



# Global infrastructure: asset recycling and infra capital



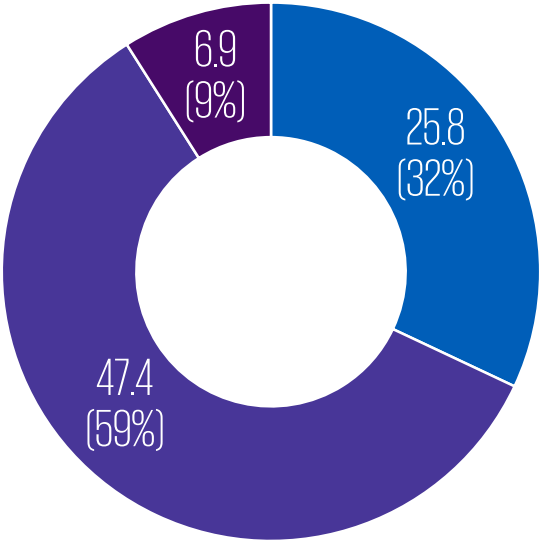
# The concept of asset recycling has emerged as a noteworthy option to unlock private and institutional investment towards infrastructure assets.

The concept allows existing public infrastructure to be monetized through sale or lease to private or institutional parties. Recycling assets frees up capital of the government/state-owned enterprises (SOEs) and can facilitate improved operations by leveraging management and technological expertise of the private sector. Transaction proceeds can be reinvested in greenfield infrastructure projects, thereby providing economic stimulus and bridging the infrastructure investment gap.

Indeed, given the right investment environment, there is substantial global capital available for the infrastructure sector. The world's 500 largest asset managers collectively control more than US\$80trn worth of investible resources. Governments can look to attract these institutional and private funds to invest in infrastructure projects, through asset recycling initiatives among others.

There is an established track record of investment by institutional investors and funds in economic infrastructure projects such as toll roads, ports and airports in North America and Europe. More recently we have seen similar such investments in Australia and India as well. Due to regulatory constraints in many emerging countries and sub-optimal project structuring, the institutional investors have been limited in their ability to find suitable pipelines of investible projects in the Asia-Pacific region.

**Figure 1: Global assets under management with funds (US\$TR)**



• Asia-Pacific • Europe • North America  
Source: P&I/Willis Towers Watson World 500

Some sectors are by nature conducive for deployment of institutional capital. Toll road projects are of great interest to investors given the low operating risk and fixed annuity nature of their revenue profile. An operating transport project with established traffic or a committed availability-based contract ensures limited revenue variability, thereby proving to be the right investment destination for long-term capital providers such as insurance companies and pension funds that favor low risk-return structures.

In Asia, asset recycling is gaining traction in countries such as India and Indonesia. Both countries, given their geographical spread and absolute population, have implemented a pipeline of successful operating toll road projects over the years - structured either as public-private partnerships (PPPs) or implemented by state owned enterprises. These projects, operating successfully with established traffic profiles, can be the right candidates for the recycling or monetization of future confirmed revenue streams.

This paper highlights the key imperatives for success in monetization/asset recycling programs in emerging markets by analyzing the regulatory regimes, policy frameworks and project pipelines - both greenfield and brownfield - in two of the fastest growing Asian countries, India and Indonesia.

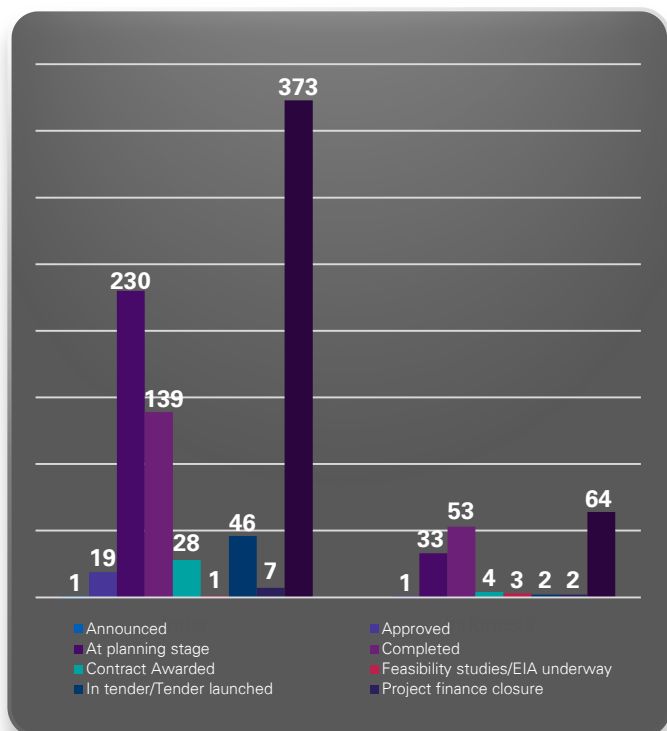
## India's TOT scheme

The roads and highways sector is expected to grow by 36.2% between 2016 and 2025, driven by new government initiatives aimed at improving transportation infrastructure. However, the country is projected to face a US\$526bn infrastructure investment shortfall by 2040 according to the Global Infrastructure Hub<sup>1</sup>, broadly attributable to inadequate private participation, strained financials of private companies and land clearance issues.

It has been widely acknowledged that this financing gap cannot be bridged by government sources alone and needs to be supplemented with investment from private-sector developers, domestic and foreign institutional investors and multi-lateral organizations such as the Asian Development Bank (ADB), among others.

Some of the specialist funds that have been set up recently - such as the National Infrastructure Investment Bank<sup>2</sup> (NIIB), which is promoted by the Government of India - provide a collaborative investment platform to bring together international and Indian investors and offer additional structured avenues for institutional capital to be channelled into the infrastructure sector.

**Figure 2: Number of road infrastructure projects as of May 2020**



In 2016, the Cabinet Committee on Economic Affairs authorized the National Highways Authority of India (NHAI) to monetize public funded highway projects. Since then, accelerating private-sector participation in greenfield and brownfield infrastructure has been one of the key focus areas for the regulator.

For brownfield assets, the government came up with the toll-operate-transfer (TOT) model, which provides a de-risked platform for private players to acquire operation and maintenance rights of existing toll road assets in the country, thereby reducing NHAI's involvement in projects after construction.

Under the TOT model, a concessionaire pays an upfront fee to secure operating and maintenance rights on the road asset over 30 years, which can be increased or decreased depending on certain situations arising during the concession period.

Since it was introduced in 2016, the TOT model has been successful in attracting private investors, pension funds, and sovereign wealth funds, to name a few. This success is primarily due to provisions for private investors to mitigate adverse demand risks throughout the concession term.

For example, it allows for variations in toll collection to be assessed at two points - in case of shortfall or excess of 1 per cent of the fee collected, the concession period would be increased by 1.5% or decreased by 0.75%, respectively. On top of this, NHAI is restricted from building competing road projects, unless actual traffic volume of the asset exceeds 90% of the designated capacity for three years in a row.

Otherwise, NHAI will be liable to compensate the concessionaire for discrepancies in toll collection. The Government of India has taken recent steps to simplify and popularize funding mechanisms to augment the uptake of the TOT by providing more alternate sources of funding to the private investors.

These mechanisms include infrastructure debt funds, toll securitization and the infrastructure investment trust (InvIT). For example, the Indian Cabinet authorized NHAI to monetize its highway assets in December 2019 via InvIT, which functions like a mutual fund in allowing individual and institutional investors to pool their funds together for infrastructure projects and receive a portion of the income as a return. NHAI announced plans to launch its first InvIT in 2020-21 to raise up to Rs60bn (US\$800m).

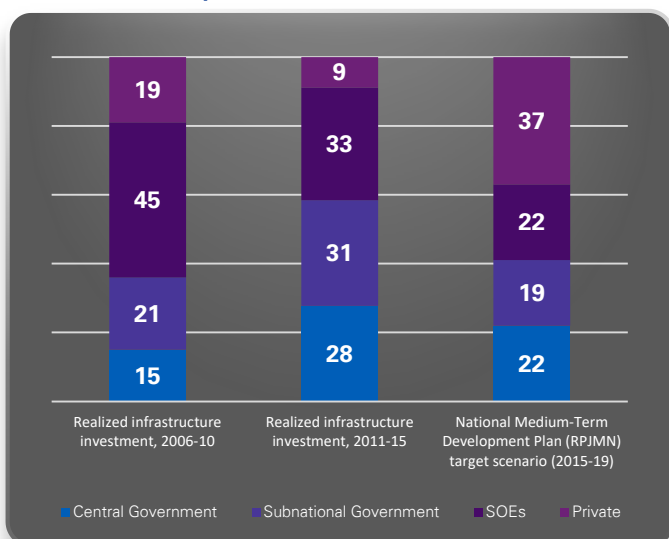
These new funding mechanisms appear to have successfully piqued the interest of private investors. A few months after the government removed the tax barrier for private placement of InvITs, we expect existing companies operating portfolios of toll road projects would be able to attract investments from global pension funds and sovereign wealth funds to tap long-term capital under an InvIT backed by the TOT assets.

### TOT Bundle<sup>1</sup>

In 2016, NHAI launched the Toll Operate Transfer (TOT) model to award long-term concessions of elected public-funded national highways to private investors. Thus far, TOT has been implemented by NHAI in two bundles of highways, monetized for an investment of over US\$2bn, with the third bundle currently open for bids. Additionally, MoRTH also recycles its operational road assets, constructed under the EPC and build, operate and transfer (Bar Annuity) models, through the TOT model, to ensure efficient operation and maintenance of roads and highways.

- Under this model, an upfront fee is paid by the concessionaire to the government in exchange for the right to toll, operate and maintain the road asset for a pre-determined concession period of 30 years
- In 2018, the first TOT bundle of nine national highways, spanning 682km across the states of Andhra Pradesh and Gujarat was auctioned
  - I. For the first bundle of projects, KPMG was appointed as the transaction adviser, supporting the determination of the Initial Estimated Concession Value (IECV) and managing the entire bid process
  - II. Australia-based Macquarie Group won the bid at US\$1,286.3m, which was approximately 1.5x the estimated IECV
  - III. Yes Bank emerged as the funding partner, underwriting approximately US\$664.3m worth of debt. Further, in 2019, ICICI Bank undertook US\$265.7m of the sanctioned debt from Yes Bank.

**Figure 3: Private investment target share in infrastructure sector (% share of total core infrastructure)**



The TOT model has proven to be a successful asset recycling model as it ensures efficient operations and maintenance of highways on a long-term basis. Additionally, contractual terms provide innovative mechanisms to protect against significant downside risks for investors; thereby generating significant market interest for private entities.

### Indonesia's LCS

In Indonesia, the government and SOEs have so far been able to fund two-fifths of US\$224bn worth of its planned infrastructure projects, according to the Committee for Acceleration of Priority Infrastructure Delivery (KPPIP).

Indonesia's 2015-19 National Medium-Term Development Plan (Rencana Pembangunan Jangka Panjang Menengah Nasional - RPJMN) estimated that over 35% of its total funding requirement for infrastructure would need to be provided by private investors - highlighting the government's aims to tap private funding.

The Government of Indonesia is looking to monetize its cashflow-positive operating infrastructure assets to finance greenfield assets. The Limited Concession Scheme (LCS) was introduced as a new legal framework in February 2020. Indonesia's LCS framework broadly contains similar elements to India's TOT scheme .

LCS provides private investors with reduced development risk and the asset ownership remains reposed with the government throughout the concession period of up to 50 years in return for upfront capital payments that would be re-deployed to develop new infrastructure.

While there is no Indonesia Infrastructure Guarantee Fund (IIGF) guarantee envisaged to mitigate political or termination risks for assets recycled under LCS, unlike public-private partnership projects, the political risks are sought to be contained to a great extent with active

involvement of state or SOEs, including by way of JV arrangements between the private sector and SOEs.

Given that the LCS framework is in its early stages, cautious steps need to be taken in order to ensure the initial few projects set a successful precedent leading to long-term sustainability of the new asset recycling scheme (LCS). Some key lessons for Indonesia, based on its experience, would be to protect the interest of private sector entities by offering a clear and transparent governance framework, standardization of project contracts, ensuring project bankability and designing a conducive framework for long-term local currency (IDR) financing.

### Key challenges for LC

- *Non-standardization of legal and regulatory frameworks* - Indonesia currently has about 45 laws and regulations governing PPPs, which govern overlapping areas of a PPP transaction and inevitably create confusion and administrative inefficiencies among the entities involved. Under the LCS, there is a need to ensure that the governance framework is efficiently provided for in a transparent manner.
- *Project bankability* - The disparity between the concession period and the tenure of loans reduces the bankability of toll road projects for private investors. While the concession period for toll road projects ranges between 25 and 30 years, the longest tenure available for loans is typically around 15 years.
- *Limited long-term IDR financing opportunities* - Most infrastructure projects in Indonesia receive Indonesian rupiah-denominated revenues, however there is limited long-term local currency financing in Indonesia. Local lending is highly concentrated, with four banks accounting for more than half of the total banking assets and controlling the supply of IR financing to the infrastructure sector.

Further, Indonesian debt and capital markets are still in the nascent stages. Only a limited number of infrastructure projects in the country have therefore been able to raise funding from the bond market. To encourage the uptake of the LCS, Indonesia would need to increase the depth of its local banking and capital markets to allow private investors to fund long-term infrastructure projects.

- *Sub-optimal risk allocation* - In the past, several SOEs in Indonesia have been unsuccessful in attracting private sector participation in its toll roads due to a pricing gap that is reflective of the unwillingness to de-risk the project to an acceptable level for private sector involvement.

For example, the initial setting and subsequent adjustments of toll rates requires Presidential approval of proposals made by the Minister of Public Works.

**Table 1: Indonesia and India comparison**

Asset recycling models	Source of revenue	Concession period	Securitization method	Target investors	Variation in toll collection
<b>Indonesia's Limited Concession Scheme</b> <i>(newly launched in February 2020; yet to be implemented)</i>	Revenue collection undertaken by the concessionaire	Varies depending on the sector; for example, in the airport sector, the maximum term is 50 years	<i>Guidelines are under formulation</i>	May be a private entity in the form of a limited liability company, an SOE, a regional-owned entity, a foreign entity or a co-operative	<i>Guidelines are under formulation</i>
<b>India's Toll Operate and Transfer</b> <i>(launched in 2016)</i>	Toll collection undertaken by the concessionaire	30 years, can also be increased or decreased under certain circumstances	IECV is calculated as upfront fee payable by the concessionaire discounted at rate equal to 3% above the bank rate for debt	Pension funds, sovereign wealth funds, etc.	Assessed at two target points – in case of shortfall or excess of 1% collected, the concession period would be increased by 1.5% or decreased by 0.75%, respectively

While the concessionaire can propose tariff adjustments, approval is not guaranteed, as evidenced by past instances of unapproved tariff escalation proposals. With a lack of effective tariff adjustment mechanism, private investors revenue risk may seem too onerous to bear.

In addition to the above challenges, there are several aspects of the LCS framework that need to be detailed further before it can be piloted. For one, the framework will have to ensure compliance with regulations applied to the national and state-finances rules. In many countries, new legislation is needed to enable compliance.

The implementation of the LCS and the intention to attract private investments may conflict with various sectoral regulations governing licences required to manage infrastructure and these should be reviewed for overlaps to avoid confusion.

Furthermore, the implementation through a JV between the SOE and the private party may not be easy as licences are generally non-transferable; the process will involve relinquishing the SOE's existing licence, novating or issuing a new license for the JV entity.

In general, Indonesia has the potential to become an attractive destination for institutional capital due to a variety of factors including surging motorization rates, strong economic productivity and high population density.

This is evident from the recent landmark investment by the Canada Pension Plan Investment Board (CPPIB) in the Cikampek (Cikopo) to Palimanan (Cipali) toll road, which was procured under the PPP model and is currently operational. The success of the LCS model would also depend on how Indonesia can create a string of such successful precedence.

**Cipali toll road**

The Cikampek (Cikopo) to Palimanan (Cipali) toll road project established under the public-private partnership (PPP) scheme, was formed according to a 35-year build, operate and transfer contract between PT Lintas Marga Sedaya (LMS) and the Government of Indonesia's Toll Road Authority.

- The road became operational in August 2015.
- The project was operated by PT Lintas Marga Sedaya (LMS), an Indonesian Special Purpose Company in which a majority stake (55%) was held by Malaysia-based PLUS Expressways Berhad, and a minority stake by PT Baskhara Utama Sedaya (BUS), an association with three Indonesian companies.
- In September 2019, Canada Pension Plan Investment Board (CPPIB) partnered with BUS to jointly acquire PLUS Expressways' 55% stake. Following the deal, BUS (the existing owner of 45%) was expected to increase its stake to 55%, while the remaining 45% would remain with CPPIB.

To encourage the uptake of the scheme, incentives should be considered for SOEs offering the projects.

This is important for LCS success to ensure availability of quality projects. The SOEs need sufficient incentive to offer projects considered highly lucrative income-producing assets in return for taking on greenfield infrastructure development risks.

For example, providing incentives has been a driver in the success of the LCS scheme in Australia, where the Federal Government offers 15% of the reinvested proceeds as a reward for state government/SOE participation in the LCS scheme.

The Government of Indonesia is working with the World Bank to formulate more concrete, sector-specific guidelines for the LCS framework and to develop a robust implementation strategy that reflects international best practices seen in other countries such as India, Japan, and Australia.

A comparison between LCS in Indonesia and TOT in India would be instructive to ensure countries learn from each other's experience and not re-invent the wheel.

## Asset-recycling success stories

As seen in India's TOT example, the successful execution of an asset recycling scheme is enabled by a number of conditions, including appropriate risk allocation, contractual flexibility and certainty, a transparent bid process, debt refinancing provisions, and creating investment vehicles that unlock greater participation from individual and institutional investors.

Similar asset recycling models have also gained popularity in the sale of brownfield assets across various sectors in developed countries such as Australia, the US and Japan.

For example, the New South Wales Government sold a 51% stake in the WestConnex project under the Asset Recycling Initiative (ARI) for A\$9.3bn in 2018. This enabled the state government to manage the financing of the project and fund the construction of later stages of the scheme, validating the value of the asset recycling model of infrastructure delivery.

Unlike Australia, the US does not have a dedicated scheme for recycling brownfield assets. Instead, the asset recycling initiative in the US falls under the 3P (or PPP) lease, where private investors would make an upfront payment in return for collecting toll revenues and operating and maintaining the project.

The Indiana Toll Road deal is often mentioned as a success story of the USA's asset recycling program, wherein a 50/50 consortium of Cintra and Macquarie took over the rights to operate and maintain a select portfolio of operating road projects for 75 years, releasing almost US\$3bn in proceeds to fund a 10-year program of state-wide highway upgrades.

In Japan, asset recycling is primarily adopted to increase investments and reduce project costs across infrastructure

projects such as renewable energy, road and airport concessions. One of the first capital recycling initiatives implemented in Japan saw a collaboration between the Development Bank of Japan Inc and Japan Wind Development Co Ltd to support the development of renewable wind energy projects in the country with the aid of private sector investments.

## Conclusion

In emerging markets, asset recycling will continue to play a crucial role in helping governments bridge the infrastructure gap. Investors in these markets face huge hurdles in implementing greenfield projects on account of various risk allocation and governance or policy framework issues.

By tapping alternate sources of capital from investors that are averse to construction risks but equipped to make long-term investments, the public sector can free up their balance sheets to take on more greenfield investments. Governments can also re-deploy their resources to focus on policy development and ensure economic robustness.

Other benefits also include the ability to leverage private-sector management expertise, to improve operational efficiency of existing assets - such as through the JV model envisaged under Indonesia's LCS- and create new business opportunities for a new vertical of developers with operation and maintenance expertise. This is in addition to creating a successful precedence of private sector participation, which is so critical to develop the confidence of the investor and developer community. It also helps set the return benchmark, which can then be used for both brownfield and greenfield project development opportunities appropriately.



### Footnotes

1. <https://outlook.gihub.org/countries/India>
2. NUB manages a more than US\$4bn portfolio focused on investing in the infrastructure sector: <https://niifindia.in/>



While the introduction of the LCS in Indonesia is a step in the right direction, the government must make available a strong pipeline of attractively structured brownfield projects with robust operating track records. To ensure the asset recycling scheme is sustainable, the importance of appropriate risk allocation and contractual flexibility cannot be over-emphasized.

The COVID-19 pandemic has had profound impacts on the transport sector. Air travel has come to a screeching halt, public transport and roads have never been emptier. Ridership numbers have collapsed as much as 90% in some cities, way below what was reasonably expected when existing transport projects and assets were conceived.

We must brace ourselves for the long road to recovery ahead. The key question policy makers need to ask now is: how can future infrastructure projects be structured to entice private sector participation in the aftermath of COVID-19?

Governments need to take a pragmatic and sympathetic view of the projects that are suffering because of the pandemic. Together with MLAs, governments need to provide liquidity facilities to fundamentally strong projects and help them tide through this challenging period. These projects will be back on track once economic activity resumes. It will be very short-sighted and impact investor confidence negatively if a few projects were to be allowed to fail.

#### Footnotes

1. <https://outlook.gihub.org/countries/India>
2. NUB manages a more than US\$4bn portfolio focused on investing in the infrastructure sector: <https://niifindia.in/>

In a post-COVID-19 world, the private sector may no longer be as willing and able as they are currently to take on ridership risk. Therefore, a re-balancing of demand risks would be needed between the public and private sector to ensure we optimize value to all parties involved.

The public sector should continue to engage the market by providing clear regulations and necessary information to facilitate sound decision-making, while maintaining competitive tension among private entities by fostering an investment environment that is conducive for debt refinancing and foreign institutional players to participate.

The post-COVID-19 environment will lead to reassessments of risk and return levels. Countries that can provide a more conducive risk framework would find the institutional long-term capital being available at attractive rates. This is an opportunity that the emerging markets should seize and use to turbo-charge the economic recovery by leveraging institutional capital for infrastructure project refinancing.

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