Key messages

Management of the Scottish Government's capital investment programme

AUDIT SCOTLAND

Prepared for the Auditor General for Scotland
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Auditor General for Scotland

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Key messages

Background

1. Since devolution, the Scottish Government's capital budget has increased by 41 per cent (in real terms) to £3.3 billion in 2010/11, representing an average annual increase of around four per cent each year.

2. The capital budget finances most capital projects in Scotland.[1] It is used by public bodies to finance the construction and development of many types of infrastructure projects including hospitals, prisons, colleges and transport projects (both rail and road).

3. The UK Spending Review completed by HM Treasury largely determines the Scottish Government's capital budget. Following this, the Scottish Government allocates a capital budget to each portfolio in accordance with its priorities. Portfolio allocations are subject to Scottish Parliamentary approval through the annual budget process.

4. The Scottish Government is responsible for the overall delivery and direction of the capital investment programme, excluding local government. However, the level of direct control it exercises over capital spending in each portfolio varies. Individual portfolios are responsible for spending in their areas. The main areas of spending are – Transport Scotland (Finance and sustainable growth portfolio), the NHS (Health and wellbeing), the Scottish Funding Council (Education and lifelong learning) and the Scottish Prison Service (Justice). These organisations are responsible for managing and delivering projects within their remit.[2]

Our work

5. In 2008, Audit Scotland published *Review of major capital projects in Scotland*.[3] This was the first systematic review of publicly funded major capital projects in Scotland. This report follows on from our 2008 report by examining how well the Scottish Government is managing its capital investment programme and associated risks. It considers the implications for the investment programme now that the outlook for public spending has changed considerably.

6. We used a range of methods to obtain evidence, including:

- a survey of public bodies to gather key information about the delivery of all recently completed major capital projects
- interviews with staff and review of papers to assess programme management and other related activities in the four main capital spending areas of the Scottish Government and its finance directorate
- reviews of published good practice in programme management.

Key messages

1 Capital investment met from the Scottish budget will decrease by more than a third between 2010/11 and 2014/15. The Scottish Government will need to make difficult decisions about its investment plans over this period, including affordability and priorities.

7. In October 2010, the UK government's Spending Review confirmed that between 2010/11 and 2014/15, the Scottish Government's capital budget will decrease by £1.2 billion (36 per cent) in real terms. The largest reduction (£800 million, 24 per cent) will be in the first year, 2011/12 (Exhibit 1, overleaf).

8. In November 2010, shortly after the UK Spending Review announcement, the Scottish Government set out its own draft budget and spending plans for 2011/12.[4] The draft budget included an agreement with HM Treasury to transfer £100 million from 2010/11 to 2011/12 to help offset the reduction in the capital budget.

9. All portfolios' capital budgets for 2011/12 have reduced. The Health and wellbeing portfolio has the largest cash reduction (£171 million, 19 per cent). The Justice portfolio has the largest percentage reduction (60 per cent, £108 million). The Scottish Government also announced that existing transport projects would take priority over new projects, while motorway and trunk road maintenance spending would reduce.

10. Public borrowing is currently not available to the Scottish Government to supplement the capital budget. However, in November 2010, following on from recommendations made by the Commission on Scottish Devolution, the UK government introduced the Scotland Bill, which would give borrowing powers to the Scottish Parliament. The Bill is expected to be passed through the UK Parliament by November 2011.

1 We define a major capital project as having a cost of £5 million or more.
2 Individual institutions – colleges and universities – are responsible for managing and delivering projects within further and higher education. The Scottish Funding Council is responsible for the direction of the capital programme within the sector.
3 *Review of major capital projects in Scotland*, Audit Scotland, June 2008.
4 *Scotland's Spending Plans and Draft Budget 2011/12*, Scottish Government, November 2010.

11. At the time of our audit, the Scottish Government had no comprehensive list of major capital projects in progress. From information we obtained, we estimate there are around 182 major capital projects planned or currently in progress including some very large and high-profile projects. These 182 projects have a combined estimated cost of between £13.3 billion and £14.7 billion and are phased over a number of years, including:[5]

- eleven projects costing more than £300 million each, with a combined estimated cost of £7.9–8.6 billion
- thirty-four projects costing more than £50 million each, with a combined estimated cost of £3.7–4.1 billion
- 129 projects costing between £5 million and £50 million each, with a combined estimated cost of £1.7–2.0 billion. A further eight projects have estimated costs yet to be determined.

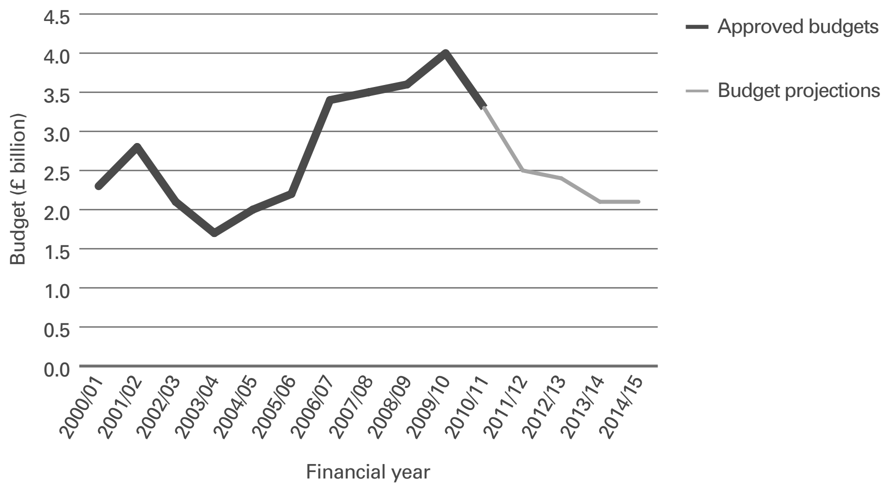
12. The Scottish Government has not set firm plans for capital spending beyond 2011/12. However, over the next Spending Review period, spending on major capital projects is likely to be significant.

13. The Scottish Government has contractual commitments to spend around £2.1 billion on capital projects over the next four years in its four main capital spending areas of health, justice (prisons), transport and higher and further education.[6] It also has plans for a further £5.4 billion spending on other projects including the Forth Replacement Crossing, which are planned but not yet contractual commitments (Exhibit 2). (See paragraphs 12 to 24 of the main report for more information.)

Exhibit 1

The growth and decline of the Scottish Government's capital budget 2000/01 to 2014/15 (real terms)

The capital budget is anticipated to return to 2004/05 levels by 2014/15.

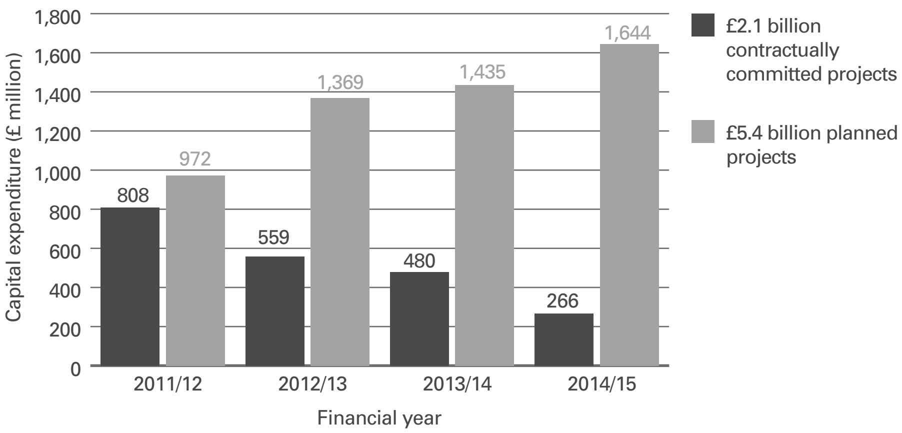


Note: All figures adjusted to 2010/11 prices using the GDP deflator.
Source: Scottish Government (various budget documents)

Exhibit 2

Potential phasing of capital spending within the main spending areas of health, prisons, transport and further and higher education

Contractually committed projects account for £2.1 billion between 2011/12 and 2014/15. Planned projects that are not yet contractually committed account for £5.4 billion.



Note: Figures include spending on projects funded by Transport Scotland, Scottish Prison Service, NHS Scotland and the Scottish Funding Council from the Scottish capital budget. They do not include spending on projects by other public bodies that receive contributions from the Scottish capital budget, including local government and Scottish Enterprise or projects that are revenue financed. In addition, contributions from individual further and higher educations institutions are not included.

Source: Audit Scotland from Scottish Government

5 Information relating to all projects with a value above £50 million was largely taken from the Permanent Secretary's update to the Public Audit Committee dated December 2010. We have not included projects that are the responsibility of local government with the exception of the schools programme and Edinburgh Trams. These projects receive significant funding from the Scottish Government.

6 A contractual commitment is when a contract has been signed.

14. In 2012/13, the potential level of commitments and planned capital spend within the four main spending areas will be over £1.9 billion. This represents approximately 80 per cent of the expected Scottish capital budget for that year.[7] In view of the size of both commitments and plans the Scottish Government may need to consider re-prioritising or re-phasing projects, or seek alternative sources of financing.

15. Despite increased levels of spending on capital projects since devolution, the level of backlog maintenance remains significant across the public sector at around £4 billion.[8] Recent and current investment plans will address part of this; however, it is unclear how long it will take to address all backlog maintenance and repair.

16. Capital projects also have annual revenue costs such as depreciation charges, general maintenance and facilities costs. However, there is a lack of comprehensive information on these costs for traditionally financed assets. We are therefore unable to assess their impact on future revenue budgets. (See paragraphs 17 to 24 of the main report for more information.)

17. The Scottish Government is considering a broad range of different financing methods to supplement the capital budget. Many involve the use of private sector finance with the costs being repaid over time from revenue budgets. However, there is no 'one-size fits all' alternative to the use of traditional finance from the capital budget.

18. Since devolution, revenue financed schemes have provided £4.8 billion worth of infrastructure projects in Scotland. This is equivalent to an extra 20 per cent on top of traditional financing each year.

19. In November 2010, the Scottish Government reaffirmed its commitment to use the Non-Profit Distributing (NPD) method as its preferred method to finance a number of projects.

20. The Scottish Government and public bodies pay the full cost of revenue financed projects by annual unitary payments to the private sector partners. These cover up-front construction costs, lifecycle maintenance and facilities management as well as financing costs. In 2010/11, annual payments for such schemes will be £838 million.[9] By 2024/25, annual unitary payments for projects completed and currently in progress will peak at over £1.1 billion (in cash terms).

21. Unitary payments are generally fixed for the term of the contract and met from revenue not capital budgets. As budgets reduce, unitary payments will increase as a proportion of available revenue budgets. This will put additional pressure on the amount that public bodies have available to spend. (See paragraphs 25 to 32 of the main report for more information.)

2 Cost estimating has improved in recent years, though slippage continues to affect many projects. Cost increases and slippage, when they happen, affect both traditionally financed and revenue financed (including PFI) projects. The longest delays occurred in the earlier stages rather than during the delivery stage (which would be more costly).

22. We examined 55 projects with a combined cost of £2 billion. This included 44 traditionally financed projects completed between April 2007 and March 2010 and 11 revenue financed projects completed between April 2005 and March 2010.

23. There are some significant gaps in the availability of information to measure whether projects are completed to budget and on time. For 11 out of 55 projects (20 per cent) public bodies could not provide a cost estimate at initial approval stage.[10] Similarly, 21 of 55 projects (38 per cent) could not provide a time estimate at initial approval stage. (See paragraphs 33 to 37 of the main report for more information.)

24. There were 29 traditionally financed projects that provided cost data at both initial approval and contract award stage. Most of these projects were completed within the initial approval cost estimates (Exhibit 3, next page). The combined final cost for these projects was £734 million. This was £14 million (two per cent) higher than the combined initial approval cost estimate of £720 million.

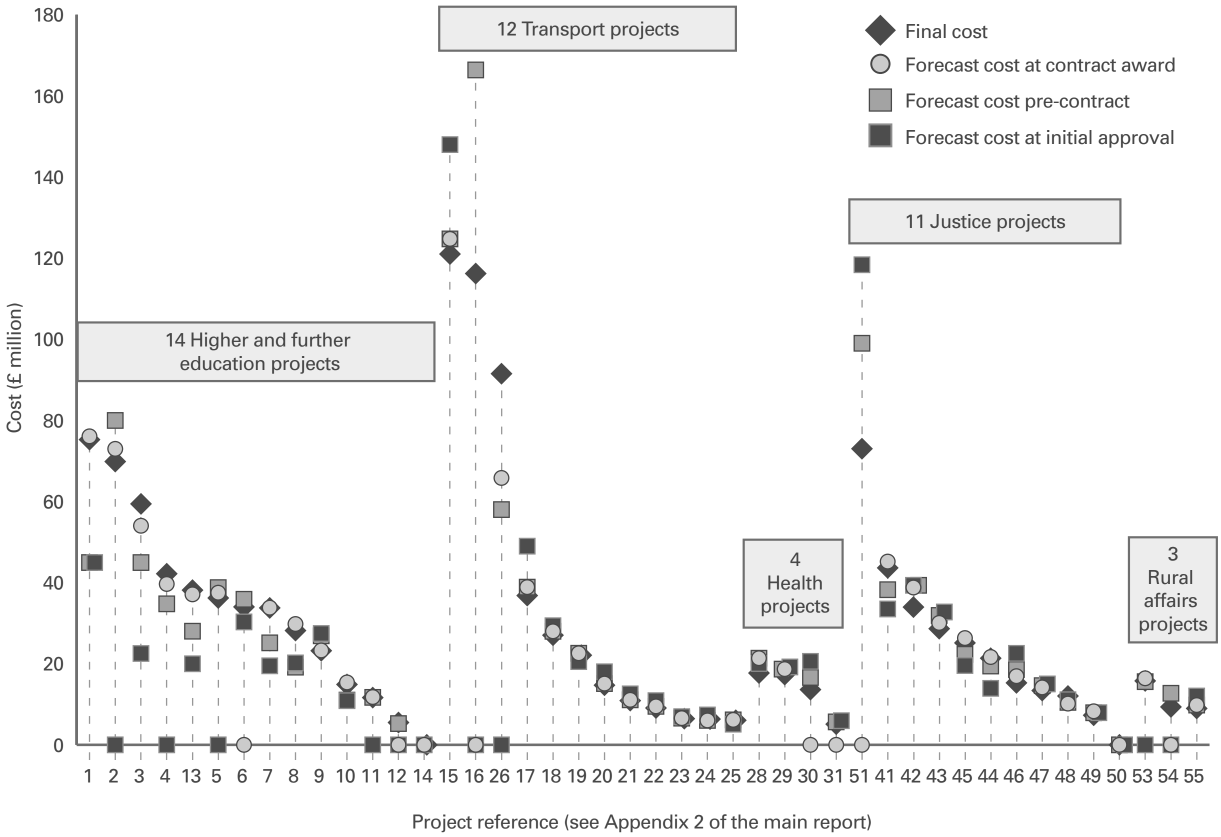
25. Of the 17 projects completed within the initial cost estimate, eight were roads projects managed by Transport Scotland and five were new or refurbished prisons managed by the Scottish Prison Service. Two health projects that were traditionally financed were delivered within the initial cost estimate.

7 In 2010/11, the local government capital allocation accounts for around 25 per cent of the Scottish capital budget.
8 *Scotland's public finances: preparing for the future*, Audit Scotland, November 2009. Major trunk roads and motorways require £713 million to bring them up to standard. Most of the rest of the backlog relates to assets that are the responsibility of local government.
9 Approximately £439 million of this relates to local government private finance schemes.
10 Public bodies could not provide an estimate at this stage either because project costs were not estimated at this time or data were unavailable.

Exhibit 3

Traditionally financed projects – final cost compared to forecasts at earlier stages

The majority of projects were completed within initial approval cost estimates.



Note: Symbols at '0' on the horizontal axis indicate that data are not available at these stages.

Source: Audit Scotland

26. Higher and further education projects had the least reliable cost estimates at initial approval, with six out of seven projects experiencing cost increases of between 37 per cent and 164 per cent.[11] Each higher and further education institution is responsible for the delivery of its capital project(s). The Scottish Funding Council is responsible for the overall direction of the capital programme in the sector. The Scottish Funding Council introduced new project monitoring and support arrangements in 2006 to help colleges and universities improve their project performance. Due to the time lag between project inception and completion, it is too early to assess the impact of these changes.

27. Later estimates of time and cost at the pre-contract stage were also inaccurate in many cases. However, they were closer to the final outturn as plans are more certain and risks clearer at this stage. In particular, cost overruns compared to contract estimates were relatively rare and low. Eighty-six per cent of projects completed between 2007 and 2010 were within contract award estimate.

28. Between 2005 and 2010, 11 major capital projects with a combined value of £690 million were completed using revenue financing (mainly PFI).[12] For these projects we have used the estimated value of contract payments to the private sector supplier over the contract life as the best measure of final cost. Five projects provided full cost information and we found that initial cost estimating was similar to traditionally financed projects (Exhibit 4). (See paragraphs 38 to 50 of the main report for more information.)

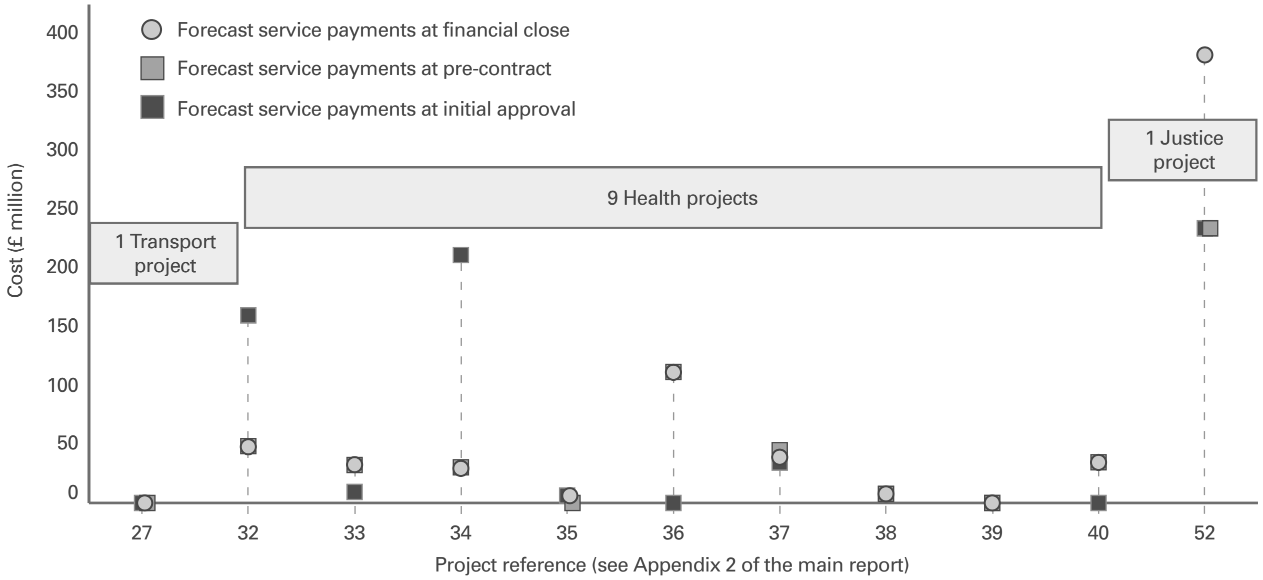
11 Initial estimates are those approved by the individual institutions prior to Scottish Funding Council approval. In five out of six cases, the cost increases did not result in additional funding being made available from the Scottish Funding Council.

12 The majority of these were health projects.

Exhibit 4

Revenue-financed projects – final contract cost compared to earlier estimates

Five projects provided full cost information. Two projects were delivered within the initial approval cost estimates, three were not. (See main report paragraphs 49 and 50 for more information.)



Notes:
1. Symbols at '0' on the horizontal axis indicate that data are not available at these stages.
2. Forecast service payments are the estimated value of contract payments to the private sector supplier over the contract life.
3. NHS Ayrshire and Arran provided full cost information for their Crosshouse maternity project (project 34). However, the costs are not comparable between initial approval stage and financial close due to a change in the way costs were calculated.
4. The Scottish Prison Service (HMP Addiewell, project 52) reported that the difference between early estimates and financial close is attributable to an accounting change by HM Treasury in the discount rate used to calculate lifetime project costs.

Source: Audit Scotland

29. We found that around a third of projects were completed on time compared to estimates at both stages.[13] Where significant delays arose, they mostly occurred during the initial planning stages of projects, rather than the delivery phase where delays are more costly.

30. Transport projects were completed most quickly, on average within 31 months, while health projects were completed over the longest period, on average 53 months.

31. Most completed projects have been evaluated to assess whether they have delivered the benefits intended.

32. Twenty-five projects (68 per cent of applicable projects) have undertaken, or are scheduled to undertake, a post-occupancy evaluation to assess how well the building operates.

33. The Scottish Public Finance Manual requires that post-project evaluations (PPEs) are carried out within six months of project completion to identify lessons learned. Only 75 per cent of completed projects (40 projects) reported undertaking, or planning to undertake, a PPE and only eight projects could provide a copy of the report.

34. The Scottish Government is currently developing a standard post-project evaluation programme to be applied across all project types and values. (See paragraphs 51 to 64 of the main report for more information.)

3 The Scottish Government is improving its project monitoring and management of the capital programme. However, the pace of change of some improvements has been slow.

35. In our 2008 report, we highlighted that the NHS, Transport Scotland and the Scottish Prison Service have their own systems and programmes for investment. We reported that, in relation to the delivery of individual projects, these systems were effective in many respects. However, we also identified risks with that approach; in particular, that devolving responsibility to individual areas could make it harder to maintain common standards.

13 The comparison with initial time estimates is based on 34 projects while the comparison with pre-contract time estimates is based on 49 projects. The remaining projects were not able to provide time estimates at one or both stages.

36. In-year budget management is an essential part of running an investment programme. This may involve adjusting the timing of projects within the programme as budget pressures emerge. In recent years the Scottish Government has adopted the practice of deliberately allocating more money to budgets than is available. In the three years 2008/09 to 2010/11, the planned over-allocation each year was £100 million. This contributed to reducing the annual underspend of the overall Scottish budget (revenue and capital combined). However, using this approach may become more difficult when budgets are reducing, leading to a greater risk of overspending by the end of the financial year.

37. Since 2008, the pressures and uncertainties in relation to the capital programme have been increasing. They include:

- uncertainty about capital and revenue budgets in the medium term
- the decision to boost capital spending by bringing forward capital budgets from 2010/11 into 2008/09 and 2009/10 as part of its economic recovery programme, and the requirement to manage the consequent reduction in 2010/11
- uncertainty around private financing options, as a result of the recent recession and uncertainty over UK budgeting rules under International Financial Reporting Standards
- the decision to bring the new Forth Crossing into the capital programme, with major financing implications arising from the project.

38. Partly in response to these and other challenges, the Scottish Government has developed its framework for managing investment by:

- setting up an Infrastructure Investment Board (IIB) for the Scottish Government in September 2010. This small and senior group is intended to provide greater central scrutiny, direction and oversight of the largest investment projects
- developing a centrally maintained infrastructure projects database to help financial planning, forecasting and scrutiny of projects. At November 2010, the Scottish Government was populating the database with budget and performance data
- establishing the Scottish Futures Trust (SFT). The SFT is a company owned by, but operating at arms-length from, the Scottish Government, which is working in partnership with other public bodies seeking more efficiency from the investment programme.

(See paragraphs 65 to 70 of the main report for more information.)

39. Since January 2008, the Scottish Government has carried out 51 gateway reviews covering 34 major infrastructure and construction projects. This does not represent a significant change in the number and coverage of reviews compared to results we reported in 2008.

40. We reviewed 12 gateway reviews that took place between 2008 and 2010, covering nine major capital projects. In total, 78 recommendations had been made across three categories, critical (red), essential (amber) and recommended (green).[14] Eighty-eight per cent of all applicable recommendations had been implemented or were under way. This suggests the gateway review process is having a positive impact on the management of major capital projects.

41. The Scottish Government is working with the SFT to provide guidance on how public bodies should engage with both key stage review and gateway review processes. The SFT has taken ownership of the key stage review process and is now responsible for carrying these out on a number of large-scale Scottish Government projects. To date, the SFT has carried out 21 key stage reviews covering a wide range of projects including the Forth Replacement Crossing and Borders railway. (See paragraphs 89 to 93 of the main report for more information.)

4 The Scottish Government is strengthening leadership and oversight of its capital investment programme. An overarching investment strategy that sets out clearly long-term investment needs and constraints would help provide key information for prioritising and planning.

42. Scottish ministers are responsible for overarching decisions relating to the Scottish Government's capital programme.

43. However, responsibility for managing projects within the programme is delegated to the relevant Scottish Government portfolio and Accountable Officer of the relevant body, eg Transport Scotland. Each body has its own programme of projects that together make up the Scottish Government's capital investment programme.

44. We found that each area has well-established systems for directing and delivering its capital programme. Although controls and practices vary among the spending areas,

14 Recommendations are classed as either 'critical' (the project should take action immediately), 'essential' (the project should take action before the next gateway review) or 'recommended' (the project is on track to succeed but may benefit from uptake of recommendation).

they generally comply with good practice.[15] However, while each area has strengthened arrangements in recent years, there remain areas for improvement.

45. The Scottish Government's Infrastructure Investment Plan (IIP) was published in 2008, setting out investment plans for the ten years ahead.[16] Although the plan is not quite three years old, the recent economic recession and subsequent reduction of public sector spending, particularly capital budgets, mean that it needs to be reviewed and updated.

46. The Scottish Government could extend the IIP to become an overarching investment strategy that would help:

- set out the long-term investment needs and constraints for capital investment in Scotland
- provide key information to help Scottish ministers decide on priorities within the capital programme
- identify, coordinate and inform investment plans across the main capital spending areas
- provide clear links between projects, programmes and strategic objectives
- provide a strategic assessment of the revenue financing options available in light of future reductions in the capital budget
- provide high-level analysis of the overall condition of the public sector estate, which would help to establish the correct balance between building new infrastructure and maintaining current assets
- strengthen debate within the public sector on the direction of the capital programme.

47. The Scottish Government provides an update to the Scottish Parliament's Public Audit Committee every six months on major capital projects currently in progress. This provides high-level information on estimated cost and time targets. However, it is limited to projects with an estimated capital value greater than £50 million (combined total of between £9.6 billion and £10.4 billion) and does not include projects that are the responsibility of local government.[17] (See paragraphs 71 to 78, 94 and 95 of the main report for more information.)

Key recommendations

The Scottish Government should:

- assess the overall capacity of using alternative finance as part of a wider investment strategy. Its strategy should balance the costs, risks and rewards associated with using alternative finance to ensure value for money is achieved. The current Infrastructure Investment Plan could be extended to become an overarching investment strategy
- review and update its Infrastructure Investment Plan to reflect the recent economic recession and subsequent reduction in capital budgets
- develop comprehensive information on the whole-life costs of all capital projects and assess their impact on future revenue budgets
- develop standard criteria for inclusion in post-project evaluations and ensure that they are completed for every major capital project and lessons learned are shared across all relevant public bodies.

Public bodies should ensure that they:

- improve early-stage estimating of the cost and time of projects by ensuring assessments and quantification of risk and uncertainty are carried out
- regularly review projects to ensure they remain relevant to strategic objectives and establish strong links between capital spending and desired outcomes
- consider alternative forms of financing and ways to improve value for money from their capital programmes
- develop objectives and targets for their capital investment programme to help drive initiatives such as design quality and sustainability
- report systematically on their current and future capital investment plans.

15 We appointed Jacobs Consultancy to help establish a good practice framework and help assess each of the areas examined and to analyse our findings. The good practice framework reflects guidance issued by the Office of Government Commerce.
16 *Infrastructure Investment Plan*, Scottish Government, March 2008.
17 The latest update to the Public Audit Committee was in December 2010.

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