

EXPECTED SHARE PRICE AND ITS REBATION TO THE
MARKET PRICE.

Juan M. Verstraete (*)

(*) Universidad Nacional de Cuyo y CONICET.

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S U M M A R Y

The present paper starts with a review of the basic aspects of the Argentine stock market.

In a second part we analyse the possible effect on stock prices of retained earnings. Two expected share prices were defined. One obtained from the stock market price the day before the dividend payment, subscription, etc. became effective. This price is adjusted by changes in the amount of stock issued and by the dividend payment in cash.

A second expected price was obtained from the market share price when the last operation took place. The market price was adjusted by the rate of inflation over the period. The utilities were adjusted by the change in the price level at the middle of the period, since we assume that utilities change at a constant rate over the period. In all cases the consumer price index was used to adjust for inflation. After adding the adjusted utilities to the adjusted share price when the last operation took place, the expected share price was obtained by taking into account the changes in the amount of additional capital issues and dividend payment as described above.

To obtain these expected prices we made use of the figures regularly published on the stock market bulletin (Boletín de la Bolsa de Comercio).

We reconstructed the evolution of the total amount of shares issued, amount of dividend payment in shares and cash, subscription price and its correspondent percentages. With this figures and the earnings published in the accounting statements the expected prices were calculated.

In order to homogenize and make the values obtained for the different firms comparable, the obtained prices were expressed in each case as a percentage of the stock market price for each firm at the time we start with the analysis.

To observe if the market show any preference for one or another way of paying out dividend, we related first the market stock price to the expected prices and a dummy variable. The dummy variable took values equal to unity if some part of the dividend was payed out in cash and zero otherwise. Afterwards the dummy variable was substituted by a variable representing the percentage of total dividend payed out in cash.

The present period covers 1959-1964 and five firms were selected among those most heavily traded at the stock market.

I. Basic aspects of the Argentine stock market

A firm may issue preferred and/or common stock. Preferred stock has a priority right over common stock in the payment of dividend and on capital in case of failure. The most simple preferred stock is the one that receives a "fixed dividend" before earnings are distributed. In case common stock receives a higher rate of dividend than the "fixed dividend" rate established, the rate of earnings of preferred stock is also increased to the same level. In some cases, however, preferred stock maintains its priority right to receive the "fixed dividend" rate for a number of years in case the earnings were not high enough to pay the "fixed dividend" rate.

A low percentage of total capital is compound by preferred stock. The bulk of total capital is common stock. In most firms there are two types of common stock, one with the right to one vote and another with the right to several votes. The last type is usually not very large compared with the amount of common stock with the right to one vote. Exceptionally we may find common stock with no right to vote, and preferred stock where capital and "fixed dividend" are expressed in some foreign currency or gold. This last type of shares are issued when firms want to induce foreign capital to invest in the firm, since a lot of uncertainty is present when the country experiments high rates of inflation and a foreign exchange market where the government devalues from time to time with high rates.

(*) The present paper is a complete revised version of the following two earlier unpublished papers: Juan María Carlos Emilio Verstraete, Determinación del Precio Esperado de las Acciones y su Relación con el Precio de Mercado, (Unpublished dissertation, Facultad de Ciencias Económicas, Universidad Nacional de Cuyo, November 1965).
 Juan M.C.E. Verstraete, Basic Aspects of the Argentine Share Market, (Unpublished master dissertation, Department of Economics, University of Chicago, June 1967).

(**) The author is a researcher at the Consejo Nacional de Investigaciones Científicas y Técnicas-Argentina and at the Economic Department of the Universidad Nacional de Cuyo. I would like to thank professor Luis Fornero and professor Klido Medavari for their useful suggestions and to Mr. Sergio Lopez for revising the final draft.

Only corporate shares are exchanged at the stock market and they have all a nominal value of \$ 100. On this basis prices are established and operations developed.

In most firms all earnings are distributed each year. The only reserves build up are legal reserves.

In case a firm wants to increase its total assets by retaining earnings, it distributes stock dividend to the stockholders. The number of shares issued is equal to the total amount of earnings the firm wants to capitalize divided by the total amount of shares issued.

When a firm wants to obtain additional funds through a subscription, actual stockholders may subscribe to an additional share by paying the nominal value even when the market share price is higher. If shares are valued in the market at their nominal value no change in its price will be expected when subscription takes place. However, when the market share price is above or below par we will expect a change in the price of the share at the stock market.

When we calculated the expected price (p^* 's) we took these type of effect into account.

The stock market publishes quarterly the balance sheet of the firms which stock is traded. Before additional shares can be issued the balance sheet of the firm and additional statements on financial and real assets are published in the stock market bulletin. This operation must also be approved by the stock market commission and the monetary authorities.

In order to avoid price manipulations we selected large firms, which stock is heavily traded.

II. Effects of dividend policy on stock prices.

Lately, confusion has increased on which dividend policy is optimal for stockholders. Empirical findings are apparently contradictory and do not quite agree with what we would expect to obtain from a theoretical point of view.

The results obtained by Harkavy¹ from two stocks with the same characters concerning risk, expectations about future earnings etc. but with different dividend policy were:

¹ Oscar Harkavy, "The relation between retained earnings and common stock prices for large listed corporations", Journal of Finance, Vol. XXXIII, n°3 (September, 1953), p. 283-297.

- a) There is a trend for stock to be correlated with the proportion of earnings distributed in a positive way.
- b) That over time the stock prices of those corporations retaining the greatest percentage of their earnings seem to increase in some cases more relative to the stocks of the corporations retaining a lower proportion of their earnings after we made the respective adjustment for increase in working capital.

This second proposition means that those firms growing will in general retain a substantial part of their earnings to finance their growth. Therefore a higher rate of retained earnings is associated to a relative increase in prices.

- c) That over a period of time the stock prices of corporations, retaining the greatest percentage of their earnings, seem to decrease relative to the stock of those retaining a lower proportion of their earnings, after having made the respective adjustment for the increase in working capital, if the firms are not growing or have a negative or declining rate of growth.

From a theoretical point of view we wouldn't expect to observe such a difference². The value of a stock depends only on the market interest rate plus a risk premium and the future returns people expect to obtain from their investment.

If some differences were observed it may be because capital gains and income have a different tax treatment. When a firm pays out a dividend, this is considered as an additional income and subject to the personal income tax. If earnings are instead capitalized, when the owner sells his stock with a higher value, the net gain obtained will be subject to the tax rate on capital gains, which is always lower than the marginal personal income tax rate.

But this effect can never count for the difference in value we observe in the results obtained by Harkavy³.

² Irwin Friend and Marshal Puckett, "Dividend and stock prices", American Economic Review, Vol. LIV, n°5 (September, 1964), p. 656-682.

Franco Modigliani and Merton Miller, "The cost of capital, corporation finance and the theory of investment", American Economic Review, Vol. XLVIII, n°3 (June, 1958), p. 261-297.

Merton H. Miller and Franco Modigliani, "Dividend policy, growth, and the valuation of shares", Journal of Business, Vol XXXIV, n°4 (October, 1961), p. 411-433.

³ Oscar Harkavy, ibid.

The investor should be indifferent as long as the present value of the net additional income from retained earnings equals the amount of forgone dividend.

The effect of a different tax treatment, where the tax rate on capital gains is lower than the marginal tax rate on income, implies that the rate of return on corporate reinvestment may be lower in order to keep stockholders indifferent to both retained earnings and the cash dividend payment.

The cases consistent with the empirical findings mentioned above, where a dollar paid out in cash dividend is several times worth a dollar of retained earnings are:

- a) The profitability of the additional investment is below the competitive yield prevailing in the stock market.
- b) The average holder of common stock has a strong preference for present income over future income at the margin.
- c) The additional investment has a high degree of risk that makes it unprofitable.

No one of these three possibilities seem to be probable. In most industries the average yield is still quite high over this period compared with the return on alternative assets. In addition we must consider that the shareholders have approved the dividend and subscription policy having made use of their right of first subscribers. Therefore we may conclude that we are not facing case a).

The other two cases mentioned imply a high marginal discount rate on additional investment. In some cases additional investment have seemed quite risky given the general economic conditions of uncertainty present in Argentina. However this is not relevant to all firms and over the whole period under consideration. In general we do not observe large drops in the stock price caused by additional issue of stock, nor high differences in their relative value compared with similar stock as we will be able to appreciate when analyzing empirical results.

We would expect the form of financing additional investment to be irrelevant, under conditions of costless flotation and no capital gain tax advantage.

The way of financing additional investment, through bond issue, equity issue or retained earnings, should not change the firms total net asset value.

If any shareholder is not in his optimum position when additional earnings are retained, he can always sell part of his stock at the market and obtain the equivalent value in cash. At most stockmarkets the coupons are also quoted. This enables stockholders to maintain their portfolio in equilibrium. At the margin we will have for all stockholders the same rate of return taking into account the differences in risk and tax treatment and exchange commissions.

In Argentina most firms have no bond issues or have only a very little percentage of their total assets in bonds. These are unattractive for investors since a lot of uncertainty exists on the future rate of inflation, because capital value and the interest rate are fixed in nominal terms. In addition, nominal interest rates were fixed by the monetary authorities over the period under consideration. Being unlawful to establish higher rates than those authorized.

Therefore most of the growth in firms assets was financed by retained earnings and stock issue. The value of stock and its return, adjusted themselves more to the rate of inflation than bonds.

III. Estimation.

Two relations with two different expected prices for each relation were estimated in order to see if the way dividend has been payed out has any effect on market prices.

In a first relation actual observed prices were related to one of the expected prices and a dummy variable.

In a second relation actual observed prices were related to one of the expected prices and the percentage of total dividend payed out in cash.

The following two linear equations were estimated by the least squares method:

$$p_i = a + b.p_{ji}^* + c.x_i + u_i \quad \text{where } p_i = \frac{P_i}{P_0}$$

$$\text{and } p_i = \alpha + \beta.p_{ji}^* + \gamma.z_i + w_i \quad \text{and } p_{ji}^* = \frac{P_{ji}^*}{P_0} \text{ for } j=1,2$$

being: p_i the market price of one share after the correspondent operation of dividend payment was made.

p_0 the market price of one share at the time we started with the analysis.

a, b, c and

α, β, γ the coefficients of the independent variables in the equations.

p_{1i}^* the expected share price at time i , where the expected price is calculated on the bases of the share market price at the day before payment started.

p_{2i}^* the expected share price at time i , obtained by adjusting the stock market price at the time the last operation took place.

x_i a dummy variable equal to unity when there is some dividend in cash and zero otherwise.

z_i the percentage of total dividend payed out in cash.

Where $0 \leq z \leq 1$.

p_{1i}^* was obtained by adjusting the stock price the day before paying out dividend as follows:

- a) When dividend was payed out in cash, the dividend per share was subtracted from the stockmarket price.
- b) When the dividend was payed out in shares the stock price before the dividend is payed out was divided by unity plus the rate of dividend payed out in shares.

p_{2i}^* was obtained in the same way as before but the share value before dividend is payed out was obtained by:

- a) Inflating the share market price when the last operation took place.
- b) By adding to the value obtained in a) the net earnings of the period inflated with the rate of price changes from the beginning to the middle of the period.

In both cases the retail price level was used to make allowance for inflation.

Both expected prices were expressed as percentage values of the stock price at the beginning of the analysis in order to homogenize the share values among the different firms and make them comparable.

The data was obtained from the following five firms belonging to different sectors of the economy: Molinos Rio de la Plata S.A., Atanor S.A., Odol S.A., Celulosa Argentina S.A. and Suixtil S.A.

The results obtained were ⁴:

$$\begin{aligned}
 p_i &= -16.49925 + 1.16954 p_{1i}^* + 18.53698 x_i \\
 &\quad (6.43013) \quad (.05804) \quad (5.98086) \\
 &\quad (-2.56593) \quad \{20.14938\} \quad \{3.09938\} \\
 R^2 &= .94828 \quad S^2 = 221.21961 \quad DW = 1.79037 \\
 \frac{R^2}{R} &= .84291 \quad F(2,24) = 1.52805 \quad t_{b=1} = 2.92096 \\
 r_{pp_1}^* &= .96311 \quad r_{pp_1 \cdot x}^* = .97169 \\
 r_{px} &= .27100 \quad r_{px \cdot p_1}^* = .53464 \\
 r_{p_1 x}^* &= .13333 \quad r_{p_1 x \cdot p}^* = -.49289 \\
 \\
 p_i &= -14.45203 + 1.19765 p_{1i}^* + 19.22322 z_i \\
 &\quad (7.44709) \quad (.06602) \quad (15.31243) \\
 &\quad (-1.94063) \quad \{18.14008\} \quad \{1.25540\} \\
 R^2 &= .93205 \quad S^2 = 290.67616 \quad DW = 2.02417 \\
 \frac{R^2}{R} &= .82849 \quad F(2,24) = 1.14302 \quad t_{b=1} = 2.99362 \\
 r_{pp_1}^* &= .96311 \quad r_{pp_1 \cdot z}^* = .96541 \\
 r_{pz} &= .01888 \quad r_{pz \cdot p_1}^* = .24824 \\
 r_{p_1 z}^* &= -.04967 \quad r_{p_1 z \cdot p}^* = -.25220
 \end{aligned}$$

⁴ Juan M.C.E. Verstraete and Enrique F. Zabos, Programas de regresiones econométricas, Serie Cuadernos, Sección Economía, n.º 105, (Facultad de Ciencias Económicas, Universidad Nacional de Cuyo, 1981).

Note: The values between parenthesis are the standard deviations and those between brackets are the t values for the hypothesis equal to zero.

$$P_i = 3.37481 + 1.00008 P_{2i}^* - 10.09332 x_i$$

(20.59974) (.20132) (19.78194)
 (.16383) (4.96766) (-.51023)

$$R^2 = .54317 \quad S^2 = 1954.15830 \quad DW = 2.07954$$

$$\frac{R}{R} = .48281 \quad F(2,24) = .09908 \quad t_{b=1} = .00040$$

$$r_{PP_2}^* = .73363 \quad r_{PP_2 \cdot x}^* = .71201$$

$$r_{px} = .27100 \quad r_{px \cdot P_2}^* = -.10359$$

$$r_{P_2^*} = .45484 \quad r_{P_2^* \cdot x \cdot p} = .39142$$

$$P_i = 5.53191 + .97130 P_{2i}^* - 26.60773 x_i$$

(20.46576) (.18063) (39.95139)
 (.27030) (5.37715) (-.66600)

$$R^2 = .54659 \quad S^2 = 1939.51018 \quad DW = 2.10310$$

$$\frac{R}{R} = .48586 \quad F(2,24) = .10046 \quad t_{b=1} = -.15890$$

$$r_{PP_2}^* = .73363 \quad r_{PP_2 \cdot x}^* = .73921$$

$$r_{pz} = .01888 \quad r_{pz \cdot P_2}^* = -.13471$$

$$r_{P_2^*} = .14912 \quad r_{P_2^* \cdot x \cdot p} = .19909$$

IV. Conclusions.

When looking at the results obtained when estimating the relations taking P_{1i}^* into account, we may conclude:

- a) That all coefficients are significantly different from zero at a .95 level taking into account positive and negative values of the distribution with the exception of x which is not significantly different from zero at the .95 level.
- b) The conclusion obtained in a) is confirmed by the F test. The test rejects the Hypothesis that all coefficients are equal to zero.
- c) Contrary to what we would expect the coefficient of the expected price is significantly different from unity at the .95 level taking into account values above and below unity.
- d) The coefficient of dividend payment in cash is in both cases positive. However only when the dividend payment in cash is represented by a dummy variable (x) is the coefficient significant at the .95 level. The coefficient is not significant at this level when the dividend payment in cash is represented by a variable equal to the percentage ratio of dividend paid in cash to total dividend paid out. This may be due to the fact that total variance of x is higher than total variance of z .

- e) In both regressions we do not observe autocorrelation among residuals.
- f) Simple and partial correlation coefficients do not suggest multicollinearity between the independent variables.
- g) In both equations the R^2 and \bar{R}^2 values are above .9 and .8 respectively. Suggesting a good fit of the estimated values to the actual observed ones.

The results obtained when estimating the relation taking P_{2i}^* into account shows that:

- a) Only the coefficient of the expected price is significantly different from zero at a .95 level taking into account positive and negative values of the distribution.
- b) Our F test rejects in both cases the hypothesis that all coefficients are equal to zero.
- c) The coefficients of the expected prices are not significantly different from unity at the .95 level taking into account values above and below unity.
- d) The coefficient of dividend payment in cash is in both cases negative. However since the coefficients are not significantly different from zero at a .875 level taking into account positive and negative values we may accept that the coefficients are not significantly different from zero.
- e) In both regressions we do not observe autocorrelation among residuals.
- f) Simple and partial correlation coefficients do not suggest multicollinearity between the independent variables.
- g) In both equations our R^2 and \bar{R}^2 are relatively low; due to the fact that over the period some changes not taken into account may have occurred. These changes have rather been randomly distributed since no autocorrelation among residuals are observed.

Comparing the results obtained when using P_{1i}^* and P_{2i}^* as estimates for our expected prices, we observe that estimated values adjust better actual values when P_{1i}^* is used. This may be expected since P_{1i}^* does not include possible changes due to other factors. The coefficient of dividend payment in cash changes its sign. But is only significant in the equation where the expected price is P_{1i}^* , and is positive. In the equation where the expected price is P_{2i}^* , the coefficient of dividend payment in cash is not significant and negative. In no case we observe multicollinearity and autocorrelation among residuals.

The results suggest that the coefficients of the expect-

ed prices may be somewhat above unity and that the effect of paying dividend in cash may be positive. However no definite conclusions can be derived and it would be convenient to enlarge the sample of the firms and the period under consideration.

However an extension of the period can lead us to additional problems because since 1976 a more fluent capital and money market have been created with more information about changes in interest rates and the existence of government bonds which value and rent are adjusted by changes in a price level. Therefore the stock market became more influenced by changes in the level of interest rates and changes in the rate of inflation.

It is also important to point out the characteristics of the chosen period (1959-1964). This period is characterized by a relatively higher price stability, where the only financial marketable assets were shares and foreign currency, specially the U.S. dollars. This lead us to formulate this simple model where actual market share prices are only related to expected market share prices and to observe the influence of changes in portfolio expectations and retained earnings on actual financial asset prices.

This results are only preliminary and would enable us to formulate a more complete model, useful to describe the Argentine stock market over a more complex period of time like from 1976 up to date as mentioned above.

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APPENDIX

In this appendix we will make use of the following abbreviations:

Rows:

- I date when the operation was realized
- II type of operation
- III total value of the operation in thousands of m\$
- IV subscribed capital in thousands of m\$
- V amount of shares paid out in concept of dividends per m\$ based on nominal value of the subscript shares.
- VI price of the share at the day of distributing the dividends
- VII rate of subscription, obtained on the basis of the number of shares in the hands of the shareholders.
- VIII price of the share at the date of the subscription
- IX price at which the share has been subscribed
- X amount of dividend paid out in money based on the nominal value of the stock in hands of the shareholders
- XI amount of dividend paid out in money based on the market value of the stock at the date of distribution of the dividend

Columns

- CI Initial capital
- DA Dividend in shares
- DE Dividends in cash
- RC "Accounting revalue"
- S Subscription
- CR Capitalization of reserves
- PA.A. Debt payment with shares
- R.P. Retribution to employees
- R Redemption

T A B L E 1. A
 SERIES OF CAPITAL AND DIVIDENDS PAID OUT TO THE ORDINARY SHARES BY
 "MOLINOS RIO DE LA PLATA S.A."
 (In thousands of m\$n)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
<u>1958</u>		C.I.		259,530.3							
12/22	S.		61,937.6	321,467.9			.239		.100		
<u>1959</u>		D.A.	46,455.1	367,921.0	.1445						
12/17	D.A.		65,796.6	433,717.6	.1788						
12/17	R.C.		70,000.0	503,717.6	.1903						
<u>1960</u>		D.A.	129,000.0	632,717.6	.2561						
12/19	S.		559,000.0	1,191,717.6			.8935	.390	.100		
<u>1961</u>		D.A.	223,600.0	1,415,317.6	.1876						
5/12											
<u>1962</u>		R.C.	536,640.0	1,951,957.6	.3792						
11/15											
<u>1963</u>		R.C.	383,135.0	2,335,092.6	.1963						
8/05											
<u>1964</u>		D.E.	113,068.8	2,335,092.6						.464	.277
4/10											

T A B L E 1. B

" MOLINOS RIO DE LA PLATA S.A. "

(In thousands of m\$n)

Closing date: 30th November

Year	At 28 th or 29 th of February		At 31 st of May		At 31 st of August		At 30 th of November	
	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders
1956/59	22,840.8	294,556.4	97,046.0	321,467.9	177,756.4	367,921.0	223,291.1	503,717.6
1959/60	43,960.4	503,717.6	93,914.2	503,717.6	176,561.4	632,717.6	285,911.9	632,717.6
1960/61	132,459.9	867,302.1	206,520.0	1,416,493.9	312,737.5	1,415,317.6	384,048.1	1,415,317.6
1961/62	150,442.1	1,415,317.6	284,845.2	1,415,317.6	419,653.3	1,415,317.6	574,842.2	1,951,957.6
1962/63	132,621.8	1,951,957.6	252,205.7	1,951,957.6	370,751.7	2,335,092.6	479,562.7	2,335,092.6
1963/64	108,748.1	2,335,092.6	153,861.1	2,335,092.6	178,501.2	2,335,092.6	403,230.4	2,335,092.6
1964/65	112,390.4	2,335,092.6						

(x) Excluded the earnings of past years.

T A B L E 1. C

"MOLINOS RIO DE LA PLATA S.A."

Date	P_0 Inflated	U_t/N_0	U_t/N_0 Inflated	P_t^*	P_t	P_{2t}^{*a}	P_{1t}^{*a}	P_{1t}^{*b}	P_t^b	P_{1t}^{*b}	P_{2t}^{*b}	x_t	x_t
<u>1959</u>													
4/12							290						
7/20	361.22	25.49	27.65	388.87	307	339.77	268.26	245	84.48	92.50	117.16	0	0
12/17	272.34	24.12	25.13	297.47	580	217.27	423.64	410	141.37	146.08	74.27	0	0
<u>1960</u>													
7/28	443.50	28.13	28.90	474.40	795	377.68	632.91	700	241.38	218.24	130.23	0	0
12/19	719.52	25.13	26.01	745.53	580	442.73	354.84	390	-----	-----	-----	---	---
<u>1961</u>													
5/12	413.13	14.44	15.26	428.39	470	360.72	395.76	330	113.79	136.47	124.39	0	0
<u>1962</u>													
11/15	480.99	10.46	14.51	495.50	235	359.27	170.39	172	59.31	58.76	123.89	0	0
<u>1963</u>													
8/05	193.35	17.27	16.98	210.33	300	175.82	250.77	260	89.66	86.47	60.63	0	0
<u>1964</u>													
4/10	303.84	11.87	10.73	314.57	175	309.73	170.16	180	62.07	58.68	106.80	1	1

* Not normalized values.

b Normalized values.

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 "ATATOR S.A."
 (In thousands of m\$u)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI
1956	C.I.		157,879.2							
11/24	D.A.	15,787.9	173,667.1	.10						
1959										
7/31	D.A.	20,524.4	194,191.5	.118	222					
7/31	D.E.	3,157.6	194,191.5		222					
1960										
5/30	D.A.	58,257.5	252,449.0	.30	370				.018	.008
5/30	D.E.	9,709.6	252,449.0		370					
10/14	S.	126,274.3	378,673.5			.50	500	100	.05	.013
1961										
6/05	D.A.	75,734.7	454,408.2	.20	440					
6/05	D.E.	12,622.5	454,408.2		440					
10/09	S.	271,066.0	725,475.2			.60	190	100	.03	.006
1962										
7/02	D.E.	2,272.0	725,475.2		90					
7/02	D.A.	72,705.3	798,179.5	.10	90				.003	.003
1963										
5/06	S.	198,631.7	996,811.2			.25	90	100		
10/14	S.	207,407.3	1,204,218.5			.208	100	100		
10/14	R.C.	95,781.5	1,300,000.0	.096	100					
1964										
6/01	R.C.	118,621.2	1,418,621.2	.09	127					
6/01	D.A.	65,267.7	1,463,888.9	.03	127					

TABLE 2. B
 "ATANOR S.A."
 (In thousands of m\$_n)
 Closing date: 31st December

Year	AT 31st of March		AT 30th of June		AT 30th of September		AT 31st of December	
	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders
1958	9,098.0	157,897.2	21,285.9	157,879.2	35,998.8	157,998.8	49,537.3	173,667.1
1959	27,113.3	194,191.5	60,664.3	194,191.5	90,991.3	194,191.5	115,392.6	194,191.5
1960	31,291.0	194,191.5	63,766.7	252,449.0	95,324.5	157,998.8	144,957.1	315,647.4
1961	31,829.1	346,219.1	59,717.3	441,198.7	86,924.0	444,096.6	119,298.2	519,503.1
1962	19,744.6	660,815.1	48,543.2	755,966.6	52,511.2	798,005.1	68,427.6	798,179.5
1963	1,681.9	798,179.5	24,854.4	877,632.2	49,535.0	1,052,866.4	95,730.2	1,212,720.0
1964	43,733.0	1,423,859.2	104,261.0	1,463,861.7	187,002.6	1,463,888.9	276,711.0	1,463,888.9
1965	55,996.4	1,463,888.9						

(x) Excluded the earnings of past years.

T A B L E 2. C

"ATANOR S.A."

Date	P_0 Inflated	U_1/N_0	U_2/N_0 Inflated	F_1^a	F_1	$F_{21}^{a,b}$	$F_{11}^{a,b}$	F_1^a	F_1^b	F_1^a	F_1^b	x_1	x_1	x_1
<u>1959</u>														
4/02								171						
7/31	224.02	33.53	25.78	249.80	220	221.82	195.17	222	120.65	114.13	129.72	1	.132	
<u>1960</u>														
5/30	263.67	65.39	69.58	333.25	600	252.50	303.85	370	233.92	177.69	147.66	1	.142	
10/14	370.00	20.07	19.93	385.93	700	293.29	500.00	500						
<u>1961</u>														
6/05	555.57	24.24	26.11	581.68	440	482.23	365.17	310	237.31	212.96	282.01	1	.130	
10/09	329.73	8.82	9.06	338.77	240	249.23	187.50	190						
<u>1962</u>														
7/02	232.06	10.66	12.29	244.35	106	221.86	96.09	90	61.99	56.19	129.74	1	.029	
<u>1963</u>														
5/06	109.09	3.67	4.04	113.13	133	110.50	126.40	125						
10/14	132.94	4.80	5.01	137.95	75	121.74	73.46	73	43.85	42.96	71.19	0	0	
<u>1964</u>														
6/01	84.56	9.34	9.61	94.17	143	84.08	127.68	127	83.63	74.67	49.17	0	0	

^a Not normalized values.

^b Normalized values.

T A B L E 3. A
SERIES OF CAPITAL AND DIVIDENDS PAID OUT TO THE ORDINARY SHARES BY

"ODOL S.A."
(In thousands of ₪m)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI
	C.I.		22,669.7							
1959										
10/28	S.	17,000.0				.75	120	180		
1960										
9/26	PA.A.	1,200.0				.03	520	236.6		
9/26	D.A.	10,730.9		.27	450					
12/29	PA.A.	16,000.0				.31	380	402.4		
1961										
9/11	D.E.	6,760.1			370				.10	.313
9/11	D.A.	19,110.1		.2827	320					
7	R.	3,900.0				-.058	(1)	110		
1962										
9/19	D.E.	8,281.1			260				.10	.3846
9/19	D.A.	24,843.2		.30	245					
1963										
9/09	D.E.	21,530.7			420				.20	.0476
9/09	D.A.	21,530.7		.20	420					
1964										
9	PA.A.	2,500.0				.0194	560	565		
10/01	D.E.	13,168.5			480				.10	.0177
10/01	D.A.	33,785.3		.253	460					
10/01	R.C.	6,120.0		.046	480					

(1) Were never quoted at the stock market.

TABLE 3. B

"ODOL S.A."

(In thousands of m\$n)

Closing date: 31st December

Year	At 31st of March		At 30th of June		At 30th of September		At 31st of December	
	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders
1959	-----	-----	-----	-----	26,058.9	22,669.7	33,363.3	39,669.7
1960	10,806.2	39,669.7	21,240.5	39,669.7	31,671.1	39,669.7	42,366.5	51,600.6
1961	14,718.6	67,600.6	33,792.1	67,600.6	48,873.9	86,710.7	72,170.0	86,710.7
1962	23,688.6	82,810.7	58,745.1	82,810.7	76,743.7	82,810.7	123,464.2	107,653.9
1963	39,810.0	107,653.9	83,622.3	107,653.9	118,921.8	129,184.6	150,717.3	129,184.6
1964	52,995.5	129,184.6	97,976.9	129,184.6	160,883.7	171,189.9	213,868.5	171,189.9

(x) Excluded the earnings of past years.

T A B L E 3. C
"ODOL S.A."

Date	P_0 Inflated	U_c/S_0	U_t/N_0 Inflated	P_1^a	P_1	P_{21}^a	P_{21}^b	P_{11}^a	P_{11}^b	P_1^a	P_1^b	P_{11}^a	P_{11}^b	P_{21}^a	P_{21}^b	π_1	π_1	π_1	
<u>1960</u>																			
1/10																			
9/26	362.75	76.81	77.26	440.01	575	363.88	447.72	450	130.81	130.15	99.96	0	0						
12/29	673.91	20.73	21.66	495.57	350	473.52	362.40	380	-----	-----	-----	-----	-----						
<u>1961</u>																			
9/11	426.86	67.34	73.68	500.54	430	382.43	327.43	320	93.02	95.18	111.17	1	-.261						
<u>1962</u>																			
9/19	424.44	120.96	150.08	574.52	270	434.25	200.00	245	71.22	58.34	126.24	1	.250						
<u>1963</u>																			
9/09	283.15	149.57	161.12	444.27	507	353.56	405.83	420	122.09	117.97	102.77	1	.500						
<u>1964</u>																			
10/01	510.93	155.22	164.91	675.84	600	512.18	453.85	480	193.53	131.93	148.89	1	.283						

^a Not normalized values.

^b Normalized values.

T A B L E 4. A

SERIES OF CAPITAL AND DIVIDENDS PAID OUT TO THE ORDINARY SHARES BY

"CELTOSA ARGENTINA S.A."
(In thousands of m\$n)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
1959		C.I.		580,313.1							
3/30	D.A.	145,078.3		725,391.4	.25						
6/11	PA.A.	7,000.0		732,391.4			.00965	340	335		
6/23	PA.A.	25,000.0		757,391.4			.03413	330	330		
8/27	PA.A.	30,000.0		787,391.4			.03961	320	320		
10/01	PA.A.	13,000.0		800,391.4			.01651	340	330		
1960											
1/16	S.	800,391.4		1,600,782.8			1.00000	330	100		
4/01	PA.A.	12,000.0		1,612,782.8			.0075	336	336		
5/20	D.A.	200,097.9		1,812,880.7	.12407	279					
6/05	PA.A.	13,000.0		1,827,880.7			.0082	279	269		
9/03	PA.A.	40,000.0		1,867,880.7			.0219	380	380		
11/17	PA.A.	33,000.0		1,900,880.7			.01767	272	272		
1961											
5/15	D.A.	342,158.7		2,243,039.4	.18	214					
8/10	S.	670,636.3		2,913,675.7			.30	165	100		
1962											
6/15	D.A.	433,925.8		3,347,601.5	.149	105					
12/20	PA.A.	152,275.6		3,499,877.1			.04549	95	95		
1963											
6/17	R.C.	629,977.9		4,129,855.0	.18	85					
8/12	S.	1,651,942.0		5,781,797.0			.40	100	100		
1964											
6/29	D.E.	231,271.9		5,781,797.0	.14	101				.04	
6/29	R.C.	809,451.6		6,591,248.6		101				.04	.04

TABLE 4. B

" CELULOSA ARGENTINA S.A. "

(In thousands of m\$n)

Closing date: 30st November

Year	At 28th or 29th of February		At 31st of May		At 31st of August		At 30th of November	
	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share holders	Net earnings (x)	Cap. rec. from share holders
1958/59	66,398.6	725,391.4	145,109.6	725,391.4	274,973.8	760,391.4	336,812.4	800,391.4
1959/60	104,229.2	1,020,870.0	185,621.5	1,627,485.7	333,130.6	1,827,880.7	439,733.0	1,900,880.7
1960/61	101,557.6	1,900,880.7	240,493.3	2,243,039.4	483,070.4	2,469,449.8	601,887.8	2,789,370.5
1961/62	176,813.7	2,913,675.7	350,544.0	3,347,601.5	541,918.6	3,347,601.5	675,926.7	3,347,601.5
1962/63	102,368.6	3,499,877.1	242,388.1	3,499,877.1	547,983.9	4,160,083.2	868,856.1	5,211,788.1
1963/64	318,973.0	5,547,391.0	644,112.9	6,591,248.6	1,002,534.6	6,591,248.6	1,221,030.3	6,591,248.6
1964/65	340,188.0	6,596,248.6						

(x) Excluded the earnings of past years.

"CELULOSA ARGENTINA S.A."

Date	P_0 Inflated	U_t/N_0	U_t/N_0 Inflated	P_1^a	P_1	P_{21}^{*n}	P_{11}^{*a}	P_1^a	P_1^b	P_{11}^{*b}	P_{21}^{*b}	r_1
1959												
4/07												
6/11	405.47	8.32	9.14	414.61	340	413.85	339.95	340	---	---	---	---
6/23	348.77	3.94	4.00	352.77	306	348.15	306.79	330	---	---	---	---
8/27	358.27	11.43	11.86	370.13	320	368.22	320.00	320	---	---	---	---
10/01	325.67	2.62	2.64	328.31	335	328.34	334.92	330	---	---	---	---
1960												
1/18	353.55	11.66	12.22	365.77	490	232.89	295.00	328	---	---	---	---
4/01	337.38	4.95	6.99	342.37	340	342.32	339.97	336	---	---	---	---
4/20	337.95	1.12	1.12	339.07	334	301.64	297.13	277	81.71	87.65	88.98	0
6/06	281.12	2.00	2.01	283.13	266	283.02	266.02	266	---	---	---	---
9/08	268.11	8.07	8.05	276.20	378	278.42	378.04	390	---	---	---	---
11/17	379.98	4.76	4.80	384.78	295	382.82	294.60	272	---	---	---	---
1961												
5/15	295.78	12.37	13.13	308.91	255	261.79	216.10	214	63.13	63.75	77.22	0
8/10	227.11	9.44	9.64	236.75	182	205.19	163.08	165	---	---	---	---

^a Not normalized values.

^b Normalized values.

TABLE A, C

"CELULOSA ARGENTINA S.A."

Date	P_0 Inflated	V_0/N_0	U_0/N_0 Inflated	P_1^*	P_1	P_{2f}^a	P_{1f}^a	P_1^a	P_1^b	P_{1f}^b	P_{2f}^b	κ_1	π_1
<u>1962</u>													
6/15	202.00	19.05	21.73	223.73	131	196.72	114.01	105	30.97	33.63	57.44	0	0
12/20	120.07	9.45	9.81	129.88	100	128.36	99.78	95	---	---	---	---	---
<u>1963</u>													
6/17	102.61	7.73	8.08	110.69	86	93.81	72.88	85	25.07	21.50	27.67	0	0
8/12	86.98	4.93	4.98	91.96	121	94.26	115.00	100	---	---	---	---	---
<u>1964</u>													
6/29	121.38	19.64	20.47	141.85	126	120.92	107.02	101	29.79	31.57	35.67	1	.22

^a Not normalized values.^b Normalized values.

T A B L E 5. A
 SERIES OF CAPITAL AND DIVIDENDS PAID OUT TO THE ORDINARY SHARES BY
 "SUIXTIL S.A."

I	II	III	IV	V	VI	VII	VIII	IX	X	XI
1959	C.I.		45,534.8							
7/10	D.A.	9,107.0		.20	270					
7/27	D.A.	16,392.7		.30	210					
7/27	R.P.	1,822.9				.034	210	253		
1960										
5/16	S.	38,004.5								
6/01	DA.A.	29,154.9		.2629	180	.521	245	100		
6/01	R.P.	3,933.2				.03565	180	273		
11/29	S.	72,000.0				.500	240	100		
1961										
6/12	D.A.	57,600.0		.267	210	.027	210	305		
6/12	R.P.	5,806.4								
1962										
3/20	S.	79,644.7				.285	190	100		
1963										
7/20	R.P.	9,647.3				.0269	41	135		

TABLE 5. B

"SUIXTIL S.A."

(In thousands of m\$)

Closing date: 31st December

Year	At 31st of March		At 30th of June		At 30th of September		At 31st of December	
	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders	Net earnings (x)	Cap. rec. from share- holders
1959	6,342.7	45,534.8	25,700.6	72,887.3	41,211.5	72,887.3	39,298.6	72,887.3
1960	12,950.7	72,887.3	30,490.2	144,000.0	50,626.7	144,000.0	72,228.2	176,079.2
1961	20,056.4	196,061.9	41,520.1	279,406.4	91,182.5	279,406.4	137,632.4	279,406.4
1962	35,657.7	316,031.5	-36,738.2	331,915.2	-77,441.7	337,029.0	-310,127.5	339,448.3
1963	15,684.4	341,224.4	40,093.1	341,527.9	50,039.8	350,919.4	60,101.6	350,971.4
1964	17,203.7	350,987.8	48,074.3	351,008.3	52,664.0	351,867.9	64,933.6	352,124.3

(x) Excluded the earnings of past years.

TABLE 5. C

"SUIXITIL S.A."

Date	P_o	U_t/N_o	U_t/N_o	P_1^a	P_1	P_{2i}^a	P_{1i}^a	F_i^a	P_i^b	P_{1i}^b	P_{2i}^b	X_i	Z_i
Inflated	Inflated	Inflated											
1959													
4/07								246					
7/10	309.50	42.51	46.36	355.86	260	296.55	233.33	270	109.76	94.84	120.55	0	0
7/27	275.44	6.31	6.40	281.44	290	217.62	223.84	210	85.37	90.99	88.38	0	0
1960													
5/16	247.99	41.36	44.17	292.16	280	226.34	218.34	265					
6/01	246.41	2.63	2.64	249.03	247	199.28	197.71	180	73.17	80.37	81.01	0	0
11/29	183.01	28.04	28.20	211.21	290	174.16	226.67	260					
1961													
6/12	265.67	20.80	22.65	288.32	310	229.18	245.93	210	85.37	99.97	93.20	0	0
1962													
3/20	236.50	47.02	50.01	286.51	218	245.14	191.83	190					
1963													
7/20	267.94	-83.41	-93.46	173.45	44	184.26	46.38	41					

^a Not normalized values.^b Normalized values.

T A B L E 6
RETAIL PRICE LEVEL IN THE CAPITAL FEDERAL ^a

Month Year	J	F	M	A	M	J	J	A	S	O	N	D
1958		100	101.65	106.04	112.88	117.86	122.14	127.81	130.26	134.12	140.94	152.73
1959	179.85	196.18	210.58	227.99	251.77	267.69	275.87	286.30	291.37	293.18	299.31	307.94
1960	316.38	319.07	321.09	323.89	327.65	328.23	329.91	331.25	327.69	327.56	333.12	345.10
1961	337.16	339.85	341.63	356.42	366.03	373.48	377.79	388.11	387.20	390.48	397.72	410.09
1962	408.24	411.84	417.00	432.36	460.55	472.91	495.30	508.86	519.50	526.39	520.79	540.21
1963	534.00	538.90	564.39	573.22	573.22	579.75	588.58	591.19	600.34	618.97	634.66	689.56
1964	686.29	681.07	679.10	705.25	706.23	716.03	718.65	715.05	722.90	751.33	759.83	814.60

^aSource: Dirección Nacional de Estadísticas y Censos, "Boletín Mensual de Estadística."