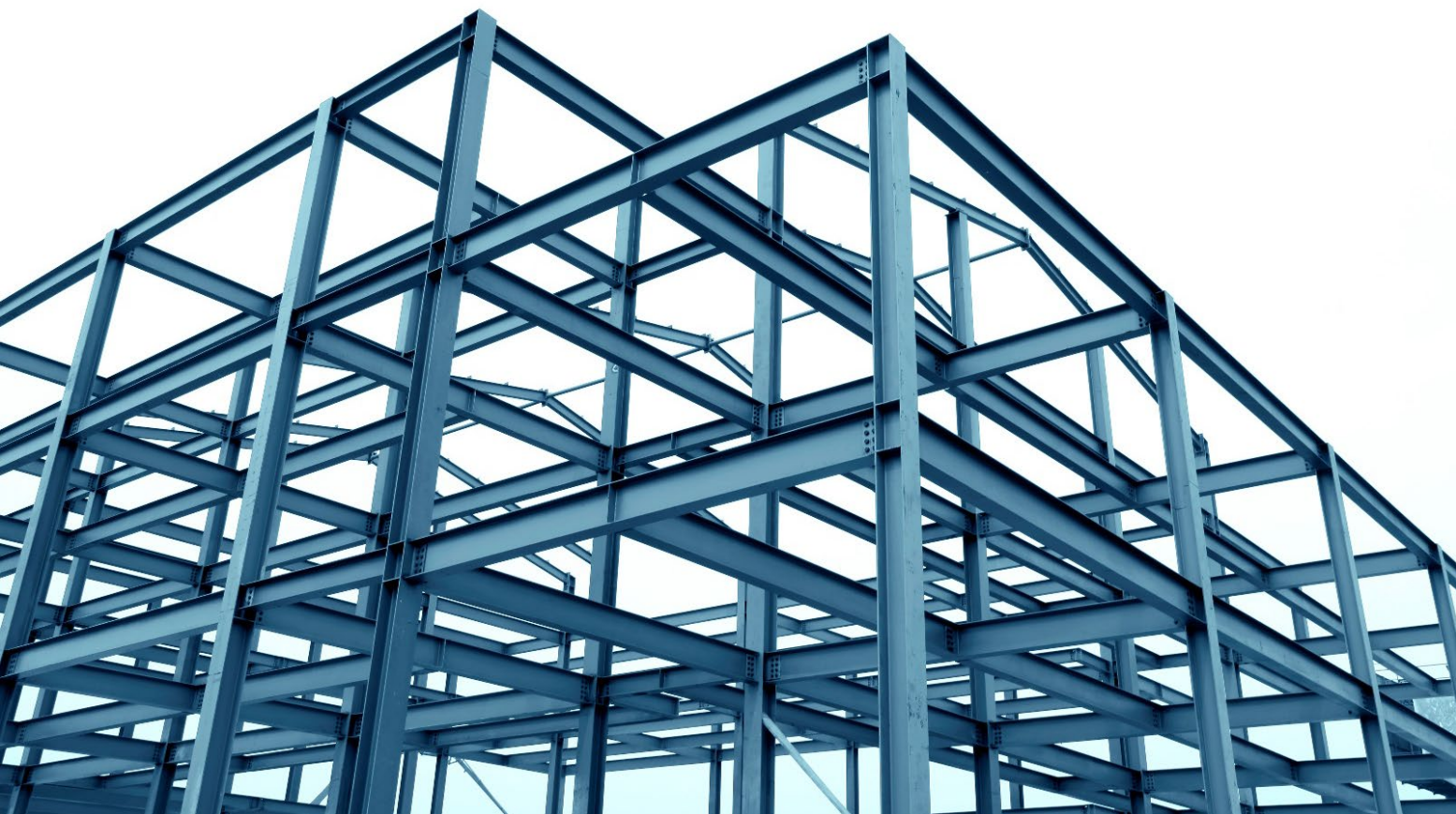


Project Finance in Social Infrastructure: Insights on Student Housing, Stadiums, and Hospitals



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This report explores the role of project finance in social infrastructure, focusing on student housing, stadiums, and Hospitals while taking a close look into Public-Private Partnerships (PPPs). The student housing sector is growing due to rising demand and sustainability trends, though it faces regulatory and economic challenges. Stadium projects are booming post-pandemic, driven by major events but hindered by cost escalations and market risks. Hospitals and healthcare infrastructure have gained a renewed focus in the post-pandemic era while having to adjust to new economic realities.

Project Finance is Shaping the Future of Social Infrastructure

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Project finance plays a critical role in funding large-scale social infrastructure projects, enabling long-term investments in essential sectors such as education, sports, and public services. This report examines three key areas: student housing, stadium construction, and Hospitals, highlighting their financial structures, risk dynamics, and investment potential.

This report provides a comprehensive analysis of the financing strategies, risks, and mitigation approaches in these sectors, drawing on insights from S&P Global Market Intelligence.

How Hospitals are Financed Under Public-Private Partnership (PPP) Structures

Healthcare investment is always a topic that ignites conversation, especially in the post-COVID-19 era. Health investment is influenced by economic and developmental shifts and looking back at the last five years, the impact of the COVID-19 pandemic, climate change (wildfires and flooding becoming more common), and localized geopolitical divisions and their wider implications (economic instability, including energy price hikes) have added to the pressures faced by already strained monetary policies in different regions.

These events have impacted on economic growth and changed political agendas. Post-pandemic growth is below pre-pandemic levels and is expected to remain subdued in the foreseeable future. However, at the same time, the case for healthcare investment is strong, both in the context of investment in physical and mental wellness.

GDP growth forecasts

(%)	Latest forecast				Change from previous forecast			
	2023	2024	2025	2026	2023	2024	2025	2026
U.S.	2.3	1.3	1.4	1.8	0.5	0.0	-0.1	-0.1
Europe								
Eurozone	0.6	0.9	1.5	1.5	0.0	0.0	-0.1	-0.1
Germany	-0.2	0.6	1.4	1.4	0.0	-0.2	-0.2	-0.3
France	0.8	0.9	1.5	1.4	0.1	-0.1	0.0	0.0
Italy	0.9	0.7	1.2	1.4	-0.2	0.1	-0.1	0.1
Spain	2.1	1.6	2.2	2.2	0.5	0.3	-0.1	0.0
U.K.	0.3	0.5	1.5	1.6	0.3	-0.3	-0.1	-0.1
Asia-Pacific								
China	4.8	4.4	5	4.5	-0.4	-0.3	0.3	0.0
Japan	1.8	1	1	0.9	0.6	-0.1	0.0	0.0
India*	6	6.9	6.9	7	0.0	0.0	0.0	-0.1
Other emerging economies								
Mexico	3	1.7	2	2.1	1.2	0.1	-0.1	0.1
Brazil	2.9	1.2	1.8	2	1.2	-0.3	-0.1	0.1
South Africa	0.8	1.7	1.7	1.7	0.2	-0.1	0.0	-0.6
World	3.1	2.8	3.3	3.3	0.2	-0.2	0.0	0.0

*Fiscal year, beginning April 1 in the reference calendar year. Sources: S&P Global Market Intelligence and S&P Global Ratings. Copyright © 2023 by Standard & Poor's Financial Services LLC. All rights reserved.

Source: GDP growth forecasts, S&P Global Market Intelligence and S&P Global Ratings. As of 1 April 2023.

Collaboration between public and private stakeholders is essential in supporting the investment in healthcare. Traditional PPP structures, which bring together the public and private sector via well-defined contractual obligations, continue to be an effective way to deliver healthcare infrastructure.

We will take a closer look at some of the key characteristics of public-private partnerships in delivering healthcare infrastructure and how these can create challenges that need to be considered and mitigated. Hospital projects delivered under PPP structures, similar to most social infrastructure projects, tend to be constructed on brownfield sites. Developing a project in a brownfield site introduces a higher level of complexity due to the consideration of risks associated with current site conditions, limitations in running comprehensive site surveys, and access to the site. These issues can lead to design changes that have the potential to disrupt the construction process and increase time and cost during construction. Design omissions can also adversely impact the operations phase if they lead to building defects that affect performance during operation.

When considering hospitals or care facilities, design needs tend to be driven by the requirements of clinical staff or by regulations and sector-specific standards. These user or regulatory requirements must be incorporated into the design process at an early stage by the respective public authority to avoid or minimize design variation at a later stage.

Health and safety (H&S) is a critical consideration for any hospital/healthcare project as the provision of services (clinical services) will directly impact a sensitive demographic (patients), as well as the wider community where the project is located. H&S compliance is normally managed by private stakeholders and needs to be considered throughout the design, construction, and operations processes.

Social infrastructure projects such as hospitals typically are delivered via Engineering, procurement, and construction (EPC) or engineering, procurement, construction, and management (EPCM) contracts with the latter allowing the project to retain interface risk. This risk can be mitigated through the mechanics of the project structure.

In general, the degree of construction complexity in delivering a healthcare project is considered low due to the typically low technical complexity associated with such projects, although atypical projects can introduce higher complexity. Because of these characteristics, we generally assume a degree of ease in the event that contractors need to be replaced; however, when considering replaceability, we should always account for not only the availability of new contracts but also the costs associated with such options.

On occasion, but certainly not always, a need to replace contractors may arise as a result of dispute/s between parties, however, it is worth noting that within PPP structures the expectation is that contractual clarity is present and legal obligations well defined to ensure parties work together towards completion rather than going ahead with a lengthy dispute resolution process. Beyond relationships amongst project stakeholders, it is equally important that good relationships between the project and local communities are maintained. Hospitals/healthcare are not typically associated with adverse social impact, nonetheless, negative sentiment can be created, for instance, if construction disrupts the public use of surrounding areas or creates safeguarding issues.

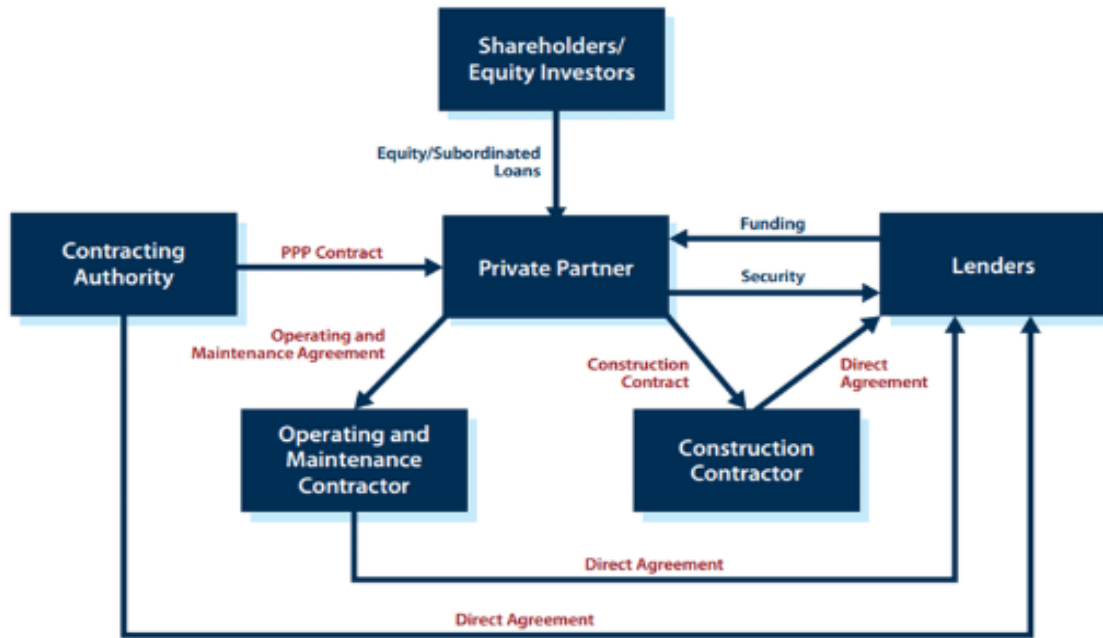
Hospital and healthcare projects do not tend to carry demand or volume risk, with revenues being contracted and aligned with availability and performance targets. On some occasions there may be a component of revenue, albeit small that derives from commercial facilities (cafes, gift shops etc), however, this is often outside the main contract. Revenues are linked to availability and performance deliverables, if the project fails to meet the contractual threshold, deductions are imposed. Performance thresholds can be linked to items such as the operation of lifts or the cleanliness of the hospital, which if not met or addressed within pre-agreed time frames can lead to deduction. Availability deduction can be attached to the importance/criticality of the units that need to be available. The impact on revenue can be mitigated through structural features such as reserve accounts or liquidity facilities.

To address early performance issues and avoid long-term performance discrepancies, a “settling in period” can be introduced during which performance requirements are reduced and gradually become reinstated. This arrangement allows avoidance of penalization and a smoother start to the operation phase of the project.

Decoding Public-Private Partnership (PPP) Financing Structures in Social Infrastructure Projects

The need for investment in social infrastructure has always been a top-of-mind issue for governments across the globe; it involves trying to balance changing demographics, budgetary restrictions, and the need to invest in new social infrastructure or to revamp/modernize existing assets. Furthermore, Environmental, Social, and Governance risks are a permanent consideration in this financial decision-making. By their nature, social infrastructure projects require a large amount of capital investment and lend themselves well to project finance structures to meet funding requirements. Traditional structures that bring together private and public interests continue to be seen as a trustworthy “vehicle.” However, key risks and challenges need to be identified and mitigated to ensure successful delivery from inception to hand back.

Known as 3Ps/PPP/PFI - depending on the region - these structures bring together public and private sectors via a long-term contractual agreement between a public sector entity and a private participant coming into the role of delivering the construction and operation of the asset (encompassing various aspects). PPP structures have a strong track record in delivering infrastructure projects and are initiated via a bidding process that encourages private participants to put forward their proposals based on set requirements from the contracting authorities. Critically, the responsibility of raising financing is placed on the private sector, while the public sector is there to provide a level of stability by covering financing costs, return on equity, and, in certain cases, operation and maintenance (O&M) expenses.



Typical PPP structure. Source: World Bank, 2019, Typical PPP structure

The key benefit of these structures for the public sector is that it enables users to deliver infrastructure assets while transferring construction and operation risk to private participants. One of the key benefits derives from both sides, public and private coming together at an early stage, to enable and facilitate the shortening of project timelines and the lowering project fees. In addition, bringing in private participants tends to enhance, innovation and advanced technology while also benefitting the project from private sector management experience. Finally, a key feature/benefit is that the government ultimately holds control of the project.

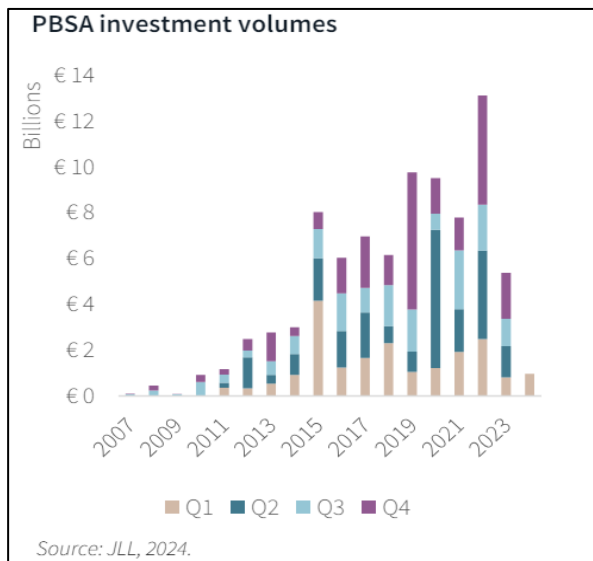
In tandem, the success of a project relies on strong cooperation and good working relationships between the public and private sectors. Both parties must maintain engagement and commitment in the process, any adversity/hostility between the public and private sector can be to the detriment of the project. It is acknowledged that the structure of an organization can be complicated and as a result, the degree of difficulty in management increases which adds a different dynamic. Finally, the private sector requires a reasonable rate of return which again may become controversial.

PPP structures are the same across different regions, however, there are variations in risk appetite/risk preferences in different countries/jurisdictions and these differences need to be well understood by all parties entering these transactions.

Understanding Financial Dynamics: Student Accommodation vs. Stadium Development

The growing demand for student accommodation is underpinned by demographics, such as a growing middle class and a rising international student population, especially in developed countries. Furthermore, the trend towards sustainable living lends to additional investments in renewable energy technologies, efficient water management systems, more sustainable and durable materials, and low-emission products. While the student accommodation market presents opportunities for revenue generation, it also faces challenges such as regulatory compliance, limited land availability, and competition from alternative accommodations. Economic fluctuations also impact the demand for student accommodation, as students may become more cautious about spending on housing during these times. According to Jones Lang LaSalle, over the past decade, private investment in student housing is steadily rising in Europe, seeking to tackle the shortage of suitable student housing. Investment in European PBSA (Purpose-built student accommodation) has grown from €0.5 billion in 2008 to €13.1 billion in 2022, reflecting a CAGR of 27%, proving resilient to economic crises.

The global sports industry has exhibited remarkable resilience since the pandemic paused play and left stadiums empty. The global stadium construction sector is experiencing a significant boom, driven by the increasing demand for modern, multifunctional, and technologically advanced sports venues. This surge is influenced by factors such as hosting major international sports events, urban development projects, and the evolving expectations of fans for enhanced in-stadium experiences. Events such as the FIFA World Cup, Olympic Games, and continental tournaments (e.g., UEFA Euro, Asian Cup) have underpinned the need for new or upgraded stadiums.



Source: Jones Lang LaSalle report 'Europe's student housing shortage to reach 3.2 million over the next five years', as of 2024.

With this rebound, different areas of sports finance have become more attractive to private investors and private markets have taken an increasingly relevant place in sports assets and financing. Factors such as sponsorship, media rights performance, and cash flows from premium sports properties have influenced investors' confidence in the strength of the revenue stream coming from the industry.

We will highlight some of the key characteristics of student accommodation and stadium/arena projects, the important risk factors impacting the financing of these projects, and how these risks can be mitigated. The construction of student accommodation and stadium/arena projects is typically less complex and commonly utilizes proven construction techniques, design approaches, and off-the-shelf technologies, relying on historical cost and performance data. Nevertheless, some assets may have additional technological complexity—for example, stadiums with retractable roofs, seating arrangements, and video and scoreboard displays.

Engineering, procurement, and construction (EPC) contracts are common in this sector to minimize the risk of construction cost overruns or delays. Many of these projects are exposed to higher construction costs, and typically, projects for clubs prefer to transfer the risk to construction companies, providing a fixed schedule and costing. Project management is an important risk factor, as some projects may face delays in approval; for example, the approval of a stadium/arena project close to a city center may encounter opposition due to noise pollution issues.

Project-specific analytical considerations may affect the operating performance of social infrastructure projects. For example, low operating leverage could occur if the concession provider retains a material portion of the operating tasks rather than the project being responsible for those tasks. A student accommodation project may be required to construct three buildings but only be responsible for operations for one of them. The performance of a stadium project may be impacted by who the operators are; for instance, a sports team assuming operations for the first time in a new, larger stadium (which has more points of sale and food and beverage concessions). The credit quality of sports-related financings is typically derived from the robustness of the fan base and corporate partners—as well as from sponsorship, advertising, and media agreements.

Regulatory risk is an important consideration for student accommodation and stadium/arena projects, as they may be exposed to changing requirements from oversight entities, such as sports regulators, university system requirements, or occupational health and safety regulators.

Market exposure is another important risk factor for volume-exposed projects. While some stadium projects may have a strong history of season ticket holders and membership waitlists, others are more exposed to the correlation between on-field performance and attendance levels. The competitive position of a project depends on commercial incentives to maximize occupancy and occupancy history, among other factors. The commercial incentives sub-factor is considered positive for a student accommodation project if the contract includes a minimum occupancy guarantee and negative if the project is marketed as an independent student accommodation provider separate from a related university. Market risk may be offset if the project has mitigants in place; for example, for stadium projects a dedicated reserve available to fund operations may mitigate the risk of work stoppage related to player contract renegotiations.

Assessing Social Infrastructure Projects under the Project Finance Probability of Default (PD) Model

These social infrastructure projects discussed lend themselves well to being assessed under the **Project Finance Probability of Default (PD) model**, which is backed by S&P Project Finance methodology and allows analysts to derive a numerical score that is broadly aligned with S&P Global Ratings' criteria and further supported by historical default data dating back to 1981. Some general characteristics of infrastructure projects (proven construction techniques, design approaches, off-the-shelf technologies) mean we can consider social infrastructure projects as less complex in terms of their construction difficulty and stable in terms of operational risk (presence of concessions). Nonetheless, project-specific

features may heighten or lessen those risks; therefore, granularity and understanding of risks on a stand-alone project basis, and via an ESG credit angle, are necessary.

S&P Global Market Intelligence has designed tools that bring together statistically validated Probability of Default (PD) and Loss Given Default (LGD) methodologies. Please [click here](#) to learn more about the Project Finance Credit Assessment Scorecard and the Project Finance LGD Scorecard.

Project Finance Suite Scorecard

Project Name	00-Jan-00	Sector	Power
Country	Canada	Industry / Sub-Industry	Photovoltaic Solar
Sovereign FC Rating	AAA	Type of Debt	Senior Debt

Analyst	P Global Market Intelligence
Date of Analysis	01-Sep-23

Construction Profile

Construction difficulty	Construction sources to downside needs	a-	Structural protection	-2 notch(es)	Construction Phase SACP	bb+
Project specific attributes			Counterparty Adjustment	-2 notch(es)		

Project SACP

bb

Modifier and External Influences

Parent Linkage	Linked
Government Support	0
Sovereign Rating Limits	aaa
Fall Credit Guarantees	b

Final Score

bb

Operations Profile

Performance Risk	DSCR	bb	Resiliency Adjustment	1 notch(es)	Operations Phase SACP	bb
Market Risk			Debt Structure Adjustment	-1 notch(es)		
			Liquidity Adjustment	0 notch(es)		
			Refinancing Risk Adjustment	0 notch(es)		
Country Risk			Future Value Adjustment	1 notch(es)		
			Structural protection	-1 notch(es)		
			Counterparty Adjustment	0 notch(es)		

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For more insight into how S&P Global Market Intelligence's Credit Assessment Scorecards can provide you with essential tools to identify and manage potential default risks of private, publicly traded, rated, and unrated companies, across a multitude of sectors; [please visit our website](#) or speak to our specialists.

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