National Accounting and PPPs: Systems Thinking Perspectives on Fiscal Sustainability and Value Creation

Luana LA BARA[1], Giovanna OTTAVIANI[2]
[1] Tor Vergata University of Rome
2 Via Columbia, 00133 Rome, Italy
ORCID 0009-0006-0945-0659; luana.la.bara@uniroma2.it
[2] Italian National Statistics Institute ISTAT
16 Via Cesare Balbo, 00184 Rome, Italy
giovanna.ottaviani@istat.it

DOI: 10.25019/STR/2025.017

Abstract
Public-private partnerships (PPPs) are strategic tools for promoting infrastructure investment, particularly in contexts characterized by fiscal constraints and the transition toward sustainable development models. Their accounting and statistical classification, as defined by the European System of Accounts 2010 (ESA 2010) and Eurostat guidelines, has a significant impact on how public investments are recorded and how fiscal sustainability is represented in national accounts. This paper examines ISTAT's PPP classification methodology, focusing on the distinction between "on balance sheet" and "off balance sheet" operations and their effects on capital expenditure, public debt, and budget transparency. The research question guiding this study is: How does ISTAT's classification of PPPs under ESA 2010 influence fiscal sustainability and transparency, and how can a systems thinking perspective reframe PPPs as governance tools for co-creating sustainable value? The analysis shows that while "on balance sheet" PPPs enhance transparency by fully recording public liabilities, they may constrain fiscal space under EU rules. Conversely, "off-balance sheet" treatments can obscure long-term commitments, undermining fiscal accountability. By integrating a systems thinking perspective, the study expands the scope of analysis, exploring PPPs as socio-technical ecosystems capable of fostering innovation governance, embedding Environmental, Social, and Governance (ESG) metrics, and supporting the local implementation of the Sustainable Development Goals (SDGs). The findings contribute to bridging the gap between traditional accounting approaches and the need for multidimensional evaluation frameworks that better reflect both fiscal sustainability and systemic value creation.

Keywords
Fiscal Accountability; National Accounting; Public-Private Partnerships; Sustainable Development; Fiscal Sustainability; System Thinking; Value Creation.

Introduction

Public-private partnerships (PPPs) have become essential instruments for financing and implementing public infrastructure projects in contexts of limited fiscal space and growing attention to sustainable development. Their importance is particularly evident in the European Union, where supranational rules such as the Stability and Growth Pact restrict public borrowing, prompting administrations to explore innovative collaborative arrangements with private actors. However, the statistical classification of PPPs, as regulated by the European System of Accounts 2010 (ESA 2010) and Eurostat guidelines, plays a decisive role in shaping the fiscal visibility of such operations and the measurement of public sector sustainability.

The distinction between "on balance sheet" and "off balance sheet" classifications is central to this debate. International experience, such as the London Underground PPP, has shown that off-balance-sheet treatments can obscure fiscal risks and reduce transparency, sparking controversies over accountability and governance. In Italy, ISTAT has adopted Eurostat methodologies to ensure compliance and comparability, classifying the vast majority of PPPs as on-balance-sheet. This

approach guarantees rigorous fiscal representation but may also constrain investment capacity under EU rules.

Against this backdrop, this study addresses the following research question:
How does ISTAT's classification of PPPs under ESA 2010 influence fiscal sustainability and transparency, and how can a systems thinking perspective reframe PPPs as governance tools for co-creating sustainable value?

By combining documentary analysis of ISTAT's methodology with international comparisons, this study contributes to both the literature and policy debates. It advances understanding by showing that PPPs are not only accounting constructs but also multi-actor governance mechanisms embedded in broader ecosystems of financial, social, and environmental interactions, with increasing relevance to the implementation of the Sustainable Development Goals (SDGs).

The paper aims to explore how the classification of PPPs under ESA 2010 influences fiscal sustainability and transparency, and to examine how a systems thinking perspective can reframe PPPs as governance tools for co-creating sustainable value. To address this objective, the study adopts a qualitative research design based on documentary analysis of institutional sources and selected international experiences.

The remainder of the paper is structured as follows. The next section reviews the relevant literature on PPP accounting, systems thinking, and sustainability. The methodology section then presents the research design and data sources. The empirical findings are subsequently discussed, including insights from international practices such as broadband projects in the United Kingdom and Smart Cities initiatives in the Netherlands. The final section concludes.

Literature review

Public-private partnerships (PPPs) have increasingly attracted scholarly attention due to their potential to mobilize private capital and expertise to deliver public infrastructure, particularly in contexts characterized by fiscal constraints and growing demand for sustainable investment (Grimsey & Lewis, 2004; Yescombe, 2017). Beyond their financial function, PPPs are widely conceptualized as governance arrangements that enable innovation, efficiency, and risk-sharing between public and private actors, facilitating the implementation of complex projects that exceed the capacity of traditional procurement models (Hodge & Greve, 2017; Klijn & Teisman, 2003). However, their increasing diffusion has also raised critical issues concerning accounting treatment, fiscal transparency, and long-term sustainability (Eurostat, 2014; European Commission, 2016).

A central debate in the literature concerns the statistical classification of PPPs within public sector accounts. The European System of Accounts (ESA 2010) provides a harmonized framework for determining whether PPP-related assets and liabilities should be recorded on or off the government balance sheet, based on criteria such as control over assets and the allocation of risks (Eurostat, 2013). This distinction has direct implications for the measurement of public debt and deficit, influencing fiscal sustainability assessments and compliance with European budgetary rules (IMF, 2015; European Commission, 2019). Empirical studies have highlighted the risks associated with off-balance sheet arrangements, including the potential underestimation of long-term fiscal commitments and reduced transparency, thereby raising concerns about accountability and the true extent of public sector exposure to financial risks (Schick, 2002; Ter-Minassian, 2010; EPEC, 2018).

Alongside this accounting-oriented perspective, a growing body of literature conceptualizes PPPs as complex governance mechanisms embedded in multi-actor systems. In this view, PPPs are not merely contractual arrangements but institutional platforms through which public and private actors co-produce services and address societal challenges. This perspective aligns with broader theoretical frameworks that emphasize collaboration, participation, and value co-creation, highlighting the role of

PPPs in fostering innovation, territorial development, and long-term societal impact (Mazzucato, 2018; Bianchi et al., 2020).

More recently, the literature has increasingly linked PPPs to sustainability agendas, particularly in relation to the United Nations Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) criteria (UNDP, 2019; European Commission, 2021). PPPs are increasingly seen as key instruments for mobilizing resources and coordinating diverse actors toward the achievement of sustainable development objectives, especially in areas such as infrastructure, energy transition, and urban development. This shift reflects a broader redefinition of public value, moving beyond efficiency and cost-effectiveness toward multidimensional outcomes that include social inclusion, environmental protection, and long-term resilience (Searcy, 2016; Bebbington et al., 2017). Nevertheless, the operationalization of these objectives within existing accounting and reporting frameworks remains limited, as traditional fiscal metrics often fail to capture broader sustainability impacts.

This limitation is particularly evident in the context of national statistical authorities, such as ISTAT, which are required to apply standardized accounting rules while also responding to emerging demands for transparency, sustainability, and integrated performance evaluation (Mazzucato & Penna, 2016; OECD, 2020). The coexistence of these objectives creates tension between regulatory compliance and strategic value creation, highlighting the need for analytical approaches that bridge accounting, governance, and sustainability perspectives.

In this regard, systems thinking (ST) offers a valuable conceptual framework for addressing such complexity. By emphasizing interdependencies, feedback loops, and dynamic interactions, ST enables a more holistic understanding of PPPs as components of broader socio-economic systems (Meadows, 2008; Senge, 1990; Sterman, 2000). From this perspective, PPPs can be interpreted not only as financial or legal arrangements but as nodes within innovation ecosystems, where public institutions, private actors, and communities interact to co-create value over time. This approach allows for the integration of fiscal, social, and environmental dimensions, offering a bridge between traditional accounting practices and sustainability-oriented governance models.

Despite the richness of these contributions, the literature remains fragmented. Accounting studies tend to focus on compliance, fiscal indicators, and statistical classification, while governance and sustainability research emphasize stakeholder engagement, value co-creation, and long-term societal impact. Limited attention has been paid to how these dimensions interact, particularly regarding the role of statistical classification frameworks, such as ESA 2010, in shaping both fiscal representation and strategic policy choices.

Addressing this gap, the present study adopts an integrated perspective that combines public accounting, governance theory, and systems thinking. It aims to examine how ISTAT's classification of PPPs influences fiscal sustainability and transparency, while also exploring how PPPs can be reframed as systemic governance tools for the co-creation of sustainable value aligned with SDGs.

Methodology

This study adopts a qualitative research approach aimed at critically examining how the classification of public-private partnerships (PPPs), as implemented by ISTAT (Italian National Institute of Statistics), influences fiscal sustainability, transparency, and the representation of public accounts. The analysis focuses on the implications of PPP accounting treatment for public capital expenditure, public debt measurement, and the broader integration of sustainability considerations within statistical frameworks.

The research design is based on a single critical case study. ISTAT represents a relevant case due to its role in applying Eurostat guidelines within the Italian national accounts system, operating at the intersection of European regulatory requirements and domestic fiscal governance. This positioning

allows for an in-depth exploration of how statistical classification affects both financial reporting and policy interpretation.

Data collection relies on a systematic documentary analysis. Sources include ISTAT official publications, Eurostat methodological manuals, European Commission documents, and reports from international institutions such as the IMF and the OECD. The analysis also incorporates academic literature and policy studies relevant to PPP accounting and governance. The temporal scope spans 2010 to 2024, enabling examination of both the foundational framework and its recent developments.

To complement the case study, selected international examples—particularly from the United Kingdom and the Netherlands—are included as illustrative references. These cases provide additional insights into alternative approaches to PPP accounting and their alignment with innovation and sustainability-oriented governance models. Their purpose is not comparative generalization, but contextual enrichment.

Data analysis is conducted through qualitative thematic coding. Documents are examined to identify patterns, divergences, and relationships between accounting rules, fiscal outcomes, and sustainability considerations. To enhance analytical rigor and data management, NVivo software is used to support coding, categorization, and the identification of thematic linkages across sources.

In addition, the study integrates a systems-thinking perspective, enabling the interpretation of PPPs as complex systems of interactions among multiple actors, resources, and processes. A conceptual system model is developed to represent key stakeholders (such as public administrations, private entities, financial institutions, and communities), resource flows, risk allocation mechanisms, and feedback loops related to both fiscal sustainability and value creation. This model supports the qualitative analysis and is presented in the Results section as a visual representation of systemic dynamics.

The study does not include primary data collection, such as interviews or surveys, as it focuses on secondary documentary evidence and interpretative analysis. While this approach allows for a detailed examination of formal frameworks and institutional practices, it does not capture informal dynamics or stakeholder perceptions. Therefore, findings should be interpreted as analytically grounded rather than empirically exhaustive.

Results and discussion

Empirical results on PPP classification

The analysis of ISTAT's methodology for classifying public-private partnerships (PPPs) provides important insights into the relationship between accounting rules, fiscal transparency, and public debt representation. The application of ESA 2010 and Eurostat guidelines highlights the central role of the distinction between on- and off-balance-sheet classifications in shaping how public investments and liabilities are recorded. Between 2010 and 2024, ISTAT monitored 100 PPP projects, of which approximately 92% were classified as on-balance-sheet (Figure 1).

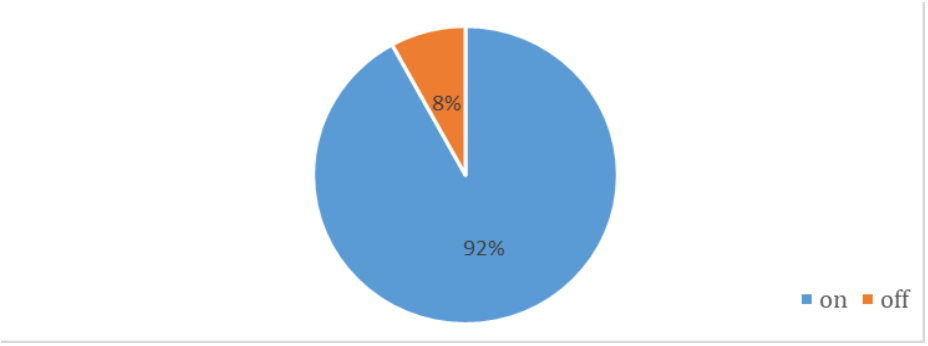

Figure 1. On/Off Classification of PPP Contracts
Source: Relazione DIPE, 2025, p.48

The public sector retains control over the asset and bears the majority of economic risks, including construction, demand, and availability risks. As a result, these projects are fully recorded within government accounts, contributing to both capital expenditure and public debt. This predominance reflects the structural characteristics of PPP contracts in Italy, many of which involve limited risk transfer to private partners.

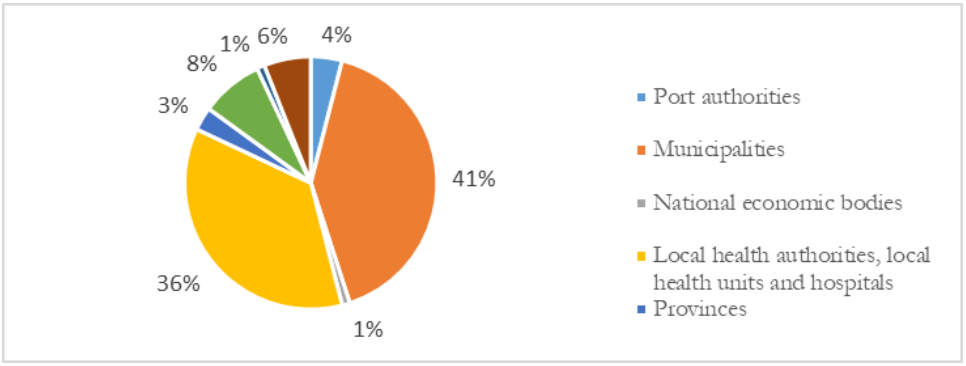

Figure 2. Monitored PPPs (2010-2024) distribution by "public" grantor
Source: Relazione DIPE, 2025, p.51

Figure 2 shows that PPP initiatives are largely concentrated among local authorities and municipalities, indicating a decentralized and fragmented governance structure. This is consistent with Figure 3, which highlights the prevalence of small and medium-sized projects, typically below €50 million.

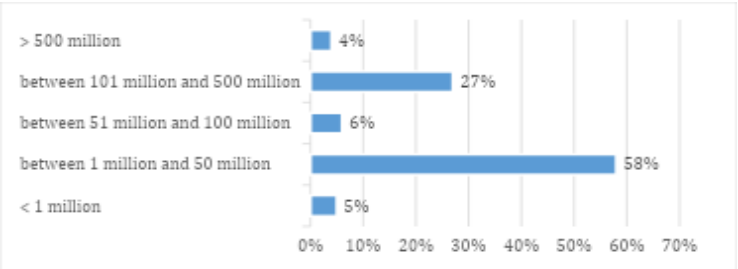

Figure 3. Contractual investment value (in value %)
Source: Relazione DIPE, 2025, p.52

The scale and institutional context of these projects make it difficult to implement contractual arrangements that meet the ESA 2010 criteria for off-balance-sheet classification. As a result, key risks—such as construction delays, demand variability, and service availability—are frequently retained by the public sector.

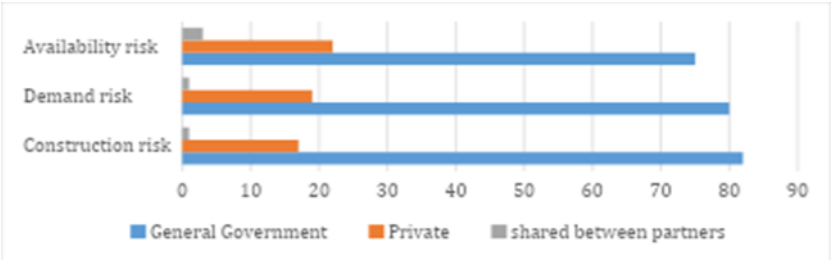

Figure 4. Distribution of risks between public and private partners for PPP contracts
Source: ISTAT elaborations – ISTAT data 2010–2024

This trend is further confirmed by Figure 4, which illustrates the distribution of risks between public and private partners. The evidence shows that demand, construction, and availability risks are predominantly borne by public authorities, suggesting limited risk transfer to private actors. This pattern provides a strong explanation for the high incidence of on-balance-sheet classifications and suggests that many PPP arrangements do not fully satisfy the conditions required for off-balance-sheet treatment under ESA 2010.

Discussion: fiscal implications and governance limits

These findings highlight a fundamental tension in PPP governance. On the one hand, the predominance of on-balance-sheet classification ensures a high level of fiscal transparency, enabling a comprehensive representation of public liabilities and enhancing accountability. On the other hand, this approach increases reported public debt and may constrain fiscal space under European budgetary rules such as the Stability and Growth Pact.

In contrast, off-balance-sheet classifications—while reducing short-term fiscal pressure—may create risks of opacity and underestimation of long-term commitments. International experiences, such as the London Underground PPP, demonstrate how such arrangements can obscure fiscal exposure and raise concerns regarding transparency and governance.

The Italian case suggests that PPPs are often structured in ways that prioritize compliance with accounting standards over effective risk transfer. The persistence of public-sector risk exposure raises concerns regarding value for money and challenges the theoretical rationale of PPPs as instruments for efficient risk-sharing. As a result, PPPs risk functioning more as accounting-compatible instruments than as true governance mechanisms for innovation and efficiency.

A systems thinking model: impact and value of PPP

To complement the statistical evidence, this study introduces a systems thinking model (Figure 5) as an interpretive framework. The model conceptualizes PPPs as socio-technical systems composed of interconnected actors, processes, and flows rather than as isolated contractual mechanisms.

The systemic mapping highlights two interrelated feedback structures.

The Fiscal Loop (reinforcing) illustrates how the statistical classification of PPPs (on- or off-balance sheet) directly influences reported debt, fiscal space, and the capacity for further public investments. Rigorous "on balance sheet" recording enhances transparency and accountability but may simultaneously constrain governments' investment capabilities under EU fiscal rules.

The Sustainability Loop (balancing) reflects how PPP outcomes—such as infrastructure quality, service accessibility, and environmental performance—generate long-term public value and

institutional legitimacy, while also creating new demands on fiscal and governance systems. For instance, improved infrastructure provision can enhance service delivery and social inclusion, yet insufficient risk transfer may increase contingent liabilities for the public sector.

This visual representation underscores that PPPs are embedded in multi-actor ecosystems where financial, regulatory, and social dynamics co-evolve. By integrating the system thinking model with ISTAT's classification data, the analysis illustrates the dual role of PPPs: as accounting entities within national accounts and as governance tools capable of co-creating sustainable value.

The model further highlights how interactions among public administrations, private operators, financial institutions, and local communities shape both fiscal outcomes and broader socio-economic impacts (OECD, 2020). In this sense, PPPs contribute not only to infrastructure provision but also to achieving sustainability objectives, including those aligned with the Sustainable Development Goals (SDGs).

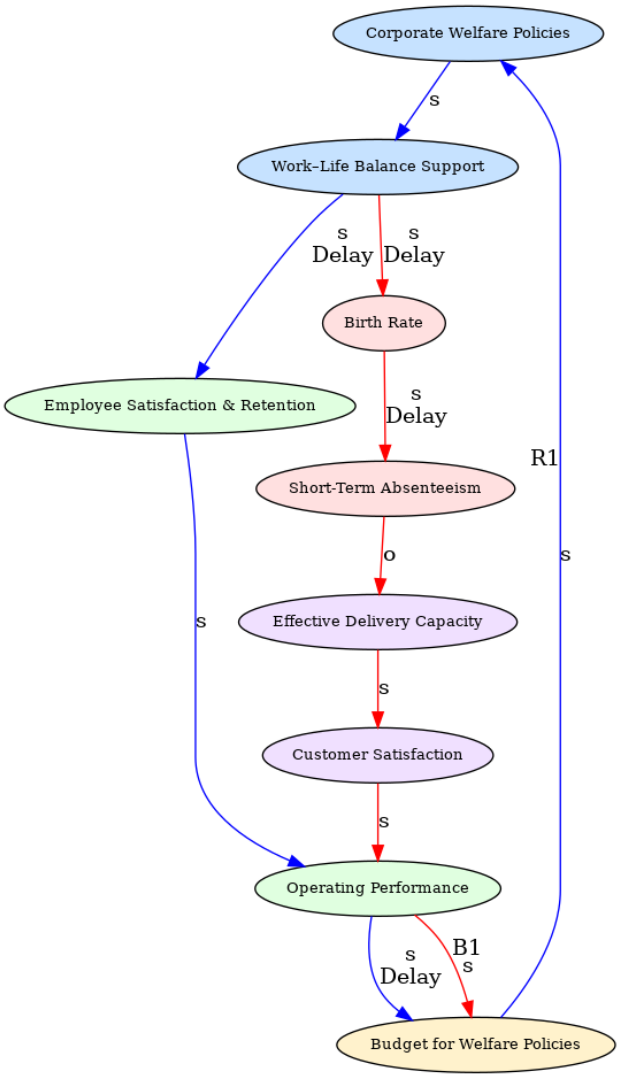

Figure 5. A systems thinking model of PPPs as multi-actor ecosystems
Source: Authors' elaboration.

Specifically, the reinforcing loop (R1) highlights how investments in organizational and service-support mechanisms within PPP frameworks can generate cumulative positive effects over time. Improvements in service quality, user satisfaction, and operational efficiency reinforce overall performance, which in turn supports further resource allocation and system strengthening, generating a virtuous cycle of value creation (Porter & Kramer, 2011).

Concurrently, the balancing loop (B1) captures a stabilizing dynamic within the system. As operating performance improves, resource allocation mechanisms—such as budgets and contractual adjustments—tend to stabilize rather than expand indefinitely. This balancing effect ensures that performance improvements translate into sustainable outcomes, preventing system imbalances and supporting long-term governance equilibrium (OECD, 2020).

A concrete example is represented by PPP-based healthcare infrastructure projects in Italy, where private partners are involved in the design, construction, financing, and non-clinical management of facilities, while public authorities retain responsibility for core services (Agenas, 2023). These arrangements illustrate how PPPs can integrate operational efficiency with service quality, long-term accessibility, and organizational performance outcomes.

From a broader perspective, such initiatives may also generate additional forms of public value, including improvements in service effectiveness, organizational efficiency, and user satisfaction, which can be interpreted within shared value and sustainability frameworks (Porter & Kramer, 2011). At the same time, they highlight the challenges of balancing risk allocation, fiscal constraints, and long-term value creation within complex governance systems (Italian Ministry of Health, 2024).

This empirical evidence supports the systemic dynamics outlined in the model, showing that PPPs can function not only as financial instruments but also as platforms for coordinated action across sectors, contributing to sustainable development when appropriately designed and governed.

Conclusions

This study examined how the statistical classification of public-private partnerships (PPPs) implemented by ISTAT within the ESA 2010 framework influences fiscal transparency, public debt representation, and the broader governance of public investments. By addressing this question, the research helps bridge the gap between traditional accounting approaches and emerging systemic perspectives on public sector innovation.

Research implications

This study contributes to the literature on PPPs by linking statistical classification methodologies (ESA 2010, Eurostat, ISTAT) with a systems thinking perspective (Sterman, 2000; Meadows, 2008). It demonstrates that PPPs should not be understood solely as accounting mechanisms, but rather as multi-actor socio-technical ecosystems embedded in complex governance structures (Mazzucato, 2018; Moore, 1995).

By introducing a systems thinking model, the research highlights the coexistence of fiscal and sustainability feedback loops, showing how accounting classifications influence not only financial indicators but also the capacity of PPPs to generate long-term public value (Meynhardt, 2019; Bryson et al., 2014). This conceptual integration advances current debates on public value, sustainability accounting, and innovation governance, offering a more comprehensive analytical framework for evaluating PPPs across both financial and socio-environmental dimensions.

Practical implications

For policymakers and practitioners, the findings underline the need to reconcile fiscal transparency with strategic sustainability. While on balance sheet classifications ensure compliance, comparability, and accountability, they may constrain fiscal space under European fiscal rules. Conversely, off-balance sheet treatments may reduce short-term fiscal pressure but risk obscuring long-term liabilities and weakening transparency.

In this context, integrating ESG and SDG-aligned indicators into PPP reporting frameworks is a key policy priority (OECD, 2020; European Commission, 2021). Such integration would provide decision-makers with multidimensional evaluation tools, supporting more informed project design, improved risk allocation, and enhanced monitoring of long-term outcomes.

Social implications

By reframing PPPs as governance tools for co-creating sustainable value, this study emphasizes their potential contribution to public trust, social inclusion, and environmental performance (Moore, 1995). The analysis shows that PPPs can enhance legitimacy when designed through participatory approaches, transparent risk allocation mechanisms, and impact-oriented evaluation frameworks.

Aligning PPP governance with broader sustainability agendas—such as the Sustainable Development Goals (SDGs) and the European Green Deal—would strengthen their role as instruments of territorial development and collective value creation, particularly in complex and resource-constrained public contexts.

Limitations and future research

This study is subject to several limitations. First, the analysis relies primarily on aggregated ISTAT monitoring data, which provides a macro-level perspective but does not capture the qualitative dynamics of individual PPP contracts. As a result, aspects such as negotiation processes, informal governance practices, and stakeholder interactions remain underexplored.

Second, the research adopts a qualitative and interpretative approach, which, while suitable for exploring complex governance dynamics, may benefit from complementary quantitative analyses.
Future research could address these limitations by developing in-depth case studies, applying system dynamics simulations, or conducting comparative analyses across European countries using harmonized datasets. In particular, further investigation into integrating ESG and SDG indicators into PPP evaluation frameworks could provide actionable guidance for both statistical authorities and policymakers.

References

Agenas. (2023). *Monitoring PPP-based hospital management models in Italy*. Agenzia Nazionale per i Servizi Sanitari Regionali.

Bebbington, J., Unerman, J., & O'Dwyer, B. (2017). *Sustainable development and accounting: Reporting, regulation and governance*. Routledge. https://doi.org/10.4324/9781315679760

Bianchi, C., Cosenz, F., & Marinković, M. (2020). A system dynamics approach to public value co-creation: Evidence from a public–private partnership in healthcare. *Public Management Review, 22*(11), 1621–1642. https://doi.org/10.1080/14719037.2019.1632924

Blanchard, O., Chouraqui, J. C., Hagemann, R. P., & Sartor, N. (1990). The sustainability of fiscal policy: New answers to an old question. *OECD Economic Studies, 15*(1), 7–36. https://doi.org/10.1787/eco_studies-v1990-art3-en

Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2014). Public value governance: Moving beyond traditional public administration and the new public management. *Public Administration Review, 74*(4), 445–456. https://doi.org/10.1111/puar.12238

Carnot, N., Koen, V., & Tissot, B. (2011). *Economic surveillance in the EU: From theory to practice*. Palgrave Macmillan.

Desrosières, A. (2003). *The politics of large numbers: A history of statistical reasoning*. Harvard University Press.

Escolano, J. (2010). *A practical guide to public debt dynamics, fiscal sustainability, and cyclical adjustment of budgetary aggregates* (IMF Technical Notes and Manuals No. 2010/02). International Monetary Fund. https://www.imf.org/external/pubs/ft/tnm/2010/tnm1002.pdf

European Central Bank. (2019). *Fiscal policy and the size of governments in the euro area* (ECB Economic Bulletin, Issue 6/2019). https://www.ecb.europa.eu/pub/pdf/ecbu/eb201906.en.pdf

European Commission. (2016). *Public-private partnerships in the EU: Widespread shortcomings and limited benefits* (Special Report No. 09). European Court of Auditors. https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=39744

European Commission. (2019). *Assessment of fiscal health and compliance with budgetary rules*. Publications Office of the European Union.

European Commission. (2020). *The EU's economic governance framework*. https://economy-finance.ec.europa.eu/economic-governance-framework_en

European Commission. (2021). *Smart cities and communities: Delivering sustainable urban development*. https://ec.europa.eu/info/news/smart-cities-and-communities-2021_en

European PPP Expertise Centre. (2018). *PPP knowledge lab*. https://pppknowledgelab.org

Eurostat. (2013). *European system of accounts: ESA 2010*. Publications Office of the European Union. https://ec.europa.eu/eurostat/web/esa-2010

Eurostat. (2014). *Manual on government deficit and debt: Implementation of ESA 2010* (2014 ed.). Publications Office of the European Union. https://ec.europa.eu/eurostat/documents/3859598/5925693/KS-GQ-14-010-EN.PDF

Grimsey, D., & Lewis, M. K. (2004). *Public private partnerships: The worldwide revolution in infrastructure provision and project finance*. Edward Elgar.

HM Treasury. (2018). *Public-private partnerships and innovation governance*. UK Government. https://www.gov.uk/government/publications/public-private-partnerships-and-innovation

Hodge, G., & Greve, C. (2017). On public–private partnership performance: A contemporary review. *Public Works Management & Policy, 22*(1), 55–78. https://doi.org/10.1177/1087724X16657830

International Monetary Fund. (2011). *Modernizing the framework for fiscal policy and public debt sustainability analysis*. https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Modernizing-the-Framework-for-Fiscal-Policy-and-Public-Debt-Sustainability-Analysis-PP4515

International Monetary Fund. (2015). *Making public investment more efficient* (IMF Policy Paper). https://www.imf.org/external/np/pp/eng/2015/061115.pdf

ISTAT. (2022). *Institutional sector classification*. Italian National Institute of Statistics.

ISTAT. (2025). *Monitoraggio delle operazioni di partenariato pubblico privato (PPP), 2010–2024*. Relazione DIPE. https://www.programmazioneeconomica.gov.it/media/xr4k2pbp/relazione-annuale-2025-attivita-ppp-2024.pdf

Italian Ministry of Health. (2024). *Report on the state of hospital care in Italy*. General Directorate for Health Planning.

Klijn, E. H., & Teisman, G. R. (2003). Institutional and strategic barriers to public–private partnership: An analysis of Dutch cases. *Public Money & Management, 23*(3), 137–146. https://doi.org/10.1111/1467-9302.00361

Laffan, B. (2014). Testing times: The growing primacy of responsibility in the euro area. *West European Politics, 37*(2), 270–287. https://doi.org/10.1080/01402382.2014.887873

Mazzucato, M. (2018). *The value of everything: Making and taking in the global economy*. Penguin.

Mazzucato, M., & Penna, C. (2016). Beyond market failures: The market creating and shaping roles of state investment banks. *Journal of Economic Policy Reform, 19*(4), 305–326. https://doi.org/10.1080/17487870.2016.1216416

Meadows, D. H. (2008). *Thinking in systems: A primer*. Chelsea Green Publishing.

Meynhardt, T. (2019). Public value: Turning a conceptual framework into a scorecard. In J. Benington & M. H. Moore (Eds.), *Public value: Theory and practice* (pp. 147–169). Palgrave Macmillan.

Moore, M. H. (1995). *Creating public value: Strategic management in government*. Harvard University Press.

OECD. (2020a). *Public-private partnerships: Infrastructure and local development*. OECD Publishing.

OECD. (2020b). *OECD review of the regulation of PPPs*. OECD Publishing. https://doi.org/10.1787/9789264301562-en

Pisani-Ferry, J. (2002). *Fiscal discipline and policy coordination in the eurozone: Assessment and proposals*. Groupement d'Études Prospectives Internationales.

Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard Business Review, 89*(1–2), 62–77.

Schick, A. (2002). The role of fiscal rules in budgeting. *OECD Journal on Budgeting, 2*(3), 7–34. https://doi.org/10.1787/budget-v2-art11-en

Schick, A. (2010). Post-crisis fiscal rules: Stabilising public finance while responding to economic aftershocks. *OECD Journal on Budgeting, 10*(2), 1–18. https://doi.org/10.1787/budget-10-5km7rqpkqk7g

Searcy, C. (2016). Measuring enterprise sustainability. *Business Strategy and the Environment, 25*(2), 120–133. https://doi.org/10.1002/bse.1861

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. Doubleday.

Sterman, J. D. (2000). *Business dynamics: Systems thinking and modeling for a complex world*. Irwin/McGraw-Hill.
Swedish National Financial Management Authority. (2022). *Integrated reporting and ESG metrics in public finance*. https://www.esv.se/
Ter-Minassian, T. (2010). *Managing fiscal risks in public–private partnerships*. IMF Technical Notes and Manuals. https://doi.org/10.5089/9781462381281.005
United Nations Development Programme. (2019). *Guidance note on public–private partnerships for SDGs*. UNDP.
Yescombe, E. R. (2017). *Public-private partnerships: Principles of policy and finance* (2nd ed.). Butterworth-Heinemann.

Received: September 25, 2025
Revised: February 20, 2026
Accepted: February 25, 2026