Forfàs

A Study on The Allocation of Public Capital Spending – Final Report

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1 INTRODUCTION

This paper contains the output of a study undertaken by FGS Consulting and the Department of Economics, NUI Maynooth for Forfàs (on behalf of the National Competitiveness Council). Having called for significant investment in public infrastructure in recent years so as to correct Ireland's infrastructure deficit, Forfàs noted in the Terms of Reference (TOR) to the study that "government policy must ensure that the deficit is corrected in the most effective way possible". Also in the TOR, Forfàs stated that "it seems timely to examine the process through which government capital spending is allocated".

The specific tasks set for FGS and NUI Maynooth were as follows:

- To document the present system of the allocation of public capital spending, in practice, in Ireland;
- To analyse the effectiveness of the present system of the allocation of public capital spending in Ireland;
- To formulate practicable recommendations designed to address the issues highlighted in section 2 of the study.

We set about the task in the following way. We consulted with a range of senior civil servants in the following departments: Taoiseach's; Finance; Transport; Environment, Heritage and Local Government: Communications, Marine and Natural Resources; Education; Enterprise, Trade and Employment. We also studied relevant documents from within Ireland. We then consulted colleagues in Britain, New Zealand and the Netherlands. On the basis of the above, we developed our description and assessment of the current system, and formulated recommendations.

The paper is structured as follows:

In Section 2, we describe the current process. It will be seen that the overall process involves a complex interaction of inputs, players, structural constraints and sub-processes. Some elements are transparent and so easily described; other elements are less so on both counts. Hence, while we believe that our description identifies all the elements of the process, we do not necessarily provide what could be described as a full description. However, in identifying those areas of the process which are characterised by relatively lower degrees of transparency, we are also identifying areas in which a requirement for greater transparency could contribute to improvements in the system.

In Section 3, we go through the process again and offer assessments on the various elements. In the case of the more transparent elements of the process, our comments are relatively focussed. With the less transparent elements, such focus is obviously less feasible and our comments reflect this. In these latter cases, the lack of transparency forms the bulk of the critique.

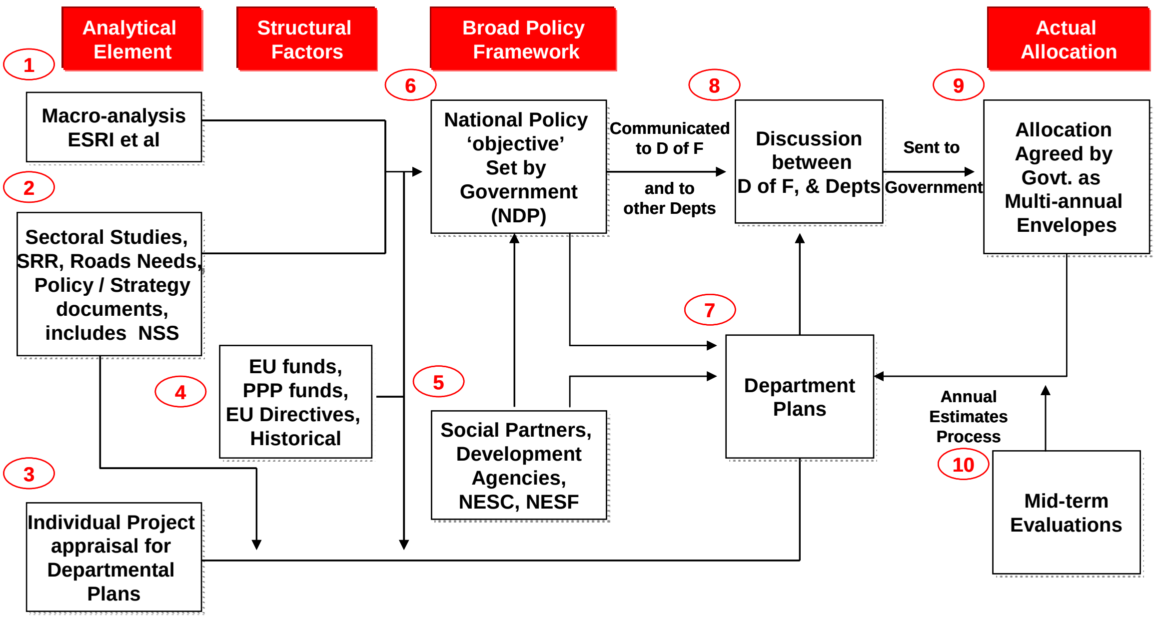
In Section 4, we develop the thinking from our description and critique and produce recommendations on how the system might be improved upon bearing in mind that the goal is to ensure the public capital spending is allocated in such a way that returns are maximised, to the greatest degree possible.

2 DESCRIBING THE PROCESS[1]

2.1 The broad picture

As noted in the Introduction, the process through which public capital spending is allocated is complex. For this reason, we will begin our description by presenting a flowchart which seeks to encapsulate all the main elements of the process. In the following sub-sections, we will take each element and describe it in detail.

Before discussing each element, we should point out that the flowchart should not necessarily be viewed as depicting a chronological set of events, reading from left to right. Many elements of the process happen simultaneously each year and every year, while others happen less frequently.



While a chronological interpretation should not be imposed on the figure, it is helpful to see the flowchart as capturing top-down and bottom-up elements in the process. The top-down dimension is centred around Box 6 where national policy objectives are set by Government in the form, for example, of the National Development Plan 2000-2006 (NDP). Actual allocations of capital spending must ultimately be consistent with a broad policy framework, as provided by Government even if this shifts over time. The bottom-up dimension runs along the lower part of the figure. Between Boxes 3 and 7, we see departments developing their proposed plans, based on appraisals and other inputs.

We now discuss each element in turn.

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[1] The material in this section is based largely on interviews that were conducted with a number of senior civil servants.

2.2 Analytical elements

Looking down the first column of the flowchart, we have placed what we call the "analytical elements" of the process. The elements within this column are reports, studies, evaluations and appraisals that are supposed to act as inputs into the process by informing decision-makers and other players on issues such as needs and priorities. We will discuss each box in turn.

2.2.1 Box 1 – Macro-analysis

Currently, the overarching policy statement within which annual allocations of public capital expenditure are made is the NDP. We will return to the issue later of the degree to which annual spending is at present closely related to the NDP but for now we will just take it that the NDP plays a significant role. Accepting its importance in determining spending allocations, it is important to step back and to describe how it is put together.

One input into the development of the NDP was the report *National Investment Priorities for the Period 2000-2006* (ESRI et al, 1999). We have chosen to place this in a box separate from other studies that also act as inputs. Our reason for doing this is that this ESRI[2] report is, to our knowledge, the only report that looks across departmental headings and makes recommendations on how spending should be allocated across those headings. This makes it qualitatively different from other studies which tend to focus on certain sectors or issues.

2.2.2 Box 2 – Sectoral and other analysis

Departments and other agencies regularly commission and undertake studies looking at infrastructural issues in their area of responsibility. These studies then become inputs into the process through which policy objectives are framed and, subsequently, through which resources are allocated. Among these studies, we would include the Strategic Rail Review (2003) and the Roads Needs Study (1998). Other sectoral studies may not be focused on infrastructure but may contain recommendations on, or implications for, capital spending. One recent example would be the report of the Enterprise Strategy Group (2004).

One recent policy document that can not be classified as sectoral and yet which does fit into the category of "influencing documents" is the National Spatial Strategy (2002). The NSS should impact upon the spatial distribution of infrastructural spending and possibly on the forms of investment, if some forms of investment are judged to contribute to balanced regional development.

2.2.3 Box 3 – Individual project appraisal

While Boxes 1 and 2 relate to the "top-down" dimension of the process, Box 3 relates to the "bottom-up" dimension. Departments put together their own capital plans through a process of

[2] While we label the Investment Priorities report as the ESRI report, we should note that a number of non-ESRI researchers also contributed to its production. These others were from NUI, Maynooth, DKM Economic Consultants and Peter Bacon and Associates.

project identification and appraisal. In the case of some departments, the agencies and bodies under their remit will develop their own plans and these then feed into the Department's plan. Particularly important bodies in this respect are the local authorities, the NRA and the RPA. As the appraisal element is of particular importance in this paper, we will set out the process.

All publicly funded capital projects are subject to the processes set out in the Department of Finance's *Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector* (1994).[3] The guidelines contain four stages of appraisal and management:

- Appraisal: A preliminary appraisal in undertaken to establish whether there is sufficient merit to justify a more detailed appraisal. The more detailed appraisal then aims to provide a basis for a decision on whether to drop a project or to approve it in principle.
- Planning: This involves detailed planning and costing of the project.
- Implementation: This requires clear arrangements for monitoring and cost control.
- Post-programme review: This is to ensure that experience gained can be used on other projects and possibly in the continued use of the new asset.

According to the Guidelines "every capital spending proposal should be appraised carefully". This is qualified in the following way: "However, the resources spent on appraisal should be commensurate with the costs of projects and with the degree of complexity of the issues involved. Small and routine projects should be appraised with a readily applicable, but thorough, methodology which is used consistently and which reflects the principles set out in this document".

The Guidelines say that "more complex appraisal should be applied" in the following cases:

"(i) projects which

- are estimated to have a capital cost in excess of £10million; or
- involve complex or specialized issues or untried technology; or
- involve issues which have not been previously investigated in-depth; or
- are regarded as pilot projects on which larger projects may be modeled; or
- which would generate substantial current cost; and

(ii) on-going programmes consisting of many individual projects (housing, roads, sanitary services, educational and health building etc.)."

With regard to the "preliminary analysis", this involves an initial specification of the nature and objectives of the project and of relevant background circumstances (economic, social, legal etc). It should include an assessment of the costs and benefits of all the options that could be used to achieve the stated objectives and a judgement on whether a more detailed appraisal is warranted.

[3] These guidelines are currently being updated and the new guidelines should be available later this year.

At the stage of detailed appraisal, the Guidelines set out a checklist of tasks which should be undertaken. These are:

- define clearly the needs the project should meet and its objectives;
- list the options;
- list the constraints;
- quantify financial costs and specify sources of funding;
- analyse the main options using the following approaches – financial analysis, cost-benefit analysis, cost effectiveness analysis, Exchequer cashflow analysis;
- identify the risks associated with each option;
- decide on the preferred option;
- recommend the preferred option to the Sanctioning Agency.

With regard to cost benefit analysis and cost effectiveness analysis, the Guidelines note that their use "can significantly assist the process of establishing investment priorities between projects *which are similar in nature* provided that:

- consistent parameter values are used;
- there is a consistent practice on the factors properly to be taken into account in analysis."

With regard to comparisons of projects across sectors, the Guidelines make the point that such comparisons using cost benefit analysis are difficult. However, it is still stated that the maximum degree of comparability should be achieved.

Finally, with regard to unquantifiable benefits, it is recommended the CBA results be presented in such a way that judgments can be formed on the potential values of non-cash benefits.

It should be noted that the Department of Finance's Guidelines were supplemented in 1999 by the *Working Rules for Cost-Benefit Analysis*, issued by the CSF Evaluation Unit. This paper contains guidelines on technical issues such as the use of shadow prices and discount rates.

By way of illustrating the process, we will use the Department of Transport as an example.

The main investment programmes under the remit of the Department of Transport are (with 2004 values): national roads programme (€1.2bn), public transport (€300mn), DTO Traffic Management (€40mn), regional airports (€2.5mn). Project appraisal is organized as follows.

National roads: The National Roads Needs Study, together with the NDP/ESIOP mandate in relation to the 5 key inter-urban routes, provides the basic framework for the national roads development programme. This is an example of the top-down dimension of the process, where macro-level policy documents and statements impact upon project selection.

A comprehensive project management and reporting system has been put in place by the NRA for the development and implementation of individual projects. The project management system mirrors the procedures outlined in the Department of Finance's Guidelines and the *Working Rules for Cost-Benefit Analysis*, both discussed above, customized for the national roads programme.

The NRA's framework for appraising and prioritizing road development projects is based on 5 criteria:

- Environmental impact
- Safety benefits
- Economic benefits
- NDP/RNS priority
- CBA result

The decision as to whether a project is included in the on-going programme has effectively been determined by the NDP/OP and/or the NRNS (which itself employed CBA). Retention in the programme is subject to review in the light of on-going economic appraisal as the project is developed. This invariably proves to be the case having regard to either positive NPV and/or the overall route development requirements.

Public Transport: The current public transport investment programme is in accordance with the NDP and the DTO "Platform for Change". Again, this is an example of the top-down dimension. The key drivers for the selection of projects for investment in public transport are:

- Safety of the rail network;
- Renewal of the existing system (replacement of rolling stock and buses) ;
- Needs assessment to respond to transport demand (e.g. overcrowding on the DART).

Priority capital investment in public transport over the coming years will also be guided by the rolling 5-year Capital Investment Programme for public transport, the Strategic Rail Review and the Strategic Planning Guidelines.

CBAs are carried out on ERDF-assisted public transport projects in excess of €50mn and on Cohesion Fund projects and submitted to the EU Commission for approval. In so doing, CIÉ follow the guidelines contained in four core documents – the DOF Guidelines and CSFEU Working rules discussed above plus DKM's *CBA Parameter Values and Application Rules for Transport Infrastructure Projects* (1994) and the European Commission's *Guide to Cost Benefit Analysis of Investment Projects* (2002).

CBAs have also been carried out for all projects under the control of the RPA, including the proposed Dublin Metro.

Regional Airports: Funding under this heading is implemented through the regional OPs of the NDP.

Proposals are assessed by the Airports Division within the Department, with technical assistance from the Irish Aviation Authority. Specific selection criteria include:

- Contribution to safety of operations
- Contribution to security
- Enhancement of airport operations
- Enhancement of passenger facilities
- Contribution to NDP "horizontal principles", where relevant.

Priority is given to projects which are deemed necessary to ensure safe and viable operation of the airports.

Before leaving this section on the Department of Transport, we will mention an initiative within the Department that is of relevance to our topic. The Department has a "Cross Cutting Team" of officials from across the Department whose objective is as follows:

- To develop an agreed common framework for the appraisal and monitoring of transport investment projects, to consider the scope for both the development of a common evaluation framework and of a cross-modal investment appraisal methodology.

Specific actions for the committee include a review and contrast of the current approaches used by the road, public transport and aviation sectors and the drafting of a common investment appraisal framework. The Committee is also to make recommendations on the feasibility, desirability or otherwise of developing a cross-model investment appraisal methodology based on this framework.

2.3 Structural factors

Before the policy recommendations that emerge from the studies and appraisals can be blended to form a cohesive and realistic policy framework, it is necessary for policy-makers to take account of a range of structural factors and constraints. In truth, many of these issues will have been factored into the studies discussed under our "analytical" heading but this will not always be the case so it is helpful to have a separate entry in our flowchart to account for these.

2.3.1 Box 4 – structural factors

A number of issues arise in this context so we will deal with each in turn.

At a very broad level, it must be noted that the total amount allocated by the Government for capital spending is set within an overall budgetary context. This context includes features such as large non-discretionary elements in public spending (such as pay), the rules of the Stability and Growth Pact and policy on taxation. These factors relate largely to the total sum as opposed to its allocation.

Turning to the allocation of this total across sectors, it is worth noting that a tendency previously existed for projects to be moved up priority lists if it was possible to attract EU funding. In this way, the priorities that emerged from sectoral studies etc. may have been altered in the move between analysis and policy formulation. While this EU-effect is diminishing in importance as the funds themselves diminish, the suggestion was put to us that the potential for private funds, through the PPP process, may now be playing a similar role. In this way, a project's funding may be determined by the associated PPP funds as opposed to its underlying return.

While the role of EU funds may be diminishing, the role of EU Directives is important. Capital expenditure may be dictated by the simple need to comply with directives such as the Urban Waste Water Directive.

In the flowchart, we have included the term "historical" – here we have two issues in mind. First, it should be recognized that "incrementalism" plays a role in the allocation of capital spending just as it does in current spending. By this we mean that discussions about a department's estimate for a year tend to be based on alterations to the previous year's estimate as opposed to a "zero-based budgeting" approach each year. On the current side, this is relatively more understandable given on-going commitments on pay etc. On the capital side, it might have been thought that a blank-sheet approach might have been implemented, at least every few years, but this appears not to be the case. This may be because departments will have expectations for any year's allocations that are based on allocations in recent years and so may have formed programmes on that basis. This being the case, overly radical departures may lead to overly onerous negotiations between Finance and the departments which may not be in the interests of the smooth running of the Estimates process.

A second part of the thinking behind the term "historic" relates to the issue of depreciation. A portion of what is termed "capital spending" involves the maintenance and repair of the existing capital stock. To the extent that the relatively low level of investment through the 1980s and early 1990s left an infrastructure that was in a poor state of repair, a portion of capital spending must now be applied to bringing the infrastructure back to a pre-existing level, as opposed to adding to it. As the public accounts are not explicit on the proportions of capital spending that relates to depreciation and net additions to the capital stock, it is not possible to say that they what these proportions are. We return to this point in the critique below.

2.4 Broad policy framework

Having looked at the analytical inputs into the process and the structural constraints and factors that act upon it, we now turn to consider the process through which broad policy objectives and approaches are devised. Noting again that the NDP can be viewed to some degree as an overarching policy framework for infrastructure decisions, we can think in terms of how the Government agreed the NDP.

2.4.1 Box 5 – Consultations and deliberations

Yet another input into the process before the Government agrees the overall policy framework is the round of consultations conducted with parties such as the social partners, the development agencies and others. This element of the process is explicitly mentioned in the NDP when it says that consultations included "submissions from and meetings with the Social Partners, the Regional Authorities and the Western Development Commission".

One thing that is noteworthy as we move into this part of the process from the analytical elements and the structural factors is that the nature of the process begins to change. To the extent that the process of allocating funds is influenced by sectoral interests and negotiating strength, this begins to emerge here. We return to this point in the assessment below.

2.4.2 Box 6 - Government setting of national policy objectives

Having been informed by the analytical inputs and by the consultations, and being aware of the structural factors, the Government agrees the broad policy direction. Currently, and as noted above, the production of the NDP in 2000 represents the most recent example of an overarching framework being put in place which dictates actual allocations. Obviously, the framework has been added to since through documents such as the National Spatial Strategy. At this stage, it is possible for ministers to deviate significantly from the recommendations of the various studies if their views on priorities differ. It is also possible, as it is in the case of the Social Partners and others, to use policy documents as lobbying instruments if those studies lend support to their positions.

2.5 From Government to the Departments

The Government agrees and, in the case of the NDP, publishes its policy framework. The NDP also contained details of proposed financial allocations. However, it was still necessary for the full range of spending details to be worked out between the Department of Finance and other departments. This is done on an annual basis although from this year on, departments are being given five-year spending envelops as opposed to annual allocations.

The interactions between the Department of Finance and the other departments are captured in **Boxes 7 and 8**. As described above, departments put together their spending plans based on project appraisals and structural factors and within the overall context of policy objectives being communicated from the Government and others. The Department of Finance then enters discussions with individual departments and agrees allocations based on the overall budgetary situation and the policy context as set out by Government. This stage mirrors the process through which current spending is allocated and is conducted as part of the overall Estimates cycle.

2.6 Actual Allocations

2.6.1 Box 9 – Government approval of allocations

The Department of Finance agrees a set of spending proposals. As noted above, until recently this was done on an annual basis but in Budget 2004 the Government moved to a system whereby departments are given multi-annual capital spending envelops. This system provides much greater certainty to departments and, sensibly, allows them to plan investment strategies over a longer time horizon. It also allows departments to carry over unspent funds from one year to another.

Once the Government has agreed the Estimates, the funds are made available to the departments and in some cases to their associated agencies. In the way, the process which began with analysis, and moved through discussion and deliberation, ends with funds being delivered and projects initiated. At this point, issues of project procurement and management arise but these are outside of our immediate remit.

The final box in the flowchart (10) captures the evaluation process whereby programmes of expenditure are assessed with a view to re-allocating funds. Such re-allocations are partly based on analytical inputs such as the Operational Programme Mid-term evaluations and the NDP Mid-term evaluation. However, we include them at this point in the flowchart because we see them as analyzing existing programmes rather than identifying new programmes. At this point we should also include the Cabinet Sub-committee (supported by a Cross Departmental Team of senior officials) on Housing, Infrastructure and PPPs. According to its terms of reference, "the objective of the Cabinet Committee is to facilitate cohesive and co-ordinated delivery across the administrative system of infrastructure investment under the NDP and related major national infrastructure projects and to facilitate delivery of the government's housing objectives". As part of its remit, the Committee keeps "priorities under review in the light of progress achieved and changing circumstances".

As a final point on the description of the process, it should be noted that the Oireachtas has the legal role of approving the Estimates, both current and capital. It is not clear to us that this role leads to any major impact on the actual allocations and so we have chosen not to include it in our flowchart which seeks to capture the allocation process. The fact that the Social Partners appear in the flowchart but not the Oireachtas is interesting in and of itself and points to the current structure of decision-making in Ireland.

3 ASSESSMENT

We will now move on to an assessment of the current system. Recalling our comments in the Introduction, it is worth re-stating that our objective is to examine the system with a view to identifying how changes could be made whereby greater value can be derived from the existing level of spending. We will follow our flowchart once again because we believe this assists in focusing attention on the critical components of the system.

3.1 Analytical elements

Starting with **ESRI reports**, we noted above that this is essentially the only study that takes a comprehensive view of spending and that discusses how resources should be allocated *across* departments. The importance of this task, and its difficulty, should not be underestimated. While appraisal approaches such as cost-benefit analysis provide some guidance on how projects within sectoral areas should be ranked, these techniques are less useful for comparisons of spending across areas.

Based on discussions with experts in Britain New Zealand and the Netherlands, we have not been able to establish that this difficulty has been solved elsewhere and so we cannot point to an all-embracing appraisal technique[4]. For example, in Britain it was put to us that the allocations across departments are made on the basis of the strength of the bids made by those departments in the run up to Spending Reviews and Budgets. In New Zealand, a top-down and bottom-up approach is also employed, with decisions between projects being a "subjective area".

In the absence of an overarching appraisal system to provide guidance on how resources should be allocated across sectors, it is important that the analysis that is undertaken is as good as possible. Our intention here is not to criticize the work of the ESRI. However, we would ask if the exercise should be undertaken on a consultancy basis and at current levels of resourcing, given its importance.

With regard to this element of the process being done through consultants, it would generally be the case that work is commissioned when the task involved it is not considered to be a core part of a department's work and/or where the required skills are not available within a department. In the case of the analytical work underpinning the public investment programme, it seems to us that this is a task of such importance that it should be a core part of the Department of Finance's work and that the required skills should be available within the Department.

With regard to resourcing, studies of this type would generally cost in the region of €200,000 to €300,000. When it is remembered that the spending package that the ESRI study informed amounted to IR£40 billion, it does prompt concerns that the resourcing of the analytical inputs may not have been appropriate. It could be argued that many studies underpin the ESRI

[4] As part of the research for this project, we consulted with Dr. Sarah Love of the Institute for Fiscal Studies in London, Dr. Alan Vandermolen of the New Zealand Treasury and Dr. Harry ter Rele of the Netherlands Bureau for Economic Planning.

analysis and so that the actual spend is much greater than the range just mentioned. How this might translate into a "total spend" is unclear and so we think that the resourcing question remains.

Looking within the ESRI report, it is clear that the authors see constraints on their analysis due to a lack of other relevant studies and plans. The following quotes illustrate this:

- "The absence of a physical plan for Dublin makes it exceptionally difficult to determine the appropriate investment priorities";
- "Pending completion of this (solid waste management planning initiative), it is not possible to set out a prescriptive investment plan for solid waste";
- In the absence of a detailed study on the likely needs for social housing, it is difficult to determine what precise provision should be made".

For these reasons and others, the spending allocations that emerge from this work are highly indicative. They are derived from a process that takes 1998-99 shares (in investment spending) as a base and that then adjusts these shares upwards or downwards to reflect judgments as to whether the spending category in question requires an increased or decreased allocation. Hence, the study is not quite a root and branch review of allocations but does itself involve a degree of incrementalism.

With regard to the **sectoral studies** and other policy documents, there are obviously differences in terms of analytical rigor and quality and hence it is likely that some studies should be given higher weights when it comes to assessing relative priorities. By this we do not mean that an area of spending should get a higher priority because a high quality study has been undertaken. Instead, we mean that a high quality study provides greater certainty as to the true value of undertaking investment and that this greater certainty should be one input into decision making.

It is difficult to judge the degree to which the NSS is impacting upon decision-making in this area largely because it is still in the early stages of its existence. At an institutional level, an inter-departmental committee has been established to oversee the process of implementation. The Regional Planning Guidelines, which were to be the first stage in the rollout of the strategy, have been published. And documents such as the Strategic Rail Review make explicit reference to the objectives of the NSS. Hence, there are clear signals regarding the presence of the NSS in the policy-making arena but we have not been able to establish the extent to which it is influencing allocations.

Turning to the **individual project appraisals** as conducted by departments and other agencies, it is difficult to offer a critique. The process as set down by the Department of Finance in its Guidelines is sensible. While it might be possible to improve it (and this will likely happen later this year with the publication of revised Guidelines) our concern relates to the application of those Guidelines. As there is no general requirement to publish the outcomes of appraisals, it simply is not possible to assess if, for example, the application of evaluation techniques is done well or not and if there is any consistency.

3.2 Structural factors

The three issues which we will comment upon here are:

- Effect of PPP Finance
- Depreciation
- Incrementalism

Effect of PPP finance: We noted in our description of the process that it was suggested to us that there was a tendency for projects with the potential to attract private funds to move up the priority rankings. This mirrored the earlier experience whereby the existence of EU funds acted in a similar way.

The concern with this is that projects with higher returns than PPP counterparts may not be undertaken. In particular, a project with no PPP potential may have a higher return than a project with PPP potential, where return is defined as all benefits accruing relative to total costs regardless of source. If the PPP project is chosen over the alternative, there will be an efficiency loss. Given the funding constraints within which the Department of Finance operates, in particular the terms of the Stability and Growth Pact, it is easy to see why PPP finance will add to the attractiveness of certain projects. However, it is preferable that returns dictate projects.

While this concern may be relevant in the case of particular projects, the fact that PPP finance has played a smaller role than expected in infrastructure development should also be noted. In the aggregate, the smaller role would imply that this factor is not distorting overall allocations to any great degree. However, it could become a bigger issue if PPP finance becomes more commonplace.

Depreciation: In our description of the process, we noted that the historic pattern of public investment has an influence on current spending, partly through the repair and maintenance this is needed to make up for the lack of investment through the 1980s and early 1990s. While a portion of capital spending is in respect of repair and maintenance, there is no information in the published documents on what this might be.

This is an important information deficiency. The Government has argued that the allocation of 5% of GNP per annum to capital spending is significantly higher than elsewhere in the EU and so this will allow the level and quality of Ireland's public infrastructure to converge towards that of the EU's core. However, if the level of repair and maintenance is substantially higher in Ireland, the amount of net investment may be over-stated by the 5% of GNP. This point is relevant to recent investments in rail infrastructure where the focus has been on improving the quality of existing lines as opposed to building new lines. Quality improvements can be viewed as net investment if the new quality exceeds what went before. However, there is clearly a difference in the nature of the output between the construction of a new line and, for example, safety-related investments in an existing line.

Incrementalism: In our discussions with civil servants, the view was expressed that capital allocations, like current allocations, are characterized to a great degree by incrementalism where the allocation for a department in one is heavily influenced by what the allocation was the previous year. In the case of current spending, such an approach makes a degree of sense since most of the spending is non-discretionary, at least from year to year. However, in the case of capital spending, it is less clear why a zero-based approach is not taken on a more regular basis. It may well be that departments have queues of projects and that failure to have them funded in one year should not remove them from consideration in a subsequent year. However, from the perspective of ensuring efficient allocations, the fear that arises from an incremental approach is that too great a focus is given to the status quo.

3.3 Broad policy to actual allocations

We have chosen to deal with the range of issues that arise between Boxes 5 through 10 under one sub-heading. This is because in moving from the analytical and structural factors to what we might broadly call the "decision-making" zone, the nature of the process changes. Generally, there is a degree of objectivity and transparency in the analytical and structural elements. Studies are published, appraisal guidelines must be followed and structural constraints are relatively clear and understood. However, beyond this we enter a zone of discussion, consultation and negotiation which is substantially less clear[5].

In the flowchart, we show the ESRI analysis and those of the sectoral and other studies acting as inputs into the Government's deliberations on what the broad policy framework should be. In truth, it could be the case that such reports are given very little weight and that ministers make decisions based on criteria other than the analysis conducted by researchers.

It is also the case that we essentially have no idea on the relative importance, if any, that is attached to the various studies that are produced. We noted above that the ESRI report is the only report that takes a broad overview of allocations across departments and as such it might be thought that it would be viewed as a particularly important. However, there is no evidence in the NDP to suggest that this is the case. The relevant paragraph (some of which was quoted above) states the following:

> "There has been intensive consultation in the formulation of the Plan. This has included submissions from and meetings with the Social Partners, the Regional Authorities and the Western Development Commission. Two studies were undertaken by Fitzpatrick Associates on investment priorities in the S&E and BMW Regions respectively….A major study 'National Investment Priorities 2000-2006' was undertaken by the ESRI on behalf of the Government. Consultation has also taken place with the European commission".

At a macro level therefore, the ESRI report is probably best seen as one of many inputs into the NDP. Likewise, at the level of individual spending programmes the ESRI report would probably have been "competing" with other inputs such as submissions from other departments.

We should stress at this point that the Government are perfectly entitled to make decisions on spending allocations and to deviate as much as they see fit from proposals and recommendations made by the ESRI and any other body or group. But as our interest here is in the effectiveness with which public capital spending is allocated, the concern has to be voiced that the current system allows ministers to deviate from published recommendations without the rationale being made explicit. The obvious concern is that allocations may be influenced to an excessive degree by political or other considerations that may not be consistent with maximizing returns. One area in which the NDP diverged significantly from the

[5] The one exception is the reports published as part of the mid-term evaluation process.

ESRI's recommendations was in the area of mainline rail. The NDP contains no explanation for the significantly larger spend in this area relative to that recommended by the ESRI. The explanation may relate to successful lobbying on the part of the programme sponsors or to information gaps that hampered the ESRI's analysis having been filled in the meantime.

A similar set of points can be made specifically in respect of Box 5. The Social Partners (and others who are consulted as part of the policy formulation process) have access to the same studies and reports as discussed above. When deliberating and communicating their views to the Government, there is likely to be a tendency for each of the partners to use these studies in support of their positions and constituencies rather than as inputs into the formulation of their respective positions. The views expressed by the Social Partners are, of course, valuable and important inputs into policy formulation. However, we do not know how these views are weighted by Government relative to the analysis contained in studies.

From Boxes 5 and 6, we see that the allocation of public capital may actually be a result of the interaction of lobbying, negotiation and the views of important players, with relatively little reference to the type of formal analysis shown under the analytical column. We can set out the elements of the process as we did in our flowchart but we can not really say what matters most (and if some elements matter at all).

As we move onto Boxes 7 and 8, the influence of negotiation it still very much present. The Department of Finance enters negotiations with individual departments within the overall policy context, as set by Government (Box 6). Nevertheless, it must still arrive at actual allocations with departments and so at this stage there still remains scope for altering allocations. While departments will make their cases in these negotiations based partly on analysis, we cannot determine the extent to which factors such as the nature of the relationship between ministers influence final decisions.

An additional point that should be noted here is the fact that there are major problems of comparability between the NDP and PCP. The relevance of this is that it further complicates efforts to understand the links between analytical inputs, policy statements and actual allocations. The principal source of the comparability problems is the fact that the PCP incorporates capital spending from own resources by the semi-state companies whereas the NDP excludes such spending. There are also inconsistencies of classification as between the NDP and PCP that make comparisons difficult if not impossible. Moreover, while the NDP allocations are denominated in 1999 prices, the PCP is denominated in current prices. Even trying to relate NDP allocations for 2000 (the first year of the Plan) to that year's PCP allocations is virtually impossible for most categories of investment.

Taken together, this means that the PCP proper cannot readily (if at all) be used as an instrument for monitoring progress towards the achievement of NDP financial targets or for monitoring adherence to the NDP's ranking of investment priorities.

To summarise, we can say the following. In principle, the allocation of public capital funds may be influenced by analysis and appraisal. In actuality, lobbying and negotiation play roles, as does the status quo in terms of department's allocations in recent years being a prime determinant of spending in the current year. Where the balance between these factors lies is something of an open question.

4 RECOMMENDATIONS

Having described the process through which capital spending is allocated and then having assessed it, we now move on to present some recommendations on how the system might be improved upon.

We will begin, somewhat unusually, by stating what we are *not* recommending. We do so because we believe some types of recommendation might have been expected from an exercise such as this but our analysis has not led us in those directions.

Firstly, we do not recommend that some global form of project appraisal or evaluation be adopted through which all projects can be ranked. We have not been able to establish that such a system does exist. Our discussions with colleagues in Britain, New Zealand and the Netherlands made it clear that while individual project appraisal is an important element of their allocation processes, the trans-departmental dimension of the process is ultimately based on judgment. As noted above, in Britain the allocations across departments are made on the basis of the strength of the bids the run up to Spending Reviews and Budgets. In New Zealand, subjectivity is also employed along with the type of top-down and bottom-up approach used in Ireland. The important point is that this judgment should be as well informed as possible.

Second, we generally do not make recommendations in respect of the Department of Finance's project appraisal guidelines. The Department is currently in the process of updating these guidelines and the revised version will be published later in the year. The only point we will make with respect to the Guidelines is as follows:

- Efforts should be made to ensure that more appraisals are published so that a greater degree of consistency is brought to the process and so that it is possible to assess on an on-going basis the standard to which the appraisals are being done. As we noted above, no global system of evaluation exists. However, it should still be possible to achieve a greater degree of consistency whereby trans-departmental decisions are facilitated to some degree.

Our more substantive recommendations focus on the production of the analytical inputs used in the process and the transparency (or lack thereof) that surrounds the translation of analytically based recommendations into policy.

In 2000, the Government committed itself to spending around IR£40bn over a six year period. Only one overarching study was undertaken to provide guidance on how the money should be allocated. This strikes us a being a significant mismatch. As discussed above, the ESRI study itself makes reference to information gaps that hindered its work, thereby pointing to a need for more research and analysis to guide spending. As noted above, in the absence of appraisal techniques that allow us to compare projects in, for example, health and transport it is crucial that we understand as much as possible about infrastructure needs. Towards this end, we recommend the following:

- Thought should be given to substantially augmenting the resources that are devoted to producing the research and analysis that informs decisions on public capital allocations. This could be done by re-focusing resources within the Budget and

Economics Division of the Department of Finance. The resources that exist within the NDP/CSF Evaluation Unit could also be drawn upon. A more radical move would be to establish a dedicated unit within the Department of Finance that would assess on an on-going basis what the investment needs of the country are and how they are evolving. Such a Unit would be mandated to take both a long- and short-term perspective on needs. For example, it should be attempting to forecast what will be needed to maintain Ireland's competitiveness going forward. But it should also be able to provide guidance on issues such as how priorities might change in response, for example, to short-term changes in relative prices that might impact upon the efficiency of previously agreed strategies.

The existence of such a Unit would provide additional advantages. First, while cost-benefit analyses and other forms of appraisal are conducted by departments and agencies, it is not clear to us that there exists within the civil service a centrally-placed unit with the technical capacity to assess the quality of the analyses. The NDP/CSF Evaluation Unit partly fill this role but we envisage a larger unit with a stronger remit. A second advantage in having a well-resourced analytical unit within the Department of Finance would to avoid the situation whereby the ESRI writes the pre-NDP report and then evaluates the NDP at mid-term. We are not suggesting the ESRI do not undertake these tasks with rigour and professionalism. However, it is not an ideal situation when the agency making proposals has to assess how some of its proposals are working out, or indeed is assessing the situation in which some of its proposals have not been adopted. It is implicit in all this that the Unit be staffed with suitably qualified individuals

All the analytical inputs in the world are of little value if the system allows them to be ignored or to be drawn upon only if they support pre-existing positions. For this reason, we think it is crucial that our recommendation in respect of analytical input be supported by recommendations on the use of these inputs. We do not, of course, suggest that the outputs of analysis be slavishly followed. This would be contrary to the principles of democratic government and would also attribute too high a level of belief in the power of analysis (economic, financial or sociological) to provide definitive answers. Instead, we would urge the following:

- When Government chooses to allocate spending in a way that deviates significantly from the analysis produced by the recommended Unit, the reasoning should be explicitly set out and explained. Such a requirement would work against the use of purely political criteria when deciding upon allocations.
- Efforts should be made to facilitate an understanding of the link between the NDP and the PCP. By having to specify the links and the deviations, policy-makers are again forced to explain decisions in a way that should promote analytical rigor behind those decisions.

In making this recommendation, we are partly influenced by the Expenditure Review Process operated by the Department of Finance. Under this process, areas of current spending are periodically reviewed and many of these reviews are published. In the case of capital spending is it obviously pivotal that all analytical work is done before funds are invested. The requirement to publish reasons for making proposals and for deviating from recommendations should underpin a move to greater analytical rigor.

With regard to the National Spatial Strategy, we noted earlier that while its presence is seen in debate and discussion, we are unsure as to its precise impact. In an effort to guarantee its impact, we would recommend the following:

- All agencies, when conducting project appraisals, should follow the approach of the industrial development agencies in explicitly weighting benefits more highly when they occur outside Dublin[6]. The precise approach used by the development agencies is to weight employment gains more heavily if the employment is generated outside Dublin and in particular in the BMW region. While this precise formulation may not work for other projects in other functional areas, the general principle should be applied of quantifying the NSS-related policy objectives.

On structural factors, we would recommend the following:

- To the extent possible, the Public Capital Programme should be supplemented with information on the extent to which spending is in respect of repair and maintenance and the extent to which there is net investment.
- Where a decision is made to undertake a project with PPP finance, there should be a requirement to demonstrate that the returns are high relative to other projects that are lower on the priority list. This would act to reduce the tendency to pursue the PPP projects where higher return projects may exist.

[6] Murphy, A, Walsh, B. and Barry F. (2001) *The Economic Appraisal System for Projects Seeking Support from the Industrial Development Agencies*, commissioned by Forfás.