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Lessons from the T20: Five Priorities for Italian Infrastructure Investment

by Fulvio Bersanetti, Nicola Bilotta, Raffaele Della Croce, Valeria Lauria and Nicolò Russo Perez

As states and societies continue to struggle with the pandemic, a fundamental element of the post-Covid recovery will be the capacity to revive both public and private investments in infrastructure, thereby boosting growth and employment.

Differently than previous crises, reorienting infrastructure investment to respond to the new social and environmental needs will also be needed, starting with health and poverty reduction, as well as climate change and the digitalisation drive. Italy is no exception. Under the Recovery and Resilience Facility (RRF) promoted by the European Union, Italy will receive 191 billion euro in which infrastructure investments will play a fundamental role. To unlock its full economic potential and pursue a successful post-Covid recovery, Italy should embrace five key priorities for infrastructure investment.

Act locally

Subnational entities, such as municipalities and regions, traditionally face greater difficulty attracting private investment for their infrastructure projects. Consequently, their spending capacity is highly dependent on central state financing. Despite current increases in recovery funds, over the long-term public debt pressure will have an impact and, as demonstrated by pre-Covid-19 trends, will reduce public funds available at the subnational level.

According to the OECD, since 2010, only 7 per cent of subnational entities have reported an increase in the participation of private investors in

Fulvio Bersanetti is Program Officer in the Impact Innovation Department of the Compagnia di San Paolo Foundation. Nicola Bilotta is Senior Fellow at the Istituto Affari Internazionali (IAI). Raffaele Della Croce is Senior Economist at the Organisation for Economic Co-operation and Development (OECD). Valeria Lauria is Postdoctoral Fellow at Peking University. Nicolò Russo Perez is Coordinator of the International Affairs Program at the Compagnia di San Paolo Foundation.
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local infrastructure projects.[1] The role of subnational entities is essential, however. Not only because they directly manage and finance many infrastructure projects – in the OECD area they are responsible for financing almost half of all infrastructure investments – but also because they represent a bridge between the needs of local communities and national investment strategies.

In Italy, the capital expenditures of public administrations, including the additional funds received from the European Cohesion Policy, saw a significant decline between 2008 and 2017, falling from 61.7 billion euro to 31.3 billion, with a very serious impact on subnational entities.[2] Over 50 per cent of the income of subnational entities in Italy is represented by subsidies and grants, while 30 per cent comes from taxes. Subnational entities, moreover, manage approximately 29 per cent of national public expenditures.

Tax revenue collected by subnational entities represents approximately 21 per cent of total national revenues and also 43 per cent of the income of subnational entities.[3] According to the National Association of Italian Municipalities, due to the Covid-19 emergency, municipal revenue could fall by 9 or up to 21 per cent compared to 2019, with an estimated loss of between 3.7 and 8 billion euro.[4] Regions, whose spending is concentrated on health (85 per cent), will face growing budgetary problems as a result.

The T20 Task Force 2021 on infrastructure investment and financing (TF) stressed that state administration should technically support the skills and training of local administrations in the management and implementation of the various phases of an infrastructure project while requiring better transparency through the development of standardisation mechanisms. Moreover, it is important to effectively coordinate across different state levels involved in an infrastructure project, making sure these are aligned with central governments recovery plans. These actions could ultimately mobilise private investments through innovative financial instruments, such as municipal green bonds, at the municipal and regional level as they would mitigate perceived risks and improve the enabling environment.

[1] OECD and European Committee of the Regions, *Results of the OECD-CoR Consultation of Sub-National Governments. Infrastructure Planning and Investment Across Levels of Government: Current Challenges and Possible Solutions*, February 2016, p. 9-10, https://op.europa.eu/s/vCIf. See also OECD, "The Impact of the COVID-19 Crisis on Regional and Local Governments. Main Findings from the Joint CoR-OECD Survey", in *OECD Regional Development Papers*, November 2021, https://doi.org/10.1787/fb952497-en.

[2] ASVIS, *Per un pacchetto di investimenti a favore dello Sviluppo Sostenibile delle città e dei territori*, 28 May 2020, p. 6, https://asvis.it/public/asvis2/files/Pubblicazioni/Investimenti_SviluppoSostenibile_citta_territori.pdf.

[3] OECD, "The Territorial Impact of COVID-19: Managing the Crisis across Levels of Government", in *OECD Policy Responses to Coronavirus (COVID-19)*, 10 May 2021, p. 50-51, https://doi.org/10.1787/a2c6abaf-en.

[4] European Committee of the Regions, *2020 EU Regional and Local Barometer*, October 2020, p. 46, https://op.europa.eu/s/vF5j.

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Think sustainably

Approximately 70 per cent of global greenhouse gas emissions are produced by the construction, development and maintenance of infrastructure for energy, transportation and buildings. The strategy for a sustainable future must therefore entail prioritising investments in certain key infrastructure sectors, for which sustainability must become an integrated factor in all phases of a project.

According to some estimates, 75 per cent of infrastructure projects that will be implemented by 2050 have not yet been planned, creating the opportunity to better integrate sustainability criteria.[5] Some of the priority goals to be pursued are: a greener energy sector; greater energy efficiency of buildings; low-impact mobility; digital infrastructure and more efficient management of water resources and waste. In planning new infrastructure, as well as managing and maintaining existing infrastructure, sustainability objectives need to be taken into account from a long-term perspective.

In Italy, according to the Italian Alliance for Sustainable Development, 80 per cent of emissions are produced by transportation (38 per cent), buildings (27 per cent) and industry (15 per cent). In the transportation sector, the same grouping has calculated that financial needs amount to over 60 billion euro (of which 33 billion for mass rapid transit infrastructure and over 25 billion for the renewal and improvement of public transport vehicles for electric mobility and biking, pedestrians and safety). Furthermore, 60 per cent of residential buildings in Italy are over forty-five years old and therefore not covered by the first law on energy savings dating from 1976, making the need to intervene in the construction sector evident.[6]

To achieve these goals, the TF proposed to develop a transparent legislative framework to ensure that sustainability criteria are included in planning, investment criteria and procurement phases across ministries and infrastructure sectors and to standardise sustainability requirements and studies on the impact of environmental factors on investment performance. Moreover, it called to support the integration of sustainability criteria in ESG standards for infrastructure and to facilitate funding mechanisms for sustainable infrastructure – such as "green bonds", green investments and finance for climate change.

Make existing infrastructure resilient

New infrastructure is not always needed. To pursue the goal of a sustainable and inclusive infrastructure system, increasing attention needs to be focused on investments for the maintenance and resilience of existing infrastructure. Resilience and maintenance are two strongly

[5] Chris Milnes et al., *4th GIB Summit Report*, Basel, Global Infrastructure Basel (GIB) Foundation, 2014, p. 4, https://gib-foundation.org/wp-content/uploads/2020/01/Summit-Report_ext_Fin_sml.pdf.

[6] ASVIS, *Per un pacchetto di investimenti a favore dello Sviluppo Sostenibile delle città e dei territori*, cit., p. 8.

connected aspects.

Resilience must be a priority in the various phases of an infrastructure project: from its design to construction and maintenance. Infrastructure conceived and planned to be resilient also reduces the costs associated with maintenance and reconstruction. Yet investments allocated to resilience are much lower than needed, despite their expected positive impact. According to some estimates, in developing countries, investments in infrastructure resilience would produce a return of 4 dollars for each dollar invested.[7]

The issue of maintenance and resilience is also crucial in Italy. For example, the Italian water network loses 42 per cent of the water entered into the network in the 109 provincial capitals and metropolitan cities.[8] According to some estimates, 80 per cent of existing buildings in the country should be upgraded.

The T20 TF suggested the identification and development of transparent indicators for ordinary and extraordinary maintenance to be included in contracts with infrastructure operators, ensuring their liability. Moreover, countries should implement control mechanisms to ensure that maintenance is carried out at regular intervals and based on models supplied by data on single infrastructures. Developing adequate models that can effectively identify local characteristics in terms of climate exposure and risks of environmental disaster should also be pursued. Finally, the central administration should ensure technical assistance to develop capabilities at different state levels in managing the maintenance of infrastructure works.

Attract private investments

The shock deriving from the pandemic has put governments, already deeply impacted by the economic crisis of the past decade, in a critical situation. In this context, interventions by the private sector in recovery efforts can play a key role in helping institutional investors close the investment gap while also improving management and innovation. The ultimate goal is to overcome the long-term challenges of sustainability through a joint strategy for constructing high-quality, resilient and inclusive infrastructure.

The infrastructure gap in Italy is very pronounced. Compared to other European countries, Italy is among those with the largest gap in investments in the infrastructure sector. The estimates of the Global Infrastructure Outlook of the G20 show a gap of over 373 billion US dollars from 2021 to 2040 (239 billion for railways, 39 billion for the energy sector, 37 billion for ports, 14 billion for airports and 1 billion for roads).[9]

[7] UN, “For Every Dollar Invested in Climate-Resilient Infrastructure Six Dollars Are Saved, Secretary-General Says in Message for Disaster Risk Reduction Day”, in *UN Press Releases*, 10 October 2019, https://www.un.org/press/en/2019/sgsm19807.doc.htm.

[8] ISTAT, *Urban Water Census. Year 2018*, 22 January 2020, https://www.istat.it/en/archivio/252831.

[9] See Global Infrastructure Outlook website: *Italy*, https://outlook.gihub.org/countries/Italy.

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While the overall level of infrastructure investments has slightly increased over recent years, participation by the private sector is still very low in Italy, with the majority of infrastructure projects financed by public resources.[10] The Italian infrastructure market could provide interesting opportunities for private investors. It is however essential to implement a strategy aimed at freeing up capital and competences in the private sector for the financing, construction and operation of public infrastructure through public private partnerships, project financing and project bonds.

The Task Force thus proposed that central governments guarantee certainty and transparency of the national regulatory and legislative framework and harmonise decision-making mechanisms within the bureaucratic machine while simplifying the procedural framework for the awarding and construction of works. Moreover, an effort should be made to guarantee efficient and independent dispute resolution mechanisms and to monitor the collection and circulation of data on infrastructure projects, including Environment, Social and Governance data.

Infratech

Infratech is an opportunity for the entire infrastructure system. The process of digitalisation tends to make investments more attractive for operators, including for those categories of investment that do not directly regard the area of technology. The use of data and the most sophisticated analytics systems (machine learning, artificial intelligence and sensor systems) represents a potential upgrade in all processes of planning, design, delivery and operation of infrastructure.

In particular, the ability to collect data through the creation of open and federated digital platforms and to translate them into insights could contribute to supporting more responsible governance, absorbing risks and increasing the return and security of investments. They can also help promote the participation of small/medium-sized enterprises and favour the spread of innovation.[11]

Regarding Italy, the chronic gaps continue to affect economic performance in terms of competitiveness. On the one hand, the lockdown triggered by the health emergency laid bare the differences in the spread of technological culture and digital skills across the country. On the other, the sudden increase in demand for digital services has produced a

[10] Based on the 2020 data, resources available in Italy for planned works amount to 199 billion euro of which public contributions represent 78 per cent and private contributions the remaining 22 per cent. See Italian Chamber of Deputies-Research Department, *Infrastrutture strategiche e prioritarie. Programmazione e realizzazione. Rapporto 2021*, May 2021, p. 12, https://www.camera.it/leg18/1014.

[11] See Mihael Buhler et al., "A New Vision for Infratech: Governance and Value Network Integration through Federated Data Space and Advanced Infrastructure Services for a Resilient and Sustainable Future", in *T20 Italy Policy Briefs*, September 2021, https://www.t20italy.org/?p=9124.

high degree of infrastructure stress, in particular on the telecommunications network, affected by the long-standing problem of a digital divide (only 9 per cent of Italian families have access to ultra-broadband, against an average of 26 per cent in the EU).

With respect to goods and services, the transition of the business model of value chains is likely to accelerate in the post-pandemic scenario, foreshadowing a situation in which digital is an active part of the strategies of companies. In this sector it is therefore urgent to invest in infrastructure and human capital.

To foster positive developments, the TF suggested to promote the availability of digital infrastructure as a primary common good, an enabler of other essential needs such as health, school, work, social relations, information and citizenship itself while governing the risks associated with the availability and reliability of digital technologies that regard infrastructure (for example, data confidentiality, management of digital identity). Furthermore, countries should aim for the development not only of connectivity, but also of cloud computing technologies and the internet of things, that are fundamental, for example, in the energy and mobility sectors, and to create open and federated digital platforms for data governance.

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Italy's National Recovery and Resilience Plan (NRRP) is a unique opportunity to foster green, digital and inclusive growth in the long term. However, the availability of large funds does not imply that Italy will ultimately succeed. Oversight and accountability on how the money will be spent and invested is fundamental. Italy needs to turn the medium-long development strategy envisioned in the NRRP into concrete actions. The priorities and policy recommendations that emerged during the work of the T20 Task Force can provide useful tools and frameworks for Italy and others to get infrastructure investments right.

Italy, moreover, also has a great responsibility in this domain. As the single largest recipient of Europe's recovery package, the final outcome of Italy's NRRP will influence the EU debate in the future. If successful, it could be a flagship example of solidarity and fiscal risk-taking as good investments; but conversely, if judged a failure, it risks becoming yet another driver for a return to the advocates of fiscal conservativism.

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Via dei Montecatini, 17
I-00186 Rome, Italy
Tel. +39 066976831
iai@iai.it
www.iai.it

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