

L.5.2

RFD 319

Board of Governors of the Federal Reserve System
Division of International Finance

REVIEW OF FOREIGN DEVELOPMENTS

April 14, 1959

Some Comparisons of Common Stock
Prices Here and Abroad

6 pages

Robert F. Gemmill

NOT FOR PUBLICATION

This Review is intended primarily for internal circulation and should in no case be cited or quoted. It consists of personal and informal contributions by the author, which in many cases represent tentative analyses of the subject considered.

April 14, 1959.

Some Comparisons of Common Stock
Prices Here and Abroad.

Robert F. Gemmill.

A preliminary comparison of common stock prices in the United States with those in other countries leads to the conclusion that by almost any measure United States stock prices are high.

Price movements

In most countries indexes of stock prices at the end of 1958 were at record levels; however, price increases in recent years have been at widely differing rates. In five countries -- Germany, Austria, Netherlands, France and the United States -- the index at the end of 1958 was over twice the average for 1953, while in five others -- Italy, United Kingdom, Canada, Denmark and Sweden -- it was more than 50 per cent but less than 100 per cent above the 1953 figures. As shown in Table 1, these countries experienced widely differing movements in stock prices during 1958, as well.

Thus, both compared to the levels of stock prices prevailing in early 1958 and to those of several years ago, stock prices in many countries are at advanced levels; furthermore, the price increases experienced in the United States have been larger than those of most other countries. Price movements by themselves, however, cast little light on whether or not prices are high in other than a purely historical sense. As one basis for further comparison, we may examine dividend yields -- one of the most readily objectifiable of the factors generally believed to influence stock prices.

Yields

Comparisons of average dividend yields among countries are difficult, both for statistical reasons and because of differences in market factors, tax provisions, etc. However, it may be worth noting that at the end of 1958, the average yield on the 500 U. S. stocks included in the Standard and Poor index was below the average yield in most countries. Furthermore, yields on U. S. stocks appear to have declined relative to those on stocks in some foreign countries in recent years.

Because of the difficulties inherent in inter-country comparisons of yields, it may be more appropriate to compare movements in yields on stocks and government bonds in individual countries. (Suitable data on corporate bond yields for many foreign countries are not readily available.) As shown in Table 2, stock yields at the end of 1958 were below bond yields in four countries -- the United States, Canada, Germany, and Switzerland -- and above bond yields in the other three. However, in both Germany and Switzerland stock yields have consistently been below bond yields in recent years. The most pronounced change in the relation of yields on stocks and

bonds has thus occurred in the United States and Canada. Changes in the relationship in these two countries has resulted both from a marked rise in bond yields and from a sharp fall in stock yields. In other countries, yields on both stocks and bonds have moved down, and they have therefore changed less relative to each other.

Additional considerations

Because of the role of expectations in influencing the levels of stock prices, current yields will not always be a satisfactory measure of the relative levels of these prices. Expectations cannot, of course, be quantified, but one possible basis for expectations may be levels of or changes in earnings, and we shall consider data on this point below. Insofar as stock prices reflect expectations of changes in asset values which do not stem from considerations of yields or earnings, there appears to be no appropriate basis for comparison.

The earnings/price ratio on U. S. stocks for the third quarter was 5.6 per cent -- that is, stocks were selling at 18 times earnings for the year ending September 30, 1958. This ratio was about one-third less than the average ratio for 1955-57. It is by no means clear, however, that an increase in earnings sufficient to bring the earnings/price ratio to the level of these earlier years would be accompanied by substantially increased dividend payments. Data for 200 large corporations show that in each year from 1953 to 1957, dividend payments represented about 60 per cent of net profits after taxes. During the recession of 1957-58, dividend payments were not reduced greatly, although earnings declined; thus, in the first three quarters of 1958 dividend payments amounted to 86 per cent of net profits. A return of net profits to the 1955-57 average would be accompanied by increased dividends only if the rate of dividend pay-out were raised.

An index of earnings/price ratios for Canadian industrial stocks has been constructed on the basis of published data on corporate profits (after taxes) of Canadian manufacturing industries and an index of prices of industrial stocks. As shown in Table 3, the index of these ratios in the third quarter of 1958 was about twenty per cent below the 1955-57 average. The somewhat greater decline in the index of earnings/price ratios for the United States could well reflect the sharper decline in U. S. corporate profits during 1958, although the different rates of decline may merely reflect statistical differences.

The earnings/price ratio for the United Kingdom (as reported in the Financial Times) was 11.7 per cent at the end of 1958. At the end of 1957 and in mid-1958, the ratio was close to 17 per cent; in the first half of 1957, it was in the neighborhood of 14-15 per cent. There was, thus, a substantial decline in the ratio during the upswing in stock prices in 1958, and this decline has, in fact, been of about the same magnitude as that in the earnings/price ratio for U. S. stocks.

Earnings/price ratios are not directly available for Austria and Germany, but data on recent dividend disbursements appear to provide some explanation for the low dividend yields of stocks in these countries. Dividend payments by leading Austrian companies increased on the average by 30 per cent in the past three years and the current level of stock prices may well be based in part on investor expectations of a continuation of this experience.

In Germany, the rate of dividend payments by the end of 1958 was nearly double the rate at the end of 1954 and one-fourth greater than at the end of 1956. Expectations of increased future dividends, based on a reduction in the tax on distributed profits, also reportedly contributed to the rise in German stock prices in the second half of 1958.

Informed reports indicate that in recent years the proportion of net profits paid out in dividends by German corporations has increased from about one-third to about one-half. On the basis of this information and data on dividend payments, it would appear that the earnings/price ratio in Germany might have increased from about 8 per cent at the end of 1954 to, say, 10 per cent in 1956, and then declined to a little under 7 per cent at the end of 1958.

Summary observations

While a comparison of price movements shows stock prices in the United States to be relatively high, it is in comparison of yields and to a lesser extent (because of less complete information) of earnings/price ratios that the relative highness is most clearly shown. Yields on U. S. stocks have moved down to the levels obtaining in the countries with lowest yields, although the evidence suggests that in recent years dividend increases have been less in the United States than in these other countries, and the proportion of net profits paid out in the form of dividends has been greater.

The United States and Canada have been the two countries in which stock yields have moved substantially below bond yields; in both countries this development is undoubtedly in part attributable to recovery from recession -- as recovery has proceeded there has occurred both tightening in capital markets and a revival of optimism. However, the extremely sharp fall in Canadian bond prices appears in major part responsible for the fact that stock yields are significantly lower than bond yields in that country. If Canadian bond yields were no further above U. S. yields than in previous years, yields on Canadian stocks and bonds at the end of 1958 would have been about equal. Furthermore, movements in earnings/price ratios in the two countries show that the improvements in earnings required to restore the ratio to the 1955-57 average would probably be somewhat greater for the United States than for Canada.

Table 1Increases in Common Stock Prices by December 1958

	<u>Increase from 1953 average (Per cent)</u>	<u>Increase from average of first quarter, 1958 (Per cent)</u>
Germany	229	43
United Kingdom	81	38
Japan	28	36
United States	130	26
Netherlands	141	24
Canada	67	23
Denmark	53	17
Italy	92	16
Sweden	52	13
Switzerland	46	12
Belgium	41	9
Australia	36	8
South Africa	9	7
Austria	185	6
Norway	19	--
New Zealand	28	-8
France	137	-10

Source: International Financial Statistics, International Monetary Fund.

Table 2Yields on Common Stocks and Government Bonds in Selected Countries
(Data in per cent at end of period)

	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>
<u>Switzerland:</u>					
Stocks	--	2.7	2.7	3.4	2.9
Bonds	--	3.07	3.22	3.67	3.00
<u>Germany:</u>					
Stocks	2.7	3.1	4.2	4.6	3.3
Bonds	4.5	4.8	5.5	5.1	3.83
<u>United States:</u>					
Stocks	4.1	3.9	4.2	4.6	3.3
Bonds	2.68	2.97	3.40	3.30	3.80
<u>Canada:</u>					
Stocks	4.6	4.5	4.9	5.6	4.2
Bonds	3.05	3.38	4.01	3.75	4.76
<u>United Kingdom:</u>					
Stocks	5.2	5.6	6.5	7.0	5.3
Bonds	3.76	4.39	4.90	5.41	4.89
<u>Belgium:</u>					
Stocks	4.3	4.3	4.7	5.9	5.6
Bonds	4.20	4.17	4.42	4.94	4.29
<u>Netherlands:</u>					
Stocks	4.8	4.6	5.8	7.9	5.9
Bonds	3.22	3.40	4.21	4.86	4.31
<u>Supplementary data:</u>					
<u>Austria:</u>					
Stocks	--	--	2.5	3.1	3.2
<u>Japan:</u>					
Stocks	--	--	<u>1/6.8</u>	<u>1/7.9</u>	<u>1/5.5</u>
<u>Sweden:</u>					
Stocks	--	--	4.7	4.8	<u>2/4.1</u>
Bonds	--	--	4.05	4.46	4.27

1/ Yields are quoted on stocks of those corporations paying dividends. The proportion of corporations which did pay dividends varied from 87 per cent at the end of 1956 to 82 per cent at the end of 1958.

2/ Calculated on the (perhaps unlikely) assumption that the change in yields reflected only changes in stock prices -- that is, that dividend payments were unchanged between 1957 and 1958.

Sources: Government bond yields, International Financial Statistics; Stock yields as follows: United States, Federal Reserve Bulletin; Canada, Financial Post (Toronto); United Kingdom, Monthly Digest of Statistics; Germany, Wirtschaft und Statistik, January 1959; Belgium and Netherlands, Weekly Bulletin issued by the Kredietbank, January 10, 1959; Japan, Economic Statistics Monthly; Sweden, 1957 Report of the Riksbank; Austria, computed from data in Uebersicht in Wien Gehandelter Wertpapeire, Creditanstalt-Bankverein.

Table 3Earnings/Price Ratios
(As of end of period)

	<u>United States</u>		<u>Canada</u>
	<u>Ratio</u> (Per cent)	<u>Index</u> (1955-57=100)	<u>Index</u> (1955-57=100)
<u>1955</u>	7.78	101	95
<u>1956</u>	7.17	93	94
<u>1957</u>			
1st quarter	7.71	100	95
2nd quarter	7.12	92	86
3rd quarter	7.91	102	102
4th quarter	8.21	106	111
<u>1958</u>			
1st quarter	7.34	95	103
2nd quarter	6.37	83	90
3rd quarter	5.63	73	82

Statistical note: Canadian index for a given data is computed on the basis of prices as of that date and profits after taxes for the preceding year.

Sources: Federal Reserve Bulletin and Bank of Canada Statistical Summary.