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The Irish Economy in 1962 and 1963

by

C. E. V. LESER

With Appendix

Forecast of Agricultural Output 1963

by

E. A. ATTWOOD and M. ROSS

THE ECONOMIC RESEARCH INSTITUTE

EXECUTIVE BOARD 1962-63

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1. A Survey of 1962

In April 1963, in accordance with previous practice, estimates of the main statistical data covering the year 1962, together with comparable figures for earlier years, were made available to the reader and were commented upon by the C.S.O. (1963). An analysis of the performance of the Irish economy in 1962 has also been made, as in previous years, by the O.E.C.D. (1963) in its series of economic surveys. Whilst current interest is centred on the prospects of the Irish economy in 1963 and in the future, a study of current prospects must nevertheless begin with an analysis of the past, at the risk that what will be said may repeat what has been said before and that 1962 will be considered as " ancient history " already. However, beside the fact that 1962 must be the starting point in an investigation for 1963, it may be of some interest to consider what were the main features of development in 1962, and also how they compare with the forecast made by Kuehn (1962).

A summary view of the changes in economic conditions may be obtained from the tabulations of gross national product and allied entities, both at current and constant prices. The derived figures shown in Table 1 show the achievements of 1962 in relation to the immediate past, whilst Table 2 further analyses the changes between 1961 and 1962.

TABLE 1 : CHANGES IN MARKET SUPPLIES AND FINAL DEMAND, IRELAND 1960–61 AND 1961–62

	In current prices 1961	In current prices 1962	In 1953 prices 1961	In 1953 prices 1962
Gross national product	+41	+54	+22	+15
Imports	+36	+15	+30	+13
Total market supplies	+77	+69	+52	+28
Personal expenditure	+27	+39	+11	+15
Public authorities' expenditure	+ 5	+ 6	+ 3	+ 2
Fixed capital formation	+16	+14	+11	+ 8
Stock changes	− 9	+ 9	− 8	+ 8
Exports	+38	+ 1	+35	− 5
Total final demand	+77	+69	+52	+28

Difference from previous year (£ million)

Source : Computed from C.S.O., Economic Statistics, 1963.

Table 1 shows that the gross national product increased less in real terms between 1961 and 1962 than between 1960 and 1961, though the opposite is true regarding the increase in money terms. Whether seen in money terms or real terms, the rise in imports was far less marked in 1961–62 than in the preceding period.

Personal expenditure rose somewhat faster during 1961–62 than during 1960–61, both at current and in constant prices. Government current expenditure increased to about the same extent as previously. Gross fixed capital formation, either in money or real terms, did not rise as much above the previous year's level in 1962 as in 1961 ; however, stocks rose considerably, and total investment thus increased much more sharply. Exports, on the other hand, did not grow at all between 1961 and 1962 but fell in volume and just remained steady in value.

TABLE 2 : FORECAST AND ACTUAL CHANGES IN MARKET SUPPLIES AND FINAL DEMAND, IRELAND 1961–62

	Percentage change between 1961 and 1962			
	Forecast Kuehn Value	Actual Value	Actual Volume	Actual Price
Gross national product	+ 7	+ 7½	+2½	+5
Imports	+7/+9	+ 5	+ 5	0
Personal expenditure	+5/+6	+ 7½	+3½	+4
Public authorities' expenditure	+ 8	+ 8	+3	+4½
Fixed capital formation	+17	+14	+9½	+4
Exports	+ 6	+ ½	−2	+2

Source : Kuehn, Prospects of the Irish Economy in 1962 ; and computed from C.S.O., Economic Statistics, 1963.

A comparison between the forecast made by Kuehn (1962) for the percentage increases at current prices for 1962 over 1961 and the actual experience according to the presently available data is made in Table 2. It is seen that the forecast came very close to the actual result with regard to gross national product and government expenditure ; the growth in real gross national product was, incidentally, also correctly forecast as somewhat under 3%. The greatest discrepancy relates to exports which failed to grow as envisaged. Imports and fixed capital formation also increased somewhat less and personal expenditure somewhat more than forecast.

Furthermore, the rate of growth in fixed capital formation greatly exceeded the rate of growth in personal or public authorities' expenditure. The volume of imports rose faster than real gross national product between 1961 and 1962, but since import

*The author of this paper is a Senior Research Officer of The Economic Research Institute. The paper has been accepted for publication by the Institute. The author is responsible for the contents of the paper including the views expressed therein.

prices remained stable while domestic prices generally rose, the value of imports increased at a more moderate rate than the nominal gross national product.

The available data permit an analysis in somewhat greater detail of the changes described here in summary fashion, by breaking down some of the totals into components like industrial sectors, or at any rate studying indicators for the movements of such components. It is not intended here to quote a mass of readily available figures but merely to point out a few of the salient features.

In the first place, both production and export data show the relatively poor performance of agriculture compared with other sectors of the economy. Between 1961 and 1962, the gross agricultural output, including livestock changes and turf, increased by 3% in value and by $2\frac{1}{2}$% in volume; but net output of agriculture only rose by $1\frac{1}{2}$% in value and remained about the same in volume. The total contribution of agriculture, forestry and fishing to national income also rose by a mere 2% in money terms.

On the other hand, agriculture managed to produce virtually the same output with a smaller labour force. The statistical data for the number of males engaged in farm work are shown to be of somewhat doubtful accuracy, but it seems clear that some reduction in the agricultural labour force took place between 1961 and 1962. From the data as they stand, this reduction would appear to amount to about 5%; but if a steady decrease between 1960 and 1962 was assumed, it would be at the rate of 3% per annum. This fall in the labour force was thus offset by a corresponding increase in output per head.

In particular, the output of livestock and livestock products did not even increase in value terms, a reduction in sales of £4·5 million being approximately offset by an increase in livestock numbers on farms. The value of cattle and other live animal exports fell by about £8 million or 14%, admittedly from a level in 1961 which was not only a record but also brought about by unusual circumstances. In 1961 there was overselling and livestock numbers on farms substantially decreased; since then they have been brought back to at least the normal level.

The volume of production in the food processing industries increased by about $6\frac{1}{2}$%. The drink and tobacco industries showed a slight fall in output, and if they are included with the food industries the increase comes to about 5%. The industry in combination with agriculture kept food and drink exports practically constant between 1961 and 1962. There was little change in the broad pattern of food exports, though the composition of meat exports somewhat altered, and the emphasis slightly shifted to processed food. Some of the decline was in the export of unmillable wheat and therefore does not constitute a loss for Ireland.

Exports of raw materials and manufactures rose by £1·5 million or about 3% in value or volume. This was matched by an increase in total industrial production by about 5%, or $4\frac{1}{2}$% when transportable goods industries alone are considered. About half of this increase was accounted for by higher industrial employment and half by greater labour productivity. The contribution of industry to national income in money terms, including the effect of price increases, rose by over 12%.

The remaining sectors of the domestic economy, viz., distribution and transport, public administration and other domestic activity, also increased their contribution to national income by about 10%. This increase appears to reflect chiefly the effect of wage and salary increases and an increase in the labour force; the latter is believed to be particularly marked in building.

The rise in industrial exports was quite insufficient to offset the fall in the exports of live animals, and merchandise exports in 1962 were below the level of the previous year. Exports of all goods and services apparently just maintained their level through an increase in invisible exports.

The value of imports showed an increase in all major categories. It was particularly marked for agricultural materials where it amounted to about 18% and for producers' capital goods for which it was $12\frac{1}{2}$%; the latter phenomenon is of course associated with the expansion of fixed capital formation, with which it approximately kept pace. The rise was more moderate for industrial materials, consumption goods and invisible items. The balance of payments showed a deficit which, however, was financed by an inflow of capital, and external reserves rose.

Whilst the individual sectors of the economy thus had different experiences, there is one important feature which they all had in common. It is that wherever any real growth took place, it was at a lower rate between 1961 and 1962 than in the previous period. This applies, for example, to manufacturing production and to most industrial groups with the notable exception of building and construction. The rate of increase in industrial exports was also lower.

The important fact thus seems to be the slowing down in the rate of real growth since 1961, which was accompanied by some acceleration in the rise in domestic prices. It is well known that the years 1958–61 were years of rapid growth, coming after the stagnation or even decline experienced since 1955. This immediately poses the question whether the experience of 1962

indicates that the expansion—or recovery if the term is preferred—has come to an end, or whether it merely suggests a temporary pause of consolidation before a sharper upward trend is resumed ?

This is the kind of question nobody can answer with certainty, as mechanical extrapolation of past trends does not help. However, an attempt at explaining recent developments by pointing out factors which are believed to have been at least partly responsible, is obviously called for.

There is clearly some relationship between final demand, particularly exports, on one hand and home production on the other, and quite possibly it is a two-way relationship. What is not obvious is whether the pull on output from the demand side, or the push of production towards home and external markets, is more important. Demand for consumption and investment were not lacking in 1962, but exports failed to grow. According to the interpretation preferred, one would thus either say that the stagnation in exports slowed down the growth in production, or that the slow growth in output involved a levelling off in the export field.

There is little doubt that supply factors have been partly responsible for the decline or relatively slow growth in some fields of exports and production. This is quite clearly so with regard to agriculture, where the fall in livestock numbers between 1960 and 1961 brought about by heavy selling in 1961 acted as a brake. In the industrial sector, a shortage of skilled labour may well have been a bottleneck in production; the difficulty of obtaining skilled labour has been repeatedly stressed by firms giving information in the course of the Quarterly Industrial Surveys (E.R.I., 1961 ff.) especially at the beginning of 1962.

Nevertheless, it is felt that the more fundamental relationship is the dependence of production on demand, and thus at least a partial explanation for the slowing down in the growth rate must be seen in the failure of exports to increase. This raises the question why exports did not rise between 1961 and 1962.

One may be inclined to look to the price factor for an explanation, as domestic costs rose consider-ably in 1962. Since, however, export prices were only about 1% higher in 1962 than in 1961 according to trade statistics—or 2% according to Table 2 based on national accounts data—it seems doubtful whether price changes had a significant effect. It is just possible that some potential exports priced themselves out of the market in 1962 and that this effect was not statistically recorded. Of greater importance were perhaps changes in tariff policy by the United Kingdom in favour of members of the European Free Trade Association, recently pointed out by Coras Trachtala (1962).

The income factor, that is to say virtually the demand for imports in the United Kingdom, may also have had a powerful influence on Irish exports. United Kingdom imports increased very little between 1960 and 1962, a phenomenon clearly associated with the slow growth rate then experienced in the U.K. An expansion of exports in a stationary market is of course harder than in a rapidly growing one ; and seen from this angle, it is the rapid growth in Irish exports between 1960 and 1961 which appears more surprising than the stagnation experienced since then.

Seen in this perspective, the performance of the Irish economy in 1962 may be judged as fair and does not appear to preclude the possibility of a better result for 1963. The obstacles to growth from the supply side mentioned here—the low level of livestock and a shortage of skilled labour—appear to have been reduced, with a building up of agricultural stocks and possibly some repatriation of skilled labour from Britain following the slight recession there.

As indicated, however, the main emphasis is laid here on the development of the main components of final demand, especially investment and exports and their repercussions on the level of production. These factors will be subjected to a more detailed analysis.

2. A short-term forecasting model

At the time of writing, in the middle of 1963, the amount of available statistical evidence relating to the current year is still very limited. In the same way in which it is quite correct to speak about the probability of an event which has happened already but the outcome of which is unknown, it is therefore correct to describe as forecasting an attempt to deal with the current period and to produce a set of national accounts and other figures for 1963.

In attempting to estimate a set of data, a micro- or macro-approach may be adopted alternatively. In the former case the macro-economic totals are built up by a detailed analysis of a number of components ; in the latter case the totals are estimated and the picture may be completed by filling in further details later. A simultaneous attack on both fronts, followed by a reconciliation of the results, may of course also be applied. Here the emphasis will be laid on the second line of approach.

An attempt will be made here to utilise a mathematical short-term forecasting model, though it is one of the simplest and crudest kinds imagin-able. Until it becomes possible to introduce some refinements and to test alternative possible models, this approach must be considered as purely experi-

mental. It is not claimed that the model will give better results than—or even as good results as—those an experienced economic analyst can produce. The results should, however, be consistent, not only in so far as identities are satisfied, but also in that plausible relations in movements of associated entities like gross national product and consumption will be obtained. The main virtue of the approach is that it is a systematic one, showing clearly the assumptions on which the results are based, and that it may permit modification and more accurate estimation later on. It does not entirely supplant intuition, since the value of one variable still remains to be estimated from outside evidence.

All variables used here represent differences at current prices over the corresponding figure in the previous year, measured in £ million. Bearing this in mind, Y refers to gross national product; C to consumption, i.e., personal plus public authorities' expenditure; D to other final demand, i.e., gross fixed capital formation plus stock changes plus exports of goods and services; and M to imports of goods and services. The following identity, which holds if the variables refer to total amounts, also holds here where they represent year-to-year changes in money terms:

$$Y + M = C + D$$

Two further equations are taken as broadly describing the structure of the economy. The first one may be described as a production decision function, reflecting the decision how much to produce at home and how much to import. The second one is a consumption function, relating personal and government expenditure to gross national product. With the help of the fundamental identity given above, an import function follows immediately from the production decision function.

It is assumed in the first equation that changes in gross national product, and therefore also imports, are linear functions of changes in total final demand, including consumption, as well as changes in final demand in the previous period. The second equation is based on the assumption that changes in consumption are linear functions of the sum of changes in G.N.P. at the same time and a year previously, and of changes in consumption a year before. These assumptions imply considerable abstractions from reality, not so much in the mathematical form of the relationships as in the omission of relevant variables like composition of final demand and distribution of G.N.P. as well as prices.

The constants in these equations have been estimated from national accounts data for 1953–62 published by the C.S.O. (1962, 1963). For sim-

plicity's sake, single-equation least-squares estimation has been used in place of more refined methods; and the resulting equations, together with standard errors representing square roots of the residual variance estimates, may be written as follows:

$$Y = \cdot 4530(C+D) + \cdot 1209(C_{-1}+D_{-1}) + 5 \cdot 04 \pm 7 \cdot 57$$
$$C = \cdot 5451(Y+Y_{-1}) - \cdot 6206C_{-1} + 7 \cdot 57 \pm 9 \cdot 71$$

and from the first equation it automatically follows that

$$M = \cdot 5470(C+D) - \cdot 1209(C_{-1}+D_{-1}) - 5 \cdot 04 \pm 7 \cdot 57$$

The first and third equations are relatively easily interpreted. They imply that the bigger the increase in final demand, the higher will be the immediate proportion of final demand met by imports; but in the following year, a greater proportion of this demand will be met by home production. A relationship based on the same idea but using a different mathematical formulation was previously developed by Leser (1963).

The introduction of the lagged consumption term which is necessary to achieve a reasonable fit makes the interpretation of the second equation difficult; in its absence, a lower coefficient of G.N.P. changes in the last two periods would be obtained and would, after multiplication by 2, be described as marginal propensity to consume.

Needless to say, all these relations only hold good on the average, if that, and are subject to substantial errors in any one year. It is perhaps correct to say that short-term forecasting is more difficult than long-term forecasting, in the sense that disturbances are more likely to overshadow structural tendencies in the short than in the long run. In this instance, the production function gives a good fit when applied to the year-to-year changes from 1953–54 to 1961–62 ($R^2 = \cdot 84$) but the consumption function less so ($R^2 = \cdot 64$).

The structural equations may be converted into prediction equations showing the predicted changes in gross national product Y_p, in consumption C_p and in imports M_p as linear functions of changes in final demand other than consumption and various changes which took place a year ago. The equations are as follows:

$$Y_p = \cdot 602D + \cdot 328Y_{-1} - \cdot 213C_{-1} + \cdot 161D_{-1} + 11 \cdot 2$$
$$C_p = \cdot 328D + \cdot 724Y_{-1} - \cdot 737C_{-1} + \cdot 088D_{-1} + 13 \cdot 7$$
$$M_p = \cdot 726D + \cdot 396Y_{-1} - \cdot 524C_{-1} - \cdot 073D_{-1} + 2 \cdot 5$$

For predicting the changes between 1962 and 1963, the value of the lagged terms in the equations are given. For example, since G.N.P. at current

prices is shown as £710 million for 1961 and £764 million for 1962, we have

$$Y_{-1}=54$$

and similarly

$$C_{-1}=45$$
$$D_{-1}=24$$

The forecast equations then become for 1962–63

$$Y_p = \cdot602D + 23\cdot2$$
$$C_p = \cdot328D + 21\cdot7$$
$$M_p = \cdot726D - 1\cdot5$$

The result of the forecast will thus entirely depend on the value assigned to D, that is to say the postulated increase in final demand other than consumption. It will therefore be necessary to make a study of the prospects for investment and exports in some detail.

Even so, the forecast will be subject to several kinds of error. Firstly, the value assigned to D may be erroneous; secondly, the constants in the prediction equations may have been incorrectly estimated; and thirdly, the equations do not give exact predictions for any particular year. It is, however, possible to obtain some check on the results by making an independent assessment of the prospects for gross national product, consumption and imports. This procedure will be followed, and it will be seen that the results derived from the forecast equations cannot be regarded as implausible.

3. Economic indicators for 1963

Consider, in the first place, the constituents of final demand other than consumption, viz., fixed capital formation, stock changes and exports. What are the prospects for each of these components? In attempting to answer these questions, as well as in the analysis which follows, the forecast for the agricultural sector, prepared by Attwood and Ross and presented in the Appendix, will be utilised.

As regards fixed investment, there appears little doubt about the direction of change. The government has announced its intention to increase capital expenditure and in its public capital programme envisages a substantial increase in building and construction (Capital Budget, 1963). Furthermore, according to information privately circulated, the Electricity Supply Board and Bord na Mona anticipate an expansion in fixed capital formation greater than that realised between 1961 and 1962; the local government housing programme is also expected to increase to about the same extent as in the previous period. Private industry, according to a recent survey (E.R.I., April 1963) expects an increase in investment expenditure on plant and equipment for the first half of 1963 over the corresponding 1962 period, particularly in the metals and engineering industries.

The only question is : how much will the increase in fixed capital formation be ? A reasonable guess would seem to be that it will be a little more than the increase in 1962 over 1961 in current prices and, with a smaller price increase, the difference will be more marked in real terms. A figure of £18 million, which is about 30% above the 1961–62 increase in current prices, may be entered under this heading.

Stock changes are the next item to be considered, though strictly speaking their course is somewhat bound up with that of exports. In 1962, they were positive both in the agricultural and non-agricultural field and amounted to £4 million and £8 million respectively when allowance is made for that part which is due to stock appreciation. It may be assumed that stocks will still increase, though at a reduced rate in the agricultural sector and at a somewhat higher rate in the non-agricultural sector. Taking these as £1 million and £10 million respectively, the total amounts to £11 million; and as differences from the previous year are considered, this item may show a decline by £1 million.

Exports present a major problem, since their behaviour may show unexpected features. In the first quarter of 1963, merchandise exports were very close in total amount and composition to those a year earlier. The 1962 figures were, however, somewhat inflated by abnormally large cattle exports which were followed by low exports in the succeeding months. In the first five months of 1963, total merchandise exports were £6·6 million higher than in the corresponding 1962 period, or £1·32 million per month on the average. If the excess over 1962 continues to run at that rate, visible exports in 1963 will be about £16 million higher than in 1962.

Does this figure seem reasonable ? In the agricultural field, an increase in exports over their 1962 level by about £8 million is now expected by Attwood and Ross, which would bring them back to their 1961 level. The main increases envisaged are in the field of live cattle, beef, dairy products and wool.

In the industrial field, it appears from the E.R.I. industrial survey that manufacturers on the whole forecast a decrease in exports. This may be unduly pessimistic as they anticipated the same result in 1961 with regard to 1962, but in fact industrial exports showed a slight expansion. The new industries set up with assistance by the Industrial Development Authority in 1962 alone had an initial production target of over £4 million, and may thus add a few millions to the 1963 export total. The recent revival of growth in the United Kingdom economy also tends to raise the prospects

of Irish industrial exports; it must be borne in mind that according to the forecast by the N.E.D.C. (1963), U.K. imports of manufactured goods are expected to increase at an average rate of 7% per annum between 1961 and 1966. An increase in industrial exports by £8 million thus does not appear unreasonable.

The figure of £16 million for the increase in merchandise exports may thus be accepted, and to that an increase in invisible items should be added. It is expected that an expansion in tourist receipts will result from the opening of new hotels, but other items, including the unusually large " balance unaccounted for " in 1962, may show some decrease. A modest increase in all invisible exports to the tune of £2 million will therefore be assumed. The projected increase in exports of all goods and services then amounts to £18 million.

If these premises are accepted, then the key variable in the prediction equation assumes the value

$$D = 18 - 1 + 18 = 35$$

and the solution is

$$Y_p = 44$$
$$C_p = 33$$
$$M_p = 24$$

The figure for consumption has to be distributed between persons and public authorities, say £29 million for the former and £4 million for the latter.

The next step in the present analysis will be to examine the derived results for gross national product, personal expenditure and imports, and to consider whether they are consistent with other evidence. This is comparatively easy to do with regard to imports and personal expenditure, as preliminary figures for the value of visible imports and index numbers of retail sales are available for the early part of the current year.

The forecast increase in imports at current prices amounts to £24 million, or 8%. Indications are, in fact, that an increase of at least this magnitude may be expected. In the first five months of 1963 alone, the value of merchandise imports was £12·7 million above the 1962 level, and if this trend continued, imports for the year would be up by at least £30 million over 1962. It is, however, assumed that imports which were at record levels in April and May 1963 will return to more normal levels later in the year.

The value of retail sales was about 5% above the corresponding 1962 level in the first quarter of 1963, but 8% higher in April 1963 than in April 1962. It is not clear whether this jump reflects any sales tax anticipations. In any event, the projected increase of £29 million or 5% in personal expenditure certainly does not appear excessive in the light of current tendencies.

To obtain a check on the estimate for the gross national product presents greater difficulties. However, the constancy of the ratio between G.N.P. and the supply of money, i.e., average currency outstanding plus current accounts, has been pointed out recently by Oslizlok (1963) and by the Central Bank of Ireland (1962-63). This ratio has been shown to lie in the neighbourhood of 31% since 1959 though a little higher in the past (about 32% from 1952 to 1958 and about 34% in 1948–51).

According to the figures for the early part of 1963 published by the Central Bank of Ireland (1963), present indications are that the average money supply in 1963 will rise almost as much over its 1962 level as between 1961 and 1962, that is to say by about £15 million. With a 31% ratio between money supply and G.N.P., this would suggest an increase in gross national product by about £48 million, as against £44 million obtained from the forecast equation. This is only a minor discrepancy which could be eliminated by assuming a slight alteration in the ratio between total G.N.P. and money supply.

Whilst the figures obtained from the prediction equation do not in all cases exactly tally with those that might be derived from direct evidence, nevertheless they are not in serious conflict with them. The results of the prediction model will therefore be maintained and utilised in the forecast given here. If the equations used prove seriously deficient for prediction, it is hoped that it will be possible to introduce significant improvements to them when the next study of this kind is undertaken.

4. A forecast for 1963

The figures obtained for the main constituents of the national accounts may now be brought together, with a view to examining their implications. This is done in Table 3.

TABLE 3 : MARKET SUPPLIES AND FINAL DEMAND AT CURRENT PRICES, 1962 AND 1963

	1962 official estimate £ mill.	1963 predicted £ mill.	Change over 1962 %
Gross national product	764	808	+ 6
Imports	307	331	+ 8
Total market supplies	1,071	1,139	+ 6½
Personal expenditure ..	568	597	+ 5
Public authorities' expenditure ..	82	86	+ 5
Fixed capital formation	115	133	+15½
Stock changes	+12	+11	
Exports	294	312	+ 6
Total final demand ..	1,071	1,139	+ 6½

Sources : C.S.O., Economic Statistics, 1963 ; and author's prediction.

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It is suggested that total final demand in current prices will be about 6½% higher in 1963. The rate of increase will be a little lower for personal and public authorities expenditure, viz., about 5%, and for exports which are expected to rise by 6% in value. Fixed capital formation, on the other hand, is expected to exceed its 1962 level by more than 15%, thereby continuing the recent trend toward raising the ratio of capital formation to gross national product. This ratio should rise from 15% in 1962 to 16½% in 1963.

Gross national product in current prices is expected to rise by about 6%, while imports may rise at a higher rate, viz., 8%. Imports thus will tend to increase more than exports, both in absolute and relative terms, and the balance-of-payments deficit is envisaged as rising from £13 million to £19 million. Such a happening must probably be accepted when a substantial increase in investment is aimed at.

In order to obtain an indication as to the real growth rate, it is further necessary to introduce assumptions about price changes. The set of accounts in constant prices shown in Table 4 is based on the main assumption that domestic price increases will be less than between 1961 and 1962, viz., in the region of 2½%, while export prices rise by 1½% and import prices by 2%. It goes without saying that the figures given here are even more tentative than those shown in Table 3.

TABLE 4 : MARKET SUPPLIES AND FINAL DEMAND AT 1953 PRICES, 1962 AND 1963

	1962 official estimate £ mill.	1963 predicted £ mill.	Change over 1962 %	Implied price change %
Gross national product ..	612	633	+3½	+2½
Imports	280	296	+5½	+2
Total market supplies ..	892	929	+4	+2
Personal expenditure	458	470	+2½	+2½
Public authorities' expenditure ..	64	66	+3	+2
Fixed capital formation	93	105	+13	+2½
Stock changes ..	+11	+10		
Exports	266	279	+4½	+1½
Total final demand	892	929	+4	+2

Sources : C.S.O., Economic Statistics, 1963 ; and author's prediction.

If the figures presented here are accepted, then it follows that in 1953 prices final demand as a whole will expand by about 4% between 1962 and 1963. The expansion rates will be very different for the various components of final demand, ranging from 2½% for personal consumption to 13% for fixed capital formation.

The rate of growth for the gross national product at constant prices should be in the neighbourhood of 3½%. This is less than the 5½% growth in the volume of imports but a somewhat higher growth rate than that of 2½% observed for 1961–62.

This growth is envisaged as being brought about without an increase in the total labour force, though of course the process of redistribution from the agricultural sector to the non-agricultural sectors must be continuing. The decline in the total labour force which has been observed in the past may in fact still be going on.

The projected increase in nominal and real gross national product will, as in previous years, be unevenly distributed over the various sectors. In the agricultural field, the projected increase is of the order of £6 million in total sales and of £3 million in gross and net agricultural output value. With an average price level similar to the 1962 average, this means an increase of about 1½% in value and volume of agricultural output.

Regarding the industrial sector, the volume of production index for all transportable goods industries in the first quarter of 1963 is 5½% above the corresponding level in 1962 and indicates an increase of about that order of magnitude in real terms ; with some rise in price, the increase in money terms will be correspondingly higher. The average index of 1962 was 4½% higher than that of 1961 ; and the volume of production index thus also provides evidence for some acceleration in the growth rate. Textiles, chemicals and metals and engineering industries appear to show the most favourable results.

It may be of some interest to compare the forecast made here for Ireland with those made for other countries, notably the United Kingdom. With regard to that country, a recent analysis has been made by the N.I.E.S.R. (1963).

It is estimated, among other things, that gross domestic product in the United Kingdom at 1958 prices will rise by 2¾% between 1962 and 1963. Considering that there was no increase in real gross domestic product between 1961 and 1962, in fact a fractional decline, this is only a moderate growth rate. A higher expansion rate is, however, envisaged for 1964. Consumers' expenditure at 1958 prices is expected to rise by about 3% between 1962 and 1963.

In other countries of Western Europe, according to a survey by Kiel University (1963), somewhat higher growth rates are foreseen. Estimates for the increase in real G.N.P. between 1962 and 1963 range from about 5½—6% for Italy and 5—6% for France, 4% for the Netherlands, 3½% for Germany (Federal Republic) and Sweden, to 3% for Belgium.

When comparing these figures with the 3½%

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forecast for Ireland, it should be remembered that these countries generally have a growing population. Unless the very fact that Ireland has so far failed to achieve a growth in total population and labour force is in itself counted as an unfavourable result, the Irish record seen in terms of growth per head of population may be considered as fairly satisfactory.

5. Some further considerations

The results of the analysis carried out here imply a rise in the growth rate for the Irish economy from $2\frac{1}{2}\%$ to about $3\frac{1}{2}\%$. This is a short-term forecast and does not answer any questions regarding the future of the Irish economy after 1963. In particular, it leaves open the possibility that a further rise takes place, bringing the growth rate to an average of $4\frac{1}{2}\%$ over the period 1963–70 which would be necessary to achieve a 50% increase in real G.N.P. between 1960 and 1970. As against this, the alternative hypothesis that the growth rate will settle down to a level of 3% with some fluctuations around this value, may appear equally plausible.

Theoretically, it would be possible to carry the forecast further, by substituting the predicted changes between 1962 and 1963 into the forecast equations and thus adapting them to predict the changes between 1963 and 1964. The predictions will again depend on the value inserted for the increase in final non-consumption demand, and if this came again to £35 million, an increase in G.N.P. by £45 million, in consumption by £36 million and in imports by £26 million would be forecast. All these figures resemble the 1962–63 forecast values, though they are a little higher.

Such an exercise, however, is affected by too many sources of error to be of practical value. What is believed to be important is the reasoning inherent in the model adopted here, which emphasises the importance of investment and exports in providing the necessary stimulus to home production.

The relative contributions of the two components of final demand towards stimulating economic growth have varied in the past and may vary again. Between 1959 and 1961 the main impetus came from the expansion of exports ; and this statement remains true when applied to the period 1959–62 as a whole, even though between 1961 and 1962 the substantial expansion in fixed capital formation and stock increases were the operative factors.

It is implied here that at present, investment and exports are of approximately equal importance in promoting, or helping to promote, economic growth. This state of affairs may continue for some time, as the proportion of gross national product invested may rise further ; but sooner or later, the rate of increase in fixed investment is bound to slacken. With regard to stocks, this is even more obvious, since even an increase in stocks which is more moderate than that of the preceding period means a decline in the contribution of this item towards an expansion in final demand.

The role of exports thus becomes clear. It is not so much that exports are required to pay for imports, though in the long run this is, of course, also an important consideration. The main point is that exports provide an outlet for increased production which home consumption can only supply to a limited extent. Without a continued expansion in exports, probably both of agricultural and industrial products, it is difficult to see how a growth rate even of the present order of magnitude could be maintained.

The position may well be different in a country with a large home market like the United Kingdom, where the bulk of production goes to home consumption, and exports assume a more marginal role. In such circumstances, economic prosperity at home is not necessarily related to a high level of exports, and a high growth rate may often be associated with a high level of consumption expenditure and imports and a fairly large balance-of-payments deficit. Thus, to achieve a recovery from the recent recession, a stimulation of home consumption by tax concessions in the British budget was a logical step.

In Ireland, a budgetary policy on these lines was not called for in the economic circumstances of the time, and in any event the effectiveness of a stimulation of home demand appears more dubious. There is a great need for investment in a country with a narrow industrial basis, whose problems resemble perhaps more those of Italy than those of other Western European countries. But also, there is a great need for developing further export markets.

In the past, considerable progress has been made towards import substitution by developing industries catering mainly for the home market. A substantial part of home demand must, however, be for mass-produced goods in which Ireland will find it hard to compete ; and the possibilities of capturing a variety of further sectors in the home market must be limited. A policy of specialisation on a limited number of lines selling both at home and abroad may be called for.

It is realised that the future of exports is influenced by factors beyond the control of the Irish producer, exporter or government, particularly by the import policy adopted in the United Kingdom as well as economic conditions there. Whilst progress has been made in the diversification

of export markets, it still remains true to say that the demand for exports from Ireland is dependent on the United Kingdom demand for imports, the factors affecting which are themselves in doubt. If the findings of M. FG. Scott (1963) are to be credited, relative prices are of outstanding importance as far as imports of manufactured goods are concerned.

It is doubtful whether this emphasis is realistic. Whilst the price has to be right, there are nevertheless other factors to be considered. High quality, publicity and the ability to find the right products may be equally or more important. It would appear to be more fruitful for Irish producers to compete on the basis of higher quality than on the basis of lower prices in export markets.

If it is a correct assessment of the position that future economic growth to a large extent depends on expansion in exports, this raises a great number of problems relating to the country's foreign trade policy. To what extent will a liberalisation of import restrictions or a reduction in tariffs help to promote exports ? If any such measures are adopted, what timing would be suitable, and should they be taken unilaterally or should concessions to be obtained in return be negotiated ? What should be the country's policy with regard to E.F.T.A. and E.E.C. ? In the present context, it is impossible to deal with these questions ; all that can be done here is to draw attention to their existence.

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APPENDIX

Forecast of Agricultural Output 1963

by

E. A. Attwood and M. Ross

An Foras Talúntais

The decline in wheat acreages in the past two seasons has continued in 1963, and current estimates indicate a fall of slightly over 20% over last year's acreage. The level of yields in 1962 was above the trend of recent years and in view of the delayed sowing this spring it appears unlikely that the yield this year will reach last year's level. The average realised price will depend upon the extent to which production exceeds the estimated home requirements for bread making (determined by the

Department of Agriculture at 265,000 tons) ; the estimated value of total output is £9·25 m. The decline in oat acreage is also expected to continue, but the sales off farms are not likely to be much affected, and output will probably remain at recent levels. The acreage of barley has expanded to take up some of the decline in that of other cereals. The quantities of malting barley required this year are below those of the previous season, and a considerable part of the malting barley acreage will be

used for feeding. Altogether the acreage of feeding barley is estimated to be 323,000 acres. The total value of all barley sold off farms this year is likely to reach £9·5 m.

The production of cash root crops has been increasing in recent years. The acreage of sugar beet sown this spring is higher than any previous year, and at the projected yields and sugar content this is likely to produce an output of £7 m. The value of potato output is less certain, and the record 1962 figure is unlikely to be repeated. However, the rise in certified seed acreage, and the developments in potato processing are likely to maintain output close to the 1962 figure.

The other crop production consists of horticultural crops and miscellaneous items such as hay and straw sold for non-agricultural production. Fruit production has been expanding, and sales in the current year are expected to be £1·25 m. in the light of contract prices recently announced. Other crop output is likely to expand to £7·25 m. (including field vegetables, grass seeds, hay and straw).

CROP PRODUCTION FORECAST FOR 1963

	1963 forecast (£m.)	1962 actual (£m.)	1961 actual (£m.)
Wheat	9·25	10·55	11·46
Oats	1·25	1·01	1·15
Barley	9·50	8·73	7·21
Sugar Beet	7·00	6·27	5·72
Potatoes	8·00	8·83	8·01
Horticultural and Miscellaneous crops	8·50	8·14	6·62
Total Crops	43·50	43·53	40·17
Timber and turf	5·50	5·69	5·38
Total	49·00	49·22	45·55

The higher stocks of cattle, and the larger size of the breeding herd will give rise to a larger cattle output in 1963 than in the previous year. The store trade has become relatively more favourable than the carcase trade, and this trend is likely to continue in the near future. The January/April exports of store cattle was 2½% up on the previous year, and the trend has been upward in this period. Total store exports, on this basis, is likely to be 425,000; fat cattle exports (including milch cows) are forecast at 225,000 head. This gives a total of 650,000 head. The average price per head exported during the past three years has been £62·3; equivalent to £58·5 ex farm. This gives a total ex farm output of £38·0 m. if prices are maintained at this level (which would seem the most likely estimate; fat cattle prices may be somewhat lower, but store cattle prices seem likely to be slightly higher).

The export trade in beef is dominated by the trade in boxed boneless beef to the U.S.A.; the prospects here appear similar to those in 1962. The downward trend in canned beef is likely to level off; there remains the trade in carcase beef, which has been running at 15% below the 1962 level. Recently the exports have been closer to the level a year ago, and the prospects for 1963 as a whole are that the 1962 exports will be repeated. Home consumption has been estimated from the trend over recent years and the value per beast is the same as in the deadmeat export trade. The upward trend in production is expected to lead to a slight increase in stocks, and these have been valued at £0.5 m.

FORECAST OF CATTLE PRODUCTION AND EXPORTS 1963

	No. (000)	Value of Output (£m.)	Value of Exports (£m.)
Total live exports	650	37·9	40·3
Beef exports	385	20·1	18·2
Total	1,035	58·0	58·5
Imports	100	5·2	5·2
Net Exports	935	52·8	53·3
Home consumption	210	10·7	
	1,145	63·5	
Stock changes	+5	+0·5	
Total Output ..	1,150	64·0	

The rise in cow numbers and the upward trend in yields will lead to higher milk production in 1963; the deliveries to creameries so far this year (January–May) have been 1·2 per cent above the 1962 level. This will lead to an increase in value of output of at least £0·9 m. The average price per gallon will also be slightly higher than in 1962. The 1963 forecast is as follows:

FORECAST OF MILK OUTPUT 1963

	Quantity (Million gallons)	Value (£m.)
Liquid milk	132	14·4
Creamery milk	335	27·7
Farmers' Butter	65	4·2
Buttermilk and separated milk ..	16	0·2
	548	46·5

The level of sheep exports and production for the current year is expected to be well above the 1962 level, in view of the reported lambing percentages and the level of demand in the export markets. The trends so far this year show an

increase in output of 12% over 1962, and this is expected to continue, bringing the total annual output to £11·0 million. The home demand has been increasing steadily in recent years, but the numbers for export seem likely to exceed 0·8 million head (after allowing for imports), equivalent to approximately 320,000 cwt., which at £12·4 per cwt. would yield £4·0 million. In view of the rising sheep numbers, the wool clip is expected to rise to 19·0 million lb. The prices this season suggest that the average price will be approximately 44d. per lb., giving a value of total output of £3·5 million. The value of exports has generally been 66 per cent above the output figure, and this has been used to forecast the 1963 level of exports.

Deliveries of pigs to bacon factories have been 6 per cent lower in January–May 1963 than in the same period last year. A recent enquiry showed that the deliveries in the next few months are likely to be nearer last year's level. The average deliveries over the past two years was 1·52 million, to which must be added 0·1 million pigs for consumption by pork butchers, etc., and this level of output is anticipated to hold for the current year in view of the trends over the January–mid June period. At a return of £14·5 per pig, output is forecast to be £23·5 million.

Egg production in the first four months of 1963 has been over five per cent above the corresponding period in 1962, and prices have been 20 per cent higher. The forecast has therefore been based on an increase over the 1962 total, but at a lower rate than that for the first four months. The output of poultry, on the other hand, is likely to be slightly lower; the actual fall is likely to be small in the case of ordinary fowl, but somewhat larger in the case of ducks and geese.

The value of horse production is almost entirely dependent on the level of exports; in recent years these have fluctuated around £5 million, but imports have been £1·25 million. The £3·75 million earned from the net export is estimated to have a farm gate value of £3·4 million (to which has been added £0·2 million for sales outside agriculture within the country). Other livestock products have been estimated at the same level as in previous years. The overall picture for agricultural output is as follows :

	1963 forecast (£m.)	1962 actual (£m.)	1961 actual (£m.)
Crops :			
Cereals	20·0	20·29	19·82
Potatoes and sugar beet	15·0	15·10	13·73
Other crops (incl. turf and timber)	14·0	13·83	12·00
Total Crops	49·0	49·22	45·55
Livestock and Livestock Products:			
Cattle and Hides	63·5	58·72	68·42
Milk	46·5	45·51	43·92
Sheep and Lambs	11·0	9·99	7·79
Wool	3·5	3·17	3·26
Pigs	23·5	24·18	23·17
Poultry (incl. day-old chickens)	3·7	3·78	3·79
Eggs	10·5	10·39	9·82
Horses	3·6	3·68	3·49
Other	0·1	0·08	0·12
Total Livestock	165·9	159·50	163·88
Change in inventories	+1·1	+4·05	−3·05
Total	216·0	212·77	206·38
Less seeds, fertilisers and feed	41·0	40·90	37·07
Net Output	175·0	171·87	169·31

For exports, the position is similarly shown here in detail :

	1963 forecast (£m.)	1962 actual (£m.)	1961 actual (£m.)
Store Cattle		26·52	25·05
Fat Cattle	40·2	9·35	18·73
Other Cattle		0·34	0·35
Sheep	2·0	1·93	1·62
Other Live Animals	6·0	5·88	5·57
Total Live Animals	48·2	44·01	51·32
Beef and Veal	18·2	17·33	21·48
Mutton and Lamb	4·0	3·68	1·76
Pork	8·0	2·23	0·70
Bacon		5·99	7·08
Other Meat and Meat Products	2·4	2·40	2·24
Total Meat	32·6	31·63	33·26
Poultry	0·7	0·60	0·76
Eggs	0·1	0·02	0·21
Dairy Products	15·0	13·13	11·17
Fruit and Vegetables	3·5	3·31	1·87
Wool and Hair	6·0	5·44	5·33
Hides and Skins	1·4	1·33	1·45
Other Agricultural Products	4·0	4·18	5·75
Total miscellaneous	30·7	28·01	26·52
Grand Total	111·5	103·65	111·10

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