



BMI

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Infrastructure Project Risk Metric

Our Infrastructure Project Risk Metric (PRM) quantifies a project's likelihood to move through the development phases to reach completion in a timely manner.

The PRM benchmarks the specific attributes of every project within our Key Projects Database related to size, scope and cost, along with the project's external environment using BMI's proprietary risk metrics for industry, the economy and political risk.

The Project Risk Metric (PRM) assesses the challenges and risks faced by those projects within the BMI Key Projects Data. The result is a quantifiable and accurate reflection of the realities faced by each project in terms of three fundamental areas: 1) country fundamentals; 2) infrastructure and construction industry fundamentals; and 3) project specific fundamentals.

We combine project specific details and our understanding of the maturity of the sector in which the project sits with the broader economic and operational market characteristics, looking at issues such as policy continuity and bureaucratic environment. We weight these inputs in terms of their importance to the project's viability and progress. This enables users of the PRM to filter and focus in on projects depending on their risk profile, better aligning project engagement with your own assessment of risk and opportunity. The PRM is a highly dynamic tool – as circumstances change either at the project or macro level, the PRM will update, providing the ability to monitor a project's risk level.

Benefits of using BMI's Infrastructure PRM

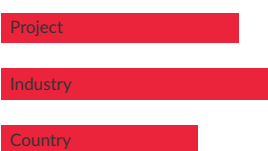
- **Project Specific:** Takes into account a wide range of specific project data; project type, size, value, location, and current status.
- **Quantifies Risk:** Analyses the factors posing risks to a project's timely progression towards completion. Scoring is on a scale of zero to 10, providing numerical commentary on projects. The lower the score, the more favourable the project profile.
- **Project Selection:** Enables a user to filter out projects which do not meet specific risk criteria. Focus on projects with the most potential for business opportunities, be that chances to supply the construction process, examine counterparty financial exposure or provide legal and insurance services.
- **Analyst Insight:** BMI's Infrastructure, Power and Renewables sector analysts use their understanding of projects, sectors and markets to add a qualitative input into the PRM.
- **Comprehensive:** Tens of thousands of projects each receive individually calculated PRM scores, with transparent detail on how each fundamental area contributes to a final score. BMI's Country Risk, Operational Risk and Industry Research expertise all feed into the PRM to ensure political, economic and sector factors are considered.
- **Entry Point:** An additional way to consider market entry by assessing the realisable returns of a market's construction sector, infrastructure investment plans or private sector opportunities. Granular project details and analysis offer a deeper understanding of a project pipeline.
- **Ease of Access:** Easily accessible through our platform or Excel Add-In, the granular data can be compared across sector, regional and global peers and easily integrated into workflows.

Project Risk Metric

Score (1-10)

Fundamentals

8.6

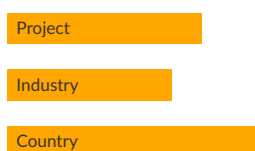


Project Risk Metric

Score (1-10)

Fundamentals

5.2



Project Risk Metric

Score (1-10)

Fundamentals

2.9



Project

Industry

Country

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Weightings of Categories and Indicators

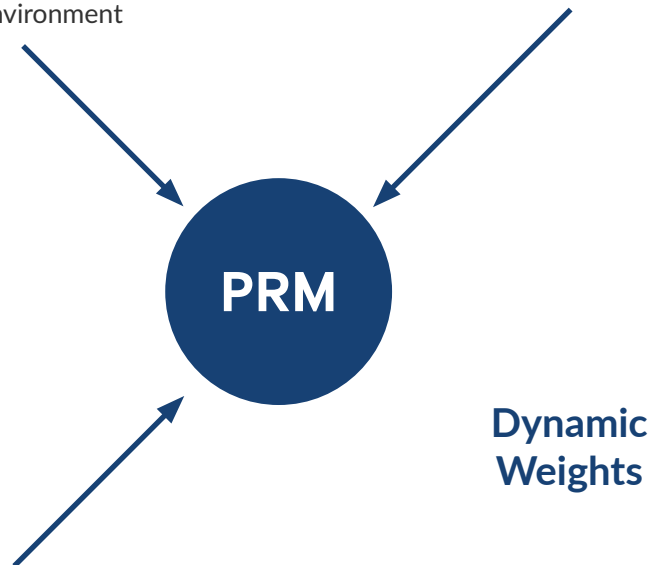
Infrastructure Project Risk Metric (PRM)

Country Fundamentals

- Political Risk – Governance
- Long Term Economic Risk Index
- Operational Risk – Bureaucratic Environment

Industry Fundamentals

- Infrastructure Risk Reward Index
- Infrastructure Project Risk Index



Project Fundamentals

- Sub-Sector Impact
- Local Sub-Sector Landscape
- Size and Value
- Project Status
- Analyst Assessment

The PRM matrix divides into three distinct pillars:

- **Country Fundamentals:** Evaluation of the impact the project's geographical location has on project viability and likelihood of progression, based on political, economic and operational risk.
- **Industry Fundamentals:** Evaluation of the construction industry's operating capabilities and its ability to deliver complex, largescale infrastructure projects.
- **Project Fundamentals:** Evaluation of the project characteristics such as type, size, location, and status, in combination with analyst assessment of such factors and on the ground realities.

Assessing our weightings

The PRM is dynamic in order to shift weightings based on data availability in a manner that the most important factors, as assessed by our analysts, remain overweight to convey a true picture of the project's viability. The calculation is likely to be overweight on macro level factors in the early stage of a project when all the project details are not finalized. The weights will shift dynamically over the course of time, accounting for more and more granular data as it becomes available. The weights also shift based on what stage the project is in. As a project moves closer to its completion, the weights will automatically adjust to reflect the project's momentum.

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Indicators, Rationale and Sources

Infrastructure Project Risk Metric (PRM) Indicators

Indicator	Source	Rationale
Country Fundamentals		
Political Risk – Governance	BMI Country Risk Index	The Political Risk – Governance indicator evaluates government strength, institutional strength and policy risks.
Long Term Economic Risk Index	BMI Country Risk Index	The Long Term Economic Risk Index considers the structural characteristics of economic growth, the labour market, price stability, exchange rate stability and the sustainability of the balance of payments, as well as fiscal and external debt outlooks for the coming decade which collectively impact the ability to fund infrastructure projects.
Operational Risk – Bureaucratic Environment	BMI Operational Risk Index	The Operational Risk – Bureaucratic environment indicator assesses the bureaucratic procedures governing business operations.
Industry Fundamentals		
Infrastructure Risk Reward Index	BMI	Infrastructure Risk/Reward Index (RRI) quantifies the attractiveness of a market's construction and infrastructure industry, based on the balance between the opportunities for growth it offers versus the challenges of operating in a country and trying to deliver projects.
Project Risk Index	BMI	Project Risk Index measures the risk associated with carrying out an infrastructure project in a given country throughout the lifecycle of a project. It takes into account; the project financing environment looking at cost and availability of capital, currency fluctuation; the construction process considering, contract enforceability, potential for cost overruns, time delays, ease of operation; and finally the operational phase of a project.
Project Fundamentals		
Sub-Sector Impact	BMI Key Projects Database	This evaluates the impact of the specific sub-sector that the project belongs to, calculated using historical rates of delay and completion within the database. There is a strong correlation between more technically complex sectors and delays, cost overruns and cancellations.
Local Sub-Sector Landscape	BMI Key Projects Database	A combined view of country and sub-sector is important to consider local policy momentum and qualitative factors. Supportive government policy goals or punitive measures such as carbon taxes are accounted for at a local sector level by an analyst assessment.
Size and Value	BMI Key Projects Database	This evaluates the impact of size and value of infrastructure projects in the context of the country they are located in. We view higher than average costs or scale as leading to higher complexity, which increases the risk of additional delay and cancellation risks, particularly in smaller markets.
Project Status	BMI Key Projects Database	This evaluates the impact of the progress of the project to date on the prospects of the project's continued progression. A project already in construction is more likely to reach completion than a project still undergoing feasibility study.
Analyst Assessment	BMI	Analyst Assessment ensures that any qualitative factor, that is not already captured in the other PRM inputs. This intervention comes in with subject-matter and market specific expertise from our experienced Infrastructure Research Analysts.

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About BMI

In an uncertain macroeconomic environment, BMI's systematic, independent and data-driven market insights, analysis and forecasts enable you to recognize and assess risks and opportunities across 200+ markets and 20+ industries.

For over 40 years, we have provided impartial and transparent analytics, data and research across themes, countries and sectors, with deep insight into emerging markets. Our detailed intelligence is frequent, consistent and systematic, enabling you to easily make comparisons and interrogate data to support your strategic plans and investment decisions.

Learn more at fitchsolutions.com/bmi

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