The webinar “Challenges for Infrastructure Projects in Covid-19 Pandemic” was the first of a series of webinars on Infrastructure Governance in Europe being organized by IMF’s FAD. The purpose of the series of webinars is to shed light on the current challenges faced by practitioners responsible for public investment management, with special focus on SEE countries.

This first webinar was aimed at discussing key challenges faced by public practitioners in managing public investment projects, including Public-Private-Partnerships, during the Covid-19 pandemic. It drew from the Special Series on Covid-19 “Managing Public Investment in the Crisis” by Eivind Tandberg and Richard Allen published on May 1, 2020 and from the IMF-PFM blog “What is the Covid-19 Impact on Public-Private-Partnerships” by Rui Monteiro and Ozlem Aydin Sakrak published on April 30, 2020.

**Agenda**

The webinar program included the following speakers and presentations:

- Carolina Renteria, Head of the Public Financial Management Division of the IMF’s Fiscal Affairs Department (FAD): Introduction and welcome back to members of the European Regional Network for Infrastructure Governance.
- Richard Allen, FAD presentation of Covid-19 Note on “Managing Public Investment during the Crisis.”
- Isabel Rial, FAD presentation of Covid-19 implications for managing fiscal risks in infrastructure projects including PPPs.

**Content**

**The webinar was attended by 29 participants from 8 countries in the region.** Government officials from Bosnia and Herzegovina, Estonia, Georgia, Kosovo, Montenegro, Serbia, Slovenia and Slovakia were present, as well as representatives from IMF’s area departments and EU (DGNEAR). Participants were mostly technical officials working in PIM and PPP units, budget departments dealing with PIM related issues, as well as macro fiscal units of ministries of finance.

Carolina Renteria delivered the introductory and welcome words, recognizing the dramatic change the world has experienced since the first meeting of the infrastructure governance network held in Ljubljana in November 2019.

Ms. Renteria noted that the Covid-19 pandemic has resulted in large macrofiscal impacts around the world, bringing infrastructure investment to the forefront of public policy as an option
for recovery. Against this background, the development of efficient public investment systems has become a priority for advance, emerging and low-income countries. Ms. Renteria highlighted FAD’s ongoing work program in infrastructure governance and noted the current emphasis on capacity development “on demand” to help countries design and implement policies that are more fiscally sustainable and that can support the longer-term greening agenda. She noted that in a survey during the meeting held in Ljubljana, participants overwhelmingly indicated that it would be very useful to have regular meetings of the European Regional Network of Infrastructure Governance to share best practices and create a peer-to-peer learning experience. The Covid-19 pandemic delayed most of the activities planned for the network; thus, the series of webinars is a restart of the engagement with countries in the region. She also noted that to make the network useful to its members flexibility is key to adjust to evolving countries’ needs. Therefore, topics proposed for future activities of the network are just tentative and can be adjusted as necessary to better support country members. Her closing words were to thank participants for their interest and to invite suggestions for future webinars and other network activities.

Richard Allen presented the key messages of the Special Series on Covid-19 “Managing Public Investment in the Crisis”.

Mr. Allen discussed why public investment is attractive for both spending cuts and boosts in support of economic recovery. The objectives of efficiency, effectiveness and equity in IG, and how they should be addressed in short term responses and during the recovery period were analyzed. Challenges for achieving these objectives when projects are suspended or postponed include loses due to sunk costs and unintended or unknown impacts. Loss of asset values may also occur in maintenance projects are cut. Also, PPPs may be bound by contracts with provisions that are difficult or expensive to change. To reduce negative impacts of investment cuts in the short-term good practices suggest having: a structured mechanism for decisions on major infrastructure cuts; clarity in the decision-making process; comprehensive and consistent information about the public investment portfolio regarding implementation status and remaining costs of major projects; and finally ensuring transparency.

Looking at public investment in the recovery phase, good practices suggest: developing and maintaining a pipeline of public investment projects appraised and ready for implementation; anchoring the fiscal stimulus program in a credible and realistic medium-term fiscal policy and framework; identifying and addressing capacity constraints at an early stage; and having procurement mechanisms that ensure timely and effective realization of the selected investment projects while maintaining transparency. During the recovery phase, capital maintenance projects should play an important role.

Isabel Rial discussed why infrastructure projects are a large source of fiscal risks and how to better manage them.

Ms. Rial stressed that even when most fiscal risks arising from infrastructure projects materialize during implementation, many originate from weaknesses at early stages of the project cycle. Based on a study of the PIMA database, she showed that management of fiscal risk in infrastructure remains under-developed. In about 60% of the 13 advances economies studied, risk assessment in project appraisals were inexistent or limited, a figure that increased
to almost 90% for the 25 emerging market economies surveyed and 100% for 23 low-income
developing countries. The lack of management of fiscal risks from infrastructure projects
becomes especially worrisome in light of the grim prospect of increasing debt and fiscal balance
deficit forecasted for many countries.

The impact of Covid-19 on infrastructure projects was labelled as “a perfect storm”. Delays and
disruptions have affected projects independently of funding and development stage. Changes in
demand and therefore revenues, increased costs and uncertainty, and deferred maintenance
have been common negative impacts.

Challenges faced by countries while emerging from the crises are diverse and country-specific,
requiring a holistic approach for managing fiscal risk arising from infrastructure projects. To
address them a 3-pillar approach is proposed:

- Resolve: During lockdown prioritize service continuity;
- Reassess: Emerging from lockdown revise project pipeline composition and priorities;
- Reform: As soon as possible, strengthen infrastructure governance.

Ms. Rial concluded noting that Covid-19 provides an opportunity to learn and push forward
reforms to improve overall fiscal risk management of large infrastructure projects, including
PPPs.

Once the floor was opened for participants, the Head of the PPP Unit of Kosovo, Mr. Ilir
Rama, shared his experience in managing the impact of Covid-19 on major PPP contracts
(i.e., airport concession). He noted that despite the collapse in demand, force majeure clauses
included in large PPP-contracts have mitigated the short-term impact of Covid-19 on the budget.
These clauses include provisions for the allocation of risks in the event of a pandemic, where
private operators bear most of demand risks up to a maximum of 24 months, after which they
can opt to either renegotiate or terminate the contract.

Mr. Rama noted the following concerns for the near term:

- The ability of the concession to generate revenues in the future and pay concession fees
to government, which has a ripple effect on other PPP projects due to the uncertainty
about future government revenues and therefore its capacity to afford availability
payments of other PPP contracts.
- That the government is currently consumed by short-term management challenges,
making it difficult to plan and manage projects and the PPP portfolio in an efficient
manner.
- The need to change/update legal and regulatory frameworks, a fact that has become
evident during the crisis.

The Head of the PIM Unit in Serbia, Ms. Sanda Budjic, commented on their progress in
implementing PIM recommendations of a recent FAD missions (E. Aldunate) and
continuous support from the regional long-term advisor (S. Flynn). She mentioned that as
part of the measures to cope with Covid-19 pandemic, government budget regulation resulted in
approximately 50 percent of investment projects originally budget for 2020 to be postponed to
2021-22. Mr. Branimir Gajic, Advisor to the MoF on fiscal risks, noted the need for continued
support to develop and make the PIM Unit operational, including training and broader capacity
building activities.
Ms. Yelena Jovetic, main responsible official of PPPs in Montenegro, mentioned the impact of Covid-19 on PPP projects under preparation. She noted the challenge of dealing with extreme uncertainty due to Covid-19, which has certainly generated delays in the authorities plan to procure this project which is key for the development of the tourism sector.

Going forward

The webinar was closed, with a short discussion of the potential topics for the next webinar and other network activities. It was agreed that a survey will be circulated during the summer to gather information on the members’ interests for future activities.
Context

- This presentation is based on a Note in the IMF’s Special Series on COVID-19 by Eivind Tandberg and Richard Allen “Managing Public Investment Spending During the Crisis”, May 19, 2020.

- The Note considers both cuts in investment that could be made during the initial response to the crisis (e.g., to finance emergency spending on health and support for vulnerable groups) and the role of public investment to boost the recovery.

- The IMF’s Fiscal Monitor in Fall 2020 will include a section on policy issues relating to public investment for the recovery and an analysis of investment trends post-COVID.
Public investment during fiscal adjustments

Public investment is attractive for both spending cuts and boosts in support of economic recovery

- Largely discretionary, lumpy with most spending concentrated over a few years
- Make a substantial contribution to economic activity, especially in low-income countries
- 2017: public investment to GDP was 3.2 percent in advanced economies, 4.8 percent in emerging market economies, and 7.5 percent in low-income developing countries

Countries facing financial stress very often resort to cutting or postponing public investment

- As impacts are long-term, projects do not necessarily benefit from strong and vocal constituencies

Increases in public investment are common elements in fiscal stimulus programs

Objectives of Public Investment Adjustments - Trade-offs

<table>
<thead>
<tr>
<th>Objective</th>
<th>Short term</th>
<th>Medium term (Recovery Phase)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency:</td>
<td>Cuts should target investment projects with lower benefits (economic and social) compared to costs. The costs and benefits of compared to costs.</td>
<td>Resources should be allocated to spending with higher benefits (economic and social)</td>
</tr>
<tr>
<td>Equity:</td>
<td>The impact of the cuts on different groups or sectors of the economy should be consistent groups and sectors should be consistent with with</td>
<td>The impact of investment projects on different</td>
</tr>
<tr>
<td>Effectiveness:</td>
<td>Cuts should contribute to fiscal adjustment of Increased investment spending should the required magnitude and timing.</td>
<td>contribute to an overall fiscal stimulus of the required maenitude and time over the</td>
</tr>
</tbody>
</table>
Short-term spending cuts – Some challenges

Ad hoc, across-the-board cuts are quite common in crisis situations but will generally fail to recognize project-specific differences

- Spending on investment already incurred and other sunk costs are lost when projects are cancelled prior to completion

- It is difficult to assess the full costs of project postponement and cancellation
  - Spending cuts may have unintended or unknown impacts

Cuts in capital maintenance and reconstruction may be very costly

- Significant loss of asset values compared to maintenance costs

Short-term spending cuts – Recommendations

There should be a structured mechanism for decision making on major infrastructure cuts

- Final decisions will typically be taken by ministers, but should be based on technical advice

Postponing or cutting projects or altering specifications will require governments to negotiate changes with their contractors (traditional procurement) or partners (PPPs)

- Need clarity in the decision-making process and a procedure that allows parties to resolve potential disputes
  Robust decisions will require comprehensive and consistent information about the public investment portfolio

- Existing reporting and oversight mechanisms should be utilized, if needed supplemented by survey of implementation status and remaining costs of major projects
  To ensure transparency and accountability, an information portal on public investment would be very useful
Short-term spending cuts – Illustrative Decision Matrix

<table>
<thead>
<tr>
<th>Status / Decisions</th>
<th>Postpone</th>
<th>Cancel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project approved, not initiated</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Project initiated, less than 10 % of cost incurred</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Project under implementation, B/C of completion &gt;1.5</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Project under implementation, B/C of completion &lt;1.5</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Project under implementation, B/C of completion &lt;1.0</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Additional considerations

<table>
<thead>
<tr>
<th>Additional considerations</th>
<th>Postpone</th>
<th>Cancel</th>
</tr>
</thead>
<tbody>
<tr>
<td>High employment creation</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Significant synergies with other projects</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>High cost of project cancellation (beyond B/C)</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Public investment for recovery - Recommendations

Develop and maintain a pipeline of suitable public investment projects

- If no existing pipeline, a framework for expedited appraisal should be established
- Done by existing institutions or task force comprising experts from key sectors

Projects should be adequately appraised prior to selection

- The appraisal framework should be applied to all existing projects as well as new proposals
- The arrangements should include clear criteria for the selection of projects

The fiscal stimulus program should be anchored in a credible and realistic medium-term fiscal policy and framework

- Estimates of fiscal space for infrastructure should guide decisions
- Project selection should be based on specific projections for full lifetime costs
Public investment for recovery - Recommendations

Capital maintenance projects should play an important role in the investment program

- Maintenance and capital repairs projects are by nature flexible and can be easily expanded
- Can be replicated across SNGs through an earmarked capital grant scheme

Adequate management for PPP projects will be even more relevant in the aftermath of COVID-19

- In the absence of effective fiscal management they can lead to waste and inefficiency
- May increase fiscal risks and advance projects with poor or negative economic value

Procurement mechanisms should be reviewed to ensure timely and effective realization of the selected investment projects while maintaining transparency

- Procurement bottlenecks should be identified and remedied during the preparation of the fiscal stimulus program

Public investment for recovery – Selection criteria

<table>
<thead>
<tr>
<th>Principle</th>
<th>Illustrative criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely</td>
<td>Possible to implement the projects in the required timeframe</td>
</tr>
<tr>
<td>Targeted</td>
<td>A significant share of projects should be available for immediate implementation</td>
</tr>
<tr>
<td></td>
<td>High benefit/cost ratio (B/C &gt;1.5)</td>
</tr>
<tr>
<td></td>
<td>Additional positive impacts (beyond B/C estimate):</td>
</tr>
<tr>
<td></td>
<td>- Economic</td>
</tr>
<tr>
<td></td>
<td>- Social</td>
</tr>
<tr>
<td></td>
<td>- Environmental</td>
</tr>
<tr>
<td>Temporary</td>
<td>Projects with strong long-term growth impact but limited long-term fiscal impact. They should not require significant funding beyond the fiscal stimulus period</td>
</tr>
</tbody>
</table>
Managing Fiscal Risks in Infrastructure Impact of Covid-19

EUROPEAN REGIONAL NETWORK FOR INFRASTRUCTURE GOVERNANCE, JULY 9, 2020

Isabel Rial
Fiscal Affairs Department

Infrastructure projects are a large source of fiscal risks

Estimation of Cost Overruns
(Average, %)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>20 - 24</td>
</tr>
<tr>
<td>Railways</td>
<td>34 - 40</td>
</tr>
<tr>
<td>Tunnels and bridges</td>
<td>33 - 48</td>
</tr>
<tr>
<td>Hydroelectric dam</td>
<td>71</td>
</tr>
<tr>
<td>Nuclear reactor</td>
<td>117</td>
</tr>
<tr>
<td>Wind farm</td>
<td>8</td>
</tr>
<tr>
<td>Solar facility</td>
<td>1</td>
</tr>
</tbody>
</table>

Sources: IMF staff compilation based on Rydberg and Cantarella and others 2010, Source and others 2014.
Most fiscal risks materialize during implementation, but many originate from weaknesses at early stages of the project cycle.

Fiscal risks during construction:
- Land issues & resettlement
- Licensing
- Environmental risks
- Geology and other construction
- Cost of inputs
- Force majeure

Fiscal risks during operations:
- Demand issues
- Regulation of user fees
- Cost of inputs
- Policy change
- Changes in law
- Force majeure
- Renegotiation

Sources of fiscal risk during the Planning phase:
- Poor identification of needs
- Poor strategic planning
- Poor coordination with subnationals
- Poor project appraisal

Sources of fiscal risk during the Allocation of Funds phase:
- Lack of budgetary unity
- Lack of project’s whole-life costing
- Lack of multi-year budgeting
- Lack of affordability-checking
- Moral hazard due to off-budgeting
- Poor project selection

Sources of fiscal risk during Procurement:
- Poor selection of procurement modes
- Poor procurement strategy
- Lack of an MOF-led gateway process

Management of fiscal risk in infrastructure remains under-developed

Risk Assessment in Project Appraisals, PIMA database

<table>
<thead>
<tr>
<th>Category</th>
<th>No risk assessment</th>
<th>Limited</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced economies</td>
<td>100%</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Emerging market economies</td>
<td>90% - 95%</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Low-income developing countries</td>
<td>0% - 20%</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: PIMA database, July 2013.
Note: There were 11 total PIMA assessments: 13 in advanced economies, 25 in emerging market economies, and 23 in low-income developing countries. PIMA = Public Investment Management Assessment.
Why Worry about Fiscal Risks in Infrastructure
Covid-19 a crisis like no other

**G20 General Government Debt**
(Weighted Average, Percent of GDP)

**G20 Fiscal Balance Forecasts**
(Weighted Average, Percent of GDP)

**Macroeconomic shocks**
- Speed and size of decline activity
- Composition of output decline—collapse in consumption of contact-intensive services
- Extreme uncertainty

**Macro fiscal implications**
- Impact on revenue projections
- Assessment of public debt sustainability

**Materialization of fiscal risks**
- Management of contingent liabilities
- PPPs, SOEs, loan guarantees, subnational governments, pension systems
- Increased probability of materialization

Source: WEO, National authorities and IMF Staff estimates as of June, 2020.
How Covid-19 Impact Infrastructure Projects
A perfect storm

Overall dynamics

- Reduced project revenue / demand
  - Demand shifts temporary or permanent?
- Increased costs
  - Supply chain issues
  - Operational costs
- Deferred maintenance
  - Government liquidity issues
  - Scarce workforce
- Increased uncertainty
  - Increase overall project costs
  - Realization of contingent liabilities

Delays and disruptions

- All projects
  - Projects procured traditionally
  - Government-funded PPPs
  - User-funded PPPs
- At all stages of project cycle
  - On-going projects
  - Projects under preparation/negotiation
- And the project pipeline
  - Changes in priority sectors
  - Change in risk appetite from public and private sector

How Covid-19 Impact Infrastructure Projects
A perfect storm

Sectors

- Transport
  - Demand shifts temporary or permanent?
- Water & Utilities
  - Can households pay? Affordability
  - Increased operational costs
  - Impact on SOEs?
- Health
  - Is health a public good? Affordability
  - Increased operational costs
- Telecom
  - Bright spot

Transit use in US, Jan-April

0% growth

<table>
<thead>
<tr>
<th>City</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF</td>
<td>-80.5%</td>
</tr>
<tr>
<td>Chicago</td>
<td>-71.2%</td>
</tr>
<tr>
<td>NYC</td>
<td>-75.5%</td>
</tr>
<tr>
<td>Boston</td>
<td>-78.3%</td>
</tr>
<tr>
<td>DC</td>
<td>-71.7%</td>
</tr>
<tr>
<td>Phil</td>
<td>-59.4%</td>
</tr>
<tr>
<td>LA</td>
<td>-70.1%</td>
</tr>
<tr>
<td>Seattle</td>
<td>-78.9%</td>
</tr>
<tr>
<td>Miami</td>
<td>-74.9%</td>
</tr>
</tbody>
</table>

www.mowut.com
How Covid-19 Impact Infrastructure Projects
Challenges for risk management over time

**During lockdown**
- On-going projects
- Reduced revenues and demand
- Increased costs
- Deferred maintenance
- Project disruptions
- New project
- Stand-still

**Emerging from lockdown**
- On-going projects
- Managing force majeure
- Funding of project delays and cost overruns
- Realization of contingent liabilities
- New projects
- Increased uncertainty
- Change in priorities

**Looking ahead**
- Fiscal space for infrastructure
- Reprioritization of project pipeline
- Change in risk appetite
- Coordination btw central and SNGs
- Inadequate data
- Limited capacity

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A holistic approach for managing fiscal risk from infrastructure

**Resolve**
During lockdown
Prioritize Service Continuity
- Maintain payments to infrastructure, be flexible with performance standards
- Clarify interpretation of force majeure
- Protect the value of the infrastructure
- Strengthen communication between partners

**Reassess**
Emerging from lockdown
Revise Project Pipeline
- Adjust investment plans to new needs
- Reassess investors and government’s risk tolerance
- Revise existing pipeline of appraised projects and reassess risks
- Discuss new PPP structures more suitable for increased uncertainty

**Reform**
As soon as possible
Strengthen Infrastructure Governance
- Strengthen institutional framework, procedures and methodologies for project preparation, appraisal and selection
- Develop a risk management function for infrastructure projects, including PPPs
- Manage fiscal risks centrally
- Improve project information systems
- Strengthen project and portfolio management
Final Remarks

- Fiscal risks exist not only in PPPs, all large infrastructure projects are risky
- Fiscal risks in infrastructure can be large, countries should be prepared to manage them
- Fiscal risks in infrastructure typically materialize during implementation, but many sources of risks originate at early stages of the project cycle
- So government can proactively manage fiscal risks by strengthening infrastructure governance
- Increased uncertainty due to Covid-19 underpins the need for better overall fiscal risk management, including of infrastructure projects
- The approach to manage risks in infrastructure will vary across countries, but it should be comprehensive, and start from early stages of project cycle
- Covid-19 provides an opportunity to learn and push forward reforms to improve overall fiscal risk management, including fiscal risks from large infrastructure projects, including PPPs