

## The Telesis Report — A Review Essay

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Since 1979, the National Economic and Social Council (NESc) has been carrying out a broad re-examination of the package of government policies used to promote Ireland's industrial development. NESc Report No. 64, *A Review of Industrial Policy* — The Telesis report — is the centre-piece of this review and is a study of potentially major importance in that it is the first large-scale attempt to provide a comprehensive assessment of Ireland's industrial structure and industrial policies. The choice of a foreign-based management consultancy group to carry out the study in some ways adds to the significance of the report, given that the authors are free from any ties with domestic institutions and interest groups, and that their analysis cannot be dismissed by applied policy-makers as being "too academic" or "right, in theory but irrelevant in practice". A number of problems arise, however, in assessing a management consultant's study from the perspective of academic economics. In particular, the theoretical framework and approach of the consultant may differ markedly from that suggested by orthodox economics, while the view as to what constitutes conclusive evidence may also differ from that of academic convention. In the Telesis report, the first of these problems is of limited significance. The vocabulary and style of the report reflect the influence of a business school rather than an economics department, but the framework and approach are "economics-compatible" and can be easily interpreted in terms of the terminology and concepts of international trade theory. The question as to what constitutes adequate

empirical support for a proposition is, however, a more serious problem. Throughout the report, empirical propositions and causal relationships are stated with markedly less support from data and statistical analysis than academic convention would dictate. This feature of the report is in large part made inevitable by the very broad-ranging terms of reference of the study, but leaves most empirical arguments in the report with the status of "plausible", "persuasive" or "highly persuasive" rather than "convincing".

This review essay follows the structure of the report itself, which partially sketches a simple model of the international economy in Section I, analyses Ireland's present position within the international economy in Section II and then proceeds to assess existing Irish policies in the light of this framework and analysis. Criticisms of the policy recommendations of the report can, therefore, take three distinct forms: one can question the relevance of the framework, the accuracy of the applied analysis and the consistency of the policy recommendations with the preceding analysis.

## I THE MODEL

Goods are initially divided into three categories – non-traded, natural resource-based and pure manufactured goods.<sup>1</sup> The authors view the output structure and performance of the pure manufacturing sector as the key factors determining a country's wage and income levels relative to the prevailing levels in the international economy, except in the case of small resource-rich countries which can become completely specialised in natural-resource based products. Pure manufactured goods are further subdivided into products where low entry barriers and limited skill requirements ensure that absolute wage levels are the key factor determining the location of production (so-called low-wage businesses) and other products (so-called complex factor cost businesses). The principal factors explaining how high wage countries can remain competitive in the production of these "other products" are the learning-by-doing knowledge and skills embodied in both manual and non-manual labour in established industries, and the competitive advantages embodied in established firms. The experience-based knowledge embodied in labour can be either industry-wide or specific to an individual sector or product, while the competitive advantages embodied in established firms in high-wage countries include technical knowledge (both proprietorial and non-proprietorial), established marketing, distribution and service networks,

1. Space limitations allow the authors room for only a brief sketch of their theoretical framework. For a more comprehensive statement of the approach to industrial policy adopted in the report, albeit in a US context, see Magaziner and Reich (1982); on the analysis of the determinants of firm competitiveness in individual industries, see Porter (1980).

brand loyalty, etc. The levels of development of an economy's physical infrastructure and of its non-traded goods sector play an important supporting role in enabling high-wage countries to remain competitive in complex factor cost businesses. Inter-country interest rate differentials and associated capital scarcity problems for newly-industrialising countries are considered to be of relatively limited importance.

There is clearly much in this framework that is intuitively plausible, in particular the emphasis on experience-based skills and the existence of entry barriers facing would-be entrants into an industry. It can be forcefully argued that a framework of this type is essential in understanding why Irish industrialisation has been so limited given Ireland's low wages and low capital costs relative to its trading partners. However, the conceptual richness of the framework is purchased at a substantial cost. It is impossible to model the varied types of learned experiences of both firms and workers in a formal manner, and hence it is impossible to derive rigorous policy conclusions. Though rigour is often purchased at the expense of reality, a primary advantage of a formal model is that one is forced to confine one's choice of outcomes to the set of *feasible* outcomes, and is thereby prevented from developing policies directed at an infeasible outcome.<sup>2</sup> A number of general policy implications of the Telesis framework can, however, be stated. First, market failure is endemic in a world characterised by experience-based infant industry-type learning – when either such learning is jointly shared by many agents, or when capital markets are imperfect. Hence, there is in general a need for widespread state intervention. Second, since the exact nature of the market failure will vary from industry to industry, the state requires a variety of distinct micro-policy tools to deal appropriately with each case; as Magaziner and Reich (1982, p. 332) note, “if an industrial policy is to enhance the economy's international competitiveness, it must do so with a scalpel rather than a sledgehammer”. Industrial policy, in this perspective, is *micro* policy, in the sense that the need for intervention and the type of policy required will vary across sectors and industries. A somewhat paradoxical implication of this perspective is that very few broad cross-sectoral policy conclusions can be drawn if the forms of market failure do indeed vary between industries!

## II THE APPLIED ANALYSIS

The Telesis analysis of existing industry in Ireland divides it into two

2. It is this author's opinion that in at least one key instance, discussed below, Telesis did in fact fall into this trap.

categories, indigenously-owned firms and subsidiaries of foreign firms. The analysis of indigenous industry's performance is wide-ranging if somewhat depressing, given the estimated 28 per cent decline in indigenous traded sector employment during the 1970s. One major achievement of the analysis deserves specific mention – the discrediting of the “old vs. new” Irish industry dichotomy. The argument that this distinction is empirically unsound is developed convincingly,<sup>3</sup> and its replacement by a “traded/non-traded” distinction is attractive in that it substitutes a theoretically-based categorisation for one based on administrative criteria. From its analysis of the barriers to expansion of indigenous industries, Telesis concludes that:

1. the food-processing industry is experiencing disappointing development due to problems with the cost, quality and seasonality of its inputs;
2. the primary problems of existing firms outside the fast-contracting “low wage business” sector are those of inadequate size and the associated failure to penetrate markets beyond the UK;
3. the existence of skill and minimum scale barriers facing would-be indigenous producers is the primary cause of the very poor linkages performance of the foreign-owned industry sector; and
4. problems with high cost non-traded inputs, particularly energy and packaging materials, exact significant cost penalties in a number of sectors, while infrastructural weaknesses are, in general, not a major barrier to expansion.

Assessment of the empirical validity of these conclusions would require more conclusive and systematically presented data than are in the report, but the analysis Telesis presents is extremely persuasive. While some of the analysis can hardly be described as novel (e.g., the discussion of the food-processing industry), the clear development of the traded/non-traded dichotomy and the almost excessively detailed discussion of the indigenous traded-goods sector are very useful contributions. It is, however, regrettable that no consideration was given as to *why* existing firms in the traded-goods sector are of inadequate size and have not expanded into non-UK markets, since it is the answer to that question which would reveal whether or not policy intervention is required and what form it should take.

The primary engine of growth in the Irish manufacturing sector in the

3. The report shows that the bulk of indigenous exports is attributable to “old” firms (i.e., established pre-1967), that “new” indigenous industry is primarily directed at the domestic market, and that, with a couple of notable exceptions, the large successful indigenous producers are concentrated in sectors protected by transport costs.

past two decades has been the on-going expansion of export-oriented foreign-controlled industry operating in Ireland. Telesis provides an interesting discussion of a number of the sectors in which foreign investment has been concentrated, although the chapter is perhaps marred by excessive detail and insufficient structure. The main theme of the discussion is that the typical project located in Ireland is a relatively low-skill manufacturing/assembly unit with limited linkages to the domestic economy, limited R and D and marketing activities, and with none of the business's "key competitive elements" located in Ireland. This assessment of the characteristics of foreign-owned industry, in general, and the electronics industry, in particular, has generated significant controversy, and is in marked contrast with the view suggested by the Industrial Development Authority (IDA) and implicitly embodied in the "new vs. old" industry paradigm. The Telesis perspective is persuasively presented, although the consciously non-academic method of data collection and presentation used in the report prevents a rigorous empirical testing of the legitimacy of the conflicting perspectives.

Trade-theoretic economic intuition, however, suggests that the Telesis position on this issue is broadly correct. In general, one would expect the characteristics of export-oriented direct foreign investment (DFI) which a country attracts to reflect the host country's labour skill levels, the level of development of its non-traded goods sector and infrastructure and its government's industrial policies. Ireland is a small region of a large free-trade area with relatively low wages and little profit taxation. It has few sub-supplying industries, few sector-specific skills and knowledge and a physical infrastructure with significant limitations. Furthermore, its research/education system, if only for economies-of-scale reasons, provides an environment for R and D activities less favourable than that of other European Community (EC) countries. One would consequently predict that Ireland's foreign-owned industry would in large part have the characteristics which Telesis attributes to it – i.e., a sector consisting primarily of relatively low skill manufacturing/assembly units with limited linkages. It should be stressed, however, that the project characteristics identified by Telesis should not be viewed as flaws intrinsic to DFI *per se* (and, by extension, to Ireland's industrialisation strategy) but rather as characteristics which reflect the level of Irish industrial development. Thus, one observes low linkages and few R and D activities among foreign subsidiaries in Ireland *because* the inadequacies of the sub-supply and non-traded goods industries and the R and D environment are such that projects with such attributes locate elsewhere.

Yet while the Telesis description of foreign industry operating in Ireland is probably correct, and does make a useful contribution as a demythologising exercise, the discussion of the "foreign" sector in the report is seriously

flawed in that the focus of the discussion is of limited interest to Irish industrial policy-making, at least within any meaningful time horizon. The formulation of appropriate policies for the development of the foreign sector requires insight into (1) expected trends in the scale of the foreign sector given unchanged incentives and unchanged wage levels in Ireland relative to those of her trading partners, (2) the probable effects of changes in the incentives system on the scale of the foreign sector and (3) the sensitivity of the scale of the foreign sector to changes in Ireland's wage levels relative to her trading partners. While the Telesis discussion provides some partial and unsystematic insights into the first two of these issues, its primary emphasis is on the sensitivity of Ireland's foreign-owned sector to *significant* increases in Ireland's wage levels relative to those of her trading partners (NESC, Report No. 64, p. 155). Given the less-than-rosy forecasts of probable labour demand trends implicit in the Telesis analysis of both indigenous and foreign-owned industry, even the most casual analysis of the supply/demand arithmetic of the Irish labour market would suggest that this emphasis is fundamentally misplaced. Had the analysis attempted to examine the set of factors affecting the supply of DFI to the Irish economy, and the potential effect of domestic policy changes on the quantity supplied, industrial policy formulation would have been better served.

### III THE POLICY RECOMMENDATIONS

Considering briefly the main features of the report's package of policy recommendations, one major theme in the Telesis critique of existing policies and the method of their execution is the argument that the present operation of the grant schemes requires *unnecessarily* large state expenditures,<sup>4</sup> due to the failure of grant-giving agencies to use of their *discretionary* grant-giving powers to minimise state outlays. This argument underlies the recommendation that average grant levels for foreign projects be substantially reduced and that indigenous non-traded goods projects receive no aid. The evidence presented by Telesis in support of their position is very persuasive although not conclusive,<sup>5</sup> as indeed the authors agree (p. 198). On a priori grounds alone, however, it is clear that the incentives for state agencies to eliminate economically unnecessary expenditures can be weakened by such factors as political and regional pressures, the need to maintain a balance between grants to foreign and indigenous firms, the desire to minimise

4. State expenditures are unnecessarily large in the sense that projects which receive state aid would have proceeded with markedly less or even no state aid.

5. Conclusive proof would require (1) careful ex-post identification of projects which have received unnecessary state funding and (2) some means of demonstrating that, say, the IDA is performing inadequately in identifying such projects ex-ante, taking account of the limited data available to it.

failure rates and maximise employment growth rates in *grant-aided* firms, etc. This suggests that at least some unnecessary outlays of state funds would be observed. If the Telesis position on this issue is substantially correct, its recommendation on guide-lines for average grant levels seems an appropriate immediate response; the long-term policy problem is, however, one of designing an appropriate incentive structure within which state grant-providing agencies would operate – a far from easy task! In this regard, the report's emphasis on the need for a more careful monitoring of state agencies and expenditures seems an appropriate one, although practical implementation may pose problems.

A second major theme in the report's policy recommendations is the need for greater emphasis on indigenous industry relative to foreign firms – a recommendation also advocated by the NESCF. Despite the strong intuitive and political appeal of a more “nationalist” strategy, it is a recommendation which contradicts much of Telesis's own analysis. The applied analysis section of the report argued effectively that Ireland's industrialisation to date has been based almost exclusively on its cost competitiveness as an intra-EC production/assembly location for transnational enterprises. This analysis suggests that heavy emphasis on attracting foreign investment represents the most appropriate exploitation of Ireland's “comparative advantage” – a suggestion which is supported by the evidence on the significantly higher grant cost per job in indigenous relative to foreign industry. Since both actual employment trends and grant cost per job measures provide strong market signals concerning the relative cost efficiency of promoting foreign-owned rather than domestic industry, it is clear that a particularly strong set of arguments is needed if one is to support the “greater indigenous emphasis” strategy. In fact, the only argument which Telesis offers on this issue is a rather loose cross-sectional argument along the lines that “high-income industrialised countries do not rely heavily on DFI; therefore, if Ireland wants to become a high-income country, it cannot rely on heavy inflows of DFI”. The probable germ of truth in this argument is that, were Ireland a high income industrialised country, it would have a strong group of indigenous traded-goods sector firms. This, however, tells us little about an appropriate strategy for *moving towards* a high-income economy position.<sup>6</sup> The absence of any careful discussion in the report concerning an appropriate industrialisation strategy for Ireland leaves the Telesis position on the “indigenous vs. foreign” issue essentially unsupported.

6. Optimal strategy might, for example, involve relying on foreign investment to encourage the development of the non-traded goods sector and the development of experienced-based skills in the work-force, ultimately creating the factor endowment conditions in which indigenous industry could prosper.

In fact, the entire focus of the discussion on the respective roles of foreign and indigenous industry in Ireland's movement towards a high income economy position is probably irrelevant except in the context of some very long-run planning horizon. The likelihood of on-going excess-supply pressure in the Irish labour market for many years to come suggests that the important issue in the "foreign vs. domestic" debate is the relative efficiencies of the two categories in generating employment expansion at existing Irish relative wage levels, rather than in sustaining a movement to higher wage levels relative to our trading partners.

A third theme in the policy discussion concerns the inadequacies of the small firm focus of many of the policies designed to develop indigenous industry, as dramatically captured by the image of the strong public agency hand-holding small weak firms. Telesis places strong emphasis on the need to establish large structurally sound firms. This emphasis is consistent with both its "trade model", which stresses the competitive advantages of long established firms and the high costs of entering export markets, and also with its analysis of the weaknesses of existing indigenous firms, which notes the limited capabilities of small firms to enter export markets and the unreliability problems associated with small sub-supplying firms. The report's recommendations as to how such companies should be established and promoted, and the altered role which this would imply for the IDA, seem to this author to be both imaginative and well thought-out.

A fourth key policy theme in the report concerns the need for use of a broad package of policy instruments instead of what the consultants see as the present excessive reliance on the capital grants scheme. The theoretical legitimacy of this recommendation is unquestionable; it is perhaps the most robust theorem of welfare economics that a market failure should be addressed by the most directly targetted policy tool, and that, hence, given a number of forms of market failure, there will be a need for a corresponding range of policy tools.<sup>7</sup> The consultants' comparison of Ireland's set of policy tools with those of other countries, the dramatic quantitative differences between export assistance and capital grants, for example, and the persuasive argument made that the leverage of capital grants may in many cases be very limited provide a convincing case for broadening the set of policy tools in effective use in Ireland.

While it would be easy to debate at length the strengths and weaknesses of the set of policy recommendations contained in the report, it is easy to miss the weakest element in the set of recommendations — the omissions. The Telesis "world-view", where established firms and "core" regions have strong

7. Problems of administrative costs and the desirability of avoiding an intervention system of extreme complexity may, however, make it desirable to use a relatively small set of policy tools.



competitive advantages, suggest that Ireland's position as a late industrialiser with few of these advantages yet high wage levels (relative to other late industrialising countries) is a particularly difficult one. Yet the report contains little discussion about an outline of a strategy for a country in Ireland's position, and provides little insight into the characteristics of the industries into which indigenous firms should be encouraged to enter.<sup>8</sup> One cannot help but feel that there is ultimately a disturbing gap between the substantial problems which the report identifies in Ireland's existing industrial structure and the relatively minor modifications in policies which the report recommends.<sup>9</sup>

#### IV CONCLUSION

The key strengths of the Telesis report are its coherent structure, its constant emphasis on identifying the position of Irish industry within the international economy and the extent to which it makes use of a broad knowledge of other countries' experiences to place Irish industrial policies in a comparative context. A number of the weaknesses of the report have been outlined above – among the most important being the malfocused analysis of the foreign-owned sector and the avoidance of some of the more difficult policy issues. Any attempt to assess the extent to which it adds to the existing literature on Irish industrial policy depends, of course, not merely on the strengths and weaknesses of the report itself, but also on one's essentially subjective evaluation of the pre-existing literature. This author is of the opinion that the Telesis report is a very significant contribution to the debate on Irish industrial policy and will remain essential reading for students of industrial policy for many years to come.

#### REFERENCES

- MAGAZINER, IRA C., and ROBERT REICH, 1982. *Minding America's Business: the Decline and Rise of the American Economy*, New York and London: Harcourt Brace Jovanovich.
- PORTER, MICHAEL, 1980. *Competitive Strategy*, New York: The Free Press.

8. In partial defence of the report, the authors might argue that the identification of appropriate sectors requires the carrying out of detailed international competitive analysis of individual industries, which was not part of their brief.

9. This "gap" could be attributable to the sub-optimality of the policy package the report recommends or alternatively to the less than favourable outlook for the Irish economy even given optimal domestic policy!