Tile and Stone	Lumber and Its Products	Lath, Plaster and Insulation	Roofing Materials	Paint and Glass	Plumbing and Heating Equipment	Electrical Equipment and Fixtures	Other Materials
1926	109.6	105.5	103.2	110.9	101.4	104.3	156.8	110.2	91.6	112.0
1927	107.2	103.1	103.9	108.9	97.3	103.5	152.3	104.0	108.6	109.2
1928	108.8	106.8	106.1	114.2	94.3	107.3	147.0	100.2	114.2	106.7
1929	112.4	107.6	107.4	116.7	94.4	108.8	151.5	108.5	130.1	106.1
1930	104.9	104.3	107.4	102.0	93.6	103.2	131.1	113.1	109.4	103.4
1931	95.1	104.6	104.0	86.8	86.8	96.2	120.3	109.3	84.2	99.9
1932	87.5	103.7	101.8	72.7	85.0	95.5	111.7	108.1	79.1	89.5
1933	89.0	101.9	101.8	75.7	88.3	96.3	107.0	107.8	82.7	89.2
1934	95.5	102.4	101.6	90.4	95.9	91.5	109.1	104.7	82.7	91.0
1935	92.6	101.5	101.6	86.1	95.9	94.7	102.5	99.2	85.2	92.0
1936	96.6	102.0	101.5	96.7	100.5	99.3	93.9	93.2	96.5	87.7
1937	106.9	102.5	101.5	112.2	101.9	101.7	106.5	100.2	114.6	107.9
1938	101.4	99.9	98.8	100.1	102.2	99.7	99.8	103.5	101.6	107.7
1939	102.3	94.0	97.2	104.9	99.4	104.1	97.2	103.0	102.4	104.6
1940	110.3	94.6	98.0	119.1	99.7	110.4	115.2	106.5	107.1	109.2
1941	122.6	99.1	105.1	139.2	102.8	118.7	136.2	114.6	109.0	112.5
1942	130.9	100.8	109.0	153.2	104.8	123.4	146.9	120.0	110.3	117.6
1943	139.1	101.2	113.1	171.3	104.8	130.1	149.4	120.0	110.3	117.9
1944	146.6	101.8	114.9	188.4	104.8	136.0	146.6	120.0	110.3	117.9
1945	148.3	102.1	116.4	191.3	104.8	135.5	142.2	122.2	111.4	118.0
1946	154.5	102.0	121.0	202.1	104.2	146.2	144.2	127.2	116.9	126.4
1947	180.4	109.7	133.4	242.0	107.3	172.3	169.6	145.2	147.4	143.0
1948	217.5	122.3	143.1	305.8	116.7	201.6	183.1	168.3	169.8	162.3
1946 January .	149.8	102.4	120.3	193.0	104.1	141.5	140.3	124.4	111.4	121.3
February.	149.9	102.4	120.3	193.0	104.1	141.5	140.3	124.4	111.4	123.2
March ...	149.9	102.4	120.3	193.0	104.1	141.5	140.3	124.4	111.4	123.2
April ...	155.6	101.6	120.4	203.9	104.2	145.3	140.3	127.3	114.8	128.5
May	155.5	101.7	120.4	203.9	104.2	145.3	140.3	127.3	114.8	127.6
June	155.5	101.7	120.4	203.9	104.2	145.3	140.3	127.3	114.8	127.6
July	155.7	101.6	120.4	203.9	104.2	145.3	140.3	127.3	120.7	127.6
August ..	155.7	101.6	120.4	203.9	104.2	145.3	140.3	127.3	120.7	127.6

PRICE INDEX NUMBERS OF RESIDENTIAL BUILDING MATERIALS, 1926-1948

(1935-1939=100)

Year	Composite Index	- Main Components - Cement, Sand and Gravel	Brick, Tile and Stone	Lumber and Its Products	Lath, Plaster and Insulation	Roofing Materials	Paint and Glass	Plumbing and Heating Equipment	Electrical Equipment and Fixtures	Other Materials
1946 (Concl'd)										
September	155.7	101.6	120.4	203.9	104.2	145.3	140.3	127.3	120.7	127.6
October	156.3	101.6	121.4	203.9	104.2	145.3	146.4	129.0	120.7	127.6
November	157.1	101.6	121.4	203.9	104.2	156.0	160.5	129.0	120.7	127.6
December	157.4	103.3	126.0	203.9	104.2	156.1	160.5	129.0	120.7	127.6
1947 January	161.2	103.3	128.8	207.7	104.2	156.1	169.1	136.6	123.9	131.7
February	162.9	107.6	128.8	207.7	104.2	156.1	168.7	139.2	137.4	138.6
March	162.9	107.6	128.8	207.7	104.2	156.1	168.7	139.5	137.4	138.6
April	162.9	107.4	128.8	207.7	104.2	156.1	168.7	139.5	137.4	139.0
May	174.7	107.4	134.5	230.1	107.1	179.6	167.9	144.6	137.4	139.0
June	181.8	107.4	134.5	244.9	107.1	179.6	164.9	145.8	150.2	141.7
July	182.6	110.0	134.5	245.5	107.1	174.2	167.3	147.1	154.8	143.2
August	184.7	112.2	134.5	249.9	107.1	174.2	166.1	147.1	156.8	143.5
September	185.3	112.2	134.5	249.9	107.1	174.2	172.9	148.7	156.8	144.3
October	198.3	112.2	135.7	278.5	111.8	180.3	172.9	148.7	156.8	146.5
November	202.5	112.6	138.9	283.9	111.8	190.3	174.1	153.0	159.7	154.9
December	205.5	116.5	138.9	290.1	111.8	190.3	174.1	153.0	160.3	154.9
1948 January	207.1	116.8	138.9	291.4	111.8	195.7	175.0	158.1	157.2	155.9
February	207.8	116.8	138.9	292.3	111.8	195.7	185.5	158.1	157.2	156.4
March	208.4	116.8	138.9	292.3	112.7	203.0	184.7	159.5	157.2	156.6
April	211.0	120.5	138.9	293.9	116.5	204.3	184.5	165.9	157.2	156.6
May	214.6	123.4	138.9	300.1	116.5	204.4	183.2	167.5	168.1	156.6
June	216.5	123.9	140.3	303.8	118.7	204.4	182.7	167.6	168.1	156.6
July	216.6	123.9	143.0	303.8	118.7	204.4	183.2	167.6	168.1	156.6
August	219.7	123.9	143.0	308.3	118.7	204.4	183.0	168.6	180.9	166.4
September	221.6	125.4	148.6	308.3	118.7	204.4	182.5	175.7	180.9	170.6
October	228.9	125.4	149.2	325.1	118.7	204.4	184.7	175.7	180.9	171.4
November	229.2	125.4	149.2	325.1	118.7	200.3	184.7	177.9	180.8	171.9
December	229.0	125.9	149.2	325.1	118.7	193.6	183.0	177.9	180.8	171.9

ANNUAL INDEX NUMBERS OF RESIDENTIAL BUILDING MATERIAL PRICES AND RATES OF WAGES IN THE CONSTRUCTION TRADES, 1926-1948

(1935-1939=100)

	Materials Index	Wage Rates * Index
1926	109.6	104.2
1927	107.2	108.5
1928	108.8	112.3
1929	112.4	119.6
1930	104.9	123.0
1931	95.1	118.5
1932	87.5	107.9
1933	89.0	95.6
1934	95.5	93.7
1935	92.6	96.7
1936	96.6	97.3
1937	106.9	100.1
1938	101.4	102.5
1939	102.3	103.3
1940	110.3	107.9
1941	122.6	115.3
1942	130.9	122.5
1943	139.1	131.9
1944	146.6	133.9
1945	148.3	135.5
1946	154.5	148.7
1947	180.4	160.2
1948	217.5	182.2

MONTHLY INDEX NUMBERS OF RESIDENTIAL BUILDING MATERIAL PRICES, 1946-1948

Month	1946	1947	1948
January	149.8	161.2	207.1
February	149.9	162.9	207.8
March	149.9	162.9	208.4
April	155.6	162.9	211.0
May	155.5	174.7	214.6
June	155.5	181.8	216.5
July	155.7	182.6	216.6
August	155.7	184.7	219.7
September	155.7	185.3	221.6
October	156.3	198.3	228.9
November	157.1	202.5	229.2
December	157.4	205.5	229.0

* Based on annual surveys of wage rates.

Source: Dominion Department of Labour annual publication, "Wage Rates and Hours of Labour in Canada".

RESIDENTIAL BUILDING MATERIALS PRICE INDEX PERCENTAGE WEIGHTS

Item	Commodity Weight	Group Weight
I Cement, Sand and Gravel		
Portland Cement		
Montreal	2.27	
Toronto	1.36	
Winnipeg	.34	
Regina	.23	
Vancouver	.23	
Aggregate for Concrete		
Sand - Montreal	.10	
Toronto	.10	
Winnipeg	.01	
Vancouver	.01	
Gravel - Montreal	.70	
Toronto	.70	
Winnipeg	.20	
Vancouver	.30	
Hollow Concrete Blocks	1.06	
Total Cement, Sand, Gravel and Concrete Blocks		7.61
II Brick, Tile and Stone		
Brick for Chimneys and Exterior		
Brick - Montreal to retail pressed face No. 1 red	.84	
- Toronto to contractors dry press face	.85	
- Montreal to retail common plastic red	1.09	
- Toronto to contractors soft mud process, common	1.09	
Stone Facing		
Stanstead Granite	.18	
Field Tile		
Sub Drainage 4"	.35	
Vitrified Flue Linings	.57	
Total Brick, Tile and Stone		4.97

RESIDENTIAL BUILDING MATERIALS PRICE INDEX PERCENTAGE WEIGHTS - Continued

Item	Commodity Weight	Group Weight
III Lumber and Its Products		
Structural Lumber		
Fir Timber, 3" x 4"	.03	
Fir Dimension, 2" x 4" - 2" x 6"	3.00	
Spruce, Quebec, 2" x 4"	4.50	
Spruce, Nova Scotia, 2" x 4" - 2" x 6"	1.33	
Spruce Scantling, 2" x 8"	.80	
Hemlock, 2" x 4"	.93	
Yard Lumber - Rough and Surfaced		
Fir Clear, 1" x 6"	2.80	
Spruce, 1" x 6"	4.50	
Hemlock, 1" x 8"	.70	
Pine, 1" x 8"	1.14	
Wood Clapboard		
Fir Drop Siding, 1" x 6"	.44	
Hemlock	.55	
Pine	1.00	
Cedar Clear - Bevel Siding	.30	
Flooring, Hardwood		
Maple, Hard	.29	
Maple, Soft	.40	
Birch	2.25	
Oak	.20	
Flooring, Softwood		
Fir Flooring	.60	
Pine Flooring	.68	
Lath		
Pine Lath	.01	
Spruce Lath	.03	
Millwork Products	16.16	
Total, All Lumber		42.64

RESIDENTIAL BUILDING MATERIALS PRICE INDEX PERCENTAGE WEIGHTS - Continued

	Item	Commodity Weight	Group Weight
IV	Lath, Plaster and Insulation		
	Rockwool	2.78	
	Interior Plaster	6.63	
	Building Paper, Inside	.42	
	Building Paper, Outside	.35	
	Exterior Plaster Stucco	1.13	
	Total Lath, Plaster and Insulation		11.31
V	Roofing Materials		
	Shingles		
	Cedar Shingles	.68	
	Asphalt Shingles	2.02	
	Dry Felt	.004	
	Tar Felt	.09	
	Pitch	.083	
	Gravel	.013	
	Total Roofing Materials		2.89
VI	Paint and Glass		
	Paint	1.20	
	Glass	.83	
	Varnish	1.00	
	Shellac	.17	
	Total Paint and Glass		3.20
VII	Plumbing and Heating Equipment and Supplies		
	Cast Iron Water Pipe	2.93	
	Steel Pipe	2.05	
	Lead Pipe	.60	
	Furnace Warm Air	2.63	
	Wrought Iron Water Pipe	.06	
	Toilet	.90	
	Wash Basin	.76	
	Bath Tub	2.26	
	Sink and Tub	1.41	
	Hot Water Heater	.85	
	Sewer Pipe	.53	
	Smoke Pipe	3.52	
	Standard Cast Iron Radiator	.07	
	Total Plumbing and Heating Equipment and Supplies		18.57

RESIDENTIAL BUILDING MATERIALS PRICE INDEX PERCENTAGE WEIGHTS - Concluded

	Item	Commodity Weight	Group Weight
VIII	Electrical Equipment and Fixtures		
	Electrical Wire, Copper	2.00	
	Triple Pole Switch	.22	
	Combination Panel	.07	
	Duplex Receptacle	.14	
	Outlet Box	.11	
	Lampholder	.06	
	Ceiling Hanger	.09	
	Glass Bowl	.17	
	Indirect Fixture	.99	
	Total Electrical Equipment and Fixtures		3.85
IX	Other Materials		
	Metal Weather Stripping	1.60	
	Sheet Metal Eavestrough	1.15	
	Rough Hardware	.77	
	Finish Hardware		
	Wire Cloth	.70	
	Wood Screws	.40	
	Thumb Latches	.08	
	Safety Hasps	.04	
	Screen Door Hinges	.07	
	Damp Proofing	.14	
	Linoleum	.01	
	Total Other Materials		4.96
	GRAND TOTAL		100.00