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REPUBLIC OF ESTONIA

TECHNICAL ASSISTANCE REPORT—
PUBLIC INVESTMENT MANAGEMENT ASSESSMENT

June 2019

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FISCAL AFFAIRS DEPARTMENT

Republic of Estonia

Public Investment Management Assessment

Christiane Roehler, Ashni Singh, Carmen Calin, Willie du Preez,
Jonas Arp Fallov, and Eivind Tandberg

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F I S C A L A F F A I R S D E P A R T M E N T

Republic of Estonia
Public Investment Management Assessment

Christiane L. Roehler, Ashni Singh, Carmen Calin, Willie du Preez, Jonas Arp Fallov, and Eivind Tandberg

May 2019

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GLOSSARY

EBF	Extrabudgetary Funds
ERP	Enterprise Resource Planning
ESA	European System of Accounts
EU	European Union
FAD	Fiscal Affairs Department
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GG	General Government
ICT	Information and Communication Technology
IPSAS	International Public Sector Accounting Standards
KPI	Key Performance Indicator
LG	Local Government
MoF	Ministry of Finance
MTFF	Medium-Term Fiscal Framework
NAO	National Audit Office
NDP	National Development Plan
PC	Public Corporation
PFM	Public Financial Management
PIM	Public Investment Management
PIMA	Public Investment Management Assessment
PPP	Public-Private Partnership
PPP$	Purchasing Power Parity
RKAS	State Real Estate Company
SAP	Systems, Analysis, Products
SNG	Sub-National Government
SOE	State-Owned Enterprise
TSA	Treasury Single Account

PREFACE

In response to a request from the Ministry of Finance (MoF), a FAD mission visited Tallinn, Estonia from November 28 to December 12, 2018, to undertake a Public Investment Management Assessment (PIMA). The mission comprised Christiane L. Roehler (FAD, head), Ashni Singh (FAD), Willie du Preez, Eivind Tandberg (both FAD experts), Carmen Calin and Jonas Arp Fallov (both World Bank). The tasks of the mission were to: (i) assess Estonia's public investment management framework with the IMF's PIMA methodology; and (ii) advise the authorities on options to strengthen further the management of public investments.

Within the MoF, the mission met with: Mr. T. Tõniste, Minister of Finance; Mr. V. Tali, Secretary-General; Mr. M. Ross, Deputy Secretary-General for Financial Policy and External Relations; Mr. S. Kirsipuu, Head, Fiscal Policy Department; Ms. M. Paas, Head, State Budget Department; Ms. K. Karniol, Head, State Assets Department; Mr. S. Liivik, Head, Local Government Financial Management Department; Mr. P. Ristkok, Head, Regional Development Department; Ms. I. Heldna, Head, Public Relations Department; Mr. A. Kuningas, Head, European Union and International Affairs Department; Mr. K. Siruli, Head, Financial Control Department; Ms. M. Dubrovkin, Head, Human Resources Department; Mr. R. Härginen and Mr. M. Helilaid, Deputy Heads, State Budget Department; Ms. A. Zirk, Advisor, State Treasury Department; Ms. E. Karindi-Kask and Ms. M. Tork, Advisers, Procurement and State Aid Department; and other senior staff of these Departments.

The mission also met with representatives of the ministries of: Economic Affairs and Communication; Justice; Social Affairs; and the Interior. In addition, the mission met with representatives of: the Fiscal Council; the National Audit Office; Statistics Estonia; the Competition Authority; the Technical Regulatory Authority; the State Shared Service Center; the State Real Estate Agency; the Public Procurement Review Committee; the Environmental Investment Center; the Police and Border Guard; Estonia Railways AS; and the Association of Estonian Cities and Rural Municipalities.

The mission is grateful to the authorities for the frank, open, and constructive discussions and close cooperation. The mission expresses its sincere appreciation to Joonas Pärenson and Kristiina Abel, both advisors at the MoF, for the very smooth organization of the mission and fast turn-around of the many mission requests.

EXECUTIVE SUMMARY

Public investment is a priority spending area, and Estonia is seeking to strengthen the efficiency and effectiveness of its capital expenditure from an already high level. Estonia's general government capital expenditure has been higher than that of its neighboring comparators,[1] EU countries or the average advanced country, at usually well above 5 percent of GDP. It is planned to continue at that level in the medium-term despite an expected decline of external grants from the EU. Thus, the level of public capital stock has been increasing as well as closing a gap to the comparator countries.

Estonia's public investment is relatively efficient, while further improvements should pay attention to the quality of public services enabled by them. Relative to its current level of public capital stock, Estonia has achieved the highest score on an index measuring overall access to public infrastructure in areas such as education, health, electricity, roads, and water among 148 countries. However, it has a small gap to the best performing countries when efficiency of public investment is measured by an index of the perception of infrastructure quality. Specifically, the perception of Estonia's infrastructure quality has already converged towards the EU average, but still lags neighboring comparators as well as advanced economies. This indicates the need to focus on the impact of investment projects on the intended public services and meeting citizen's expectations.

Estonia's public investment management (PIM) institutions generally perform well, and in several cases the effectiveness of practices is assessed higher than the institutional design. Estonia has the highest effectiveness score for several institutions of all countries that have been assessed for effectiveness by a PIMA to date. Figure 0.1 and Table 0.1 summarize these results.

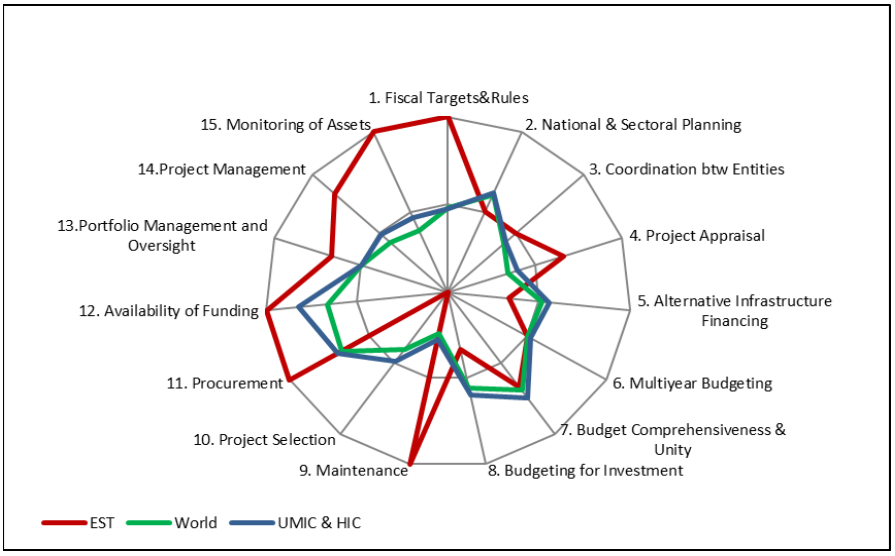
Investment implementation is particularly strong. This reflects Estonia's open procurement framework that utilizes an advanced e-procurement system, its modern treasury that employs an effective Treasury Single Account system to guarantee cash availability, asset monitoring that has been made routine through full accrual accounting for the whole public sector, and active project management by ministries. Other strengths arise from sound macroeconomic planning as evidenced by regular adherence to its fiscal targets; detailed, rolling medium-term expenditure forecasting; and an emphasis on maintenance funding.

[1] The group of neighboring comparators for this report, also referenced as "Nordic Plus," are Denmark, Finland, Iceland, Ireland, Latvia, Lithuania, Norway and Sweden.

Figure 0.1. Strength of Public Investment Management Institutions

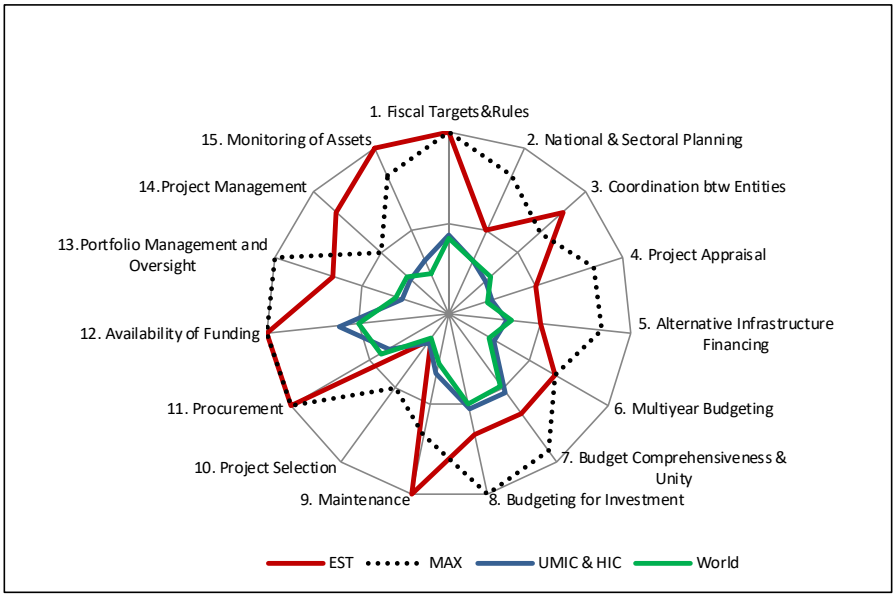
A. Institutional Design

(58 countries, incl. desk assessments for G20 and Spain)



B. Effectiveness

(30 countries in sample, without G20 and Spain)



Source: IMF staff estimates.
Note: UMIC & HIC is High Income & Upper Middle Income, MAX is the maximum score.

Areas where PIM could be strengthened can be characterized by three themes:

- **Some practices that are already effectively implemented should be formalized in the institutional design.** This will act as a safeguard. For example, there is a welcome drive to first fund ongoing projects before making budget allocations to new projects, and to provide comprehensively for maintenance expenditure. These preferences should also be stated explicitly in regulations.

- **Public investment projects should be managed in an integrated portfolio at all stages of the investment cycle.** It is difficult to obtain a picture of all important investment projects pursued in the public sector including by local governments and state-owned enterprises. A comprehensive portfolio view of all projects supports transparent prioritization across sectors and the identification of systemic patterns or risks. At the planning stage, all large investment projects should be systematically identified, regardless of funding source and implementing modalities, and a 10-year investment plan could be introduced for information purposes. During budget allocation an investment program should be compiled, and total project costs disclosed. And all major projects should undergo a standard project appraisal and be selected from an integrated project pipeline by applying standard criteria.
- **The management of fiscal risks could be strengthened.** The accounting statements contain detailed notes on contingent liabilities, but these liabilities are not systematically monitored centrally. While there are few public private partnership (PPP) projects to date, a PPP policy framework would provide clarity. Moreover, central oversight of the whole project portfolio should be instituted and encompass monitoring of project progress and potential risks.

Estonia's PIM is supported by a high degree of digitalization and transparency, which facilitates efficient practices. Opportunities exist, however, to make more use of the rich data environment for analysis, e.g., of contingent liabilities and procurement patterns, and for central monitoring such as the evolution of the structure of the portfolio, and project cost and time overruns.

Recommendations are summarized in Table 0.2, and explained in more detail in Section V. They highlight selected areas for improvement, rather than covering all institutions. Some recommended practices like project appraisals are already implemented for the sub-set of EU co-funded projects, which also tend to have high visibility. However, more than 75 percent of general government capital expenditure are nationally funded projects. Thus, this report is dominated by practices for nationally funded projects, while differences with and the impact of EU co-funded projects are acknowledged.

Table 0.1. Estonia: Summary Assessment

Phase/Institution			Institutional Design	Effectiveness	Reform Priority
A. Planning	1	Fiscal principles or rules	High: Estonian law prohibits a general government structural deficit, and Eurozone rules also apply.	High: The fiscal balance is kept within national and EU criteria, and public debt is also very low (9 percent gross debt, 0.1 percent net debt)	Low
	2	National and sectoral plans	Medium: National and sectoral plans cover few specific investment projects and are not linked to the MTFF.	Medium: Objectives in most long-term strategies are high-level. Only some strategies have measurable output targets.	High
	3	Coordination between entities	Medium: Information on SNG capital spending and SNG/SOE contingent liabilities is available, but there are no formal discussions or monitoring.	High: Coordination through clear assignment of responsibilities; there are no indications of inconsistencies in investments between levels of government. Access to capital grants is rules-based and predictable.	Medium
	4	Project appraisal	Medium: There is some central support, but no standard appraisal methodology. Appraisals are done for EU projects as prescribed.	Medium: Nationally financed projects not subjected to comprehensive appraisal and detailed financial, economic, technical, option, and legal analysis.	High
	5	Alternative infrastructure financing	Low: No published strategy or framework for PPPs, nor is there direct central oversight of SOE investments.	Medium: PPP-type projects are being considered to avoid the fiscal ceiling on capital expenditures.	Medium
B. Allocation	6	Multi-year budgeting	Medium: Medium-term budget planning is well-developed, but total project costs are not monitored.	Medium: Existing projects are prioritized, but there are regular overall expenditure overruns.	Medium
	7	Budget compre-hensiveness and unity	Medium: Own investment by EBFs and SOEs is significant but not included in budget documentation.	Medium: A comprehensive view of all public sector investment activity is not easily obtained.	Medium
	8	Budgeting for investment	Low: There is no formal mechanism to protect funding of ongoing projects.	Medium: Funding for project completion is available, but the lack of total project cost monitoring poses risks.	Medium
	9	Maintenance funding	High: Maintenance funding is costed, planned, monitored, and reported.	High: Maintenance funding is available in a timely manner.	Low
	10	Project selection	Low There is no central project pipeline across sectors irrespective of funding source; major projects are not reviewed centrally or by an independent expert.	Low: There are no criteria for project selection nor ranking model, and nationally funded projects are only reviewed by the line ministry.	High
C. Implementation	11	Procurement	High: Procurement process is open and managed on a comprehensive e-procurement platform.	High: Procurement is transparent, competitive, speedy and the few complaints resolved in a timely manner.	Low
	12	Availability of funding	High: Cash availability is managed through a TSA.	High: Treasury ensures cash availability, and invoices are paid on time.	Low
	13	Portfolio management and oversight	Medium: Project costs and physical progress are monitoring on project level, but not for the project portfolio. Only limited ex post evaluations are conducted for national projects.	Medium: Cost and time overruns are handled at project level, but not systematically monitored and analyzed. Ex post evaluations, e.g. for EU projects, are used in future project design.	High
	14	Project implementa-tion	High: Responsibilities for project implementation are assigned, and rules in place for contract adjustments.	High: Implementation plans are prepared, projects are actively managed, and audits focus on high risk projects.	Medium
	15	Management of public assets	High: System for asset management exists, and assets are included in financial statements.	High: Monitoring, valuation and control of assets is robustly implemented, driven by the accrual accounting framework.	Low

Table 0.2. Estonia: Summary of Recommendations

	Inst.	Priority	Timeline
A. Planning Investment			
Issue 1: Strategic planning is fragmented and not reconciled with fiscal space projections.	2		
1.1 Strengthen the realism of long-term (15 – 20 years) strategic plans, by identifying key investment projects required to implement the strategy, with indicative costing and reconciliation with available fiscal space.		High	2020
1.2 Establish 10-year public investment plans to strengthen and consolidate medium-term capital planning to ensure consistent treatment of all investment projects, regardless of potential funding source**.**		High	2019
Issue 2: Appraisal of projects is not done uniformly and does not support stringent and consistent project selection.	4	High	2019
2. Adopt a standard methodology for project appraisal to ensure that all major projects are appraised to a similar standard and subject appraisal documents to independent external review as a quality control measure**.**	5	Medium	2020
Issue 3: There is no consolidated oversight of key fiscal risks.			
3. Establish a framework for monitoring and reporting of key fiscal risks, including for PPPs and contingent liabilities, and include a consolidated statement of fiscal risks in budget documents.			
B. Allocating Investment			
Issue 4: **Allocations for capital projects are appropriated on an annual basis with no clear information of the total project costs available to members of Parliament, and there is no consolidated public investment program.**	6,7,8		
4. Strengthen capital budget planning, appropriation and implementation by introducing additional disclosures on investment projects in the budget process.		Medium	2020
Issue 5: There is no consolidated project pipeline across sectors, and no comprehensive criteria for selection of budget-funded projects for implementation.	10		
5. Establish a unified pipeline of appraised projects in order to compare projects within and across sectors in a transparent and competitive manner.		High	2019
C. Implementing Investment			
Issue 6: Projects are monitored on an individual project level, but there is no central oversight and monitoring of the project portfolio, of project progress nor of project expenditures.	13		
6. Establish an electronic, central project oversight system to monitor all major projects centrally, to minimize cost overruns, time overruns and risks that might arrive during project implementation.		High	2019
Cross-cutting Issues			
A. IT Systems and Data Management			
Issue 7: There is a wealth of available data generated by different information systems, but this is not fully utilized for analysis and central monitoring.	Cross cutting		
7. Use available data for more extensive disclosure and analysis, e.g., of contingent liabilities, a public sector balance sheet on the statistical basis, portfolio oversight including project cost and time overruns, or procurement patterns.		Medium	2019

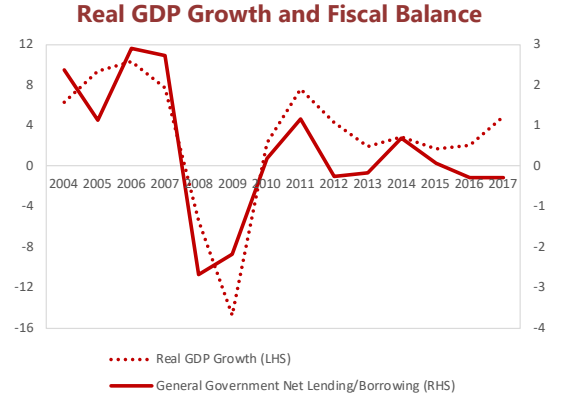
I. TRENDS IN PUBLIC INVESTMENT

A. Trends in Total Public Investment and Capital Stock

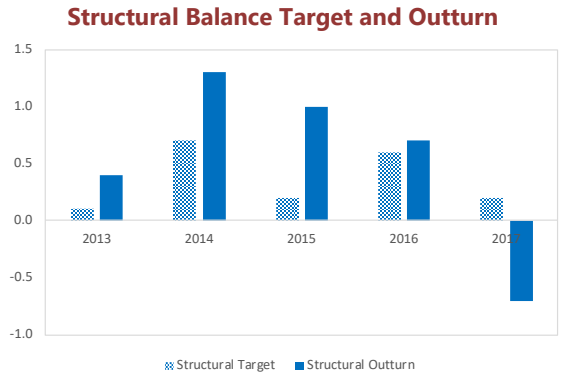
1. Estonia has a strong record of fiscal soundness with an emphasis on public investment, which is expected to continue. Estonia is currently in its ninth consecutive year of real economic growth since Estonia's 2009 economic crisis with an average growth rate of 3.5 percent, exceeding the EU average by 1.8 percentage points. Fiscal performance has been strong throughout (Figure 1.1). Public investment has been protected over the years, far exceeding 8 percent of total general government expenditure in most years, and it is expected to continue to be a policy priority.

Figure 1.1. Recent Fiscal Developments
(Percent of GDP)

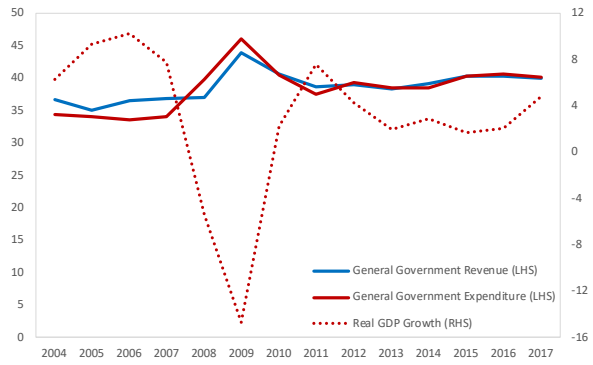
Since the 2009 crisis, growth has been strong, and the budget has been kept close to balanced.



Apart from 2017, the structural balance target defined by the fiscal rule has been met.



Revenue and expenditure levels have been stable ...



... and capital expenditures have remained high.

Source: World Economic Outlook, IMF staff estimates.

2. The national reform strategies emphasize public investment. The current national reform program, Estonia 2020, expires soon. Its key objectives include: raising employment and productivity including by investing in education and innovation; improving competitiveness of the business environment; promoting environmental and energy sustainability; and ensuring a

sustainable and adaptive public sector.[2] Preparation of its successor, Estonia 2035, has begun, and the key objectives are expected to remain relevant. To support achievement of these objectives, Estonia 2020 emphasizes continued strategic investment in public assets, a focus on raising the quality of public infrastructure, the achievement of green objectives in investment decisions, and an ongoing drive to ensure an efficient administration.

3. Assessing the efficiency of Estonia's public investment and the magnitude of public assets is challenged by data considerations, despite a data-rich environment. Estonia is very transparent: strategic plans and budget documentation are all published online, and the Ministry of Finance (MoF) provides government sector accrual accounting data and balance sheets on virtually a real-time basis through an open data portal.[3] Statistics Estonia provides comprehensive general government fiscal statistics consistent with EU standards that are directly based in the accounting data; fiscal statistics are also available through EUROSTAT; and the MoF prepares consolidated annual financial statements for the government and the non-financial public sector. However, differences in measurement and recognition rules, conventions, and practices across accounting and statistical sources complicate estimation of public investment and public assets. The matter is further compounded by the fact that a share of Estonia's investment activities is in such areas as research and development and other intangible assets, whereas the conventional public investment efficiency analysis is designed with investment in physical assets in mind.

4. As a result of these data issues, some estimation of capital spending and capital stock is necessary for analytical purposes. For the purposes of this Public Investment Management Assessment (PIMA), data approximations are used where needed. These include using a combination of statistical and accounting data where a consistent series is not available with the required institutional coverage, namely the public sector on statistical valuation basis. Although it is not expected that this would materially affect the conclusions arrived at, expanding the coverage of the fiscal statistics to the public sector would help alleviate these data issues in time, since a full set of statistical series for transaction and balance sheet data prepared with a consistent methodology would be provided. This would also improve fiscal analysis, strengthen balance sheet management, and enable more effective identification and management of fiscal risks.[4] Regular publication of the bridge tables between the statistical and accounting data is also recommended to assist data users.

[2] Republic of Estonia, 2018, *National Program ESTONIA 2020*, approved by Government 26.04.2018.

[3] http://riigiraha.fin.ee/

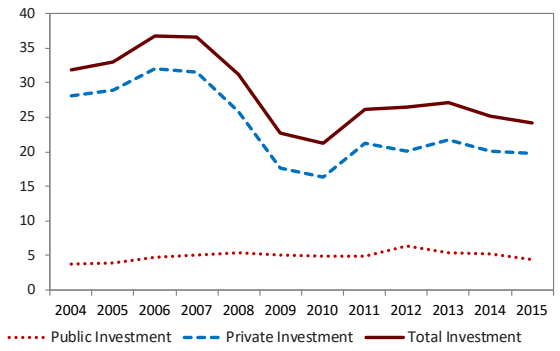
[4] IMF, 2018, *Fiscal Monitor: Managing Public Wealth*.

B. Public Investment and Capital Stock

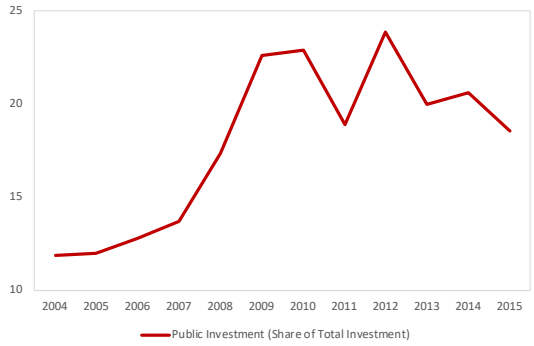
5. Public investment has been kept high over the years, making an increasing contribution to total investment in the economy, and increasing the public capital stock. Private investment declined sharply at the time of Estonia's 2009 economic crisis, from 37 percent of GDP in 2006 to 21 percent in 2010, and is yet to recover fully.[5] At the same time public investment was kept high, and its contribution to total investment grew from 13 percent in 2006 to a peak of 24 percent in 2012. This helped push the public capital stock up from 40 percent of GDP in 2007 to 57 percent by 2015. With consistently high levels of public investment, Estonia has reduced the gap between its level of public capital stock and that of key comparators as well as advanced economies generally (Figure 1.2).[6]

Figure 1.2. Total Investment and Public Capital Stock
(Percent of GDP, if not otherwise noted)

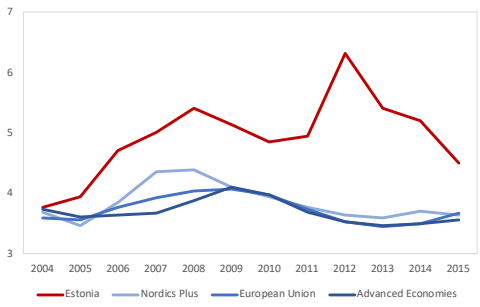
While public investment has remained steady, private investment fell in the 2009 crisis and is yet to recover...



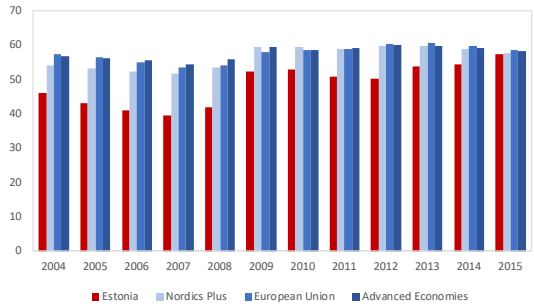
... resulting in the share of public investment to total investment rising sharply and remaining high.



Estonia has consistently invested more than neighboring countries and other comparator groups...



... enabling it to narrow the gap between its capital stock and that of these countries.



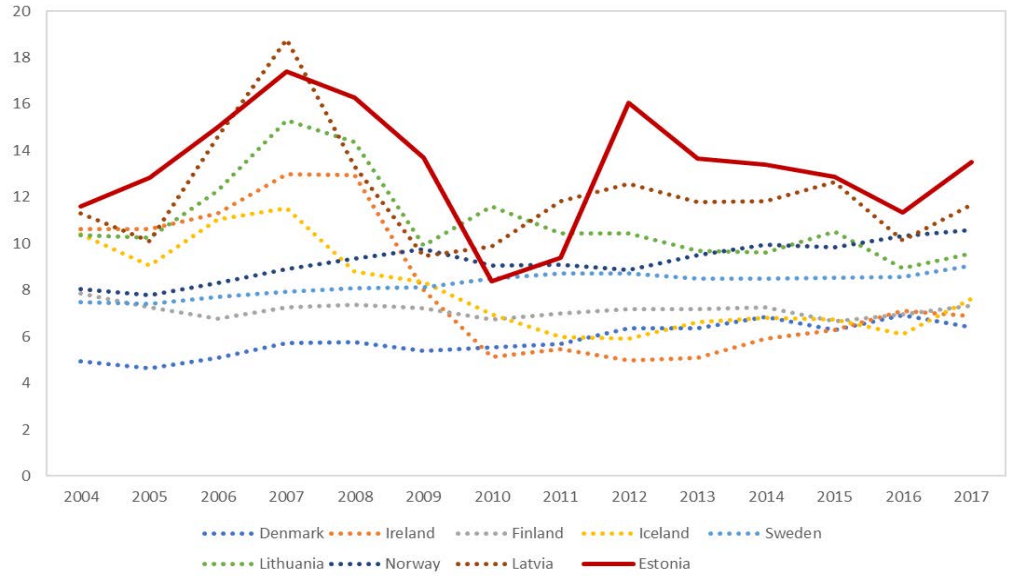
Source: IMF staff estimates.

[5] IMF, 2010, *Republic of Estonia: Staff Report for the 2009 Article IV Consultation* discusses the circumstances surrounding the collapse in private investment, including the bursting of a property bubble at the time and tightening of lending conditions by the country's two main banks..

[6] Key comparators, described hereinafter as Nordics Plus, comprise Denmark, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, and Sweden.

6. The share of public investment in total general government expenditure has also been maintained over the years. Even in the immediate aftermath of the 2009 crisis, Estonia maintained an emphasis on public investment, and capital expenditure as a share of total general government expenditure remained high relative to comparators. Capital expenditure recovered to a peak of 16 percent as a share of total expenditure in 2012, having previously reached 17 percent in 2007 (Figure 1.3), well above neighboring comparators.

Figure 1.3. General Government Capital Expenditure
(Percent of Total Expenditure)



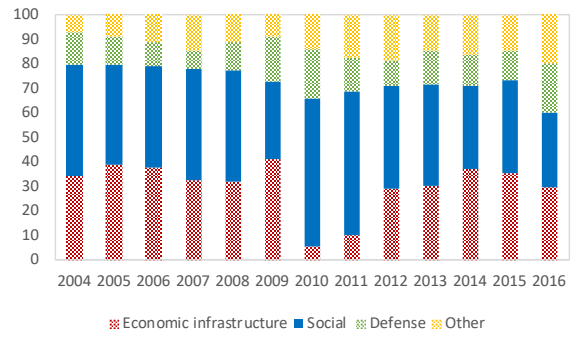
Source: Eurostat.

C. Composition and Financing of Public Investment

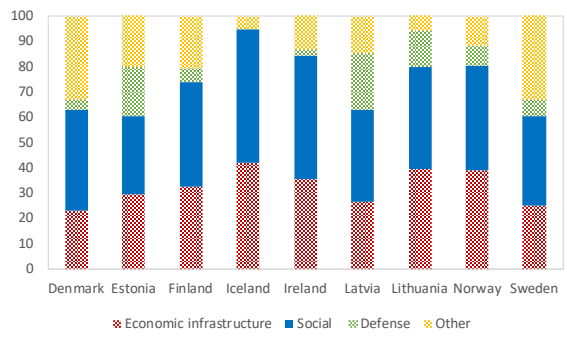
7. Economic and social infrastructure account for over 60 percent of Estonia's public investment and 70 percent of its public capital stock, similar to many advanced countries. This reflects the emphasis on sectors such as transport and energy which are key to promoting competitiveness and growth, and health and education which are essential to raising the quality of life and supporting competitiveness. At 28 percent of the total public capital stock, Estonia's economic infrastructure assets still lag the advanced economy average of 35 percent. Its social sector assets are higher, at 43 percent, than the average of 34 percent in advanced economies. Estonia also emphasizes defense infrastructure where spending and capital stock are higher than in advanced economies (Figure 1.4).

Figure 1.4. Public Investment and Public Capital Stock by Functional Classification

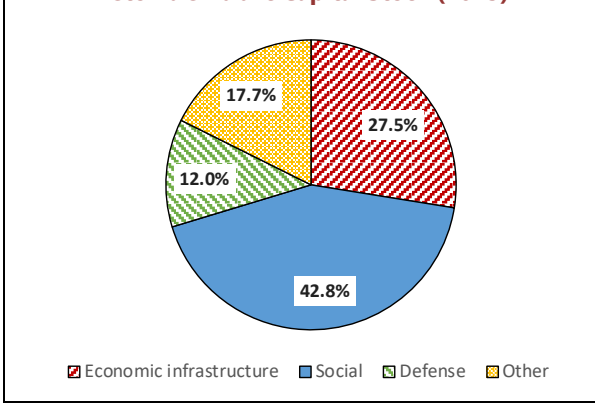
Estonia's public investment has been heavily weighted in favor of the economic and social sectors…



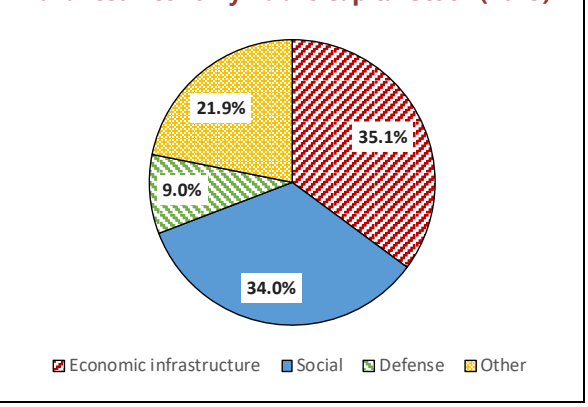
… as in most neighboring comparators.



The public capital stock currently favors the social sector and also reflects significant accumulation of defense assets…



… while other advanced economies have a higher share of public assets in the economic sector including transport.



Sources: Eurostat and IMF staff estimates.

8. Estonia has a sizeable local government system, as well as a large public corporation (PC) sector,[7] which together conduct nearly half of public investment activity. The local government sector is fiscally significant, receiving a share of income taxes as well as block grants for various purposes. In addition, individual local governments compete for externally financed grants channeled through the central government. Local governments account for approximately a quarter of public investment in the general government sector, which is slightly below neighboring comparators. Outside the general government sector, PCs make a very important contribution to overall public investment activity, with key entities involved in important sectors such as energy. Until recently, capital expenditure by the PC sector has consistently exceeded 2 percent of GDP, rising as high as 5.5 percent of GDP in 2013, and in 2017 the PC sector accounted for 22 percent of capital expenditure by the public sector (Figure 1.5). Infrastructure with public goods characteristics is mostly provided by the public sector, while in the water and heating sectors some private companies also operate. Reflecting

[7] Some of Estonia's SOEs for fiscal statistics are classified in the general government sector, and most in the non-financial public corporation sector. For public management purposes they tend to be treated as a group.

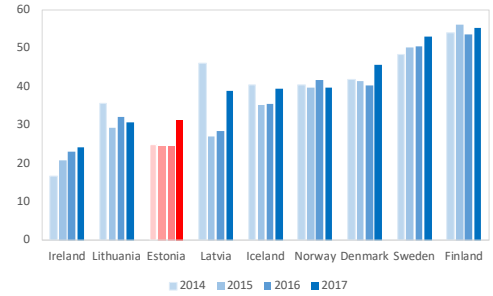
Estonia's cautious approach to assuming fiscal risks, there are only a few Public-Private Partnership (PPP) arrangements (see Institution 5).

9. External grants are an important source of financing for public investment activity. Estonia benefits from EU Structural and Investment Funds, in particular the European Regional Development Fund and the Cohesion Fund. These, along with grants from partners such as EEA, Norway and Switzerland, finance a significant share of public investment activity. Since 2009, externally financed expenditures (co-financed primarily from the EU) have accounted for as much as 25 percent of all public investment by the general government (Figure 1.5). There is considerable cyclicality in the EU funding cycle, with the early years of each cycle devoted to project preparation before execution begins at full scale. In addition, the phasing and pace of execution of EU-supported projects is influenced by administrative capacity within the MoF and in the executing units. Nevertheless, the peaking of EU co-financed capital expenditure in 2010 as a share of overall general government capital expenditure suggests that EU co-financed projects contributed to a counter-cyclical effort at that time. In the next EU programming cycle 2021–27 EU financing is expected to decline as Estonia is converging toward EU averages, but the new amounts are still under negotiation.

Figure 1.5. Investment by Subsectors and Funding Source

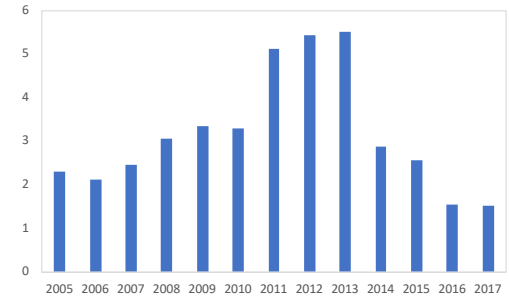
The share of local governments in government investment has recently increased, but remains smaller than in most neighboring countries…

Local Government Capital Expenditure
(Share of General Government Capital Expenditure)



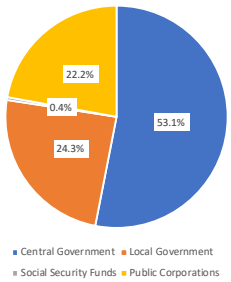
… while public corporations have consistently made a significant contribution to overall public investment activity, reaching up to 5.5 percent of GDP at times.

Capital Expenditure by Public Corporations
(Percent of GDP)



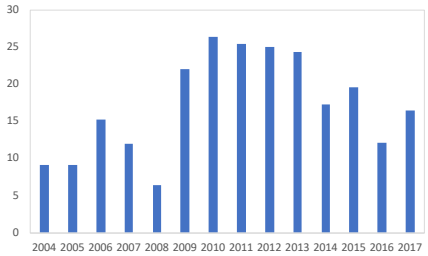
Across the public sector, the central government conducts just over half of public investment activity.

Capital Expenditure by Institutional Sector (2017)
(Share of Total Public Sector Capital Expenditure)



External financing is an important funding source.

General Government Externally Financed Capital Expenditure
(Percent of General Government Capital Expenditure)

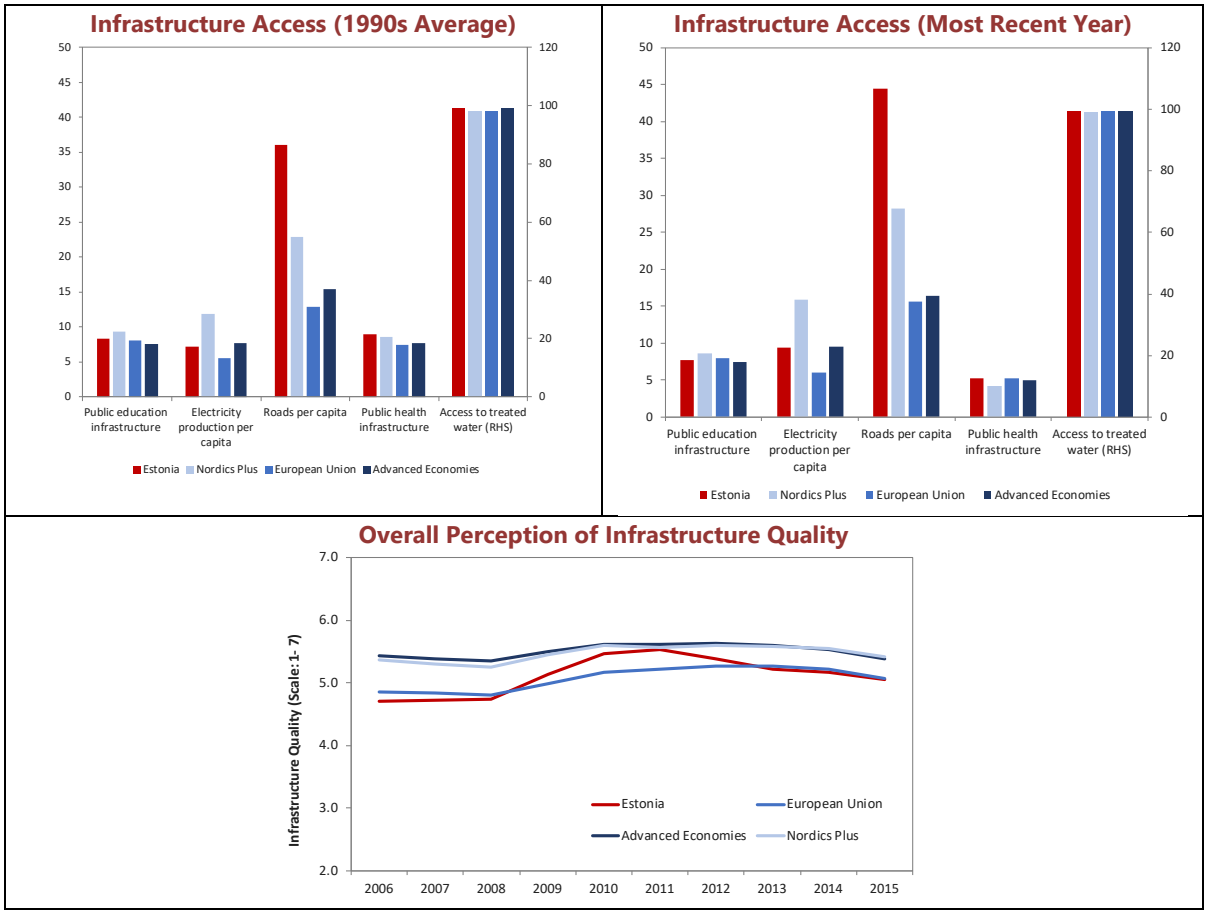


Sources: Eurostat, IMF staff estimates, and authorities estimates.

II. EFFICIENCY AND IMPACT OF PUBLIC INVESTMENT

10. Sustained investment has helped Estonia reduce gaps in both access to, and quality of public infrastructure but there is room for further improvement. Access to infrastructure has improved markedly in some sectors, reflecting the heavy investments made over the years. The most notable improvements in access since the 1990s are observed in roads and electricity. In contrast, public health infrastructure per capita has declined, possibly reflecting the general policy trend towards reduced length of stay in hospitals and the expansion of the gatekeeping role of general physicians in the private sector. Perceptions of infrastructure quality in Estonia have converged towards the EU average, but still lag neighboring comparators as well as advanced economies overall (Figure 2.1).

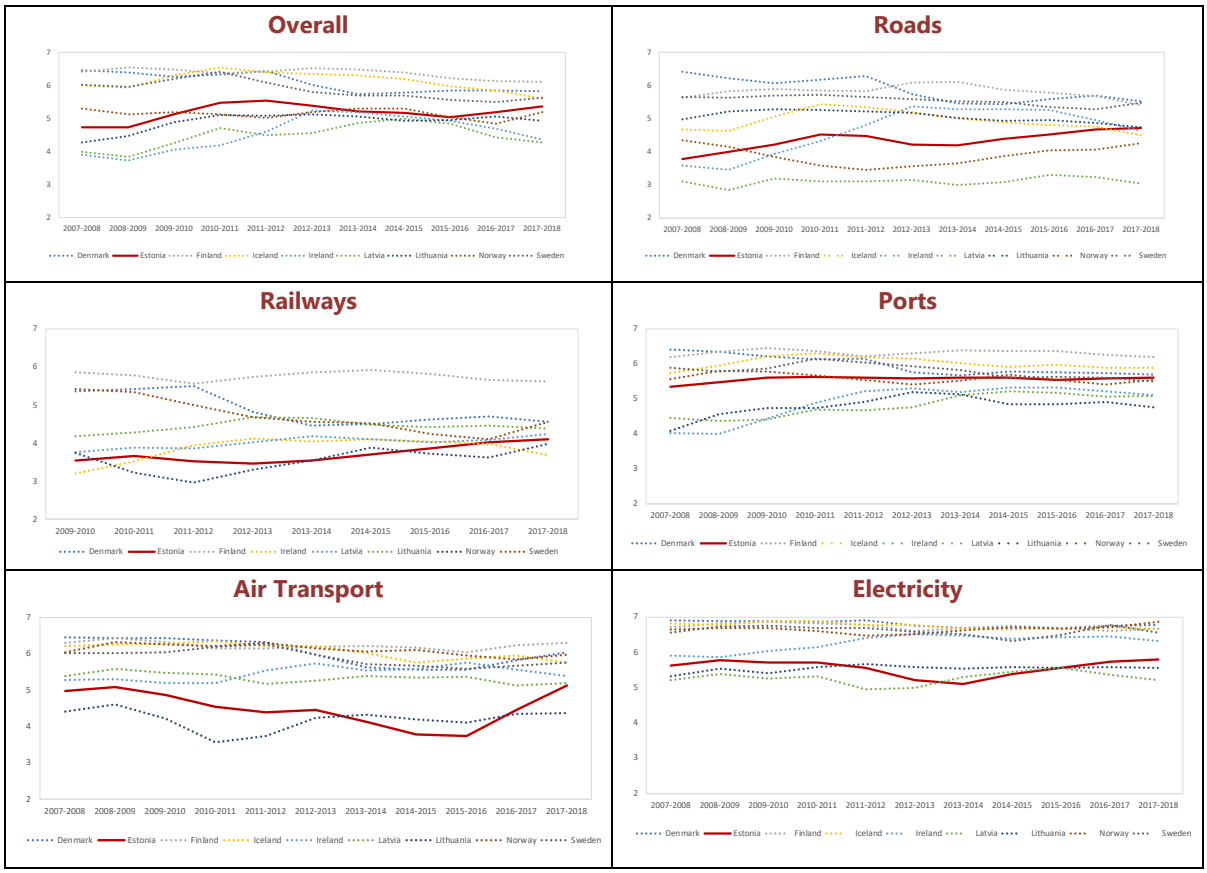
Figure 2.1. Infrastructure Access and Perceived Quality



Sources: World Bank, World Economic Forum, Global Competitiveness Index, and IMF staff estimates.

11. The variability in perceived quality of infrastructure across sectors, over time, and relative to comparators, suggests room for improvement in these areas. Within economic infrastructure, perceived quality has fluctuated over time in several functional categories, and still lags comparator countries significantly, particularly in the electricity and roads sectors (Figure 2.2).

Figure 2.2. Perceived Quality of Economic Infrastructure
(2007–16, on a scale of 1 to 7)



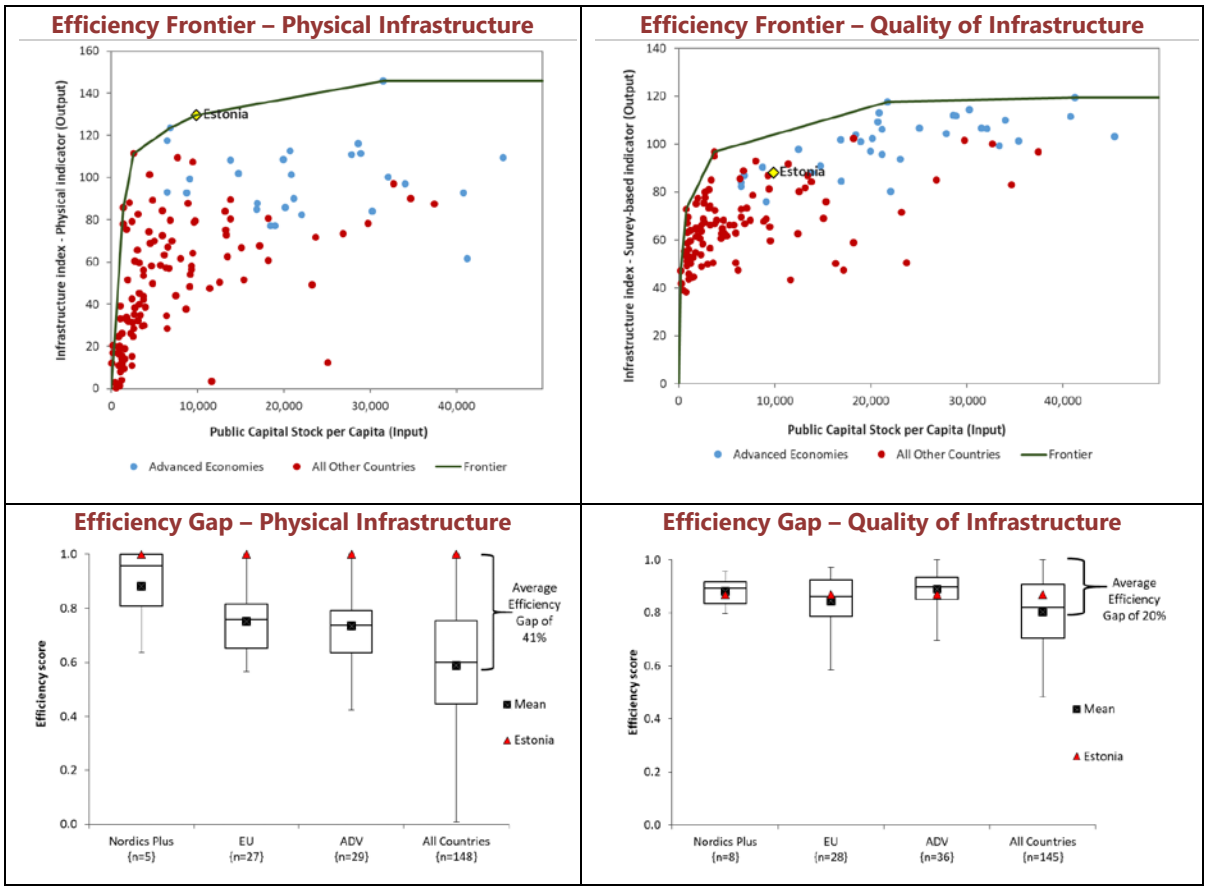
Source: World Economic Forum Global Competitiveness Index
Legend: Denmark (dotted light blue), Estonia (continuous brown), Finland (dotted gray), Iceland (dotted light purple), Ireland (dotted turquoise), Latvia (dotted lime green), Lithuania (dotted orange), Norway (dotted dark purple) and Sweden (dotted dark green).

12. Although Estonia's institutions fare very well in delivering public infrastructure in international comparison, further improvements to the PIM framework could help address the quality dimension. The IMF has developed a methodology for estimating public investment efficiency, defined as the relationship between the value of the public capital stock at different income levels, and measures of quantity and quality of infrastructure assets.[8] Under this methodology, a frontier is estimated, consisting of the countries with similar levels of income that are achieving the highest level of outcome (i.e., access to and perceived quality of infrastructure) per unit of input (per capita capital stock). Using a consistent set of data, the performance of a total of 148 countries is compared against the frontier. Based on this methodology, Estonia is on the frontier measured against access to infrastructure, and also when looking at a hybrid indicator of access to and perception of quality to infrastructure. But looking

[8] IMF, 2015, *Making Public Investment More Efficient*.

at the indicator of perception of quality on its own, there is some room for improvement relative to the frontier. In relation to the latter, the efficiency gap is estimated at 13 percent, suggesting that 13 percent of public investment spending did not result in the improvement of quality of infrastructure that would have been achieved by the most efficient country (Figure 2.3).

Figure 2.3. Infrastructure Efficiency Frontier and the Efficiency Gap



Source: IMF staff estimates.

13. These observations reinforce the case for sharpening the focus on impact and the public services enabled in selecting and implementing projects. Given the observation that there is room to improve efficiency particularly as it relates to perceived infrastructure quality, it is important to ensure that PIM institutions are strengthened to select the projects that are most relevant to the infrastructure gaps that remain and to the needs of the citizens, and that these projects are implemented and the resultant assets are managed in the most effective manner possible. The remainder of this report addresses the key PIM institutions, and identifies potential opportunities for strengthening where appropriate.

III. PUBLIC INVESTMENT MANAGEMENT INSTITUTIONS

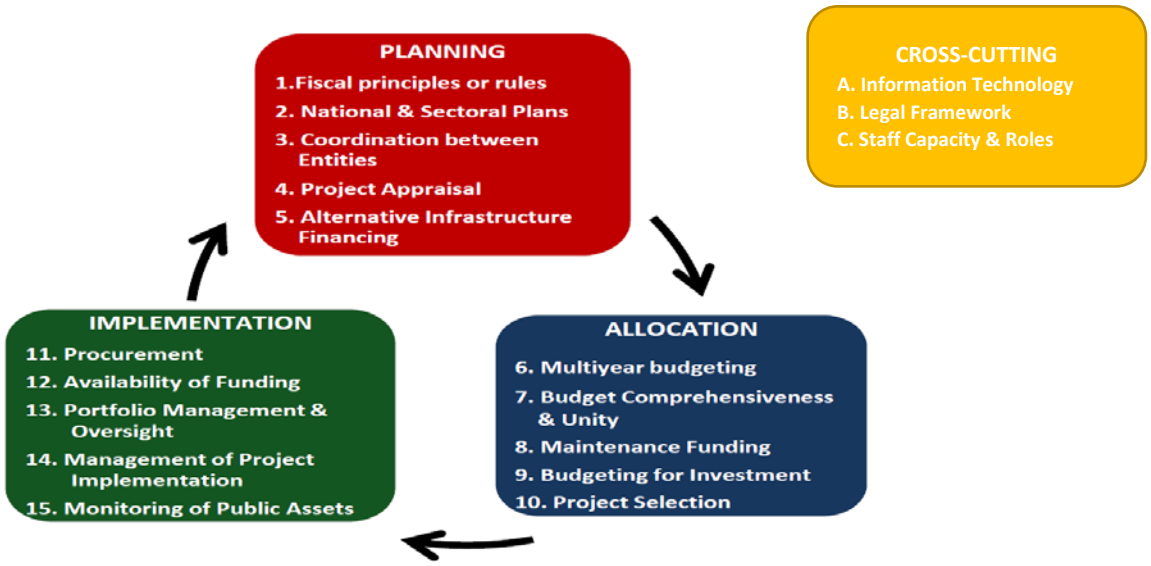
A. The PIMA Framework

14. The IMF has developed the PIMA framework to assess the quality of the public investment management (PIM) of a country. It identifies the strengths and weaknesses of institutions and presents practical recommendations to strengthen these institutions and increase the efficiency of public investment.

15. The tool evaluates 15 sets of practices and procedures (called "institutions") that contribute to the three major stages of the public investment cycle (Figure 3.1):

- Planning of investment levels and projects for all public-sector entities to meet the government's objectives and ensure sustainable levels of public investment;
- Allocation of resources to appropriate sectors and projects; and
- Delivery of productive and durable public assets.

Figure 3.1. The PIMA Framework



Sources: IMF, 2018, *Public Investment Management Assessment: Review and Update*.

16. For each of these 15 institutions, three indicators are analyzed and scored, according to a scale that determines whether the criterion is met in full, in part, or not met. Each institution is scored on three aspects: institutional design, effectiveness, and reform priority:

- Institutional design refers to objective facts indicating that appropriate organizations, policies, rules and procedures are in place. The average score of the institutional design of three criteria provides the score for the institution, which may be high, medium, or low.

- Effectiveness refers to the degree to which the intended purpose is being achieved or there is a clear impact. The average score of the effectiveness of three criteria provides the effectiveness score for the institution, which may be high, medium, or low.
- Reform priority refers to how important improving the issues contained within the institution are for the specific conditions faced by Estonia.

B. Estonian Context

17. This PIMA is being undertaken against the backdrop of a modern Public Financial Management (PFM) system that implements many recommended practices. The State Budget Act and the Local Government Financial Management Act provide a comprehensive legal framework for PFM in the general government, including by stipulating clear and transparent fiscal rules to ensure fiscal discipline and sustainability. Roles and responsibilities in the public sector are well-defined, with ministries focusing on policy and supervision; subordinated agencies being tasked with implementation; and public corporations expected to operate commercially. Medium-term budgeting and accrual accounting for the public sector are well established. More recently elements of accrual budgeting were introduced. Treasury management is conducted through an effective treasury single account (TSA) arrangement. All of these practices are underpinned by a sophisticated deployment of digitalization across the PFM spectrum, a high level of transparency, wide-spread use of competitive procedures, and a focus on accountability for performance.

18. Further reforms to improve PFM are already underway, which would be expected to further strengthen PIM. The MoF has initiated actions to strengthen performance orientation. Performance budgeting is being introduced in 2020, and spending reviews are being piloted.

C. Overall Assessment

19. Many PIM institutions in Estonia are effective. Estonia's access to infrastructure is the best observed in a sample of 148 countries, given its capital stock and income level. Many PIM processes are strong, including adherence to fiscal targets and rules, availability of funding, maintenance funding, procurement, project implementation, and monitoring of assets. There is a drive towards clearly setting expectations and objectives, while the processes to put this performance-orientation into practice have been evolving and are continuing to be developed. PIM—like other government processes—is quite decentralized and somewhat fragmented, but with clear accountabilities and extensive use of competitive processes. The high degree of digitalization provides for strong information sharing despite the decentralized processes.

20. Areas where PIM could be strengthened can be characterized by three themes: formalizing effective practices in the institutional design, comprehensively managing public investment in an integrated portfolio, and strengthening fiscal risk management. Improvements could include streamlining strategic planning and preparing an investment plan,

making all major projects subject to standardized project appraisal, disclosing and monitoring the total cost of investment projects, using standard criteria for project selection, and strengthening central oversight of the project portfolio during project implementation. The Estonian authorities should be able to strengthen these areas easily, mostly by making their planning frameworks, project appraisals and some other practices more explicit and binding; and by better drawing on the rich data provided through the IT systems. As the country is small, a light touch is needed in strengthening centralized procedures and oversight. Digitalization again can facilitate by supporting efficient procedures.

D. Investment Planning

1. Fiscal Principles or Rules (Strength—High; Effectiveness—High)

21. Estonia has strong fiscal rules to support long-term fiscal sustainability with the structurally adjusted balance as the main indicator. According to the State Budget Law, the general government structural balance shall be zero or positive at the time of budget approval.[9] However, if there is an accumulated surplus in the structural balance after 2014, the budget may target a deficit not greater than 0.5 percent. The Law also describes corrective mechanisms in case the rules are breached. Consistent with EU rules, the fiscal balance comprises expenses and capital expenditures. The general government targets are supported by rules prohibiting operating deficits in local governments and extrabudgetary units and limiting their borrowing authority. The deficit rule established by Estonian law is stricter than the requirements of the Euro-zone Fiscal Stability Pact, which sets a lower limit of 1.0 percent structural deficit for Estonia.[10] There is no explicit debt limit in Estonian law, but they are bound by the 60 percent debt limit as part of the Eurozone's Fiscal Stability Pact. Since the structurally adjusted balance can only be observed after the fact, the structural balance target is also translated into a nominal target, which is used as the anchor for in-year budget management.

22. Fiscal planning is robust and for most of the last five years, fiscal outturns have been kept well within the limits set by the fiscal rules. Table 3.1 provides an overview of the budget balance targets found in the State Budget Strategy each year and the outturns for the structural budget and nominal balances, as defined in reports of the Fiscal Council the year after the budget year. The only year the structural balance outturn was not found to be compliant with the fiscal rule was for 2017, when it amounted to -0.3 percent of GDP in the spring 2018 evaluation and increased to -0.7 percent in the fall 2018 re-estimation. This is achieved even though the budget framework puts hard ceilings only on some expenditure types, and permits some carry forward including for investment expenditures (see Institution 6). Estonia has very

[9] The fiscal rules are defined in the State Budget Law, paragraph 6. Paragraph 7 defines corrective mechanisms in case the rules are breached.

[10] Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (2012).

little public debt.[11] The gross general government debt amounted to 9 percent of GDP at the end of 2017, whereas the net public debt was 0.1 percent.

Table 3.1. Estonia: Fiscal Rules, Budget Targets and Outturns

	Targets		Outturn	
	Structural	Nominal	Structural	Nominal
2013	0.1	-0.7	0.4	-0.2
2014	0.7	0.0	1.3	0.6
2015	0.2	-0.5	1.0	0.4
2016	0.6	-0.1	0.7	0.3
2017	0.2	-0.5	-0.3 (-0.7)	-0.3 (-0.4)

Sources: MoF budget strategies 2013 - 2017, State budget 2019,
Fiscal council reports 2014-18, IMF staff estimates. The 2017 outturn includes both spring 2018 evaluation and August 2018 re-estimation figures.

23. The current fiscal principles and practices ensure the stability of public investment spending. The annually prepared medium-term State Budget Strategy provides a medium-term fiscal framework (MTFF) that specifies planned current and capital spending. Capital spending is allocated by ministries, by main funding source and by major programs and projects. The Budget Strategy describes decisions regarding ongoing and new investment projects, but there is no clear specification of budget allocations to existing and new capital projects in the published State Budget Strategy. This is specified in the underlying, detailed medium-term estimates provided by the ministries to the MoF.

2. National and Sectoral Plans (Strength—Medium; Effectiveness—Medium)

24. Estonia has a comprehensive planning framework, but long-term plans provide limited guidance for specific public investments. Overarching national strategies comprise Sustainable Estonia 21 (2005–30), Estonia 2030 Spatial Planning Strategy (2005–30), and National Reform Program Estonia 2020 (covering 2011–20). There are several sectoral strategies, and the number of such strategies has dropped from 119 in 2005 to 47 in 2018. Sustainable Estonia 21, Estonia 2030 and Estonia 2020 have broad coverage and are not limited to specific funding sources. They provide high level outcome targets and priorities, but there are no indications of specific investment projects. The same applies to most sector strategies. Some of the most important sector strategies, including for transport and for energy, do specify major projects, including indicative costs and expected project outputs and outcomes.

25. Long-term plans are partly operationalized through the Operational Program for Cohesion Policy Funding (2014–20). This identifies programs and projects to be financed from EU sources, and output and result indicators for these programs. Four-year Government Action Plans, which draw on the Estonia 2020 program and are updated every second year, provide

[11] The failure to meet the 2017 target was largely due to a methodological change in the estimation of the structural balance, which adjusted this downwards by about 0.8 percent of GDP. When applied to previous years' outturns, this adjustment also led to negative structural balances in 2013 and 2016 of -0.4 and -0.1 percent.

detailed descriptions of project and program activities. State Budget Strategies and ministry Development Plans also have a four-year perspective and are updated annually, providing additional descriptions of expected outputs and outcomes of budget programs and projects.

26. Long-term national plans and sectoral development strategies have not been reconciled with fiscal space and have had a limited impact on prioritization of investment projects within or between sectors. The planning framework has been fragmented, although this has improved in recent years. Many strategies have been general, costing has been limited and long-term plans and sector strategies have not been reconciled with available fiscal space. The cross-cutting, medium-term plans have generally been more concrete and realistic, and better aligned with available funding, from EU funds and from national budget sources.

27. The authorities are introducing a number of improvements for preparation of the next cycle of national and sectoral plans, under the umbrella of a new national strategy document: Estonia 2035.[12] The authorities recognize the potential for strengthening strategic investment planning and have indicated their intention to: consolidate the strategic planning framework; avoid fragmentation and prevent inconsistencies; reduce the number of plans and bureaucracy; and ensure that the implementation of the strategy reduces the workload related to the preparation, implementation, and reporting of development plans. Box 3.1 provides an example of a well-designed strategic investment planning framework in another EU country: Ireland.

Box 3.1. Strategic Investment Planning in Ireland

Ireland prepared its first National Development Plan (NDP) for 1989–94 as the basis for a request for EU financial support. New plans have been prepared at regular intervals and the current plan covers the period 2018–27.

The NDP is primarily a public investment plan and is managed by the Department of Public Expenditure and Reform. The plan is fully costed, and fully coordinated with the budget process. The Plan combines direct investment by the Exchequer (including use of EU funds) of 91 billion Euros and public corporation investment of around 25 billion Euros, giving an indicative investment envelope of 116 billion Euros over the ten-year period.

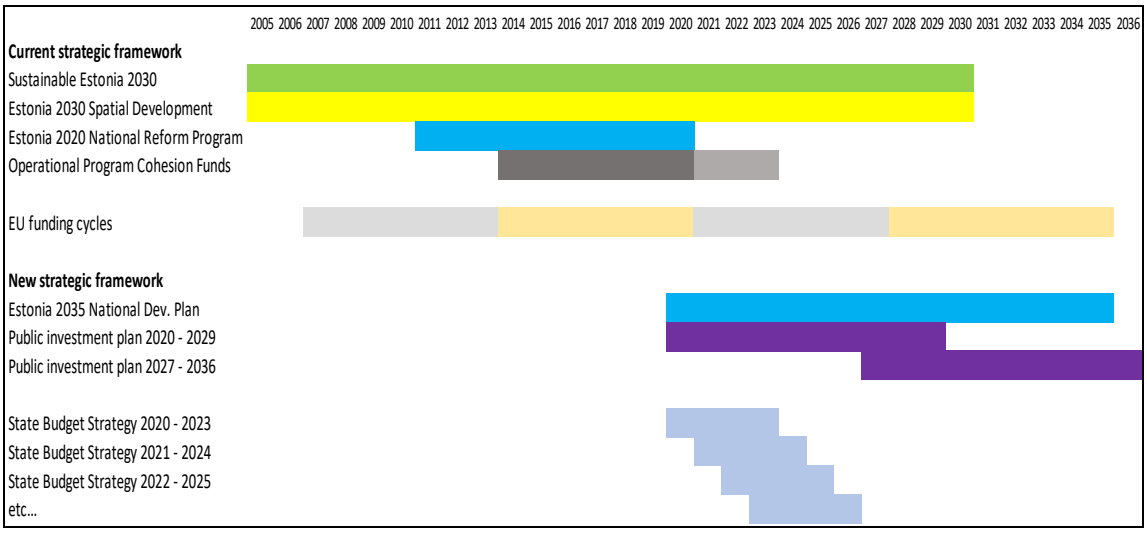
The government is also developing a longer-term national planning framework document entitled Ireland 2040, which will provide the foundation for long term and place-based aspects to public policy and investment, including areas such as housing, jobs, transport, education, health, environment, energy and communications. Ireland 2040 will be the single high-level document from which other, more detailed plans will take their lead, including regional strategies and future NDPs.

28. There is considerable scope to simplify, better link and strengthen strategic planning practices. Stronger linkages need to be ensured between long-term growth and development objectives, strategic investment plans, EU funding options and medium-term budgeting and activities. Figure 3.2 outlines the current strategic planning framework in Estonia and a possible new framework. In the new framework, all long-term strategic plans are consolidated in Estonia 2035. This is supplemented by 10-year public investment plans. The

[12] https://www.valitsus.ee/en/news/government-decided-begin-working-strategy-estonia-2035.

investment plans are designed to provide a sufficiently long outlook to address the needs for economic growth and public infrastructure that are identified in Estonia 2035, and will serve as the basis for the planning of EU funding (7-year cycle) and for national budget programming. The 10-year investment plans should be refreshed ahead of the next EU budgeting cycle.

Figure 3.2. Strategic Planning Framework



Source: IMF staff.

3. Coordination between Entities (Strength—Medium; Effectiveness—High)

29. Local governments receive rules-based grants and their capital spending is compiled and published, but there are no formalized discussions regarding specific investment projects and funding decisions are not linked to the annual budget calendar. Local governments carry out approximately 25 percent of public investment. The local governments can apply for capital grants from 15–20 different schemes. Some of these are funded by EU programs while others are national. Many of the schemes are open for applications from private and public corporations and central government entities, as well as from local governments. Several different ministries and institutions are involved in managing these grant schemes, which generally operate on a reimbursement basis. Approvals of projects are not linked to the budget calendar and may occur at any time during the year. Local governments will usually accommodate these funds through budget amendments or by scheduling the activities in subsequent budget years. Local government budgets are submitted to the MoF by November 1 each year, compiled, and presented on the MoF website. There is no discussion between the MoF and each local government on their budget, and the local budgets are not subject to central approval. Processing of reimbursements and cash settlement of approved claims seems to be smooth. There are mechanisms for handling local governments in financial difficulties, including development of resolution plans, and these mechanisms have been applied in a few cases.

Table 3.2. Local Government Capital Spending and Main Sources (million Euros)

	2010	2011	2012	2013	2014	2015	2016	2017
Capital expenditures LG (ESA)	151	187	307	341	253	279	248	402
Earmarked grants for investments	85	108	169	161	103	126	41	95
Of which EU grants	*64*	*79*	*128*	*118*	*62*	*106*	*25*	*83*
Other sources	66	79	138	180	150	153	207	307

Source: Authorities

30. Contingent liabilities from local governments, SOEs and PPP capital projects are disclosed in notes to their financial statements and consolidated reports are prepared, but they are not systematically analyzed and published in budget documents. All the entities produce accrual accounts according to accounting standards consistent with International Public Sector Accounting Standards (IPSAS), which require disclosure of any significant long-term commitment or contingent liability. The consolidated public accounts summarize this information, but it is not disclosed in the government budget or discussed in fiscal policy documents.[13]

31. The coordination mechanisms between government institutions and with PCs are consistent with Estonia's decentralized management approach and there are no indications of inconsistencies in investment priorities between levels of government. The Local Government Organization Act (2014) provides a clear delineation of responsibilities between central and local government. The missions heard no claims of inefficiencies or inconsistencies in local government investment from any of its interlocutors. The central government also exerts influence on local government priorities through the earmarked grant schemes. Still, there could be benefits to a more active dialogue between the central and local governments regarding major investment projects, which will often have broad impacts outside the local government in question. For SOEs, letters of shareholder's interest and the government representatives on SOE boards communicate the government's expectations for each of its SOEs (see Paragraph 40).

32. Coordination may be inadequate for fully effective fiscal risk management. A more proactive approach to identifying contingent liabilities in local governments and public corporations would facilitate the determination of systemic patterns and possibly earlier detection of broader or systemic risks. This can be done without undermining the statutory independence of local governments and SOEs, and without giving the impression that the central government is responsible for such liabilities.

[13] The MoF indicates that disclosure of these contingent liabilities could be misinterpreted as a signal that the central government would accept responsibility for the liabilities. They referred to a recent case of liabilities of a liquidated airline company; the government remained strict about not assuming this liability.

4. Project Appraisal (Strength—Medium; Effectiveness—High)

33. Major projects are subject to comprehensive technical, economic and financial analysis, but there is no standard methodology that is applied by all Ministries. There are distinctive differences between the legal appraisal requirements for EU co-funded projects and nationally funded projects (Box 3.2). Comprehensive appraisals are mandated for EU projects. They are also in practice applied for major nationally funded projects. There are, however, different appraisal procedures for individual ministries and subsectors, e.g., real estate, ICT, transportation, and other investments such as laboratory equipment.[14] The National Audit Office (NAO) is monitoring the appraisals for the largest projects, and if it has reservations about their integrity, it even conducts audits at the appraisal stage. The results of the appraisals of EU projects are published at the bidding stage, while the results for nationally funded projects are not published.

Box 3.2. Legal Requirements for Project Appraisal for EU Co-Funded and Nationally Funded Projects

ECONOMIC APPRAISAL TOOL FOR COHESION POLICY 2014-2020	APPRAISAL PROCESS AS PER THE DECREE FROM MINISTER OF FINANCE: ESTONIA
Required elements for the appraisal of a project under the cohesion policy: • Definition of objectives • Identification of the project • Technical analysis and environmental sustainability • Financial analysis • Economic analysis • Risk assessment	Required elements for nationally funded projects: • Related to the relevant sectoral development plan • Has in impact on other fields/areas • Project helps to increase the quality and accessibility of public services • Project is sustainable and effective

34. Project readiness and a detailed financial plan for major projects are achieved prior to inclusion in the budget but seem less rigorous for nationally funded and smaller projects. Project budgets are approved in two stages, first for the appraisal process, and second for project implementation. Ministries with regular infrastructure projects have central capacity for managing the appraisal process. However, for nationally funded major projects not all recommended elements of an appraisal are regularly conducted.[15] Risk assessments are included in the project appraisal, and mitigation plans are developed and costed for all major projects. Financial plans include a contingency reserve of 5 percent for risk mitigation, and escalation amounts are provided for projects that are executed over multiple years. Operational and

[14] The appraisal conducted for the Eastern Border Development Program with a value of Euro 250 million included a technical analysis, options analysis, design iterations, financial analysis, risk analysis, external expert review, legal analysis and an environmental analysis. Estonian Railways also conducts an extensive feasibility analysis before the project is approved for financing.

[15] OECD, 2017, *Economic Surveys: Estonia* also points out the absence of a coherent framework to assess the value-for-money and socioeconomic impacts.

maintenance cost estimates are made for all major projects. A higher percentage of cost overruns for small and medium sized projects, and those executed by foundations and local governments indicate less rigorous appraisals.

35. A standardized methodology should be applied in all appraisals including nationally funded projects. This would ensure quality of the appraisals and support comparability across sectors during project selection. The Ministry of Economic Affairs and Communications has already started to harmonize methodologies across the roads and railways subsector. Sector specific elements for an appraisal should continue to be conducted, but all appraisals should comprise a minimum set of analyses (Box 3.3). Regulations for appraisals for nationally funded projects could be developed by using the EU requirements as a guideline, while scaling the requirements to the project size and administrative capacity of Estonia.

Box 3.3. The Project Appraisal Process

The project appraisal process should be structured in accordance with the size and risk of the proposed project.

Large Projects: Large projects are normally major infrastructure projects with: i) major risks, such as paved roads, bridges and large buildings, with greater budget allocations and resource allocations; ii) higher task complexity, including many tasks that need to be done concurrently; iii) projects with more than a 12-month construction phase.

Medium Projects: Medium projects are projects with: i) significant risks; ii) medium impact, important to reach the strategic plan, and iii) with a 6–12-month span.

Small Projects: Small projects are normally: i) conceptualized in weeks, with their development and design done within one month, and ii) execution time frame less than a year.

The following phases and elements are considered good practice for a comprehensive project appraisal for a large project.

Stage1: Project idea note
Stage 2: Pre-feasibility
- Needs and demand analysis with specified outputs of the project *****
- Option analysis

Stage 3: Feasibility
- Demand analysis
- Technical engineering analysis *****
- Environmental analysis *
- Socio-economic analysis (Local procurement, community development, job creation)*
- Legal and regulatory due diligence
- Financial analysis (investment phase, and maintenance and operating phase)*
- Economic analysis (CBA, economic impact) *
- Risk assessment and sensitivity analysis (natural, economic, political, financial, litigation, disaster)*

Stage 4: Implementation preparation
- Detailed implementation plan and readiness confirmation *****
- Institutional capacity (project management arrangements, in house, outsourcing) *
- Procurement plan *

Stage 5: Budget application
- Project concept note (summary of appraisal information to apply for funding)*

Requirements for medium-sized projects are indicated by. *****
Small projects only require needs assessment, terms of reference with description and key outputs of the project, and financial assessment.

5. Alternative Infrastructure Financing (Strength—Low; Effectiveness—Medium)

36. Estonia draws extensively on the private sector to support efficient public service delivery and there is effective competition in the markets for telecommunications, energy, transport and water. The main regulators are the Competition Authority, which focuses on market conditions and prices, and the Technical Regulatory Authority, which is responsible for regulation of technical and safety aspects of the markets, including the allocation of bandwidth in the telecommunications sector.

37. Regulatory institutions have statutory independence and set prices and other conditions in regulated markets without political interference, and government involvement in the markets is transparent. Regulatory decisions do not need political confirmation. The government provides subsidies and public service payments in some regulated markets, including for renewable energy, railroad infrastructure and railroad passenger services, but these do not distort competition and are consistent with EU state aid and procurement rules. Table 3.3 provides an overview of key features in important markets for public infrastructure provision.

Table 3.3. Estonia: Markets for Infrastructure Provision

Market	Market structure	State involvement
Telecoms	3 mobile phone providers 40 network providers	Mobile service band-width allocation based on auctions. Price regulation in some minor sub-markets.
Energy	Electricity generation public and private Electricity transmission public Electricity distribution public and private District heating private Natural gas transmission public. Natural gas distribution private	Regulation of transmission and distribution tariffs. Concessions for distribution of electricity, district heating and gas.
Transport	Roads operated by state authority Railroad infrastructure public and private Railroad operations public and private Airports publicly owned Ports publicly and privately owned Ferry services public and private Airlines, public and private	State subsidies to public railroad infrastructure company. Public service agreement with public railroad operator. Concessions for airports and ports. Public service agreements for ferry services.
Water	60 percent local government companies 40 percent private companies	Concessions for water supply. Regulation of water tariffs.

38. There is no specific PPP legislation and no stated government policies for PPPs. In central government, the State Real Estate Company (RKAS) is the only institution that has taken an active role in developing PPPs. There is also some interest in PPPs among local governments, including in the areas of water, industrial parks, real estate and schools. The MoF State Asset

Department is responsible for financial oversight of public corporations, including for building-related PPPs of central government.

39. There are very few PPP projects in Estonia so far, but the limited experience indicates that PPP projects may be selected to avoid budget constraints. According to the MoF, there are four central government PPP project so far. These include a contract for design, construction and operation of the main office building for the central government, based on a 20-year lease to the government, as well as three smaller office building PPPs.[16] The MoF's financial analysis of the main government office building project indicates that the PPP contract entails higher overall costs than traditional procurement, but that this is justified because the building is outside the government balance sheet and the investment is not included in government expenditures when assessing the fiscal balance against Fiscal Stability Pact targets. This assessment is not in line with good practices for analysis and decisions regarding PPPs (see Annex I).

40. Oversight of SOE investments is exercised through general letters of shareholder interests, board members and financial oversight by the MoF. The number of SOEs has been significantly reduced and now comprise 29 corporations. Six of the corporations, including RKAS, are classified as belonging to the general government sector. The MoF State Asset Department is responsible for financial oversight of the corporations. The roles as owner and regulator of the corporations are both handled by the respective line ministries, but are separated, either between different departments in a ministry or in entities. The recent establishment of board nomination committees with private sector representation, for the purposes of appointing SOE supervisory boards, should contribute to stronger corporate governance in the sector. Following the new procedures, the supervisory boards should have a majority of independent board members, but it is still common practice to appoint two government representatives to the Boards, one from the line ministry and one from the MoF. MoF oversight of public corporations focuses on financial performance and prospects and is summarized in an annual report. This oversight includes discussion of the financial impacts of major investment projects but does not involve detailed scrutiny of these projects.

41. A clearly stated PPP policy framework and more comprehensive oversight of major investment projects implemented by PCs would enhance the transparency of public investments and facilitate effective fiscal risk management. The PPP policy framework should spell out the government's policy intentions and priorities for PPPs and the procedures to be applied when analyzing and assessing potential PPP projects. The Government has signaled a cautious approach towards the use of PPPs, and this could be emphasized in the policy framework. The MoF could put more emphasis on a dedicated discussion of major investment

[16] There is some ambiguity about whether these projects actually constitute PPPs according to IPSAS rules.

projects implemented by public corporations and could include a separate statement on this in the annual oversight report.

E. Investment Allocation

6. Multi-year Budgeting (Strength—Medium; Effectiveness—Medium)

42. Multi-year budgeting is well established in Estonia, and budget documentation includes comprehensive and detailed multi-year projections, including on capital spending. The State Budget Act requires the government to prepare and approve, usually no later than end-April, a State Budget Strategy covering the upcoming fiscal year plus three out years. This document reflects the MTFF, and includes multi-year projections of total spending, spending by ministry and by various spending categories, including capital spending. A detailed annex includes multi-year projections of ministry capital spending by ministry, broken down by financing source and types of investment, including IT-investment, machinery and equipment, transport vehicles etc. These projections are based on detailed forecasts of individual projects and groups of projects in the budgeting system. While the budget documentation does not include projections for all individual projects, large projects that are tracked in the financial system through specific object codes are shown individually in the budget documents.

43. The annual budget further details line ministry budgets within agreed ceilings. The State Budget Act requires line ministries to submit their budgets with an overall break-down by revenue, expenditure (various current expenditure), investment and financing transactions (increases or decreases in assets and liabilities that do not affect the overall budget position). The expenditures and financial transactions are further broken down into economic subcategories, where there is a requirement to further break down investments. However, the structure of the budget presentation is anticipated to change in 2020 with the forthcoming performance-budgeting reform, which will present the budget by programs. It is planned to include depreciation in expenses by program. In the current pilot programs investment expenditure are shown in one block for the whole ministry, while in the final design they are expected to be included in each program.

44. The budget strategy contains indicative multi-year estimates by ministry. A system of four-year rolling budget estimates is in place. Planning ceilings are set annually based on the rolled-forward and adjusted estimates from the previous year. While ceilings thus are not binding for the four-year period, they split the available fiscal envelope determined in a top-down MTFF and provide a high degree of predictability for line ministries in planning their multi-year expenditures and for the overall fiscal planning.

45. Even in the annual budget, only operational expenditures, capital expenditures, and inter-ministerial transfers are subject to hard ministry-level appropriation limits. Table 3.4 shows the "budget types" which are used to distinguish between different kinds of expenditure and the legal rules that restrict their spending. Grant-financed expenditures,

including from EU-funds, are excluded from ministry-level ceilings. This is in order to allow flexibility in the event a project is implemented more quickly than anticipated. While this builds in flexibility to accelerate execution of grant-financed projects, an open-ended authority to increase spending could undermine the incentives for reliable management and forecasting of these projects.

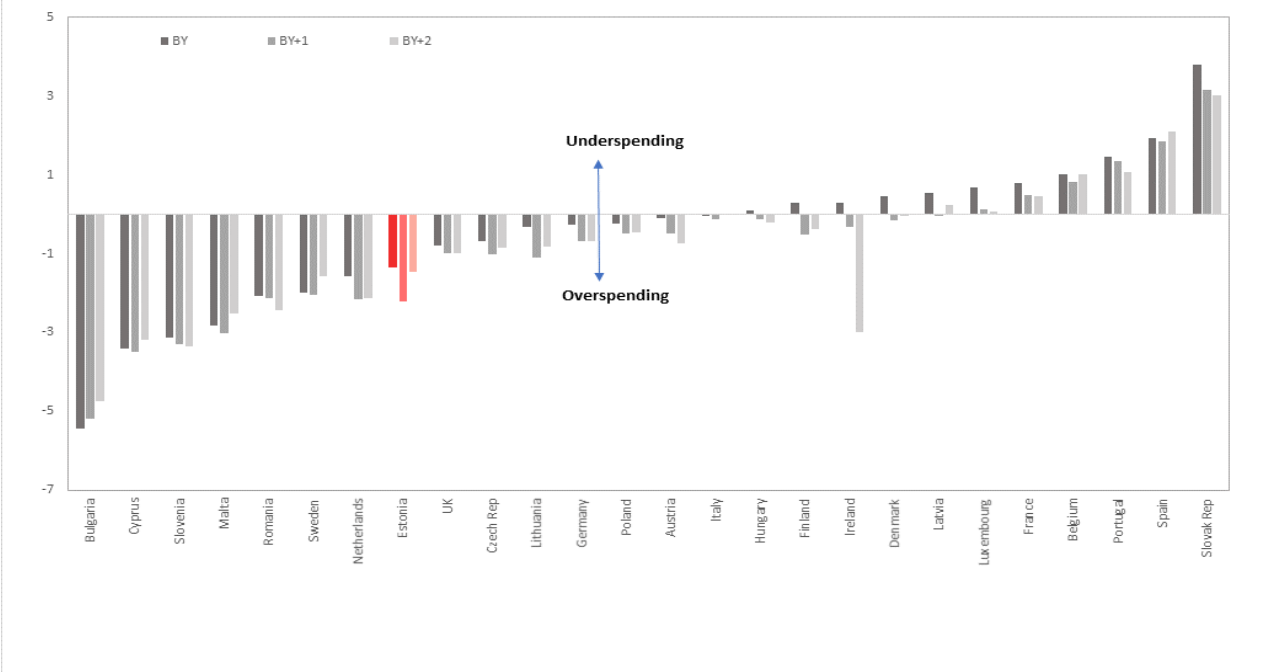
Table 3.4. Estonia: Budget Types and their Treatment in the Budget

Budget code	Name	Explanation	Budgetary treatment
10	Estimated funds	Includes mandatory expenditures such as pensions and various social benefits	Not subject to ministry-level ceiling. No carry-forward.
20	Defined funds	Includes operational expenditures such as wages, rental payments, maintenance etc.	Subject to ministry-level ceilings. Carry-forward is allowed up to 3 percent of the annual allocation.
30	Transferable funds	Includes capital expenditures as well as national co-financing of external grants (31 and 32) and expenditures associated with financial leasing (33)	Subject to ministry-level ceilings except for national co-financing of external grants which has its own budget line under the general section of the budget. Expenditures can be carried forward subject to any limits in annual budget Act.
40	Revenues and revenue related costs	Includes revenues and related expenditures from grants, inter-ministerial transfers and own-source revenues (44)	Expenditures related to own-source revenues can be carried forward. Expenditures related to inter-ministerial transfers can be carried forward up to 3 percent of the annual allocation.
50	Revenues from taxes, duties and related expenditures	Includes revenues from taxes and duties as well as earmarked expenditures financed from such taxes or duties.	Not subject to ministry-level ceilings.
60	Non-monetary resources	Includes expenditures related to depreciation of assets	Not subject to ministry-level ceilings. No carry-forward.

Sources: State Budget Act, July 2017; MoF Regulation No. 47, December 2015.

46. There is some evidence of an upward drift in expenditure (Figure 3.3). An analysis of medium-term forecast of total general government expenditure shows that expenditure in Estonia on average were more than 2 percent of GDP higher than planned. This indicates that the medium-term planning framework is not fully binding, which also creates risks for possibly overcommitting on investment projects.

Figure 3.3. Expenditure Variance of Medium-Term Forecasts of EU Countries (2009–16)
(Total General Government Expenditure in Percent of GDP)



Source: IMF staff estimates.
Note: BY is budget year, BY+1 is 1-year ahead forecast, BY+2 is 2-year ahead forecast.

47. The main gap in the multi-year budgeting arrangements is the absence of information on total project costs for multi-year projects. Current budget documentation does not provide the Parliament with information on total project costs when seeking approval of budget allocations. This is particularly an issue for those projects whose implementation period will exceed the four-year period covered by the budget strategy. While alternative documents with total project costs may be circulated in government, particularly in the case of mega-projects which have high visibility, the budget documentation should include the latest estimate of total project cost for multi-year projects. This would ensure that the parliament is fully informed when approving the first and subsequent allocations for the project, and potential cost overruns. Systematic breakdowns of annual capital expenditure by projects would further enhance the informativeness of the budget documents and improve the basis for MoF oversight.

7. Budget Comprehensiveness and Unity (Strength—Medium; Effectiveness—Medium)

48. Significant public investment activity is carried out by extra-budgetary and other public sector entities outside the budget, and a comprehensive view of all public-sector investment activity is not easily obtained. The budgetary central government usually accounts for less than 40 percent of consolidated public sector investment expenditure. Extra-budgetary and public-sector entities include SOEs, foundations and some entities established by their own act. While detailed information is available from annual financial statements of these entities, most of their capital investment is not disclosed in budget documentation. There are currently

29 entities that are legally constituted as SOEs, amongst which 5 are statistically classified in general government and included in deficit calculations, including RKAS. All SOEs operate on a commercial basis with the state as shareholder. Total assets of the SOE sector amounted to €6.7 billion at the end of 2017. RKAS is currently the only SOE whose capital investments are disclosed in the budget documentation. Despite its legal form as a share-holding company, RKAS' flexibility to finance investment is limited. Its budget is reviewed within the central government budget process, and its operations are incorporated into the fiscal outcomes of the central government.

49. Both capital and current expenditures are budgeted in an integrated process and presented in detail in the budget documentation, although not by functional or programmatic classifications. The MoF is the sole ministry responsible for coordinating the budget process. The budget documentation includes detailed annexes showing ministry-level expenditures by economic classification, budget types and object codes. A functional or programmatic classification of budget appropriations is not shown, but there is an overview of public spending as shares of GDP according to a functional classification. The current budget strategy includes elaborate performance information by 24 performance areas government-wide, but this information is not yet integrated with information on costs and estimates. With the introduction of performance-based budgeting in 2020, performance and financial information will be presented in an integrated fashion using a six-tier program classification.[17]

50. Effective PIM would be better supported with comprehensive information on all capital expenditure in the public sector, regardless of how the investments are financed and which public entity is responsible. With an integrated presentation of all capital expenditures decision-makers and those tasked with oversight would be more comprehensively informed on all proposed investment allocations and on trade-offs within and across sectors. This would support agreeing interventions by the public sector into the economy that are focused on the highest impact on public service delivery and the provision of public goods, while supporting fiscal sustainability.

8. Budgeting for Investment (Strength—Low; Effectiveness—Medium)

51. Allocations for capital projects are appropriated on an annual basis with no clear information of the total project costs available to members of Parliament. This might increase the risk of underestimating the costs associated with starting a new project, especially for projects that extend well beyond the four-year medium-term budget framework. Appropriating the full project outlays—or getting Parliamentary approval of incurring the total project costs—in the first year of the project would strengthen the information on longer term commitments as a basis for making sound allocation choices.

[17] The classification is expected to consist of: "performance area," "program," "measure," "program activity," "service" and "activity." For strategic planning purposes, focus will be on the first four levels, while the last two ("service" and "activity") will be used mainly for costing at the agency level

52. Transfers of funds between capital and current spending during the fiscal year are generally not permitted without specific Parliamentary approval. Under certain circumstances, when an expenditure must be reclassified according to accounting rules, virement from capital to current spending can be done with MoF approval. The generally restrictive virement procedures help protect the level of capital expenditures.

53. There is no formal mechanism for protecting the funding of on-going projects during the annual budget preparation, but in practice completion of on-going projects is given priority over starting new projects. The lack of a formal protection mechanism creates a risk of not allocating adequate funds to ensure the timely implementation of projects started in previous years. In the Estonian context, this risk is moderated by the detailed forecasts of the medium-term budget framework in a shared IT infrastructure between MoF and ministries, budget update discussions between the MoF and ministries about 5 times per year, and the possibility of carry-forward of budget appropriations by one year if projects progress slower than anticipated. That degree of budget flexibility combined with weak monitoring of total project costs, however, could result in a situation of overall over-commitment for projects relative to the fiscal envelope, which could only be resolved through inefficient measures like slowing project implementation. The timely completion of on-going projects could be formalized in the State Budget Act through an explicit requirement for line ministries to ensure sufficient funding within their ceilings for such projects.

9. Maintenance Funding (Strength—High; Effectiveness—High)

54. Routine and capital maintenance are estimated both during project design and regularly during budget preparation. Together with operating cost estimates they are included in the medium-term budget estimates. Budget estimates are based on historical cost data that are available from previous years, uplifted by cost increase factors, and the quality levels of the service specifications.

55. Routine and capital maintenance needs are determined on the basis of sector-appropriate methodologies and systematic physical monitoring of the infrastructure. The budget planning regulations set out the details.[18] For example, the Estonian Road Administration maintains a database of 16,600 km of national roads, and physical road condition inspections as well as electronics testing methods are conducted at regular intervals to determine the maintenance requirements. Planned service levels have been set, and each road has been categorized accordingly. Estimates are comprehensive and include reconstruction/ maintenance of road surfaces, lighting, pedestrian walkways bridges, reconstruction of hazardous areas, and other items such as road furniture and road markings. All costs for routine and capital

[18] Budget planning is regulated by the MoF in "Riigi eelarvestrateegia ja ministeeriumi valitsemisala eelarve projekti koostamise ning riigieelarve vahendite ülekandmise kord" (The regulation for drafting the State Budget Strategy and the draft budget of the area of government and transfer of funds from the state budget) (investments § 11). https://www.riigiteataja.ee/akt/114032018003?leiaKehtiv (Estonian only)

maintenance are calculated per item as per object type in a standardized template. Similar practices were explained for real estate management.

56. Maintenance of public assets such as roads and railways is seen as a high priority and prioritized over new construction. Seventeen road maintenance contracts (to ten contractors) have been signed for conducting routine maintenance on the road network to maintain service levels. The importance of road maintenance is emphasized by the fact that capital projects will be reduced if the capital maintenance needs cannot be met. Estonian Railways also has five out of seven projects dedicated to maintenance and renovations, in an effort to preserve the network and to modernize the network control system. The authorities are also cognizant that demands for maintaining the road and railway networks may change, inter alia due to demographic shifts.

ROAD MANAGEMENT WORKS					
Funding (Meu)	**2018**	**2019**	**2020**	**2021**	**2022**
State funding	242,784	253,259	249,260	209,260	209,260
External funding	45,821	46,750	65,610	50,000	10,000
Total funding	288,605	300,009	314,870	259,260	219,260
Road network preservation	159,451	143,349	148,364	140,248	163,059
Development of road network	101,949	128,956	138,152	90,131	26,782
Administration	27,205	27,704	28,354	28,882	29,419
Road management works	288,605	300,009	314,870	259,260	219,260
Road maintenance cost as percentage of total budget	55,2	47,8	47,1	54,1	74,4

Source: Estonian Road Administration.

57. Comprehensively providing for routine and capital maintenance—as is done in Estonia—ensures that physical assets will reach their expected lifespan. Often capital maintenance projects can extend the lifespan beyond original plans, and at low costs keep an asset in place. Thus, well-planned maintenance spending contributes significantly to efficient and effective provision of public infrastructure.

10. Project Selection (Strength—Low; Effectiveness—Low)

58. Each ministry is in charge of scrutinizing and selecting its own projects. Ministries develop projects to meet the Sector Development Plans. These plans are generally approved by the ministry and sometimes Parliament. Each ministry reportedly has his own selection criteria, but these criteria are not published. Nationally funded projects are not reviewed by an independent agency or experts prior to inclusion in the budget. Projects in a ministry compete for budget funding within the budget ceiling of that ministry.

59. There is no comprehensive pipeline of appraised projects and no central gatekeeping over new projects. Each Ministry has a separate pipeline of projects, but appraised projects are not compiled into a comprehensive pipeline from which projects can be selected based on published criteria. The MoF requests information about new projects for the budget strategy discussions, but does not systematically obtain information about new projects outside of the budget process, for example through a specific investment planning process or mandatory reporting of the planning start of newly emerging projects.

60. The operating programs, which provide the framework for preparing and selecting EU co-funded projects, broadly meet national priorities. The authorities report that during negotiations of the Partnership Agreement and the design of the operating programs they ensure this alignment.

61. New projects in principle are reviewed and selected when preparing the four-year budget strategy, but projects sometimes are also added during the approval of the annual budget. Box 3.4 shows the selection process. Reportedly, new investment projects are considered by Government in several meetings sector by sector. However, only limited documentation on each project seems to be submitted as background material for these selection meetings.

Box 3.4. Current Project Selection Process

The following process is followed for project selection

- Overall priorities agreed in Government Action Plan and at meetings with Prime Minister
- First informal selection between officials inside the ministry
- Second selection done between line ministry and MoF
- Final selection in Government
- Enacted by Annual State Budget Law

Source: Authorities.

62. The compilation of criteria for project selection and the establishment of a pipeline of appraised projects is a high priority. Projects should be scored according to a standardized scorecard (Annex II), and this should be required for all infrastructure projects. The design of a ranking system that reflects the policy priorities of the government and differentiates projects according to priority rating, and financial and economic efficiency is of utmost importance. Selecting projects that receives the highest ranking from an appraised pipeline will ensure effective spending of infrastructure funds. Conversely, without a scoring system, the most impactful or economical projects that are ready for execution might not be included in the budget. International experience suggests that projects that are not appraised and selected through the selection criteria have a severe risk for cost and time overruns (Box 3.5).

Box 3.5. Cost Overruns in Infrastructure Projects in Australia

According to an evaluation study, over 15 years, 542 projects were completed, and 294 projects were cancelled. During the same period the cost overruns were 24 percent of the originally estimated cost ($28 billion).

The study provides evidence of the effectiveness of good projects appraisals:

- 90 percent of cost overruns were attributable to only the 17 percent of projects with very large cost overruns.
- 74 percent of cost overruns were attributable to the 32 percent of projects where costs were announced prematurely without completion of a full appraisal.
- Only 11 percent of cost overruns were attributable to changes in scope, while 89 percent were attributable to other causes.

The study also provides evidence of the financial risks of large projects. Here the experience of Australia is in line with other countries. Cost overruns by size of project were:

- Projects greater than $600 million – 55 percent
- Project larger than $300 million – 47 percent
- Projects less than $300 million – 30 percent

Source: Grattan Institute, 2017.

F. Investment Implementation

11. Procurement (Strength—High; Effectiveness—High)

63. Estonia has a well-organized public procurement system, and the legal and institutional framework is in line with the relevant European Directives. The Public Procurement Act adopted in June 2017 transposes the EU Directives for public procurement.[19] The MoF provides the policy, regulatory, advisory and supervision functions and maintains the Public Procurement Register (the e-Procurement system). The Public Procurement Register covers all functionalities of a modern e-Procurement system (Box 3.6), and ensures the transparency of procurement processes, standardization of practice and statistical reporting. Making a complaint to the independent Public Procurement Review Committee, whose proceeding are organized by the MoF, is the mandatory first step to settle disputes as stipulated in the Public Procurement Act.[20] Its decisions are binding unless challenged in courts, which provide a three-level dispute resolution mechanism in accordance with the judicial system. The NAO and the Audit Authority perform ex post control on the legality of the award and execution of the contracts, based on the specific provisions governing the funds.[21]

[19] EU Directives no. 2014/24/EU on public procurement, 2014/25/EU on utilities and 2014/23/EU on concessions

[20] See https://www.rahandusministeerium.ee/en/objectivesactivities/public-procurement-policy/public-procurement-review-committee.

[21] The Financial Control Department within the MoF is the assigned Audit Authority in charge of auditing the EU co-funded projects, in accordance with the Structural Assistance Act.

Box 3.6. The Estonia Public Procurement Register

The Estonian Public Procurement Register incorporates most of the functionalities of a modern e-procurement system, provides for increased transparency and facilitates access to procurement and contract information for different stakeholders, including civil society. Functionalities implemented in the Estonian Public Procurement Register include:

eNotification – publication of notices

eAccess – tender documents are available online

eCommunication – communication with the bidders

eSubmission – online tender submission

eEvaluation – automatic evaluation of the bids

eAward – notification on the outcome of the evaluation

eAuction – online updating of offers

eCatalogues - electronic documents describing products and prices in a structured manner

Contract register – information on contract amendments and final contract price

Additional data exchange with financial management and other IT systems, and enhanced data analytics could be considered by the Estonian authorities, as a future step towards the improvement of the public procurement system. Functionalities that could be explored for interconnection or integration with the e-Procurement system include:

eInvoicing – automated issuing, sending, receiving and processing of invoices (data exchange)

ePayment – digital financial payment transaction (data exchange)

On data analytics and reporting of key performance indicators – User-friendly functionality could be set up to analyse data regularly and systematically to inform the further development of procurement policies and practices. Systemic trends and patterns could be derived, for example, about the duration of procedures, competition patterns, reasons for complaints, typology of organizations submitting complaints, or the type of Contracting Authorities that typically receive sanctions.

On market intelligence – This type of analysis utilizes available contract and expenditure data to ensure high quality and low prices by building an understanding of three key questions:

- How are Contracting Authorities spending public money (e.g. use of joint procurement, type of procedures and award criteria, type of contracts);
- Which suppliers are they spending it with;
- What goods and services are they buying.

By building an overall picture of procurement activity – by type of contracting authority, by geographical region, by type and size of supplier, by nature and size of contract – opportunities for collaborative procurements at sectoral or regional level can be identified. It can also be used to highlight expenditure patterns that may merit further investigation, for example, significant variations in contract price. From a national point of view, this information can be used to build an understanding of the progress of procurement reform strategies in delivering savings, improved transparency, and increased compliance with national legislation.

Source: IMF staff.

64. The public procurement system in Estonia is very transparent, and most procurement is conducted through the e-Procurement system. In 2017, 10,375 public procurements were carried out, of which 12 percent were international procurements.[22] Twelve percent of the value of signed contracts were funded from European Structural Investment Funds which represents about 25 percent of the total procurement value carried out in 2017. Ninety-three percent of the procurement procedures were conducted through the e-Procurement Register.[23] Improved functionalities were introduced in 2018, while others are planned for 2019. Estonia has long mandated the registration of procurement publication notices and the outcomes of the procedures in its central public procurement register. In October 2018 the use of the e-Procurement became mandatory under the relevant EU directive. Some contracting authorities use the e-Procurement system even for small value contracts.

65. The public procurement system in Estonia is generally efficient and effective with contracts being largely competitively awarded and in a timely manner. Generally, the contracting authorities carried out competitive procurement processes with about 66 percent of the launched procedures being open tenders. The overall rate of cancelled procedures is 14 percent with 9 percent of procedures above the EU thresholds, and lower for high value works contracts[24] (less than 1 percent). Participation in electronic tenders was 2.8 compliant bidders per procurement procedure, and the single bidding rate was at about 20 percent, an increase of 3 percent compared to 2016.[25] There is no express preference for local providers. Nevertheless, most contracts were awarded to local companies and only about 6 percent of the tenders were won by international bidders. Participation of small and medium enterprises is high, with a success rate of 87 percent of the total number of contracts. The authorities attribute the number of participants and the high success rate of local providers to the small size of Estonia's market and the need for local knowledge during contract implementation. Contracting authorities take decisions in a shorter period than most EU members, with on average only 51 days between publication of the tender notice and contract award.[26] About 2 percent of the procedures are challenged by the economic operators and generally concern the result of the evaluation process. Review Committee decisions must be issued within 30 days and are usually handed down within 20–25 days. Only about 10 percent of the decisions are appealed in court with the court proceedings generally confirming the Review Committee's rulings.

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[22] Above the EU threshold for publication in the Tenders Electronic Daily. The threshold for different type of procedures are listed at https://www.rahandusministeerium.ee/en/objectivesactivities/public-procurement-policy/useful-information.

[23] https://www.rahandusministeerium.ee/en/public-procurement-policy.

[24] Above the EU threshold for publication in the Tenders Electronic Daily. Overall, cancelled procurements above EU threshold represented 19 percent, supplies procedures being the most unsuccessful.

[25] Single Market Scoreboard, http://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/public_procurement/index_en.htm.

[26] Idem.

66. Improvements to an already strong public procurement system could be made by establishing more systematic performance reporting, conducting better market analysis, and developing key performance indicators (KPIs). There is little evidence of a regular evaluation of the effectiveness of the public procurement system, from individual procurements to the system as a whole, suggesting scope for performance improvement. The Public Procurement Register provides real opportunities for implementing performance reporting and conducting enhanced market intelligence. This could offer the authorities valuable information about priorities for improvement of the performance of the system, sectors or individual contracting authorities and would respond to the European Commission initiative on the preliminary conditions for the next long-term EU budget 2021–27.[27] The MoF could assign a specific central responsibility for market intelligence and analysis, ensuring an overview is taken of key trends and findings from procurement data and other information available. Although a statistical overview of the public procurement system in Estonia is published on a yearly basis,[28] the development of additional sets of KPIs to measure and benchmark the market performance of public procurement more broadly and systematically could also be envisaged.

12. Availability of Funding (Strength—High; Effectiveness—High)

67. Estonia operates a modern TSA, which holds all cash reserves, receives all revenue and makes all payments. The Treasury holds all state cash balances in pooled accounts which are linked to form the TSA. All revenue, including all external funding for specific projects, is deposited into the TSA, and the Treasury manages all payments for ministries, state agencies and state foundations through the TSA. Only embassies are allowed to have bank accounts outside the TSA. The Treasury pays interest on cash balances to foundations and social insurance funds, but not to ministries and state agencies. The Treasury covers bank payment fees, while entities cover all other fees, e.g., for bank cards or payment terminals.

68. There is no cash constraint on capital spending nor on budget execution more broadly, and the Treasury guarantees timely cash availability. The Treasury prepares annual, monthly, weekly and daily cash flow forecasts based on historic experience. These are updated on a rolling basis. To ensure cash availability, the Treasury operates a cash reserve system comprising a liquidity reserve and back-up credit lines adequate to meet minimum liquidity requirements that replicate the 2009 shock scenario, along with a stabilization reserve which serves as an insurance pool and which has only been used once in 2009. Investment requirements are conservative, and liquidity, currency, interest rate, and credit risks are actively managed. When the budget is approved, the full annual budget allocation is available to line

[27] The EC Regulation for the for the modernization of the Cohesion Policy, which represents the basis for the new EU programming period 2021-2027, stipulates a series of enabling conditions which Members States need to ensure before agreement on the new financial package. One of the conditions refers to public procurement, more specifically to the introduction of monitoring mechanisms of the public procurement market - https://ec.europa.eu/regional_policy/en/2021_2027/.

[28] See https://www.rahandusministeerium.ee/et/eesmargidtegevused/riigihangete-poliitika/kasulik-teave/riigihankemaastiku-kokkuvotted (in Estonian).

ministries for use immediately, and there is no in-year budget or cash release system. The Treasury makes payments when requested, with the only restriction being that agencies enter payment requests two days in advance of requirement. There are currently no issues of delayed payments or accumulation of arrears on account of cash availability.

69. Periodic review of the reserves target would provide a useful assessment of the effectiveness of the cash management function. Notwithstanding that these arrangements have worked well in ensuring cash adequacy for budget execution to date, the Treasury should conduct a periodic review of the minimum level of cash reserves to be held, taking into account both liquidity requirements and the cost of unutilized cash reserves. This would help inform future adjustment to the cash buffer if found to be appropriate, without compromising cash availability for budget execution.

13. Portfolio Management and Oversight (Strength—Medium; Effectiveness—Medium)

70. There is no central oversight of the total portfolio. Project oversight is only conducted on the project level by line ministries. The MoF obtains information on progress of investments and projects routinely only through monitoring of expenditures during the project implementation phase, while unusual developments can be queried during the budget review discussions held several times per year. For individual projects reliance has to be placed on reports received from the project level on an annual basis. Moreover, there is little consolidated data on the extent to which projects are implemented within their original cost estimates and time frame, which could help identify systematic patterns or risks.

71. Funds can be re-allocated between projects. Funds may be re-allocated between projects with the approval of the relevant ministry and between programs (for ministries that have already shifted to program budgeting) with the approval of Parliament. The MoF can monitor all the reallocations through the IT systems.

72. Ex post reviews are conducted as prescribed for EU co-funded projects, and for some major nationally funded projects. Ex post reviews for EU co-funded projects are managed by the MoF and conducted for sectors as well as for certain projects in an effort to collect information that might be utilized to enhance the planning and execution of future projects. 49 evaluations are currently planned and in execution. Ex post evaluations are conducted by external experts from the universities as well as by external consultants. The results of ex post reviews are discussed between the MoF and Ministries. For nationally funded projects completion reports are prepared, and at least in some sectors (e.g. roads) ex post reviews are also conducted. Officials representing several sectors stated that they value and use these reviews in their efforts to enhance the outcome of future projects.

73. Even without strong central monitoring cost and time overruns of projects appear moderate. Line ministries regularly monitor projects in their sector individually and keep strict

record of the performance of the projects, the same is done by municipalities and universities. In roads, only 7 percent of construction and reconstruction projects had cost overruns, with an average cost overrun of 1.9 percent. Only 9 percent of construction and reconstruction projects had delays, with an average time overrun of 130 days. The main reasons for cost overruns are unforeseen conditions during implementation, and weather conditions for time overruns.

74. The introduction of a central electronic monitoring system for all major projects and institutionalized arrangements for investigating any cost and time overruns is a high priority. Time and cost overruns are significant risks faced in implementation of infrastructure projects, and central monitoring will allow early identification of projects at risk, and timely interventions to bring these projects back on track. Central monitoring will also help identify systemic patterns of time and cost overruns, as well as emerging changes to the composition of the overall project portfolio. While some ministries such as roads and railways indicate success in managing project costs to keep them within the budget, municipalities and universities require more systematic monitoring and reporting. Much of the required data are likely already available in existing IT systems (Box 3.7), but no purposeful reports or analyses are being prepared.

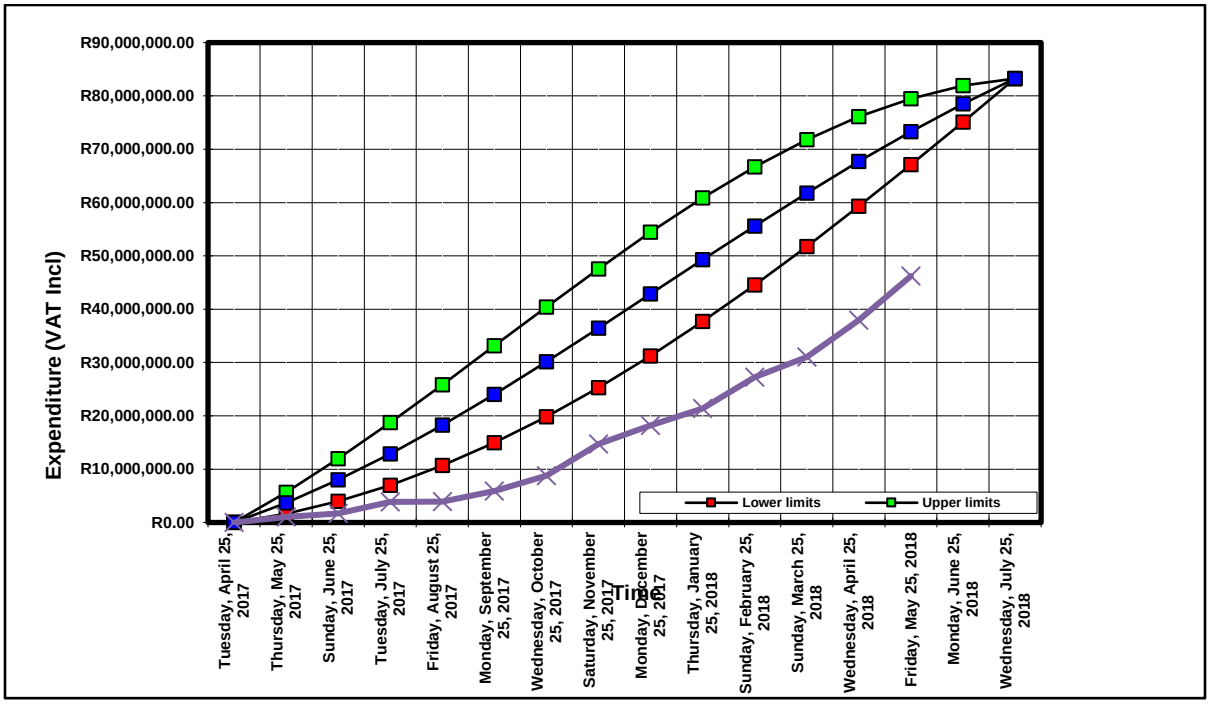
Box 3.7. Information Required in Portfolio Management for Decision Making

The minimum information required to complete a proper analysis of the project progress and status on any time, will be:

- Project number
- Project description
- Project status – preliminary design, detailed design or execution
- Project commencement date
- Contractual project completion date
- Expected completion date
- Percent of physical progress on site
- Percent of budget spent
- Percent of time lapsed
- Are cost overruns expected?
- Risk in upcoming period and possible mitigation measures

75. The S-curve chart (Figure 3.4) provides a simple early-warning tool to monitor whether projects are on track, and it could be introduced in Estonia. Based on cash flow forecasts contained in the implementation plan, the S-curve chart sets out a lower and higher bound for expected projects expenditure during the implementation timeframe. The contractor will be requested to provide regular updates to these cash flow forecasts. If observed project expenditure and revised forecasts stay between the two boundaries, the project is on track. However, if expenditures proceed too slowly, the project is delayed and likely facing challenges, which will result in cost overruns. Intervention by the supervisor can be initiated as soon as warning signs emerge.

Figure 3.4. The S-Curve Chart for Project Monitoring



Source: California Highway Authority.

14. Management of Project Implementation (Strength—High; Effectiveness—High)

76. There are multiple layers of project monitoring by senior officials, both of physical progress as well as financial costs, and there are standardized rules in place for project cost adjustment. Responsibility for monitoring physical and financial progress of projects rests with the respective ministries and agencies. In addition, within the MoF, the Financial Control Department serves as the Audit Authority for EU-financed projects and conducts verification of financial transactions incurred by these projects. For each review conducted, the department issues a specific report, and an annual report is also prepared. The rules for project cost adjustment are defined in the Public Procurement Act 2017. Project costs for infrastructure projects may be adjusted by a maximum of 15 percent of the original contract value, and under unforeseeable circumstances by a maximum of 50 percent of the original contract value, without changing the scope of the original contract.

77. Implementation plans are prepared for all EU co-funded projects, and also for nationally funded roads and railway projects. These plans are prepared prior to final budget approval. Their design and format meet standard requirements (Box 3.8).

Box 3.8. Typical Elements of a Project Implementation Plan

The Project Implementation Plan is a document which sets the key arrangements for the implementation of an investment project, to be then managed and monitored during the implementation stage.

It contains the following elements:

- Description of Project Management Approach
- Scope statement
- Work breakdown structure (WBS)
- Cost estimates, scheduled start dates and responsibility assignments
- Performance measure baselines for schedules and cost
- Major milestones and target dates for each milestone
- Key staff required
- Key risks

78. The NAO conducts ex post and ex ante regulatory and compliance and some performance audits for nationally funded projects. This is done on a selective sample basis and the findings are submitted to the parliament for consideration. The NAO selects projects or groups of projects according to risk and interests expressed by stakeholders, in a careful selection process due to resource constraints. The NAO would like to expand into performance audits and conduct audits more timely. The NAO is also conducting audits of large or high-risk projects in the appraisal and implementation stages. Under the NAO's audit strategy for 2019–20, audit of major investments is identified as a priority area for attention. Audit reports produced by the NAO are examined by the State Budget Control Committee of parliament, which monitors implementation of the state budget and use of budget funds and state assets. Once a year, this Committee/the Auditor General reports on its activities to the parliament. Ex post audits completed for 10 projects indicate an average of 20 percent cost overruns on projects executed by municipalities, universities (which are EBFs), and SOEs, with time delays of up to 50 percent. The NAO has conducted audits on some EU co-funded projects and noted that these projects normally appear better managed than nationally funded projects.

79. Projects in the implementation stage are generally well controlled and managed. Line ministries manage their projects to stay within the cost limitations and within the cost adjustment rules. For the Estonian Roads Authority with its large projects, the percentage of projects with cost overrun and time overruns is low. As indicated by their higher cost and time overruns, the control and management of nationally funded projects, and the generally smaller projects at municipalities and universities could be improved to the standards for larger and EU co-funded projects.

80. To improve control and management at smaller entities such as municipalities and universities, some additional central support and training for project managers could be considered. While most projects managed by smaller entities are small, the cumulative amount of funding might be large. Well trained and skilled personnel at lower level projects are just as important as for high value projects.

15. Monitoring of Public Assets (Strength—High; Effectiveness—High)

81. Estonia introduced accrual accounting for government in 2000, and all government assets are appropriately recorded and accounted for in the financial statements. National accounting standards are based on IPSAS and cover all material parts of these standards. According to law, all government assets are identified by unique serial numbers and included in government asset registries.[29] Asset values are reviewed and updated annually. Depreciation schedules are adjusted when capital maintenance projects are undertaken. All central government entities (approximately 150) do their accounting through a common accounting application, managed by the Shared Service Center under the MoF. For these entities, depreciation of assets is computed monthly, on the basis of depreciation rates determined by each entity but following central guidelines. All other general government and public sector entities (approximately 850) use separate accounting applications but submit monthly accounting reports in a pre-defined format for consolidation with central government reports.

82. NAO reports confirm that government accounting and financial statements are comprehensive and of high quality. Financial statements are consolidated and reported at three different levels: Central government, local government, and consolidated public sector, including corporations controlled by central or local government entities. There are detailed statements of public assets, including depreciation, acquisition, revaluations and disposal during the year. The consolidated statements are based on the central government accounting system and the reports provided by the other public sector entities. These reports do not include transaction-level data but provide the necessary detail to allow for reconciliation and elimination of internal transactions, including aggregate transactions with other government entities. For the 2016 accounts, the State Audit Office found that the accounts generally gave a fair and true value of financial transactions and values.[30]

83. RKAS contributes to adequate maintenance and professional monitoring of state property assets. RKAS was established in 2001 to provide real estate development and management services to state agencies. RKAS develops real estate for state agencies, provides facilities management services, and conducts project management activities as needed on behalf of state agencies. In relation to new real estate development, ministries or agencies that would like to propose new real estate developments propose these projects to the MoF by way of project memoranda, prepared with support from RKAS. Once a new development is approved via the budget process, RKAS is mandated to implement the project. Upon completion, the constructed asset is owned by RKAS and occupied at an agreed rent by the client ministry. Annual investments by RKAS in recent years have been between €60 and €100 million.

[29] State Assets Act of 2015.

[30] However, the audit report observed that the auditor could not confirm the recorded value of assets in the Railway Infrastructure Company, given negative developments in the railway freight market. This was the only main observation regarding public assets.

84. Estonia is at the forefront of international good practices for accounting for public assets; a public sector balance sheet according to statistical methodologies would complete the official data. Good practices comprise consistent application of accrual principles and accounting standards, very comprehensive coverage of government and public accounts, well-designed and well-managed information system infrastructure for accounting and reporting and well-formulated mechanisms for accounts reconciliation and elimination of internal transactions. The strong accounting practices are confirmed by the State Audit Office observations. As valuation rules for fixed assets in the ESA 2010 statistical methodology applicable in Estonia are based on market values rather than historic or other accounting values, the balance sheets in fiscal statistics differ from the balance sheets in the financial statements. For a complete and consistent set of fiscal statistical data, Estonia should consider to also prepare a public sector balance sheet in addition to the general government balance sheet that it already publishes.

IV. CROSS-CUTTING ISSUES

A. ICT Systems and Data Management

The IT Environment

85. Development of information and communication technology (ICT) systems is at an advanced stage. The ICT system is governed by the following acts: Public Information Act (2007), General Part of the Economic Activities Code Act (2014) and Principles for Managing Services and Governing Information (2017). It is developed in accordance with the Digital Agenda 2020 for Estonia. The Vision 2020 of the Estonian Information Society states: "*In Estonia, the possibilities of ICT are used to the full extent in co-operation between the public, private and third sectors: in order to improve the quality of life for people, increase the employment rate, ensure the viability of Estonian cultural space, increase productivity in the economy, and make the public sector more efficient.*" The ICT system is a well-developed system that serves government as well as the banking sector and private entities. Digital transactions can be performed without leaving the comfort of the home or office. The Estonian E-government systems were developed as shown in Table 4.1.

Table 4.1. Estonia: Establishment of E-Government Systems

1996	1999	2001	2002	2005	2007	2008	2014	2015	2016
E-banking	Online tax declaration	X-road	E-signature	Online company registration	Mobile ID	E-prescriptions	E-residency	Service owners concept	Zero bureaucracy

86. Estonia operates on a strict "one data" principle, and the X-Road system is the IT-infrastructure that provides communication between the IT systems. It encompasses 933 institutions and enterprises, 674 public health institutions, 52,000 organizations as indirect users,

1,074 interfaced information systems and 223 member-installed security services. It is considered "the busiest highway in Estonia," providing over 2,000 or 99 percent of state services online and performing over 500 million transactions per year.

87. A unified accounting system SAP ERP is the backbone of the consolidation of state support services (Box 4.1). The system makes provision for the implementation of financial, personnel and payroll accounting for all government agencies (176). Further, there is an e-invoicing system (outsourced); agencies can issue e-invoices for sale; and there is a self-service portal for employees, e.g. to send and obtain their own information (e-documents) - including on assets assigned to them - to service points, and a web-based reporting system. The SAP ERP system has 200 web based standard reports, 6,000 registered and 1,400 active users.

Box 4.1. Components of the SAP ERP

Logistics	Material management		Sales and distribution	
Human resources	Personnel management	Payroll	Travel management	Training management
Finance	Financial accounting	Controlling, project system	Funds/ Grants management	Treasury and Risk Management

Source: Authorities

IT Support for Public Investment Management

88. Despite the extensive ICT infrastructure and richness of data, there are data gaps for project monitoring, and gaps in actual data usage and analytics. Updating of project information relies on manual processes, but reporting under the manual project reporting system (six-monthly, and end-of-year) has not always been complied with, and this trend seems to be continuing under the more automated system. The authorities rely on the incentive structures of widespread use and demand for accurate information to keep data up-to-date and reliable. But the system itself cannot report on compliance with reporting requirements. For this, system functionality and user access may have to be expanded to the wider project implementation level. Discontinuation of the present manual processes will also be beneficial for compliance, as will be further training and outreach on the system functionality. A number of countries in Asia such as Malaysia (Box 4.2), Indonesia and Korea, have more developed project monitoring systems, and have been using these for many years. Some of the lessons learned from system deployment in those countries may be useful for Estonia.

Box 4.2. Malaysia's Project Monitoring System

The Malaysia Project Monitoring System II, called SPPII, assists the Malaysian Government in the effective monitoring of all projects. The system is an award-winning tool that generates monitoring reports which can be used for weekly monitoring by Ministries and Agencies, as well as producing monthly monitoring reports which are helpful for senior management. Yearly reports are generated to enable Politicians to have a condensed view regarding progress and status of all projects.

The objective of the system is to monitor the financial- and physical progress and status of all projects, both at the Federal and at the State level execution of government funding. It also identifies project risks monthly. This empower project managers and central agencies to act quickly when problems are identified in projects.

The system measure projects through the California Expenditure Curve (S-curve) principal, which indicates percent of time lapsed versus percent of money spent and generates an early warning on project issues and risks.

The system contains vital project information such as the Geographic Information System (GIS) Module that enable the users of the system to have a clear view of the physical location of the project. This information is also of vital importance to monitor progress by region.

The SPP II system generates a Problem Identification Report that identifies all categories of issues that were not managed well during the year and that resulted in cost overruns as well as time overruns. The purpose of the Problem Identification Report is to compile a lessons-learned matrix.
Reports are simple to interpret and understand and can be interpreted by technical and financial personnel and by politicians. There is no wasted information to clutter the system.

Source: IMF staff.

89. Expanding user access and broadening the comprehensiveness of the information system in the coming years would be beneficial. At present line ministries do have access to information on the investment projects in their sector. Financial and project progress information are available in great detail, however, consolidated reports to monitor projects and to analyze project risks and progress versus time are not available. Investment projects by SOEs, and PPPs both at the national and local government level should also be included in the system. Another form of extension in the system is to include projects already from the concept phase to the prefeasibility phase. Projects are currently entered into the system at the moment they are approved for the medium-term investment plan. That means that an important part of the project pipeline is not included in the system. Similarly, the ex post evaluation phase seems to be missing from the system. All base information required for an effective portfolio oversight is already available in the system, the system development should therefore be expanded to include a module for portfolio oversight of projects. Reporting and project and portfolio management functionality of the system should be further enhanced. Line ministries and provinces should be substantially involved in development of the system.

B. Legal and Regulatory Framework

90. The main legal framework for PIM is the State Budget Act, which was enacted in 2014. The State Budget Act establishes fiscal rules, including adjustment and compensation mechanisms, to ensure compliance with the Fiscal Stability Pact provisions. It regulates the elaboration of Development plans and State Budget Strategies, as well as annual State Budgets, including procedures for budget approval and amendments. It also regulates the financial relationships between the state and the local governments, as well as state borrowing, guarantees, cash management, budget execution, control and reporting. The State Assets Act, enacted in 2015, is another key piece of legislation. It provides rules for administration and use of state assets, including transfer and sale of assets. The law requires that all state assets are registered in databases and establishes a consolidated register for state real estate.

91. The State Budget Act and other key pieces of legislation provide a comprehensive and consistent basis for efficient PFM, including for public investments. There are no obvious shortfalls in the legal environment that may hamper effective implementation of public investment projects. However, this report points out a few areas where practices could be improved by formalization of existing practices, for instance in providing formal rules that completion of ongoing investments should be prioritized before new projects are initiated. The report also highlights some areas in need of strengthening, for instance project appraisal and selection. These improvements should be reflected in updated legislation and regulations. The report also mentions that a clearly stated PPP policy framework would enhance the transparency of public investments and facilitate effective fiscal risk management. This should include development of an appropriate legal framework. Capacity Building.

C. Staff Capacity

92. The MoF has about 450 staff, of which 90 percent have higher education, and staff turnover is modest. There are currently 71 staff in the three departments of the fiscal sector, of which 48 in the State Budget Department, 4 in Local Governments Financial Management Department and 19 in the Fiscal Policy Department. For recruitment to professional level positions, a master's degree is generally required, and 64 percent of MoF staff meet this requirement and a further 24 percent have bachelor's degrees. Staff turnover is less than 10 percent each year and average time of service in the MoF is more than 10 years. Salary levels are competitive: the policy is to offer salaries equivalent to the median of similar positions in the private sector.

93. Staff capacity in the MoF is high, in terms of numbers, skills and experience, and the same appears to be the case in other agencies involved in PIM. The Estonian MoF has a higher staff complement than many Finance Ministries in the Nordic countries, and the fiscal policy and budget functions have staff numbers similar to these countries. MoF staff are highly educated, and many have long experience from the Ministry and other relevant organizations. Estonia's highly developed and well-managed PFM system, as described in other parts of this

report, is also a clear indication of the high level of staff competencies. MoF staff are highly regarded in other government and private sector organizations. Meetings with other organizations in Estonia also leave a very good impression of staff skills and capacities.

94. There are no apparent capacity gaps within the MoF that hamper efficient PIM, and the MoF or the government's shared service center are also providing training to other ministries and agencies. There is a potential for improvements in public investment practices, and this will require learning and development among the staff. MoF staff have in the past demonstrated a strong interest in and ability to continuously improve practices and strengthen their capacities, and it is expected that this also will be the case in future reform processes. The MoF human resource director concurs with the assessment of the staff members' capabilities. MoF has also contributed to training staff in other ministries and organizations in their areas of responsibility, including in procurement and performance budgeting.

V. REFORM PRIORITIES AND RECOMMENDATIONS

A. Investment Planning Institutions

Issue 1: Strategic planning is fragmented and not reconciled with fiscal space projections. Long-term strategic plans do not identify major investment projects and are not reconciled with projections of available fiscal space. EU funded projects and national budget funded projects are largely planned and managed through separate processes.

Recommendation 1.1: Strengthen the realism of long-term (15–20 years) strategic plans, by identifying key investment projects required to implement the strategy, with indicative costing and reconciliation with available fiscal space.

- Establish Estonia 2035 as the main, long-term national strategy, incorporating key elements of sustainability strategy and spatial planning strategies
- Identify investment projects of national importance and include these in the strategy
- Include indicative costing of key programs and investment projects
- Estimate available fiscal space for 2020–2035 and reconcile the strategy with this fiscal space

Recommendation 1.2: Establish 10-year public investment plans to improve medium-term capital planning and coordination.

- Create a consolidated, 10-year public investment plan collecting information on major projects regardless of funding source.
- Use this public investment plan as the basis for EU funding cycles and for national budget planning.

- Consolidate and reduce the number of sector strategies, to coincide with the planned performance areas in the new performance budgeting framework.
- Ensure the realism of these sector strategies by costing of all key elements and reconciliation with expected fiscal space.

Issue 2: Appraisal of projects is not done uniformly and does not support stringent and consistent project selection. EU funded projects are appraised in accordance with EU Rules. Nationally funded projects are not appraised through a standard methodology applied by all ministries, nor reviewed by a central agency or independent experts. This leads to gaps in information important for project selection, including on expected benefits, costs and feasibility of projects, and on indicators necessary to compare projects within and across sectors.

Recommendation 2: Adopt a standard methodology for project appraisal to ensure that all projects are appraised to a similar standard and subject appraisal documents to independent external review as a quality control measure.

- A standardized methodology should be developed for the appraisal of all projects by all ministries, regardless of funding source and implementing agency, while where relevant specific requirements for externally funded projects will need to continue to be met.
- Comprehensive appraisal is an expensive process and should only be conducted for medium-sized, large and mega-projects. The cost of the appraisal process should be consistent with size of the project; smaller projects require more limited appraisal processes.
- Appraisal documents for large projects and mega-projects must be subjected to an independent external review. This is an important quality control measure to ensure that a set of well appraised and sound projects that have reached project readiness are available for inclusion in the budget.

Issue 3: There is no consolidated oversight of key fiscal risks. Fiscal risks stemming from PPPs, and from contingent liabilities of SOEs and local governments investment projects are not systematically identified, monitored and reported.

Recommendation 3: Establish a framework for monitoring and reporting of key fiscal risks, including for PPPs and contingent liabilities, and include a consolidated statement of fiscal risks in budget documents.

- Develop methodologies for identification of fiscal risks, estimation of probabilities that risks will materialize and the potential impacts of this.
- Augment the current discussion of risks related to macroeconomic and fiscal developments in the budget documents with disclosure and analysis of other key fiscal risks, including those related to PPPs and contingent liabilities.

- Establish a clear policy framework for PPPs, spelling out the government's policy intentions and priorities for PPPs and the procedures to be applied when analyzing and assessing potential PPP projects. Define methodologies for value-for-money analyses of PPP proposals, and make these analyses publicly available.

B. Investment Allocation Institutions

Issue 4: Allocations for capital projects are appropriated on an annual basis with no clear information of the total project costs available to members of Parliament, and there is no consolidated public investment program. There is no separation of capital and current budget ceilings at the budget planning stage and no formal protection of ongoing projects.

Recommendation 4: Strengthen capital budget planning, appropriation and implementation by introducing additional disclosures on investment projects in the budget process.

- Differentiate current and capital spending in budget planning ceilings.
- Identify new projects in budget documents and establish formal rule to prioritize on-going projects in budget allocation.
- Disclose total project costs in budget documents, as well as lifecycle costs.
- Prepare and report a consolidated public sector investment program, including public corporation investments.

Issue 5: There is no consolidated project pipeline across sectors, and no comprehensive criteria for selection of budget-funded projects for implementation. While EU-funded projects are assessed and selected in accordance with EU rules, projects funded by the national budget are not subject to a stringent set of selection criteria. Project selection is fragmented, with limited cross-sector consideration.

Recommendation 5: Establish a unified pipeline of appraised projects in order to compare projects within and across sectors in a transparent and competitive manner.

- Selection of projects should be done of appraised projects only.
- A unified pipeline of projects across all sectors should be compiled.
- Projects across all sectors should be ranked in priority with the utilization of a ranking scoring mechanism.
- The criteria for project selection should be published for transparency

C. Investment Implementation Institutions

Issue 6: Projects are monitored on project level, but there is no central oversight and monitoring of the project portfolio, of project progress nor of project expenditures. Central monitoring and oversight would help notice early potential cost and time overruns and other risks, identify systemic shortcomings in project implementation, and facilitate the analysis of the project portfolio.

Recommendation 6: Establish an electronic, central project oversight system to monitor all major projects centrally, to minimize cost overruns, time overruns and risks that might arrive during project implementation. The mitigation of all the mentioned elements will result in the delivery of more cost-effective projects.

- All major projects should be subject to central oversight where progress and expenditure are monitored on a monthly basis with a report created on a quarterly basis.
- The central oversight should be done and supported by an electronic reporting platform, where project information is uploaded monthly from the project level, to ensure real time availability of risks, progress and other non-financial information and facilitate integration with expenditure reporting.

D. Cross-cutting Issues

Issue 7: There is a wealth of available data generated by different information systems, but this is not fully utilized for analysis and central monitoring.

Recommendation 7: Use available data for more extensive disclosure and analysis

- Strengthen central oversight of the public investment program and portfolio, supported by pulling together information from the budget database and entity-level project databases.
- Provide a public sector balance sheet, based on statistical concepts, and include it in the budget documents to support macro-fiscal analysis.
- Strengthen fiscal risk management: for contingent liabilities for example by drawing on the existing compilation of notes to the financial statements, and for capital project time and cost overruns for example by drawing on the project-coded information contained in the budget database.
- Further enhance the quality of procurement through analysis of procurement and market data to identify, for example, procurement patterns across entities and options for collaborations.

Annex I. Good Practice of Managing PPPs

A PPP is a long-term contract between two or more public and private parties, for providing a public asset or service. The focus of the PPP is on delivering services at agreed levels whereas the remuneration is linked to performance. The private party bears significant risk and management responsibility. Nevertheless, the government always bears some risk. Profits on PPPs can vary depending on the assumed risks, the level of competition and complexity and scope of the project.

A balanced approach to managing PPPs should build on the following key principles:

- Only consider the PPP modality for projects that are prioritized by the Government regardless of procurement and funding modalities.
- Harmonize the assessment and prioritization of all public investment projects under a common set of rules and regulations, with the addition of the evaluation of the possible advantage of using a PPP option;
- For each relevant project, scrutinize whether the best available PPP procurement option can provide enough efficiency gains from private management to compensate for the additional financing costs associated with private financing and the risks and constraints created by long-term contracting.
- Define specific rules for the budgeting of PPP projects, considering their long-term nature and the absence of government payments during the initial years;
- Disclose PPP fiscal commitments in a transparent manner to ensure that costs and fiscal risks across the life of the contract are fully reported;
- Appoint experienced and knowledgeable financial and legal experts to assist government in the decision-making process, during the development and procurement stage of the PPP Project;
- Focus on performance requirements that are output based and relatively easy to monitor;
- Continuously manage PPP fiscal risks, e.g. by a dedicated risk management team.

PPPs have some different characteristics than conventional public procurement projects. All public investment projects, whether they are implemented through a PPP or through a public procurement contract, aim to support the creation of economic infrastructure such as roads, airports and railways, or provide social infrastructure and public services. While a traditional public investment project involves a capital budget allocation up front, the costs of a PPP are distributed over a long-time horizon and payments by the Government are often not required until the facility starts operating. PPPs generally involve higher financing costs for the government due to the higher risks on private entity's side for which corresponding compensation is covered by the contract.

Well designed, implemented and managed PPP contracts can bring benefits from private sector participation in terms of more efficient management over the life time of assets and more innovative solutions. Risks are fully appraised early on to determine project feasibility and the private sector may serve as a check against unrealistic government premises or expectations. Typically, operational and project execution risks are transferred from government to the private sector, which usually has more experience in cost containment. Because PPP contracts involved a significant part of the life cycle of the project, it is expected that high quality standards are better obtained and maintained over time. PPPs may contribute to faster project completion and reduced delays in infrastructure projects by including time-to-completion as a measurement of performance and therefore the profit.

The risk allocation between the government and the private sector is much more complex in a PPP than in a public procurement contract. Potential risks associated with PPPs include:

- Development, bidding and ongoing costs in PPP projects are likely to be greater than for traditional government procurement processes.
- When there are only a limited number of private entities that have the capability to complete a project, it might limit the competitiveness required from cost effective partnering. If the expertise in the PPP lies heavily on the private side, the government is at an inherent disadvantage (for example, it might be unable to accurately assess the proposed costs).
- While private sector can make it easier to get finance, finance will only be available where the operating cashflows of the project company are expected to provide a return on investment (i.e., the cost has to be borne either by the customers or the government through subsidies, etc.)
- Private entities will be cautious about accepting major risks beyond their control, such as exchange rate risks/risk of existing assets, this being reflected in the cost.
- Government will continue to be accountable to the citizens for the quality of utility services. Incentives and performance requirements need to be clearly set out in the contract in order to ensure that services are delivered at the requested quality.
- The private sector is likely to have more expertise and may have an advantage in processing information related to the project. Clear and detailed reporting requirements imposed on the private entity might reduce this potential imbalance.
- Governments may also need to assume direct commitments to pay the cost of service provision wholly or in part, where projects are not financially viable through user charges alone, or where user charging is not desirable or practical. Governments may also sometimes accept contingent liabilities to achieve an appropriate risk allocation—ensuring that each party bears the project risks they are best able to manage efficiently.

- Given the long-term nature of these projects and the complexity associated, it is difficult to identify all possible contingencies during project development and events and issues may arise that were not anticipated in the documents or by the parties at the time of the contract.
- PPP contracts embed fiscal risks, e.g. associated with private sector bankruptcy, inability to provide the expected performance, or policy changes that negatively affect the project.

In light of these risks, a clear legal and regulatory framework is crucial to achieving a sustainable solution. Government will also need to retain sufficient expertise to be able to understand the PPP arrangements and manage them over time, to carry out its own obligations under the PPP agreement and to monitor performance of the private sector and enforce its obligations.

Annex II. Elements of a Scorecard for Project Selection

Principles and Criteria for Prioritizing Projects: Illustrative Outline

Scores to be determined by authority

Principles		Criteria for Prioritizing	Responsible Unit	Scoring of Projects
Principle 1: Strategic relevance assessment	1.1: Strategic fit of the project to the **National Strategy**	1.1.1: Does the project fit to any of the priorities	MoF	TBD
		1.1.2: Does the project fit to any of the strategic objectives in the National Strategic plan	MoF	TBD
	1.2: Strategic fit of the project to the **sector strategy**	1.2.1: Does the project fit to any of the sector strategies?	MoF	TBD
	1.3: Strategic fit of the project to **annual policy priorities decision of the Government**	1.3.1: Does the project fit to the annual policy priorities decision of the Government?	MoF	TBD
Principle 2: Economic Appraisal and Fiscal Affordability	2.1: **Current situation** and **rationale for investment**	2.1.1: Is there description of the current situation (including problems)?	MoF	TBD
		2.1.2: Is the rationale for investment provided? Are the project outputs defined?	MoF	TBD
	2.2: **Investment options/Cost Benefit Analysis** (CBA required for medium and full appraisal)	2.2.1: Were investment options prepared? OR Was CBA prepared? Do the results make sense? (required for medium and full appraisal)	MoF	TBD
	2.3: **Environmental/social/other** impact (required for medium and full appraisal)	2.3.1: Is the environmental impact described? Is assessment by the Ministry of Environment required? Was obtained?	MoF	TBD
		2.3.2: How will project uplift the community?	MoF	TBD
		2.3.3: Is any other impact described?	MoF	TBD
	2.4: Impact on **recurrent costs**, i.e. operational and maintenance costs	2.4.1: Are recurrent costs (operational and maintenance) recognized and identified?	MoF	TBD

Principles		Criteria for Prioritizing	Responsible unit	Scoring of Projects
Principle 3: Maturity / Implementation Assessment	3.1: **Risks** that may impact project implementation	3.1.1: Are the project risks identified?	MoF	TBD
		3.1.2: Are the actions to minimize the impact of the risks on the project described?	MoF	TBD
	3.2: **Project management and organization** arrangements	3.2.1: Is project manager defined?	MoF	TBD
		3.2.2: Are project organization arrangements explained?	MoF	TBD
	3.3: Project **plan/pre-feasibility study/ feasibility study/other economic/financial analyses**	3.3.1: Is project implementation plan developed?	MoF	TBD
		3.3.2: Is pre-feasibility study developed?	MoF	TBD
		3.3.3: Is feasibility study developed?	MoF	TBD
		3.3.4: Are any other economic/financial analysis prepared?	MoF	TBD
	3.4: Project **implementation phase and financial plan**	3.4.1: Are start and end dates of project implementation phase set?	MoF	TBD
		3.4.2: Are investment costs defined? Are the total project costs defined? Are the sources of funds defined?	MoF	TBD

A	B	C	D	E	F	G	H	O
(Budget)	(EU)			(PPP)	(SOE)	(Bilateral loans)		(Other-Specify)

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