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Financing The Future: Rethinking Public Investment In An Era Of Fiscal Uncertainty And Sustainable Development

Muhammad Ario Permadi
Master of Accounting Science Program, Sriwijaya University, Indonesia
Luk Luk Fuadah
Department of Accounting, Sriwijaya University, Indonesia

Corresponding Author: ario.permadi28@gmail.com

Abstract

This study examines public investment financing amid fiscal uncertainty and sustainable development through a Systematic Literature Review (SLR) approach. A total of 50 international journal articles published between 2021 and 2026 were analyzed using the PRISMA framework. The findings highlight four interconnected dimensions: fiscal sustainability and investment financing, the contribution of public investment to economic growth and productivity, institutional governance and resource allocation, and sustainable development. The synthesis indicates that public investment can strengthen economic capacity, stimulate private sector participation, and improve social welfare when supported by effective financing strategies and institutional governance. However, fiscal constraints, public debt pressures, economic uncertainty, and investment inefficiencies remain significant challenges. This study contributes to public finance literature by integrating fiscal sustainability, investment efficiency, and intergenerational development into a comprehensive understanding of public investment financing.

Keywords: Public Investment, Fiscal Uncertainty, Fiscal Sustainability, Economic Growth, Public Finance, Sustainable Development.

INTRODUCTION

Public investment occupies a strategic position in development because it determines the availability of infrastructure, service quality, productivity, and the government's ability to drive

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long-term economic activities in the short term as well as throughout the national development cycle. In the midst of fiscal uncertainty, decisions to finance government projects are not only judged by the size of the budget, but also by economic benefits, implementation capacity, and consequences for debt and fiscal space. Empirical evidence suggests that government investment can support debt sustainability, but the outcome depends on the composition of spending and the effectiveness of fiscal policies (Ciaffi et al., 2024; Blesse et al., 2026; Gurara et al., 2021).

A key issue arises when development needs increase while the government's fiscal capacity is limited and financing costs face changing economic conditions. Fiscal rules can maintain budgetary discipline, but their implementation has the potential to limit capital expenditure if public investment is not appropriately treated within the framework of deficit control. In addition, project delays and weak absorption capacity can reduce the benefits of allocated spending. Therefore, the quality of planning, certainty of implementation from the planning stage to the gradual completion of the project, and policy flexibility need to be considered along with fiscal discipline (Mancini & Tommasino, 2023; Espinoza & Presbitero, 2022; Blesse et al., 2026).

The impact of public investment also extends beyond government administrative boundaries as infrastructure, energy, transportation, and basic services shape a company's operating environment. International companies that manage cross-border supply chains consider infrastructure quality, policy stability, and financing certainty when determining production locations and capital expansion. Government investment can complement private capital, but the relationship is not automatically uniform across countries or sectors. Cross-border evidence shows that the influence of public investment on private capital formation is heterogeneous and can change according to global economic conditions (Francois et al., 2026; Carvelli, 2024; Jalles et al., 2024).

The influence of public investment on growth is determined not only by the amount of funds spent, but also by the productivity of assets and the ability of institutions to manage projects. When absorption capacity is low, budget increases can drive up project costs without generating comparable additional output . Conversely, efficiently managed investments have the potential to magnify fiscal multipliers and encourage private investment. These differences in quality explain why projects with similar budget values can produce different development outcomes between regions and between countries in the medium and long term (Ardanaz et al., 2025; Gurara et al., 2021; Adarov & Panizza, 2026).

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Economic and geopolitical uncertainty increasingly challenges the sustainability of development finance, especially in long-term projects such as renewable energy and low-carbon infrastructure. Governments need to balance these investment needs with debt risks, revenue changes, and the ability to maintain fiscal credibility. Green investment programs can even influence market perceptions of state risks, so financing design and project quality are important considerations. At the same time, uncertainty can alter public and private investment responses and the effectiveness of economic buffer policies in various jurisdictions (Alessi et al., 2025; Yuen & Yuen, 2024; Cusato Novelli & Barcia, 2021).

The governance dimension is becoming increasingly important as public investment decisions involve project selection, procurement, partnerships, oversight, and accountability for the use of funds. Public-private partnership schemes can expand infrastructure financing, but still require transparent risk sharing and fiscal liability. Without adequate evaluation and monitoring, subsidies or investment contracts risk being off-target and not generating optimal social benefits. Therefore, institutional accountability needs to go hand in hand with assessments of economic feasibility and fiscal sustainability throughout the government project cycle (Wang et al., 2025; Kállay & Takács, 2023; Peng et al., 2024).

Based on these developments, a systematic review is needed to understand how public investment financing can be designed in the midst of fiscal uncertainty while supporting sustainable development. The literature has reviewed fiscal rules, debt, investment multipliers, efficiency, partnerships, and green investments, but these findings are scattered across diverse contexts of country, sector, and analytical approaches. This Systematic Literature Review (SLR) brings together this evidence to map financing mechanisms, determinants of effectiveness, fiscal risk, and governance implications, as well as identify research gaps for contemporary future public investment agendas (Paczos et al., 2023; Jalles, 2026; Zhang et al., 2025).

LITERATURE REVIEW

Public Finance Theory

Public finance theory explains the role of governments in allocating resources, distributing benefits, and stabilizing the economy through budgetary policies. In public investment, this theory helps explain why governments finance infrastructure, basic services, and productive projects by considering revenue limitations. Investment is understood as an instrument to improve welfare, not just spending. This framework is relevant for reading the relationship

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between spending decisions, economic benefits, and the distribution of development outcomes under various fiscal conditions (Goemans, 2023; Su & Nguyen, 2021; Tamai, 2023).

The allocation function directs the government to select projects based on social benefits and productivity, while the stabilization function places investment in response to an economic slowdown. The distribution function pays attention to the equitable distribution of benefits between groups and regions. These three functions provide a basis for assessing whether public spending responds to community needs and generates long-term benefits. In the mapped literature, the discussion of public investment is also related to services, benefit distribution, and the determination of government policy priorities (Kállay & Takács, 2023; Wu et al., 2024; Goemans, 2023).

Public Investment Financing and Fiscal Sustainability

Fiscal sustainability is related to the ability of governments to finance current obligations without reducing capacity to meet future needs. In public investment, this concept includes the management of debt, deficit, revenue, and fiscal space to finance productive projects. Increases in capital expenditure need to be assessed alongside economic benefits and financing consequences, as increased economic activity does not necessarily generate sufficient government revenues to cover the cost of investment in the long term in a sustainable manner (Bajaña-Villagómez & García-Albán, 2025; Tamai, 2023; Su & Nguyen, 2021).

Fiscal uncertainty arises when changes in economic conditions and financing capabilities make it difficult for governments to estimate budget capacity. These situations can affect project priorities, funding costs, and investment sustainability. Public debt can also support development financing, but its impact on renewable energy investment depends on debt levels and financial conditions. Therefore, financing decisions need to consider fiscal risks as well as long-term development needs consistently in the future (Kushawaha & Jain, 2025; Bajaña-Villagómez & García-Albán, 2025; Tamai, 2023).

Public Investment Efficiency and Economic Growth

The effectiveness of public investment shows the ability of government spending to generate infrastructure, services, and productivity increases according to the resources used. The assessment includes the quality of project planning, execution, and supervision. Investments that are not appropriately managed can reduce economic and social benefits even though budgets

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have been provided. Therefore, evaluations do not focus enough on the amount of funds, but need to pay attention to the outputs and benefits generated for society in a measurable and comprehensive manner (Kállay & Takács, 2023; Goemans, 2023; Wu et al., 2024).

Public investment can influence the formation of private capital through the provision of infrastructure, increased productivity, and decreased operating costs. The relationship is called crowding-in when government spending drives corporate investment. However, the impact can differ according to economic conditions, sectors, and institutional characteristics. In addition, the response of private investment to changes in government investment is not always the same as when investment increases or decreases, so the relationship between the two needs to be understood dynamically at the corporate level (Carvelli, 2024; Su & Nguyen, 2021; Miyazaki et al., 2024).

Public Investment Governance and Sustainable Development

Public investment governance includes rules, institutions, transparency, accountability, and project selection and oversight mechanisms. The quality of governance influences how investment decisions are made and who benefits from them. Political interests, the tenure of officials, and competition between regions can shape the distribution of infrastructure investments. Public attention also has the potential to influence a company's green investment decisions, so public oversight plays a part in encouraging the responsible use of resources (Wu et al., 2024; Xie & Ying, 2025; Su & Nguyen, 2021).

Sustainable development places investment as a means of meeting economic and social needs while protecting the environment for future generations. Financing of renewable energy, green investment, and health services shows that the benefits of investment are not limited to economic growth. Policy assessments need to pay attention to long-term impacts, equitable distribution of benefits, and people's responses to government and corporate decisions. Thus, sustainability is an important consideration in determining investment direction and priorities (Kushawaha & Jain, 2025; Xie & Ying, 2025; Goemans, 2023).

METHOD

This study uses the Systematic Literature Review (SLR) method with the framework of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) to examine the development of public investment financing studies in the face of fiscal uncertainty and

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sustainable development demands. This approach was chosen because it allows the process of identification, selection, assessment, and synthesis of literature to be carried out in a structured, transparent, consistent, traceable, and replicated manner. The focus of the study is directed at financing linkages, fiscal capacity, investment effectiveness, governance, and sustainability impacts across countries and development sectors.

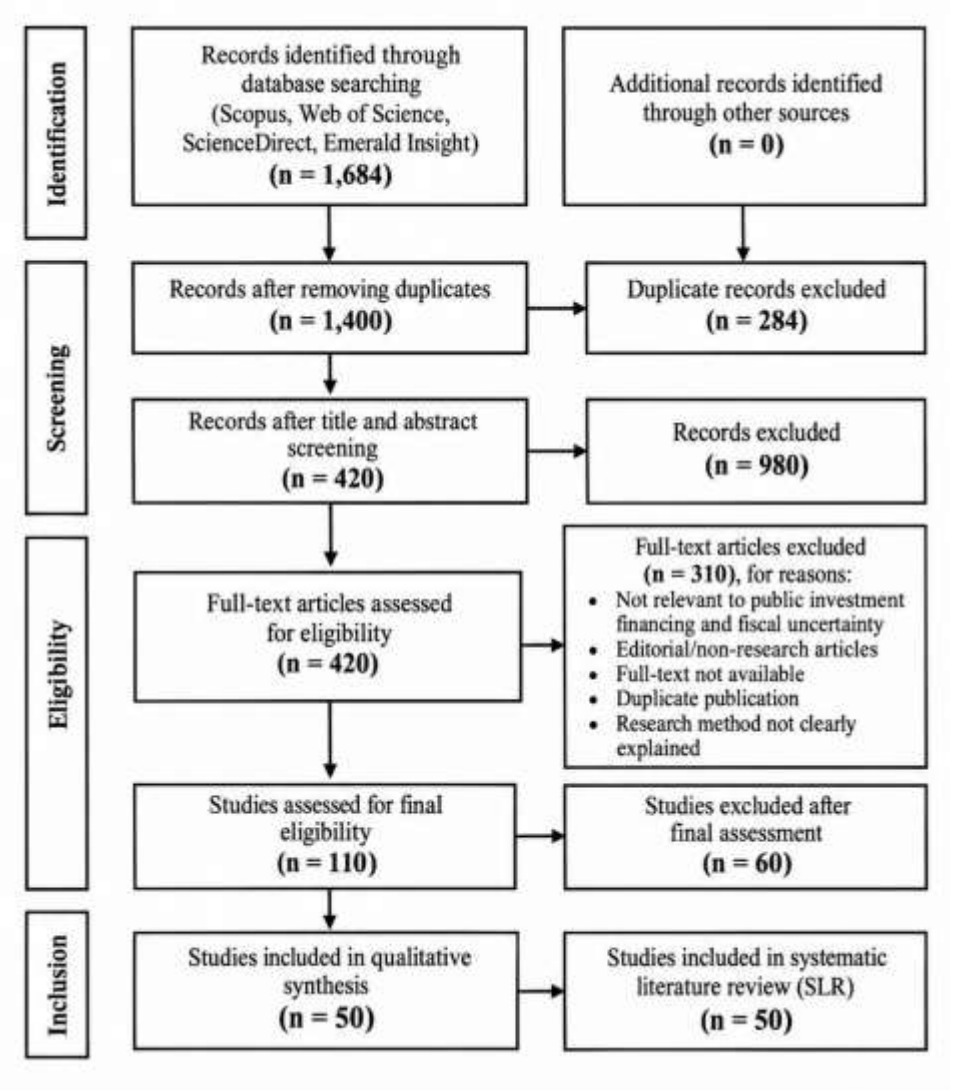
The literature that is the target of the study is limited to international scientific articles published during 2021–2026 and discusses public investment, government financing, fiscal sustainability, capital expenditure efficiency, investment governance, and sustainable development. The scope also considers research on the relationship between government investment and private capital, infrastructure, renewable energy, education, health, and productivity. Empirical and conceptual articles are considered as long as they make a clear contribution to the understanding of financing mechanisms and public investment outcomes in various institutional and national economic contexts.

Literature searches were designed using a combination of English-language keywords, including "public investment", "public investment financing", "fiscal uncertainty", "fiscal sustainability", "public debt", "investment efficiency", "public investment governance", and "sustainable development". Searches were planned on academic databases such as Scopus, Web of Science, ScienceDirect, and Emerald Insight. Inclusion criteria included peer-reviewed journal articles, established publication ranges, relevance to the focus of the study, and availability of bibliographic information and manuscripts for evaluation. Duplications and publications outside the scope were excluded.

To illustrate the selection flow, a PRISMA recording scenario was used that ended with 50 selected articles. The calculation illustration started from 1,684 records of search results; 284 duplicates were removed so that 1,400 records remained for title and abstract screening. A total of 980 records were issued, leaving 420 reports for full-text assessment. At this stage, 310 reports did not meet the criteria, while 110 articles were assessed for feasibility. After 60 articles were issued through the final assessment, 50 articles were included in the final synthesis of the research in a thematically integrated manner.

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Source : Data processed, 2026

Figure 1. PRISMA Flow Diagram

Figure 1 shows the stages of literature selection starting from record identification, elimination of duplication, screening of titles and abstracts, examination of complete manuscripts, to determination of included articles. The flow illustrates the application of the PRISMA principle to maintain traceability of selection decisions. The fifty selected articles then became the basis for mapping the characteristics of the publication, research approach, financing themes, fiscal uncertainty factors, governance, investment effectiveness, and their contribution

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to sustainable development in various country and sector contexts relevant to the questions and objectives of this research.

RESEARCH RESULTS

Based on the results of the literature selection, this study analyzed the characteristics of 50 international journal articles that became the basis for the Systematic Literature Review (SLR) study. The analysis was conducted to identify research patterns based on the quality of the journals, the theories used, the distribution of the research countries, and the research methods applied. This study focuses on the development of research on the implementation of risk-based audits, public sector audit standard reform, factors that affect audit quality, and the contribution of risk-based audit approaches to improving the quality of government audit opinions.

Table 1. Journal Index Distribution

Journal Index	Number of Articles	Percentage
Scopus Q1	28	56,00%
Scopus Q2	13	26,00%
Scopus Q3	6	12,00%
Scopus Q4	3	6,00%
Total	**50**	**100%**

Source : Data processed, 2026

Based on Table 1, the distribution of publications shows that 28 articles (56.00%) are in the Scopus Q1 journal, while 13 articles (26.00%) are included in the Q2 group. Publications in Q3 and Q4 include 6 articles (12.00%) and 3 articles (6.00%) respectively. Thus, as much as 82.00% of the literature comes from Q1 and Q2 journals. The composition shows that the study of public investment financing has the support of literature from high-reputable journals, especially in the discussion of fiscal policy, productive investment, and sustainable development.

Table 2. Distribution of Research Theories

Theory	Number of Articles	Percentage
Public Finance Theory	9	18,00%
Keynesian Theory	8	16,00%
Endogenous Growth Theory	7	14,00%
Fiscal Sustainability Theory	6	12,00%

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Theory	Number of Articles	Percentage
Institutional Theory	5	10,00%
Political Economy Theory	4	8,00%
Agency Theory	3	6,00%
Sustainable Development Theory	3	6,00%
Real Options Theory	3	6,00%
Crowding-in Theory	2	4,00%
Total	**50**	**100,00%**

Source : Data processed, 2026

Based on Table 2, Public Finance Theory is the theoretical foundation with the largest proportion, namely 9 articles (18.00%). The dominance of this theory shows the importance of the government's role in allocating resources, determining spending priorities, and maintaining economic stability through public investment. Furthermore, Keynesian Theory is used in 8 articles (16.00%) to explain the role of government spending in driving aggregate demand and economic recovery. Meanwhile, 7 articles (14.00%) explain the contribution of infrastructure investment, human capital, and productivity to long-term economic growth.

Overall, the distribution theory shows that public investment financing is not only concerned with government spending policy, but also involves debt sustainability, institutional quality, and long-term economic decisions. Fiscal Sustainability Theory is used to explain the government's ability to maintain financing without disrupting fiscal stability. Meanwhile, Institutional Theory and Political Economy Theory help explain the influence of institutions and political interests on investment allocation. The Sustainable Development Theory, Real Options Theory, and Crowding-in Theory expand the discussion of environmental benefits, investment decisions in uncertainty, and the relationship between government investment and private capital formation.

Table 3. Distribution of Research Countries

Country	Number of Articles	Percentage
China	9	18,00%
United States	7	14,00%
Japan	5	10,00%
India	4	8,00%

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Country	Number of Articles	Percentage
Germany	3	6,00%
France	3	6,00%
Italy	3	6,00%
English	3	6,00%
Ecuador	2	4,00%
Mexico	2	4,00%
Indonesia	2	4,00%
Malaysia	2	4,00%
South Korea	2	4,00%
Australia	2	4,00%
Brazil	1	2,00%
Total	**50**	**100,00%**

Source : Data processed, 2026

Based on Table 3, the distribution of the research countries shows that the study of public investment financing develops in various economic and institutional environments. China is the country with the largest research contribution with 9 articles (18.00%), followed by the United States with 7 articles (14.00%) and Japan with 5 articles (10.00%). India contributes 4 articles (8.00%), while Germany, France, Italy, and the United Kingdom each contribute 3 articles (6.00%). The composition shows attention to investment policies, government financing, and economic productivity in various country characteristics.

Meanwhile, contributions from Ecuador, Mexico, Indonesia, Malaysia, South Korea, Australia, and Brazil show that public investment financing issues are also relevant at different levels of economic development. Differences in fiscal capacity, industrial structure, institutional quality, and development needs can result in different financing patterns and investment priorities. The spread of the research shows the importance of a cross-border approach to understanding how governments deal with fiscal uncertainty, sustain productive investments, and integrate sustainable development needs into national economic policies.

Table 4. Distribution of Research Methods

Research Methods	Number of Articles	Percentage
Quantitative	38	76,00%

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Research Methods	Number of Articles	Percentage
Qualitative	5	10,00%
Mixed Methods	3	6,00%
Conceptual and Literature Review	4	8,00%
Total	**50**	**100,00%**

Source : Data processed, 2026

Based on Table 4, the majority of articles used a quantitative approach of 38 articles (76.00%). The dominance of this method shows that public investment research tests the relationship between variables using economic, financial, corporate, and government data through statistical analysis. This approach allows researchers to evaluate the influence of government investment on economic growth, public debt, productivity, and private capital formation. Meanwhile, a qualitative approach of 5 articles (10.00%) was used to understand financing policies, governance, and investment decision-making processes in different institutional contexts.

The Mixed Methods approach was used in 3 articles (6.00%) to combine empirical testing with contextual understanding, while the Conceptual and Literature Review included 4 articles (8.00%) to develop a framework of thought and synthesize research developments. The composition shows that public investment financing studies are still dominated by empirical testing, especially in identifying the relationship between fiscal policy and investment outcomes. However, qualitative and conceptual approaches are still needed to explain institutional factors, financing risks, and sustainability considerations that cannot be fully represented through quantitative indicators.

Table 5. Distribution of Research Sectors

Research Object/Sector	Number of Articles	Percentage
Non-Financial Public Company	9	18,00%
Infrastructure and Transportation	8	16,00%
Energy and Renewable Energy	7	14,00%
Cross-Sector Macroeconomic Public Investment	6	12,00%

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Research Object/Sector	Number of Articles	Percentage
Government-Private Partnerships	5	10,00%
Agriculture and Food Security	4	8,00%
Education and Human Capital Development	3	6,00%
Public Services and Local Government	3	6,00%
Banking and Financial Institutions	3	6,00%
Health and Healthcare Services	2	4,00%
Total	**50**	**100,00%**

Source : Data processed, 2026

Based on Table 5, the research object with the largest contribution came from non-financial public companies with 9 articles (18.00%). This shows that public investment is related to the company's investment decisions, productivity, and business environmental conditions. Furthermore, the infrastructure and transportation sectors cover 8 articles (16.00%), while energy and renewable energy are 7 articles (14.00%). The dominance of these three groups shows the importance of government investment in supporting the formation of productive assets, strengthening company activities, and providing infrastructure that supports economic growth.

In addition, 6 articles (12.00%) discussed public investment in a cross-sectoral macroeconomic context, while government-private partnerships included 5 articles (10.00%). Research on agriculture and food security as many as 4 articles (8.00%) showed the importance of investment in supporting productivity and food supply stability. Meanwhile, education, public services, banking, and health showed that government investment also contributes to improving the quality of human resources and community welfare. Overall, the distribution of the research sector shows that public investment financing has a wide scope, both in corporate activities and in the provision of social services.

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Table 6. Main Research Results

Main Research Results	Number of Articles	Percentage
Public investment drives economic growth and increases productive capacity in the long run.	10	20,00%
Fiscal sustainability, debt management, and financing capacity determine the sustainability of government investment.	9	18,00%
Public investment can encourage the formation of private capital through crowding-in mechanisms.	8	16,00%
Allocation efficiency, capital productivity, and absorption capacity determine the results of public investment.	7	14,00%
The quality of governance and institutions affect the effectiveness of decisions and the implementation of investments.	6	12,00%
Green investment and renewable energy support sustainable economic transformation.	5	10,00%
Financing policies and economic uncertainty affect the government's investment priorities and response.	3	6,00%
Investment in public services increases social benefits and community welfare.	2	4,00%
Total	**50**	**100,00%**

Source : Data processed, 2026

Based on Table 6, the main research results show that public investment and economic growth are the themes of the largest findings, namely 10 articles (20.00%). These findings show that government spending on infrastructure, human capital, and the productive sector has the potential to increase economic capacity in the long term. Furthermore, as many as 9 articles

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(18.00%) emphasize the importance of fiscal sustainability, debt management, and government financing ability in sustaining investment. Meanwhile, 8 articles (16.00%) show the relationship between public investment and private capital formation through crowding-in mechanisms, especially when government investment is able to improve infrastructure and the environment of business activities.

In addition, 7 articles (14.00%) placed allocation efficiency, capital productivity, and absorption capacity as determining factors for the success of public investment. The quality of governance and institutions was discussed in 6 articles (12.00%), which showed that investment effectiveness was also influenced by transparency, regulatory quality, and supervisory mechanisms. Furthermore, 5 articles (10.00%) highlighted green investment and renewable energy as part of sustainable economic transformation. The findings show that the orientation of public investment increasingly pays attention to the balance between economic productivity and environmental protection.

Overall, the synthesis results show that public investment financing requires an approach that integrates fiscal capacity, spending effectiveness, and institutional quality. Economic uncertainty can affect financing priorities and project sustainability, so governments need to consider debt risks and investment benefits simultaneously. In addition, investment in public services shows that development success is not measured by economic growth, but also through improved welfare and equitable distribution of benefits. Thus, future public investment financing needs to be directed towards productive projects, accountable governance, and the achievement of sustainable development goals.

DISCUSSION

1. Public Investment Financing and Fiscal Resilience in the Face of Economic Uncertainty

Public investment financing is the process of providing and managing government financial resources to build assets, expand services, and increase the productive capacity of the economy. This financing can be sourced from state revenues, loans, debt issuance, or cooperation with the private sector. The choice of source of funds not only determines the availability of the budget, but also affects costs, risks, responsibility sharing, and project sustainability. Therefore, investment decisions need to consider long-term economic benefits as well as the government's ability to fulfill its financing obligations responsibly in various national economic conditions (Ciaffi et al., 2024; Carvelli, 2024; Goemans, 2023).

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Within the framework of Public Finance Theory, the role of government in investment can be understood through allocation, distribution, and stabilization functions. The allocation function directs resources towards infrastructure and services that the market cannot always adequately provide; the distribution function considers the equitable distribution of benefits between groups and regions; while the stabilization function uses fiscal policy to respond to changes in economic activity. This framework places public investment as a resource use decision that must be assessed based on social needs, budget capacity, and consequences, not solely the amount of government spending (Su & Nguyen, 2021; Bajaña-Villagómez & García-Albán, 2025; Dissou & Ma, 2026).

Economic uncertainty makes public investment financing planning facing changes in revenues, borrowing costs, exchange rates, and spending needs that are difficult to estimate. When fiscal space narrows, governments may delay projects, reduce the scale of investment, or shift budgets toward needs. However, over-adjusting risks weakening infrastructure provision and lowering productive benefits in the future. Therefore, investment sustainability requires fiscal risk assessments, measurable project selection, and financing strategies that are adaptive to changing economic conditions and government budget pressures (Kushawaha & Jain, 2025; Blesse et al., 2026; Mancini & Tommasino, 2023).

Debt management is an important part because financing through loans can accelerate the provision of public assets, but at the same time increase payment obligations in the following period. Debt decisions need to consider project productivity, benefit period, funding costs, and budget ability to pay principal and interest. Well-designed investments have the potential to strengthen economic capacity, while projects with low benefits can narrow fiscal space and burden future budgets. Thus, financing discipline needs to go hand in hand with careful evaluation of benefits, fiscal risk control, and careful long-term liability planning (Jalles, 2026; Adarov & Panizza, 2026; Tamai, 2026).

Overall, financing public investment in conditions of economic uncertainty demands a balance between development needs, fiscal capabilities, and the quality of project choices. Governments need to maintain budget flexibility without neglecting debt discipline, and prioritize investments that generate economic, social, and environmental benefits in a sustainable manner. Strengthening policy credibility, risk management, and consistency of priorities can help maintain investor confidence and the sustainability of development programs. This direction confirms that fiscal resilience is not just a spending constraint, but a

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basis for productive and future-oriented public investment (Xie & Ying, 2025; Yuen & Yuen, 2024; Alessi et al., 2025).

2. Contribution of Public Investment to Economic Growth and National Productivity Increase

Economic growth is not only determined by the amount of production activity, but also by the availability of infrastructure, the quality of public services, and the productive capacity that supports people's activities. Public investment plays a role in providing the foundation through the development of transportation, education, social facilities, and supporting means of business activities. When resources are allocated to the right projects, economic costs can be reduced, connectivity increases, and the productivity of various sectors is boosted. Therefore, the contribution of government investment needs to be assessed from the ability to create sustainable production capacity, not solely increase spending (Chatterjee et al., 2021; Petrović et al., 2021; Papagni et al., 2021).

Within the framework of Public Finance Theory, government investment is understood as an instrument of resource allocation to provide public goods, correct market failures, and strengthen economic capacity whose benefits go beyond private interests. Capital expenditure produces positive externalities when infrastructure increases the productivity of firms and households. However, these benefits depend on the selection of projects, the quality of implementation, and the suitability of financing. Thus, measures of fiscal success do not stop at budget absorption, but rather include the social value of the community resulting from the effective use of public funds (Jalles et al., 2024; Paczos et al., 2023; Ardanaz et al., 2025).

The impact of public investment on growth is also formed through its relationship with private sector decisions. Adequate infrastructure, access to services, and certainty of basic facilities can reduce operational costs and open up business opportunities, so that companies are encouraged to increase production capacity. This relationship shows that government spending does not always replace corporate investment; under certain conditions, public investment complements private capital and strengthens domestic national economic activity. The magnitude of this influence is still influenced by market structure, type of public assets, and macroeconomic conditions that influence investment decisions (Francois et al., 2026; Matvejevs & Tkacevs, 2025; Pallante et al., 2023).

National productivity is also influenced by the composition of investment and the distribution of benefits between sectors. Spending on education and human capital formation

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can strengthen labor skills, while agricultural investment and supporting infrastructure increase the production capacity and resilience of the national real sector. In addition, differences in the characteristics of public and private enterprises affect capital formation and government policy responses. Therefore, investment evaluation needs to pay attention to the linkages between physical assets, the quality of human resources, and the capacity of economic actors to transform public support into increased output (Liu et al., 2024; Kamenya et al., 2022; Feldman et al., 2021).

Overall, the contribution of public investment to national economic growth and productivity is determined by the government's ability to direct financing to the sectors that generate the most long-term benefits. Increased spending does not automatically create growth when projects are less productive, late, or not in line with economic needs. Instead, selectively planned investments can strengthen production capacity, support innovation, and expand corporate involvement in economic activities. Therefore, investment policies need to link development priorities to consistently evaluate results and the quality of implementation (Espinoza & Presbitero, 2022; Zhang et al., 2025; Wang et al., 2025).

3. Governance and Effectiveness of Resource Allocation in Government Investment Management

Government investment governance is a set of rules, processes, and responsibilities that direct the use of the budget from the determination of needs to the evaluation of project results. The management determines who sets priorities, how resources are allocated, and the mechanisms that ensure implementation according to development goals. The effectiveness of allocation is not only measured by the amount of funds absorbed, but also by the suitability of the project with the needs of the community, the quality of implementation, and the benefits generated. Thus, governance becomes the link between fiscal decisions and the achievement of public investment results (Peng et al., 2024; Kállay & Takács, 2023; Wu et al., 2024).

Within the framework of Public Finance Theory, governments allocate resources to provide public goods, correct market failures, and ensure that development benefits do not only follow people's ability to pay. This principle requires investment decisions to consider social benefits, opportunity costs, impact distribution, and budget constraints. Efficient allocation means choosing projects with the greatest public contribution over other alternatives to the use of funds. Therefore, investment assessments need to link fiscal

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priorities to social and economic outcomes, not solely administrative interests or absorption targets (Saccone et al., 2022; Li et al., 2023; Takahashi et al., 2025).

Institutional quality influences the project decision-making process because investment decisions take place in an environment involving political interests, unbalanced information, and different administrative capacities. Without adequate transparency and oversight, allocations can shift from productive needs to projects that are more beneficial to specific groups. Open planning, consistent selection criteria, and independent evaluation help limit such deviations. Thus, governance is not a procedural complement, but rather a factor that determines whether capital expenditure produces measurable and proportionately dispersed benefits (Wang & Xia, 2022; Gu et al., 2021; Xie & Ying, 2025).

The effectiveness of management depends on the government's ability to adjust the scale and timing of investment to economic conditions and implementation capacity. Projects that are too large compared to absorption capacity can experience delays, cost overruns, or a decline in the quality of results. Conversely, good coordination between planning, procurement, financing, and monitoring can increase spending productivity. Governments need to assess risks from an early stage, update information during implementation, and compare results with the initial objectives so that corrective decisions are made before the benefits of the project are eroded, while maintaining public confidence in budget management (Gurara et al., 2021; Miyazaki et al., 2024; Kanazawa, 2021).

Overall, governance and the effectiveness of resource allocation determine the government's investment ability to transform budgets into valuable assets for communities. A strong management framework needs to bring together development priorities, decision transparency, risk control, and benefit evaluation throughout the project cycle. Such an approach is important when governments work closely with the private sector or face financing changes, as the division of responsibilities must remain clear and measurable. Thus, institutional quality and implementation discipline are prerequisites for public investment to be productive, adaptive, and sustainable (Baussola & Carvelli, 2023; Dissou & Ma, 2026; Jalles et al., 2024).

4. Integration of Public Investment in Realizing Sustainable Development and Welfare of Future Generations

Sustainable development is the process of meeting the needs of today's society while maintaining the ability of future generations to meet their own needs. In the context of public

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investment, this goal requires governments to consider economic, social, and environmental impacts when determining projects and sources of financing. Infrastructure, energy, education, health, and agriculture need to be seen as interrelated parts in shaping long-term prosperity. Therefore, investment success is not enough to judge from output growth, but also from environmental resilience and equitable distribution of development benefits in a sustainable manner (Yuen & Yuen, 2024; Kamenya et al., 2022; Takahashi et al., 2025).

Within the framework of Public Finance Theory, public investment is an instrument for allocating resources to provide goods and services that generate social benefits beyond individual benefits. Governments need to take into account externalities, benefit distribution, and opportunity costs when choosing projects. This perspective also places the interests of future generations in fiscal decisions, as assets built today can create benefits and liabilities in the future. Thus, sustainable financing requires a comprehensive assessment of social benefits, environmental costs, and fiscal viability over the life of the project in a measurable manner (Tamai, 2023; Li et al., 2023; Sánchez et al., 2022).

The environmental dimension is increasingly important because investment choices determine the direction of energy use, production patterns, and the region's resilience to climate change. Government support for renewable energy and clean technology research can accelerate transformation when private financing is inadequate or faces high risks. However, such decisions still need to take into account geopolitical uncertainty, public sentiment, and financing conditions so that projects do not stop at initial commitments. The integration of environmental considerations in fiscal planning helps direct capital towards more resilient and low-emission activities (Pallante et al., 2023; Kushawaha & Jain, 2025; Xie & Ying, 2025).

The well-being of future generations also depends on the quality of social investment that strengthens human capabilities and access to basic services. Education financing can improve skills and innovation capacity, while health investment supports productivity and community resilience. In the agricultural sector, public support is related to food security and the ability to cope with supply shocks. These benefits are often formed gradually, so project evaluations need to use a longer horizon than annual budget cycles. Governments need to maintain program sustainability while ensuring that the distribution of benefits reaches vulnerable groups (Liu et al., 2024; Zhang et al., 2025; Wang et al., 2025).

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Overall, the integration of public investment and sustainable development requires fiscal decisions that balance economic productivity, environmental protection, and intergenerational justice. Governments need to select projects based on benefits throughout the life cycle, take into account financing risks, and periodically evaluate social and ecological impacts. Cooperation with the private sector can expand sources of capital, but public responsibility and risk sharing must remain clear. The policy direction makes investment not just a development spending, but a strategic means to build economic resilience and long-term community well-being (Alessi et al., 2025; Jalles, 2026; Gu et al., 2021).

CONCLUSION

This study concludes that public investment financing is a strategic instrument to strengthen economic capacity and support sustainable development. A synthesis of 50 articles shows that government investment decisions are closely related to fiscal space, debt management, allocation effectiveness, and economic conditions. Public investment has the potential to drive growth and productivity when directed to projects that have long-term benefits. Thus, the success of financing is not only judged by the size of the budget, but also by the quality of the use of resources and the sustainability of their benefits for the wider community in a sustainable manner.

The findings of the study show that fiscal resilience, institutional governance, and private sector involvement are mutually influential in determining investment outcomes. Economic uncertainty can change spending priorities and the government's ability to sustain projects, while selective planning helps maintain spending productivity. Investments in infrastructure, energy, agriculture, education, and health also show that the benefits of development include economic, social, and environmental dimensions. Therefore, financing policies need to balance fiscal discipline with cross-generational development needs consistently and measurably in a variety of global economic conditions.

RESEARCH LIMITATIONS

This study has limitations because the synthesis was based on available scientific articles and meets the scope of the search. The scope is not necessarily representative of all public investment financing practices in each country or sector. Differences in investment definitions, fiscal sustainability indicators, productivity measurement methods, and observation periods also

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limit the comparability of findings. In addition, the results of the literature review cannot directly prove causal relationships in certain government conditions without additional empirical testing in a more specific and relevant context.

Another limitation relates to the diversity of the institutional context, economic structure, and fiscal capacity of the countries studied. Findings from countries with developed financial markets or strong administrative systems may not necessarily be directly applicable to developing countries. Some articles also use cross-country or macroeconomic aggregates so that variations at the project and regional levels are not always visible. The grouping of theories, sectors, and methods in mapping also requires caution because some studies may include more than one category of analysis simultaneously in practice.

SUGGESTIONS

Further research is suggested to empirically examine the relationship between sources of financing, governance quality, investment efficiency, and fiscal sustainability. Cross-border comparative studies can shed light on how differences in institutional capacity and revenue structure affect investment choices. Researchers can also use project-level or local government data to better identify implementation variations. The development of consistent indicators to measure public capital productivity, social benefits, and environmental impacts will strengthen the comparability of results and the accuracy of policy evaluations across development sectors and support public decisions.

Future research also needs to expand attention to climate risks, technological change, government-private partnerships, and the distribution of benefits between community groups. Long-term analysis can assess whether projects currently financed generate productive assets or create fiscal liabilities that burden the next generation. The complementary use of quantitative, qualitative, and mixed methods approaches can provide a more complete understanding of the process of selecting, financing, implementing, and evaluating public investment in conditions of ever-changing economic uncertainty at various levels of government.

PRACTICAL AND THEORETICAL IMPLICATIONS

In practical terms, the results of the study provide direction for governments to link investment planning to the fiscal capacity and benefits of projects throughout their lifecycle. Feasibility assessments need to take into account financing costs, delay risks, maintenance needs,

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and economic, social, and environmental impacts. Governments also need to strengthen transparency in project selection, implementation monitoring, and evaluation of results. In partnerships with the private sector, the sharing of risks and fiscal liabilities must be clearly formulated so that investment benefits are not consistently accompanied by hidden future burdens.

Theoretically, this study confirms the relevance of Public Finance Theory to explain government decisions in allocating resources, providing public goods, and balancing economic stabilization with equitable distribution of benefits. The synthesis also shows that the understanding of public investment needs to connect fiscal sustainability, endogenous growth, institutional governance, and sustainable development. Its conceptual contribution lies in the placement of financing not as a matter of obtaining funds alone, but as a strategic process that determines the quality of assets, distribution of benefits, and the welfare of future generations in an equitable manner within the framework of inclusive long-term development.

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