

ANNEX A

1. 'The Cost of Violence Arising from the Northern Ireland Crisis since 1969'.
NEW IRELAND FORUM
[Dublin : Stationery Office 1983]
2. 'The Impact of the Northern Ireland Crisis on the Economy'.
N J GIBSON
Published in: 'NORTHERN IRELAND: LIVING WITH THE CRISIS'.
Aldwych Press, London 1987
Ed A J Ward
3. 'Job Generation in Manufacturing Industry'.
NORTHERN IRELAND ECONOMIC RESEARCH CENTRE: June 1989
4. 'Northern Ireland: An Economy in Crisis'.
CAMBRIDGE JOURNAL OF ECONOMICS 1981, No 5, pp 1-31
B ROWTHORN
5. 'Economic Growth in Northern Ireland: Problems and Prospects'.
D CANNING, B MOORE & J RHODES
Published in: 'BEYOND THE RHETORIC'.
Ed P Teague, 1987
6. 'The Economic Impact of the Northern Ireland Conflict'.
DAVY KELLEHER Mc CARTHY LTD (1990)
7. Abstract from SDLP submission paper to Stormont Talks (June 1991), detailing
the Costs of Violence in Northern Ireland.
SDLP
8. 'Case Study: Northern Ireland'.
S FOTHERGILL and N GUY
Published in, RETREAT FROM THE REGIONS: CORPORATE CHANGE AND THE
CLOSURE OF FACTORIES, 1990, ch 6.
Jessica Kingsley Publishers and Regional Studies Association London

NB: It should be noted that not all of the above are solely confined to estimating the economic impact of the Conflict; several only deal with the subject in passing.

THE COST OF VIOLENCE ARISING FROM THE NORTHERN IRELAND CRISIS SINCE 1969

A report by the New Ireland Forum (Dublin, 1983)

Findings

The first part of the report deals with the "human" costs of the conflict: the loss of life, its social and psychological consequences and its demographic impact. No attempt is made to attach monetary values to these, except insofar as they are reflected in items such as criminal injury compensation.

Those costs which *are* quantified in monetary terms are divided into:

Exchequer costs:

- direct cost of security operations;
- compensation for criminal injuries and damage;
- cost of growth in prison population; *and*

Economic costs:

- decline in output;
- lost jobs and investment;
- damage to tourist industry;
- increase in electricity prices.

The exchequer cost for the period 1969–1982 (at 1982 prices) is estimated as IR 5,550 to the UK and IR 1,080 to the RoI, making a total of IR 6,630. The economic cost (on the same basis) is estimated as IR 4,035 to NI and IR 1,175 to the RoI, making a total of IR 5,210. The total cost of the "troubles" for the period 1969–1982 is thus estimated to have been IR 11,840 at 1982 prices.

Methodology

There is no consistent methodology running through this paper. Much of the information received from outside bodies is simply accepted at face value, while the authors' own work is frequently based on arbitrary assumptions. The following summary of the methods by which various figures were obtained illustrates the piecemeal nature of the work.

Exchequer costs

Direct cost of security operations:

- *Rol*: replies to Dail questions and estimates from Government Departments (no indication given as to methodology);
- *Ni*: in 1982–83 estimates, 68% of law enforcement expenditure was described as "extra" costs; this percentage has been applied to *all* law enforcement expenditure for the period to arrive at the total attributable to the "troubles". The *additional* cost of maintaining the Army in NI was taken from the answer to a PQ.

Compensation for criminal injuries and damage:

- *Rol*: Department of Justice estimates;
- *Ni*: *all* awards have been assumed to relate to the "troubles".

Economic costs

Output:

- based on comparison of NI and UK annual GDP growth rates:

1959–1969: NI = 1.4 x UK

1969–1982: NI = 0.4 x UK

If differential of earlier period had been maintained, NI GDP in later period would have grown at 2% pa instead of actual 0.6% (authors' calculations based on Regional Trends 1983). 75% of this shortfall assumed to be attributable to "troubles" (authors admit this is arbitrary figure).

Jobs & Investment:

- estimates based on papers by Rowthorn and Gibson (both reviewed elsewhere);
- cost of lost jobs and investment assumed to be counterpart of and therefore already represented by cost of lost output;

Tourism:

- analysed separately but cost likewise assumed to be a component part of total "lost GDP" figure.

Electricity prices:

- ESB estimate of costs resulting from loss of interconnector.

Limitations

The report relies on a wide variety of estimates from outside bodies, with no analysis of whether they are based on compatible premises.

The authors refuse to take account of the employment created by the security operation on the grounds that "it represents the diversion of resources from socially productive purposes to meeting exigencies that would not normally exist." This ignores (a) the fact that these resources might not otherwise have been allocated to NI, and (b) the multiplier effect which security expenditure has on the wider NI economy.

The tourism calculations seem rather suspect. This does not affect the overall estimate of the economic impact, which is derived from GDP figures, but the estimate of the proportion of this impact attributable to the tourist industry is still an important point. The authors quote two studies:

- Bord Failte, who assume that NI tourist revenue would have followed the same path as the UK, ie with the same adverse effects of oil shocks, recession and competition from cheap package tours; and
- Clark & O Cinneide, who assume that 1968 revenue would have been maintained in real terms.

The former seems much more plausible, but the authors have used the average of the two estimates.

The authors' estimates are expressed in Irish pounds. Sterling equivalents are given, but seem to have been based on a wide variety of exchange rates, ranging from IR 1 = Stg 0.80 to IR1 = Stg 0.97 (the average for 1982 was in fact IR1 = Stg 0.8125).

THE IMPACT OF THE NORTHERN IRELAND CRISIS ON THE ECONOMY

N J GIBSON

MAIN FINDINGS:

1. Population Behaviour: Migration increased dramatically in the early 1970's. He estimates that 20000 people left NI (1971 - 81) due to the crisis, but no mention is given of the adverse economic impact of this even in a general way.
2. Unemployment: Overall the crisis had relatively little effect on aggregate unemployment.
3. Employment Structure:
 - (i) Manufacturing employment (1968 - 1983) was at least 15000 less due to the crisis.
 - (ii) Public sector employment: (1968 - 1982) increased by 15000 (as a direct effect of the crisis), but Gibson suggests that this may be a rather low estimate.
 - (iii) Tourism: Staff in catering establishments (1970 - 1978) fell by 5000 (40%). Gibson attributes "much or all" of this to the effect of the crisis.
4. Gross Domestic Product: Gibson suggests that the actual rate of growth of GDP may have been little affected by the crisis. He suggests that the crisis did affect the growth of the economy adversely, but its effect would seem to have been largely offset by the expansion of public expenditure and the growth of the public sector.
5. Conclusion: The crisis had a distorting effect on the economy, weakened its private sector and made NI more dependent on financial support from GB.

METHODOLOGY:

6. This paper (which is mainly quantitative in nature) looks at population behaviour, unemployment, structural changes in employment and Gross Domestic Product in considering the effects of the crisis on the NI economy.
7. In determining the impact of the crisis Gibson looks at the way the economy actually behaved and then compares it to how it might have behaved had the crisis not occurred. He uses Wales, the North and Great Britain as a whole, as comparator regions over the period 1960 - 1983, but no reason is given for their selection.

LIMITATIONS:

1. The author tries to compare what has actually happened with what might have been if the crisis had not occurred – this cannot be done in a comprehensive way (Gibson admits to this problem).
2. The author could have enhanced his paper by the use of another peripheral region of the UK eg, Scotland.
3. Gibson quotes figures for the percentage share of employees in manufacturing in the regions (1960–1983) and highlights the fall in the shares of all the regions, especially NI. He does not however mention that the declines could be due to either a growth in total employment or a combination of growth in total employment and a decline in manufacturing employment. He suggests that manufacturing employment suffered a loss of 15000 due to the crisis. Most of the decline occurred in the 1970's. He does not mention that some of this could have been due to an adverse industry mix in NI compared with the comparator regions.
4. Gibson looks at the tourist industry, but only for NI. He offers no comparison with the level of tourism in the other regions over the crisis period. Also he covers tourism by looking at the numbers employed in registered catering establishments. He could have extended it to cover other areas within tourism.
5. In looking at the public sector Gibson could have analysed it by department both in terms of employment and expenditure over the period to obtain the crisis effects. This would have allowed him to separate out more effectively the direct effects of the crisis from the overall trend of rising public expenditure on other areas (such as police and prison services, and, health and housing) that was going to occur whether or not there was a crisis.

THE ECONOMIC IMPACT OF THE NI CONFLICT

Report by Davy Kelleher McCarthy Ltd.

Main Findings

This report outlines both the direct and indirect costs associated with the NI conflict. It focuses on specific categories of cost such as security, industrial development, energy and tourism, and also indicates other, non-quantifiable costs e.g unexploited economic opportunities and the quality of economic policy.

The consultants estimate that the total, quantifiable costs of the troubles are 307m (1988 prices) : this comprises 286m pa in security and related costs, 20m pa in tourism and 1m pa in energy. ID and other economic costs are described but not quantified.

Methodology

The report contains a mixture of both qualitative and quantitative analysis and consequently the methodological approach is somewhat piecemeal in nature. Estimates for additional electricity costs are obtained directly from NIE ; for tourism, it is assumed that in the absence of the troubles NI revenue would be the same, in real terms, as in 1968; and security costs are calculated by estimating a hypothetical ROI security expenditure per capita (assuming no troubles) and comparing this with NI's actual security expenditure per capita.

The other costs which have been identified (ID, transport, economic policy) are evaluated somewhat superficially in qualitative terms only.

Limitations

The calculation of the loss to tourism is probably underestimated. It is based on the assumption that NI tourist revenues would be the same in real terms as in 1968. In fact tourism generally has increased significantly over this period (eg ROI tourist revenues up 32% in real terms). It would have been more realistic to have built in some real growth assumption to this calculation.

There has been no attempt to relate security costs to need — NI has lower levels of other forms of crime and would therefore probably require a lower per capita expenditure than the consultants assume.

There has been no attempt to quantify, for example, ID costs or the costs of the disruption to NI Railways. Some form of estimates could probably be made for these (eg by using compensation payments or performance-related techniques).

Finally, there is no analysis of some of the broader economic costs such as employment loss, impact on GDP etc. Equally there is no mention of offsets to these losses – expansion of security services, increased PE etc.

NORTHERN IRELAND: AN ECONOMY IN CRISIS

Paper by Bob Rowthorn (Cambridge Journal of Economics, 1981)

Findings

Most of this lengthy paper is devoted to setting the historical context, culminating in the expansion of the 1960s, the stagnation of the 1970s and the initial impact of the recession beginning in 1979 (it appears to have been written in 1980). This is largely descriptive, the methodology being confined to an appendix.

The author concludes that (quite apart from the general effect of the recession) the conflict in Northern Ireland had by that time destroyed or prevented the creation of some 25,000 manufacturing jobs (equivalent to about 14% of manufacturing employment in 1970) and about 14,000 in construction and private services; at the same time it had created about 15,000 jobs in the public services, giving a net loss of some 24,000 jobs in the economy as a whole (equivalent to about 4% of total employment in 1970). He points out that this must be set in the context of a shift from manufacturing into services which would have occurred even under "peacetime" conditions; thus his finding of a loss of employment in private services resulting from the "troubles" is consistent with the fact that such employment actually increased. However, the increase was less than it would otherwise have been, comprising the direct loss of jobs in tourism, a *positive* multiplier effect from the growth of public consumption and a *negative* one from the decline of manufacturing.

Methodology

The method used is to compare the experience of Northern Ireland with that of economically disadvantaged regions of Great Britain (Scotland, Wales and the North of England). The main indicator used is the annual percentage growth in manufacturing employment (1970–1977). This is compared with a "trend" growth rate based on the assumption that each region continued to grow at its average annual rate of the period 1965–1970, yielding a performance indicator (*actual* minus *projected* annual percentage growth rate) which is negative in all cases. Shift–share analysis is used to calculate the effect of the general recession on each region according to its industrial structure, and a further adjustment is made to allow for the positive effect of North Sea oil. The residual (still negative) performance indicator is attributed in the GB regions to the relaxation of the requirement for Industrial Development Certificates (IDCs) which had previously acted as a constraint on expansion in the more prosperous areas. An allowance for the "IDC effect" is also made in NI, but this still leaves a residual of –1.7% per annum (ie the actual growth rate was 1.7 percentage points less than would have been projected), which is assumed to be the effect of the conflict.

Limitations

The author concentrates on *manufacturing* employment because "the shift–share approach is not suitable for other sectors"; he states that the results obtained for other sectors were inconclusive, but gives no further explanation. More generally, he concentrates on *employment*, without considering the effect that job creation for its own sake will have on firms' competitiveness. He proposes "a system of compulsory 'planning agreements' of the kind

widely advocated in the Labour Movement" (my italics), under which the Government could insist that firms invest in NI and even lay down specific job-creation targets. The spirit of his proposals is clearly far removed from present-day thinking in *any* of the main UK political parties.

Turning to the details of his methodology, the concentration on manufacturing employment takes no account of the problem of sectoral definition created by the trend to the contracting-out of producer services (although I am not sure of the extent to which this would have been apparent at the time of writing). It is not clear whether his shift-share methodology allows for differential rates of technological progress in different industries, which would affect the rate of employment growth to be expected in each region relative to the UK as a whole.

JOB GENERATION IN MANUFACTURING INDUSTRY: 1973 - 1986

NIERC

MAIN FINDINGS:

1. The report looks at employment change in manufacturing industry in NI, Leicestershire and the Republic of Ireland over the period 1973 - 1986. Most weight is attached to the comparison with Leic'.
2. (i) Their results show that NI did not share in the gains in inward investment that other peripheral UK regions did between 1971 and 1973. NIERC blame this on the 'Troubles'.
- (ii) Between 1971 and 1974 the Province lost 17000 jobs: This loss NIERC blames on the 'Troubles', which were at a peak in this period. A further loss of 7000 jobs in the period 1974 - 1977 is also ascribed to the 'Troubles' due to its impact on investment in NI.
- (iii) From 1977 NIERC find no evidence that NI has performed worse than other peripheral regions. They suggest that the 'Troubles' no longer exert a depressing effect or else, more realistically, levels of industrial assistance in NI have sufficiently compensated for the effects of the 'Troubles'.
3. Conclusion:
 - (i) Industry - mix explains 1/3 of the disparity between NI and Leic', but none of that between NI and the ROI.
 - (ii) The 'Troubles' are estimated to have lost NI 24000 jobs between 1971 and 1977, through reduced levels of new inward investment and lower investment in established externally owned companies.

METHODOLOGY:

4. NIERC use a SHIFT AND SHARE methodology to determine the extent to which the differences in employment growth are due to -
 - (i) Industry mix in each area; and / or the effects of the
 - (ii) "Troubles" in NI.
5. NIERC determine the significance of industry mix by looking at how ACTUAL levels of manufacturing employment by industry changed over the study period in the 3 areas and compare it to how it would have changed if it had expanded or contracted at the same rate as manufacturing industries in the UK as a whole. They then use 'actual less expected' employment in their analysis.

LIMITATIONS:

1. The idea of measuring the ROI's manufacturing employment growth by industry against the overall rate of growth in UK manufacturing employment by industry does not seem an appropriate standard with which to look at NI - NIERC admit to this.
2. Finally, the report is only of limited relevance to the topic we are considering as it discusses only briefly the impact of the 'Troubles' in terms of lost manufacturing employment.

ECONOMIC GROWTH IN NORTHERN IRELAND: PROBLEMS AND PROSPECTS

Essay by David Canning, Barry Moore and John Rhodes
in "Beyond the Rhetoric"

[This essay is about the wider problems of economic growth in Northern Ireland and not specifically about the effect of the "troubles". The authors do not see economic growth as dependent on a political settlement, but they do see it as a necessary condition for such a settlement, since it will

(a) allow the position of Catholics to be improved without the need for redistribution from Protestants; and

(b) reduce the need for the UK subvention and thus remove an obstacle to political change.

The following summary covers only those aspects of the essay which relate to the "troubles".]

Findings

The authors conclude that if the stable relationship between the economic development of Northern Ireland and that of the rest of the UK which was found in the 1960s had continued through the period 1971–1983, there would have been an extra 40,000 manufacturing jobs in the Province (ie existing jobs saved + new jobs created). However, they emphasise that this is the total number of lost jobs which cannot be explained by changes in the national growth rate, regional policy and industrial structure; they cannot *necessarily* all be attributed to the "troubles".

On the other hand, the authors estimate that about 24,000 security-related jobs have been created in the public and private service sectors combined. They assume the effect on other private sector service employment to be negligible (see below under "Limitations").

The authors point out that there is a case for treating the expansion in non-security-related public sector service employment as being attributable to the "troubles", since without direct rule the decision could not have been taken to relate standards of public sector provision to UK needs assessments without the constraint of local tax revenue. They estimate that the removal of this fiscal constraint after the introduction of direct rule led to the creation of an additional 50,000 public sector jobs, of which 15,000 have already been counted under "security", yielding an additional positive effect of 35,000 jobs.

"Balance sheet":

Manufacturing	–40,000
Security (public and private sectors)	+24,000
Non-security public sector	<u>+35,000</u>
Net effect	<u>+19,000</u>

Methodology

The basic methodology is to compare Northern Ireland with the other assisted areas of the UK. The authors estimate that there was a stable relationship in the 1960s between the effectiveness of regional policy in NI and in Scotland, Wales and the North of England, from which they calculate that in NI (in the absence of the "troubles") regional policy would have led to the creation between 1971 and 1983 of an additional 17,000 manufacturing jobs. However, the effect of the national recession would have led to the loss of 51,000 jobs and changes in industrial structure to the loss of a further 2,000, giving a predicted loss of 36,000. The actual loss was 74,000, leaving 38,000 (which the authors have rounded up to 40,000) to be explained by other factors, chiefly the "troubles".

Limitations

Since the essay does not set out specifically to analyse the effects of the "troubles", it does not go into very much detail regarding its methodology in this part of its analysis. However, one specific point which should be queried is the assumption that the "troubles" have had a negligible effect on employment in private sector services. This ignores the demand for *producer* services, which must have suffered quite severely from the decline in manufacturing.

THE IMPACT OF THE "TROUBLES" ON THE NORTHERN IRELAND ECONOMY

AUTHOR(S)	TIME PERIOD	APPROACH	FINDINGS
NIERC	1971 - 1977	Macro	As a result of the TROUBLES: 1. Manufacturing employment - 24000
N J GIBSON	1971 - 1981 1968 - 1983 1968 - 1982 1970 - 1978	Macro	As a result of the TROUBLES: 1. Migration +20000 2. Aggregate Unemployment was unaffected 3. Manufacturing employment - 15000 4. Public Sector employment +15000 (min) 5. Tourism -5000 (max)
DAVY KELLEHER McCARTHY LTD	1969 - 1988	P.E. / Macro	COST of the TROUBLES: per annum [1988 prices] Security £ 286 Mn Tourism £ 20 Mn Energy £ 1 Mn TOTAL £ 307 mN
NEW IRELAND FORUM (Dublin 1983)	1969 - 1982	P.E. / Macro	COST of the TROUBLES: [1982 prices] (Mn) Exchequer Costs: UK - IR £5550 ROI - IR £1080 TOTAL EXCHEQUER COST: IR £6630 ECONOMIC COST: NI - IR £4035 ROI - IR £1175 TOTAL ECONOMIC COST: IR £5210 TOTAL COMBINED COST: IR £11840
B ROWTHORN	1969 - 1980	Macro	As a result of the TROUBLES: 1. Manufacturing employment - 25000 2. Construction & Priv' Services employment - 14000 3. Public Services employment +15000 NET LOSS in employment: - 24000
D CANNING, B MOORE & J RHODES	1971 - 1983	Macro	As a result of the TROUBLES: 1. Manufacturing employment - 40000 2. Security (pub', & Priv' sectors) employment + 24000 3. Non-Security Pub' Sec' employment + 35000 NET EMPLOYMENT EFFECT: + 19000
SDLP Submission Paper to Stormont Talks (June 1991)	1969 - 1989 1969 - 1982 1969 - 1989	P.E. / Macro	As a result of the TROUBLES: <u>ECONOMIC COSTS: DIRECT</u> 1. Combined Cost to UK & ROI: stg £11 Bn 2. Additional Costs of Security (1989 prices): IR £2.5 Bn 3. Cost of Maintaining the Army in NI: stg £200 Mn p.a. 4. Much of the current cost of the Prison Service: stg £135 Mn p.a. <u>ECONOMIC COSTS: INDIRECT</u> 1. Reduced Investment - not quantified 2. Reduced growth in Tourism - not quantified