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The Case for Asset Recycling

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On this page: *Meeting infrastructure investment needs and gaps, alleviating constraints in raising financing and funding, and leveraging private sector efficiencies for better service delivery of existing infrastructure assets are three key reasons for implementing an asset recycling program.*

There are three key reasons for implementing an asset recycling program; namely to: (i) meet infrastructure investment needs and gaps (ii) alleviate constraints in raising financing and funding (iii) leverage private sector efficiencies for better service delivery of existing infrastructure assets.

Figure 2: Why is there a need for asset recycling?

Infrastructure Investment Needs and Gap	To meet significant investment required in infrastructure in EMDEs to: • Build new (greenfield) infrastructure • Meet the operations and maintenance expenses of existing infrastructure • Build climate resilience in, and rehabilitate, existing infrastructure
Constraints in Funding and Financing	To alleviate existing constraints in raising financing and funding due to: • High level of government debt • High proportion of tax revenues utilized to service existing debt • Exacerbating impact of global macroeconomic shocks on government budgets
Private Sector Efficiencies in Existing Infrastructure	To leverage private sector and gain benefits such as: • Optimal asset utilization and risk allocation • Innovation and efficiencies in the operations of the asset through well-defined service standards • Access to private sector knowledge and skills to operate the assets and provide services
Other Considerations	• Political economy considerations such as strategic control of public assets and public concern around privatization • Mitigate the impact of economic downturns and recessions • Promote infrastructure as an asset class to an investor base that includes both domestic and foreign institutional investors, and develop local currency financing • Climate change and resilience considerations

Infrastructure Investment Needs and Gap

Investments in infrastructure are important for promoting economic growth and meeting the 2030 Sustainable Development Goals (SDGs), especially in EMDEs. These existing investment requirements in infrastructure in EMDEs have been compounded by the need to address climate change.

- New infrastructure investments: The development of new infrastructure is estimated to require between 2- 8 percent of a country's gross domestic product (GDP) per year until 2030 to achieve infrastructure-related SDGs. With the right policies, an average annual investment of 4.5 percent of GDP will enable EMDEs to achieve the SDGs and stay on track to limit climate change to below 2°C.

Table 1: Average annual cost to develop new infrastructure (billion USD) in EMDEs

Electricity	**Transport**	**Water Supply/ Sanitation**	**Flood Protection**	**Irrigation**
Investment in renewable energy	Utilizing rail, road, and electric mobility	Provision of safe water and sanitation	Coastal flood protection	Subsidizing irritation infrastructure
US$778 billion 2.2% of GDP	US$417 billion 1.3% of GDP	US$198 billion 0.55% of GDP	US$103 billion 0.32% of GDP	US$50 billion 0.13% of GDP
Total of US$1.5 trillion or 4.5% of GDP				

Source: The World Bank Group

- Maintaining existing infrastructure: Beyond the investments in new infrastructure, resources are also required for the operation and maintenance (O&M) of existing infrastructure to ensure sustainability and longevity over the entire lifecycle. This costs EMDEs an additional 2.7 percent of GDP each year.
- Rehabilitation and expansion of infrastructure assets and capital improvements to ensure climate resilience: The need for funds for the development and O&M of infrastructure assets is further compounded by the requirements of rehabilitation, expansion, and resilience to climate change in existing infrastructure projects. An additional upfront capital investment of 3 percent of GDP is required to build climate resilience into infrastructure.

Financing and Funding Constraints

The demand for infrastructure, driven by population growth and an accelerating rate of urbanization, has resulted in rising public debt. Furthermore, with tightening fiscal constraints (see Figure 2 below) and higher upfront costs associated with transitioning away from carbon-intensive infrastructure, public budgets alone are insufficient to fund the current and growing infrastructure needs across EMDEs.

The global economy is unable to sustain the trend due to rise in inflation, geopolitical tensions, debt, and income equality. Downward revisions to potential economic growth rates will lower tax receipts of governments over the medium-term. This will exacerbate constraints on the funding of new infrastructure.

Increasing debt levels

In EMDEs, government debt as a percentage of GDP has increased substantially over the last decade, resulting in a rising proportion of tax revenue used to service debt. This has impacted the ability of government to spend on other critical public services.

The further borrowing of debt to finance infrastructure and other government spending is not sustainable for EMDEs as it impacts their sovereign credit ratings, resulting in further increases in cost of borrowing. This is evidenced from the fact that sovereign credit rating downgrades and related negative warning announcements on country outlooks have resulted in a 160 basis points increase in the cost of borrowing.

Figure 3: Central government debt as a percentage of GDP (2023)

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Impact of COVID-19 pandemic and geopolitical tensions

The COVID-19 pandemic, subsequent recession and ongoing geopolitical tensions have led to a further rise in global debt levels, particularly in EMDEs. The debt-to-GDP ratio grew 10 percentage points between 2019 and 2020 due to pandemic-related fiscal measures. The debt-to-GDP ratio has sustained at a new high of over 60% of GDP level since 2020, with 2024 expected to reach 70% of GDP.

Figure 4: Trend of General Government Gross Debt as percentage of GDP for EMDEs

Government debt service to tax revenues (for ~100 EMDEs)

Leveraging Private Sector Efficiencies

In addition to being an alternative mechanism for funding and financing, private sector participation in public infrastructure can introduce efficiencies by leveraging the private sector's technical expertise and innovation.

Table 2: Private sector efficiencies in monetization of existing infrastructure assets

Efficiencies	Descriptions
Optimal Asset Utilization	With the right incentives and setting, the private sector can optimize the utilization of the existing asset. An example is the introduction of additional commercial uses for infrastructure assets such as advertising and retail. The incremental revenue stream can improve the asset value and optimize the upfront proceeds that can be realized from an asset recycling transaction.
Risk Allocation	Assets suitable for asset recycling are typically "de-risked" of design, development, and construction risks. This would help attract a broader range of investors, such as institutional and financial investors, which in general do not have the risk appetite (or the technical capabilities) to assume such risks.
Cost Effectiveness	The private sector is required to assume operating risks under a concession conferred under an asset recycling transaction. Therefore, any operating cost overruns over the term of the contract would be borne by the private sector concessionaire. This incentivizes the private sector to optimize operating costs while meeting service level standards imposed by the government.
Innovation and Operational Efficiency	In an asset recycling transaction, governments should employ output specifications in articulating the service level and standards required; thereby allowing the private sector party the flexibility to operate and maintain the asset in an innovative fashion to optimize outcomes.
Access to knowledge, people, and skills	The private sector, given the right incentives and flexibility, can provide technology solutions, innovations, and skills to enhance service outcomes.

Other Considerations

Address political economy considerations

The adoption and implementation of an asset recycling program can help address political considerations given negative public perception that result from privatization and sale of public assets. These stem from concerns of the loss of public ownership of these assets and that the interests of the users are secondary to the commercial interests of the private sector. This Handbook provides a range of monetization options, many of which do not require sale of public assets and with strategic control and ownership either retained by the

government or ultimately returned to government after a period. This important distinction is strong justification for adoption by governments needing to placate the fears of constituents of privatization. The difference between asset recycling and privatization is elaborated in Appendix A.

Mitigate the impact of economic recessions

Countries face uncertainties on the global economic outlook underpinned by multiple risk factors such as geo-political conflicts, the resulting shocks on global supply chains and rising inflation and tightening monetary policies. Given the attendant economic uncertainties and the cyclical nature of the global economy, asset recycling can serve as a mechanism for governments to ensure the continual development of key infrastructure. This is possible as governments can avoid increasing the level of sovereign debt for infrastructure spending. The reduced burden of debt obligations in times of economic recessions allow governments to continue much-needed spending on infrastructure development that crucially has a positive multiplier effect on the overall economy.

Promote infrastructure as an asset class and mobilize private capital

Asset recycling programs helps to promote infrastructure as an asset class to institutional investors. A viable investment pipeline of brownfield infrastructure with demonstrated history of robust cash flows can attract and mobilize private capital from foreign investors and domestic institutional capital. Further. the provision of investment capital from a country's own sovereign wealth funds and pension funds helps to prevent capital outflows whilst ensuring that local infrastructure development needs are met.

Further, given that revenue generated from assets would be in local currency, this may further help in developing local currency instruments and financing mechanisms.

Climate change and resilience considerations for infrastructure projects

The global impact of climate change has never been more present today with devastations seen across the globe from melting polar ice to forest fires, floods, droughts, hurricanes and beyond. The 2015 Paris Agreement and the recent 2024 United Nations Climate Change Conference (COP29) reaffirms governments' commitments to accelerate action towards achieving climate goals.

Existing infrastructure assets developed years ago may not be climate resilient. Asset recycling brings forth an opportunity for governments to incorporate climate considerations in infrastructure assets in line with pledged climate goals. The funds realized through asset monetization can be utilized to not only build new, climate-resilient infrastructure but also redevelop existing infrastructure to incorporate climate resiliency considerations. It is important to bear in mind that introducing climate resilience in brownfield assets is not always easy, and/or it may require higher costs. So, while climate risk assessment for brownfield infrastructure is important, realistic measures to improve climate resilience would be limited.

The World Bank Group has developed Climate Toolkits for Infrastructure PPPs which addresses the challenges of embedding a climate lens into upstream advisory work and project structuring. Significant parallels can be drawn for incorporating climate considerations in asset recycling initiatives.

Note: Climate Toolkits for Infrastructure PPPs

Challenges and pressing issues identified

- Infrastructure decision-makers need to ensure that investments can offer benefits across the agendas of sustainable development, climate mitigation, and adaption without risking the affordability and the bankability of the project.

- Infrastructure projects should be technically robust to absorb, withstand and recover from unprecedent climate threats and other shocks – including sudden changes in demand.
- All infrastructure projects invariably should be structured and delivered within a climatesensitive framework that provides quantitative evidence of the impact of the infrastructure on the climate objectives, systematically monitors climate performance, and incentivizes the integration of innovation and good practices at all stages of the development.
- For projects with private sector participation, there is the additional challenge of dealing with the lock-in effect of long-duration contracts, which increases the pressure of adequately assessing the cost and benefits of climate investments over the life cycle of the project while simultaneously managing climate uncertainty.

Areas of guidance the toolkits offer for climate resilience considerations

- How the decisions on climate mitigation aspects of a project made during the early stages may impact the long-term sustainability of the investment?
- How to translate climate mitigation decisions into project requirements and technical specifications to be integrated within the contractual structure and the tender documents of the project?
- How to design for climate uncertainty (i.e., proposing adjustments in the technical feasibility), and what are the recommended tools and methodologies to incorporate this uncertainty into the project appraisal (e.g., by evaluating the project performance under multiple scenarios representing a variety of climate futures)?
- Which are the recommended methodologies, standards, and frameworks for assessing climate risks and GHG emissions and designing adaptation and mitigation measures?
- What are the means to finance climate adaptation and mitigation works (including green bonds, green and sustainability-linked loans) and how the projects may benefit from blending innovative funding/ financing sources into their traditional project finance?
- How can the climate risk-assessment inform the risk-allocation decisions?

Case Study - Asset Recycling Initiative, Australia

- Australia has explored and implemented asset recycling concept with the Asset Recycling Initiative (ARI) introduced in 2014, in which ports, power transmission, and land registries were dominant asset classes. The initiative was to boost infrastructure development within the country by providing monetary incentives for the states and territories to engage in asset recycling.
- States received up to additional 15% of estimated proceeds from the Federal Government when it monetized state asset and used proceeds to re-invest in new infrastructure.
- State and Territories governments that have actively participated in ARI are NSW, NT and ACT.
- Most states passed "new legislation" to provide for certainty, which helped maximized the proceeds earned from the exercise.

Related Content

- **The PPPRC Asset Recycling Section**

- **Executive Summary: Asset Recycling**
- **Asset Recycling Projects**
- **Asset Recycling Programs**
- **Table of Contents for Asset Recycling**

This section has not been prepared with any specific transaction in mind and are meant to serve only as general guidance. It is therefore critical that the content will be reviewed and adapted for specific transactions.

This is a new section of the website and is currently in draft form. For feedback on the content of this section or to suggest additional links or materials, please contact the PPP Resource Center using the feedback form.