

Project Finance: The Potential Returns

Highlights

- » Effective risk assessment approaches to project finance must reflect a true understanding of complex issues. These assessments include the macroeconomic context, which provides an early indication of the potential risks and returns of infrastructure investments.
- » Project finance investment can become an important tool for addressing sluggish economic growth. Empirical results, based on a comprehensive and unique project finance loan database, show that a small increase in project finance can significantly improve GDP growth.
- » The impact is greatest in upper-middle income and advanced economies. Lower income countries can accelerate growth by addressing deficiencies such as underdeveloped financial systems and regulatory frameworks.

Introduction

The substantial growth of public-private partnerships and large, capital-intensive projects continues to drive the need for effective project and infrastructure investments. Moody's Analytics research insight, *Long-Run Economic Growth: Does Project Finance Matter?*¹, helps potential equity investors assess the long-run growth impact of project finance in countries at various stages of economic development.

Project finance can contribute to GDP formation directly by increasing an economy's stock of capital and by acting as an input in the production processes of other sectors. Project finance can also contribute to GDP formation indirectly by reducing transaction and other costs and by allowing for more efficient use of productive inputs. Quantifying the impact is critical for project sponsors, syndicates, and public policy makers.

Factors Firms Must Consider

Projects such as power plants, wind farms, toll roads, and airports share many characteristics that make their financing particularly challenging. Project finance attempts to reconcile the sharing of risk across sizeable investments and many investors. Counterparties must effectively monitor and manage these projects to maximize profitability.

In deciding whether to collaborate on such projects, firms must:

- » Evaluate a project's major players.
- » Understand a project finance transaction's viability drivers.
- » Identify inherent risks and mitigate them.
- » Understand, interpret, and create project finance documentation.
- » Use and interpret a financial model to assess and stress test a transaction.

Assessing a project's viability and associated counterparty risks requires access to:

- » Specialized project finance expertise
- » Data sets relating to co-investors' creditworthiness and the outcomes of relevant past project finance ventures
- » Advanced analytics and modeling

While some larger public and private institutions develop these capabilities in-house, this approach is not a viable option for many project finance investors. One alternative relies on developing models using a counterparty risk specialist. These experts have technical proficiency in computing likely returns from infrastructure projects within specific contexts, including country, sector, or number of counterparties.

¹ *Long-Range Economic Growth: Does Project Finance Matter?* by Dr. Jing Zhang, Kevin Kelhoffer, and Jorge A. Chan-Lau (IMF) July 2016

Long-Run Economic Growth: Does Project Finance Matter? examines project finance's impact on economic performance in countries at varying stages of economic development. Drawing on project finance loan data from Thomson Reuters, together with the World Bank Data Indicators database, this report provides in-depth analysis within a macroeconomic context. Firms must consider these factors and benefits when assessing the viability of an infrastructure project. This brief summarizes the paper's key findings in the next section.

Project Finance Has a Positive Impact

Our research shows that project finance has positive effects on long-run economic growth in high-middle income and advanced economies. More importantly, since project finance levels, measured relative to GDP, are low in these countries — a modest increase could yield substantial benefits. In general, if project finance increased by one percentage point of GDP, the GDP growth rate per capita can increase by as much as 10–15 percent. These numbers are not small: in an economy such as the United States, increasing project finance to \$160 billion would generate an extra \$40 billion per year during the next five years.

With the world economy still “mired in sluggish growth and low productivity, with the usual growth engines, the United States and China, performing below historic levels,” policy-makers in many countries are arguing that investment in infrastructure projects can stimulate faster economic growth and higher productivity.

With public-private partnerships preferred for project finance in most economies, this policy direction opens up many new investment opportunities for banks, asset management firms, insurers, and other financial institutions. Comprehensive project finance loan data and a fully developed model specification now exist for assessing the rewards and risks of participation.

One unintended consequence of recent regulatory reforms prompted by the global financial crisis is discouraging the use of project finance loans in long-term financing. Faced with a potential reduction in banks' risk appetite for project finance, alternative financing instruments that tap into a

broader institutional investor base must be developed. Recent amendments to the Solvency II directive, which codifies and harmonizes insurance company regulation in the European Union, provide capital relief and promote infrastructure investment, helping to offset the envisaged diminishing role of banks.

Key Findings

- » Project finance has strong positive growth effects for as long as five years after initial disbursement. When project finance increases by one percentage point of GDP, the annual growth rate of real GDP per capita is 6 to 10 percent higher. For a country with real GDP per capita growing annually at three percent, the boost provided by project finance could deliver cumulative, extra growth as high as two percent over five years.
- » In advanced economies, the rate of growth of GDP per capita can increase by as much as 10 to 15 percent during the first three years following the initial disbursement.
- » The lower a country's income level, the lower the positive effect of project finance on growth. In some instances, the effect can be negative.
- » Project finance cannot substitute or offset deficiencies associated with weak and underdeveloped financial systems.
- » Overall, project finance investment is modest relative to GDP. These investments are especially evident in upper-middle income and high-income economies, ranging from three percent of GDP in low-income countries to slightly more than one percent of GDP in high-income countries in any one year.
- » Consistent with neoclassical growth theory, the initial GDP level per capita is negatively associated with economic growth, that is, economies slow as they mature, owing to diminishing returns on capital. This finding is robust across all model specifications and after correcting for country income classification.
- » There is evidence that openness benefits economic growth.
- » Government consumption can sometimes affect economic growth negatively, though the negative effects, while persistent, are small.

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- » Higher levels of secondary education enrollment are associated with higher growth rates.
 - » The positive association between secondary education and growth offset the drag imposed by a growing population.

Conclusion

There appears to be substantial scope for raising economic growth prospects by increasing project finance, given the low baseline levels observed in most countries, especially in middle-income and high-income economies. Average annual project finance investment in the United States currently stands at just 0.1 percent of GDP or just \$16 billion per year in a \$16 trillion economy. If project finance investment increases by a factor of 10, to 1 percent of GDP, GDP per capita would rise by almost \$200 billion during a five-year period.

By contrast, low-income and lower-middle income economies do not appear to benefit as much from project finance. These results reflect deficiencies associated with weak and underdeveloped financial systems, corporate governance, and the legal and regulatory oversight framework.

More generally, to help promote economic growth, the broader institutional investor base should develop alternative financing instruments for project finance. Doing so would open up the possibility of unleashing rapid growth.

The full research insight, *Long-Run Economic Growth: Does Project Finance Matter?*, is available for download [here](#).

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