



PRESENTATION

ASSET MONETISATION IN ROAD INFRASTRUCTURE

28 October 2021

INTRODUCTION



ASSET MONETISATION

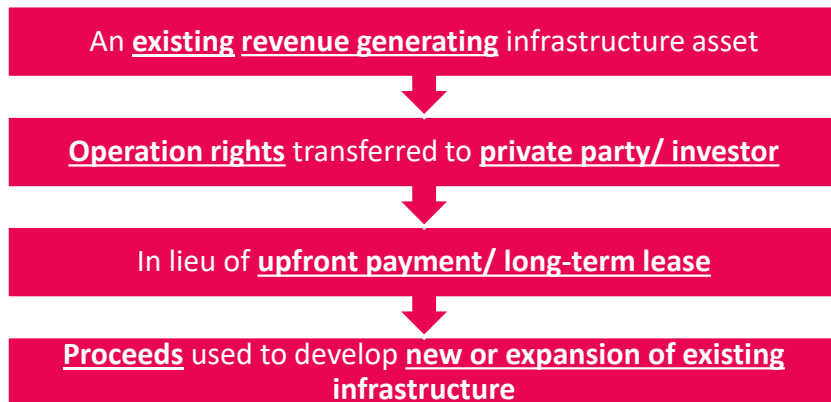
Introduction

Various options for the funding infrastructure projects:

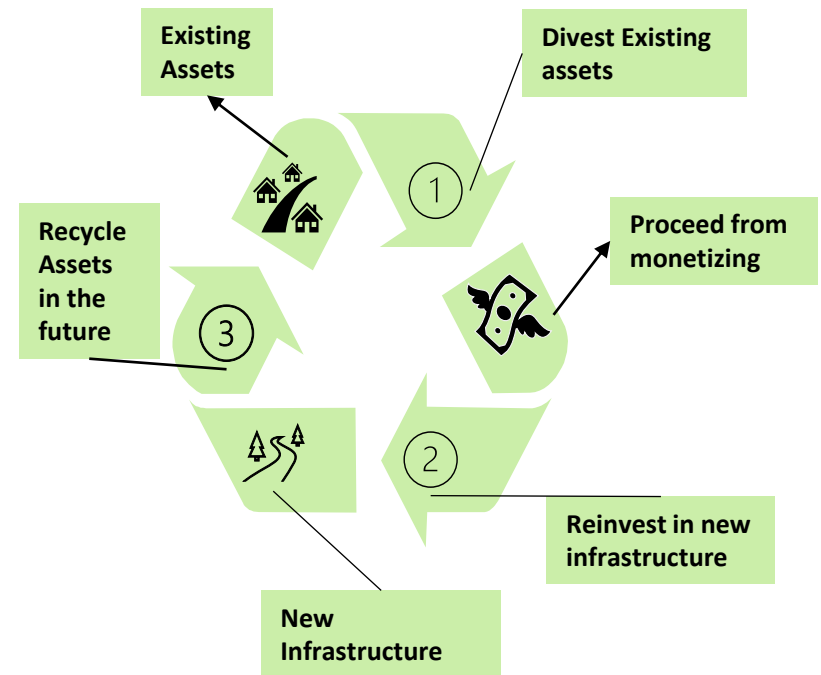
- ✓ Commercial Banks
- ✓ Bonds
- ✓ Infrastructure Funds

Another potential option to fund new (or expansion) infrastructure developments is through **Asset Monetisation** (or Asset Recycling) of brownfield revenue generating infrastructure projects.

ASSET MONETISATION – KEY CONDITIONS



ASSET MONETISATION – SUMMARY



Source: YOG INFRA

ASSET MONETISATION

Introduction

BENEFITS OF ASSET MONETISATION

Helps Government budget - Sold infrastructure assets are brought into tax base and Government no longer pays for maintenance and other expenses of that asset.

Efficient maintenance of assets by the private party

Beneficial for increase in capacity and number of the government assets.

Government get upfront payment that is debt free which reduces the burden of repayment

PROFESSIONAL OPPORTUNITIES

Structuring & packaging of monetisation assets

Portfolio Financial Modelling

Deal due-diligence (Bid perspective)

Tax and Accounting Advisory

Ongoing financial advisory (both procurement and bid perspective) e.g. Statutory auditors

TOLL-OPERATE- TRANSFER (TOT) MODEL IN INDIA



TOLL-OPERATE-TRANSFER (TOT) MODEL IN INDIA

Introduction

Key Features



5 bundles

Total number of asset bundles Identified by NHAI and tendered until March 2021 under TOT scheme.



20 years

Earlier the concession agreement signed were for 30 years , than later in 2020 it was changed to.



Upfront lease payments

to NHAI in exchange for the operation and maintenance based on specified KPIs of highways



Rolling concession period

Concessionaire takes demand risk, but the concession period may increase or decrease per actual traffic

Key Benefits

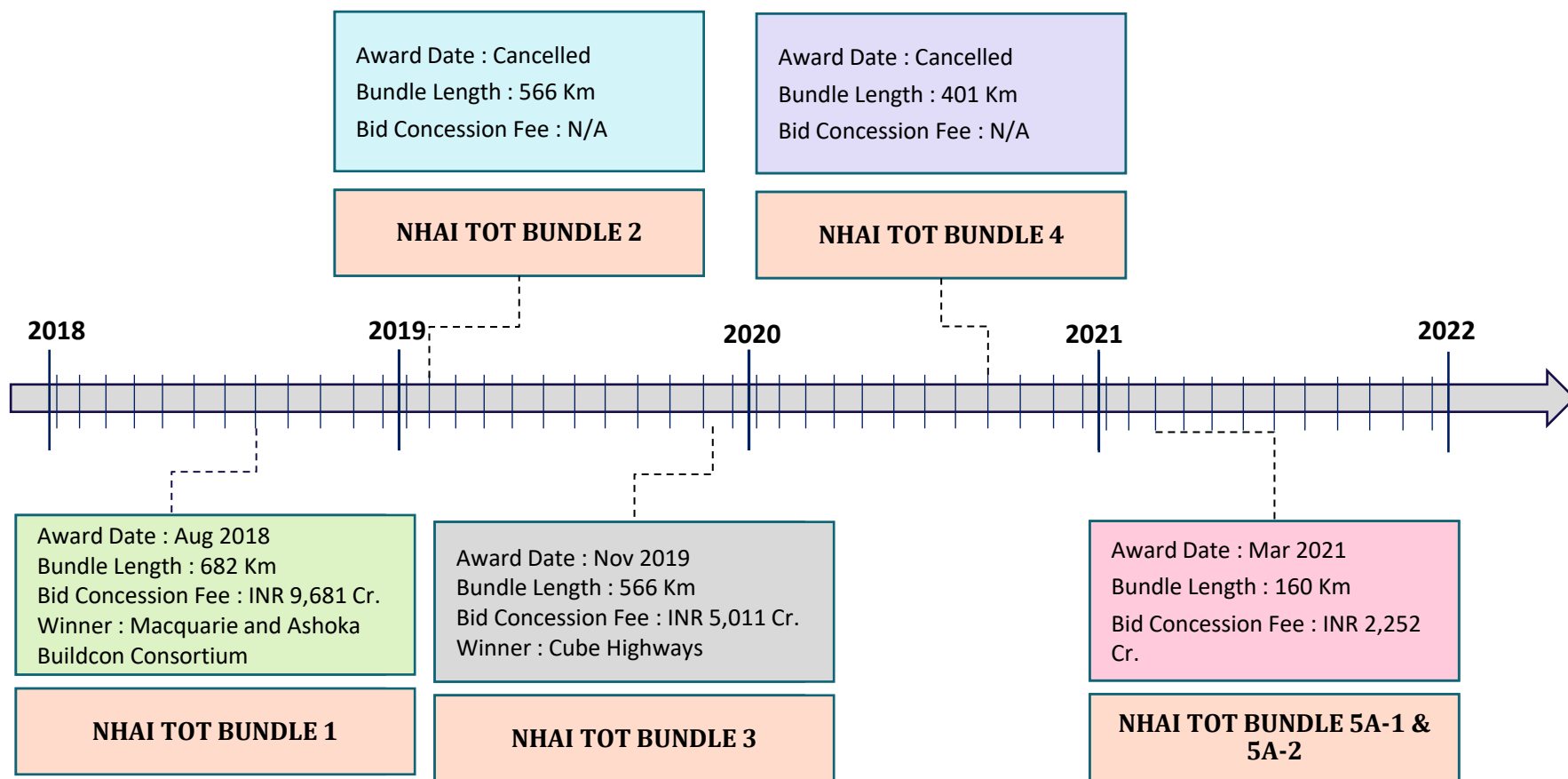
TOT scheme enables **upfront payment** of lease to fund other infrastructure projects and enable capital to be recycled to finance other infrastructure builds and upgrade.

Encourage private sector participation to broaden the funding base and reducing reliance on debt (institutional investors including Pension & Insurance Funds, Sovereign Wealth Funds, etc.)

Harness private sector innovation and efficiency – the private sector will operate the assets for a 20-year concession period.

TOLL-OPERATE-TRANSFER (TOT) MODEL IN INDIA

Bundles Tendered till date – Timeline



Source: Publicly available information, YOG INFRA analysis

TOLL-OPERATE-TRANSFER (TOT) MODEL IN INDIA

ToT Bundles Under Pipeline

NHAI Bundle	Length	No. of Roads	Description
NHAI TOT Bundle 6	108 Km	2	<p>The auction is for two road concessions of a combined 108km.</p> <p>Both stretches have four lanes each, one of which is the 32.8km Agra bypass in Uttar Pradesh state. The second is 75.3km and connects the cities of Shivpuri in Madhya Pradesh to Jhansi in Uttar Pradesh.</p>
NHAI TOT Bundle 7	135 Km	1	<p>One of the highway included in this bundle 7 auction, is the 135km Eastern Peripheral Expressway cutting across the states of Uttar Pradesh and Haryana.</p>
NHAI TOT Bundle 8	206 Km	2	<p>Two of the highways are included in this bundle 8 auction.</p> <p>One of these is the stretch in Maharashtra is 139km long and runs from Borkhedi village to the Telangana state border and another one is the highway in Odisha is 67km and connects the state capital of Bhubaneshwar to the coastal resort town of Puri.</p>

Source: Publicly available information, YOG INFRA analysis



NATIONAL MONETISATION PIPELINE (NMP) – INDIA

NATIONAL MONETISATION PIPELINE (NMP)

Introduction

National Monetisation Pipeline (NMP), published in **Aug-21** by Government of India accounts for **5.4%** of the total investment for National Infrastructure Pipeline (NIP)



INR 6 Lakh Cr.

estimated value of National Monetization Pipeline NMP



111 lakh crores (USD 1.5 Trn)

Investment for National Infrastructure Pipeline (NIP) is projected to over 5 years (FY20 – FY25).

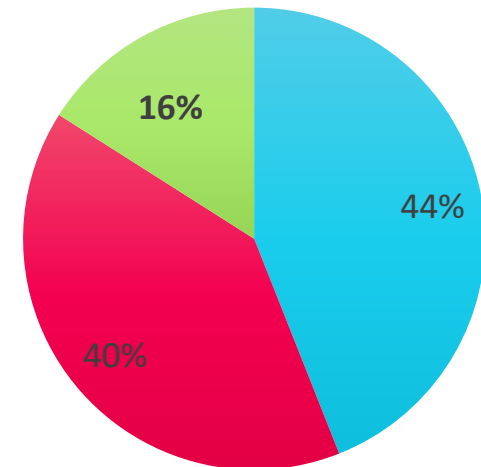


Transport (58%), Energy (27%)

account for majority of sectoral assets for monetization.

Source: Publicly available information, YOG INFRA analysis

FINANCING SOURCES FOR NMP



■ Budgetary Sources

■ Private or Extra Ordinary Budget Sources

■ Innovative and Alternative Financing Sources

NATIONAL MONETISATION PIPELINE (NMP)

Asset Monetisation Models

BROWNFIELD PPP CONCESSION

1) Operate Maintain Transfer (OMT)

Under the Operate Maintain Transfer (OMT) structure, an operational asset, which has the potential for immediate revenue collection, is handed over to the private party for O&M over the concession period.

Since the existing project has established demand/ revenue stream, the project structure does not suffer from volatility risks.

2) Operate Maintain Develop (OMD)

Under the Operate Maintain and Develop (OMD) structure, an operational asset, but due for augmentation or expansion, is handed over to the private party for augmentation and O&M over the concession period.

Usually, the operations of such asset remain uninterrupted with augmentation undertaken while the asset is operational.

LEASE

3) Long Term Lease

A lease is an agreement whereby the lessor confers to the lessee the right to use an asset for an agreed period in return for a payment or series of payments.

This model is likely to be adopted in sectors which require a licence. E.g., telecommunication sector.

INVESTMENT TRUSTS

4) InvIT

Introduced in 2014

Infrastructure asset owners to pool in money from a diverse set of investors against cash flow generated by the assets on a periodic basis.

No. of Active InvIT's : 9
Total AUM: ~ INR 1.4 Lakh Cr. (USD 189 Bn)
Sectors: Roads (38.5%), Telecom (32%), Gas Pipeline (11%), Power (17.4%), Fibre Optic (1.1%)

5) RIET

Introduced in 2007

Real Estate Investment Trusts (REIT) are similar in structure to InvITs.

Only real estate projects are eligible under this structure.

No. of RIET : 3
Total AUM : ~ INR 66500 Cr. (USD 89 Bn)


Source: Publicly available information, YOG INFRA analysis

NATIONAL MONETISATION PIPELINE (NMP)

Road Infrastructure Monetisation

Upcoming Road Under ToT Models

Roads will be monetised under Operation Maintain transfer model (OMT)

 **26700 Km** of stretches are planned to be monetized under NMP

₹ 160200 Cr. is estimated revenue generation is expected by government

The Government of India has planned following no. of stretches to be Monetized in the FY 2022-2025

Region	No. of Stretches	Length (km)
North Region	29 Stretches	1361 Km
East Region	22 Stretches	1478 Km
West Region	25 Stretches	2031 Km
South Region	28 Stretches	1931 Km

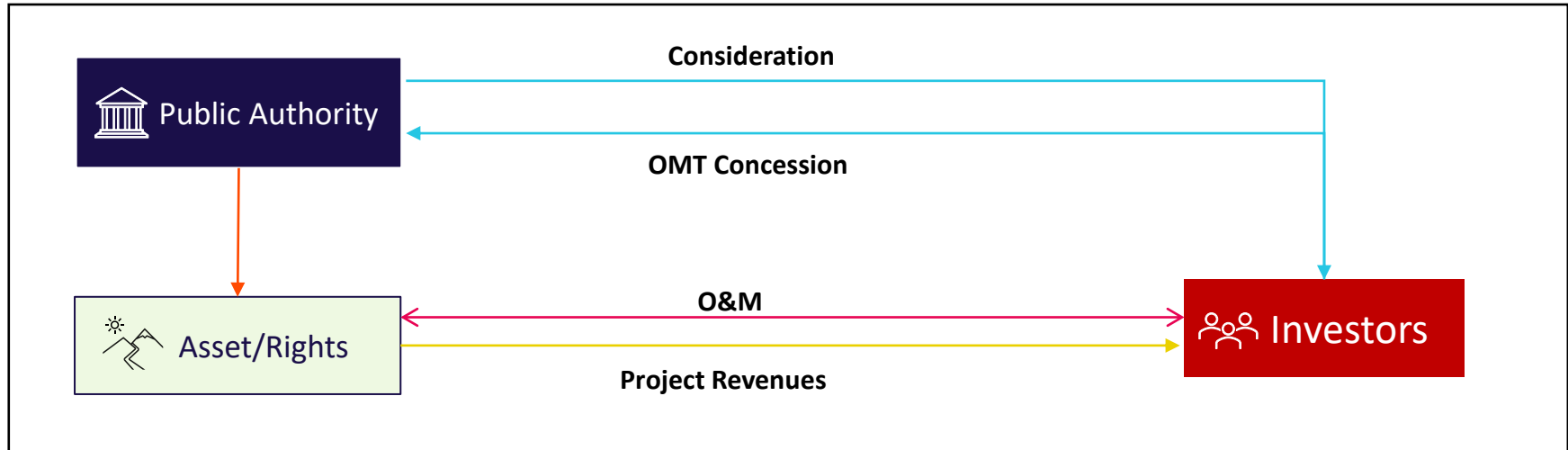
Source: Publicly available information, YOG INFRA analysis

Key Terms Of OMT Concession

Key Requirement	<ul style="list-style-type: none">Operational asset, preferably with one complete cycle/ year of operations
Potential Projects	<ul style="list-style-type: none">Projects newly constructed and commissioned by the public asset owner through its own funds (EPC etc.) <p>OR</p> <ul style="list-style-type: none">Project originally tendered out through PPP modes, and for which have concession period is complete or termination has occurred
Primary Obligations	<ul style="list-style-type: none">Operations and Maintenance (O&M) of assetsProvide service to users against a pre-determined/ regulated or market-based fee
Investor Class	<ul style="list-style-type: none">Strategic investors or Infrastructure developer with direct involvement / oversight in operations
Selection	<ul style="list-style-type: none">Through competitive bidding process and as per prescribed guidelines of Government
Other Terms	<ul style="list-style-type: none">Standard term as in case of PPP projects

FUTURE LOOK A LIKE

Operation Maintain Transfer (OMT) – Contractual Framework



Consideration	<ul style="list-style-type: none"> • Upfront or Annual Premium (Fixed OR in form of revenue share) • Variation of model where an upfront value is bid and paid by Concessionaire is TOT
Concession Period	<ul style="list-style-type: none"> • 10 years or more, however, depending on the asset category. • Longer concession periods with pre-defined terms of augmentation preferable
O&M	<ul style="list-style-type: none"> • The concessionaire is responsible and will bear all the expenses for the Operation and maintenance of the road
Project Revenue	<ul style="list-style-type: none"> • The Concessionaire takes the market risk and collect revenue through toll fee from the user of the road

INTERNATIONAL CASE STUDIES



INTERNATIONAL CASE STUDIES

1 - WestConnex Highway, Australia

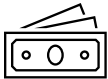
WestConnex Highway

The new south Wales government sold stake in WestConnex project under the asset recycling initiative (ARI).



51%

Stakes were sold in 2018



AUD9.3bn

Was the amount paid by the Transurban led consortium to acquire majority stake



42-year concession

This enabled the state government to manage the financing of the project and fund the construction of later stages of the scheme.



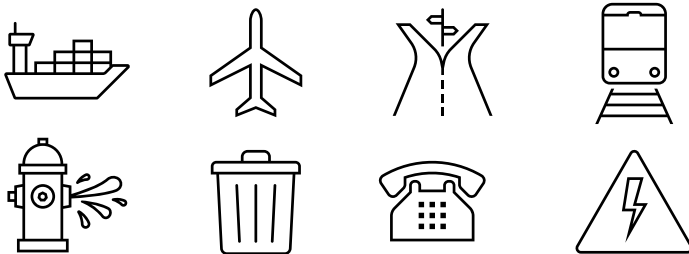
 **Transurban**

INTERNATIONAL CASE STUDIES

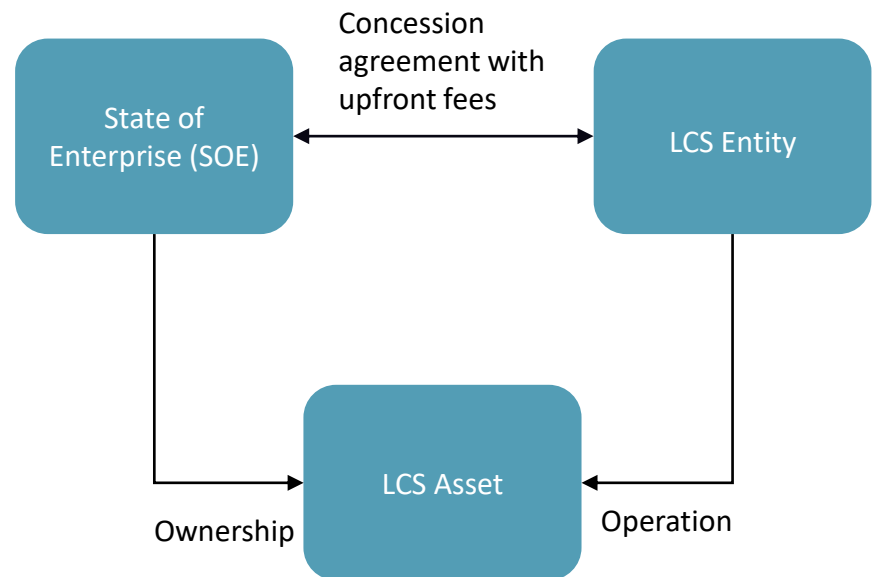
2 - Limited Concession Scheme (LCS), Indonesia

Limited Concession Scheme

- As an alternative to the existing Public-Private Partnership (PPP) scheme, the Government of Indonesia has recently introduced a new Limited Concession Scheme (“LCS”)
- Under this scheme, the Concessionaire **will have operating rights**, but **the ownership of the asset stays with the state of enterprise**
- **Limited Concession Scheme “LCS” is an asset recycling model: it involves the use of existing public sector assets to access private financing.**
- Sectors covered



Structure of LCS



INTERNATIONAL CASE STUDIES

3 - Indiana Toll Road Concession, USA

Indiana East-West Toll Road

In 2006, the State of Indiana privatized a major east-west highway, the Illinois-Indiana Toll Road, also known as the **Indiana East-West Toll Road**.



156 miles

highway runs through Northern Indiana, connecting the states of Ohio and Illinois



\$3.8 billion

was winning bid



75-year concession



Foreign-owned operator of Indiana toll road files for bankruptcy

IFM Investors to Acquire Indiana Toll Road Concession

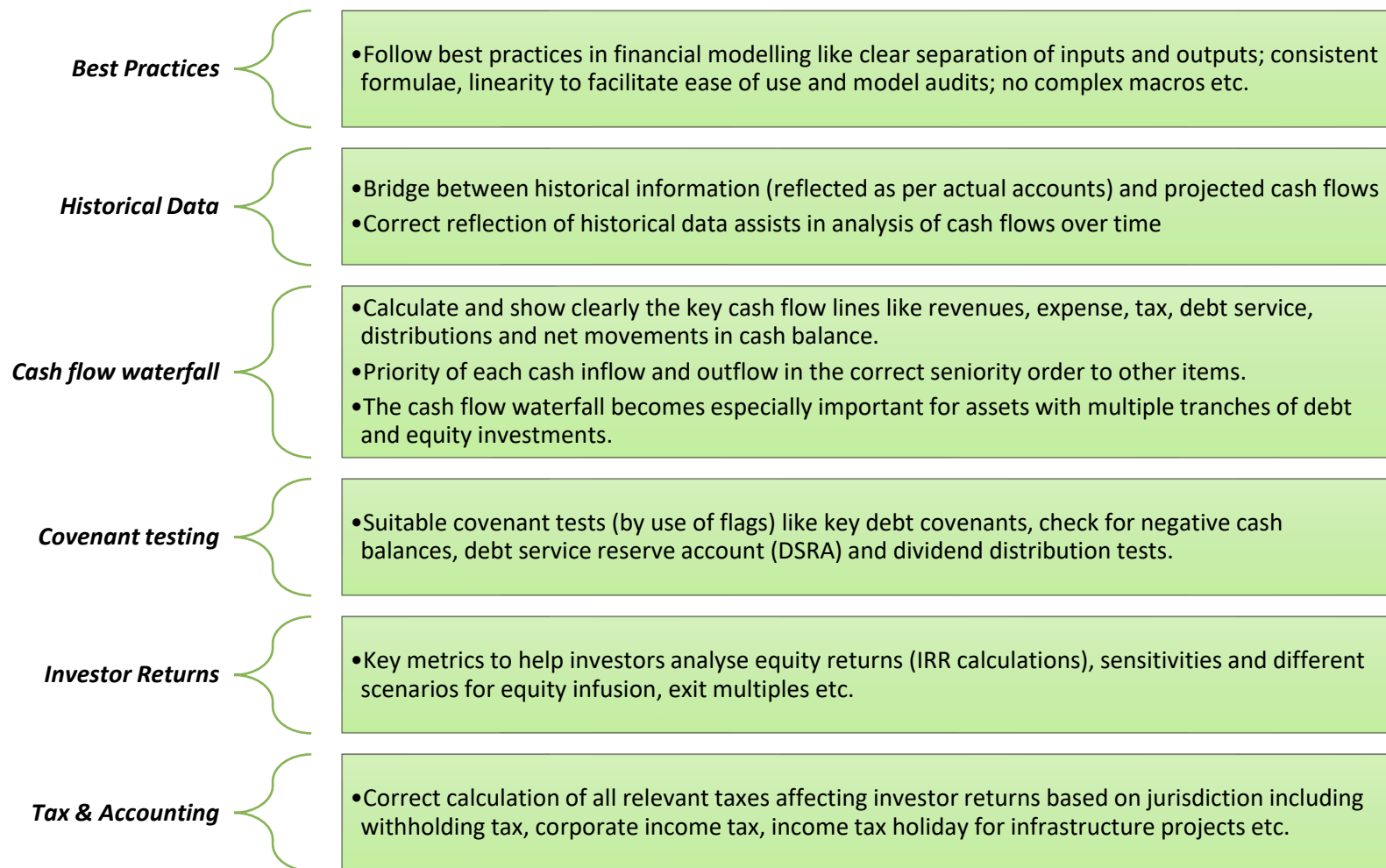
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PORTFOLIO FINANCIAL MODELLING



PORTFOLIO FINANCIAL MODELLING

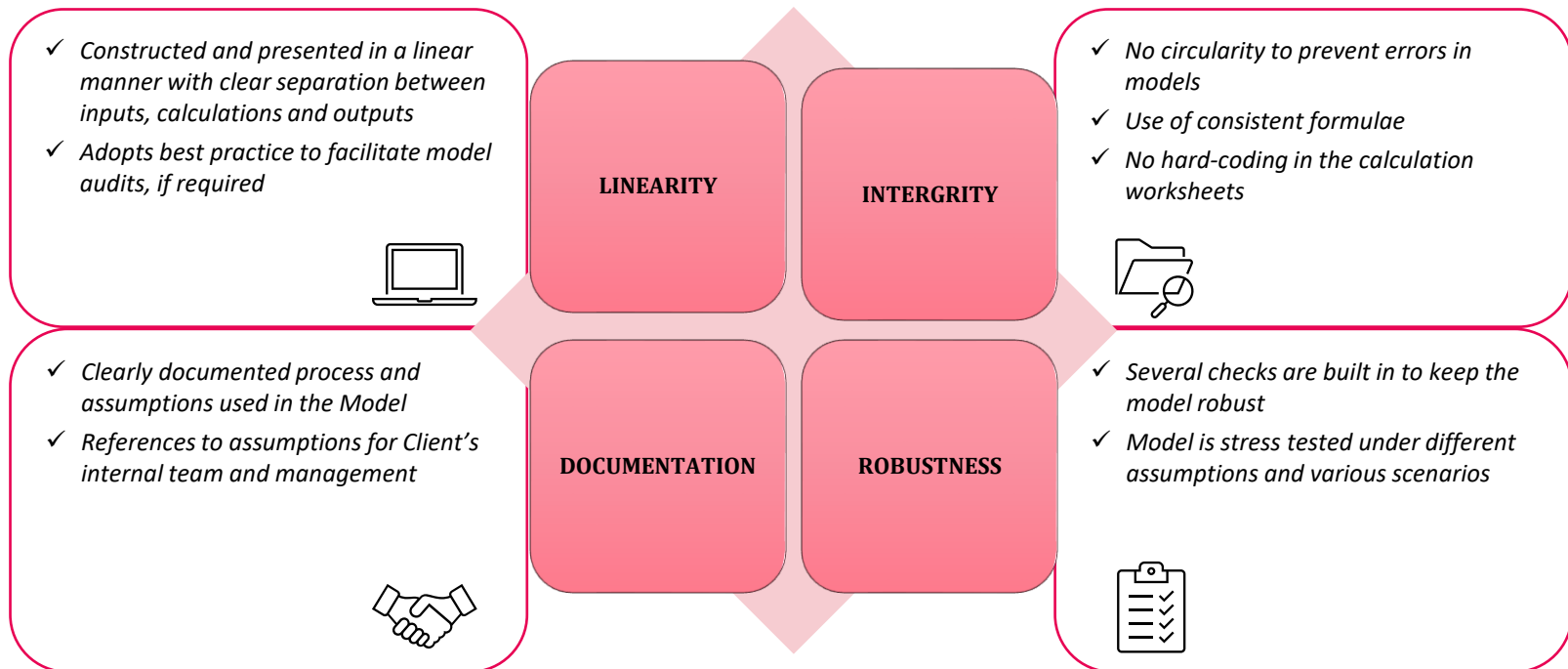
Key considerations for a portfolio level financial model



PORTFOLIO FINANCIAL MODELLING

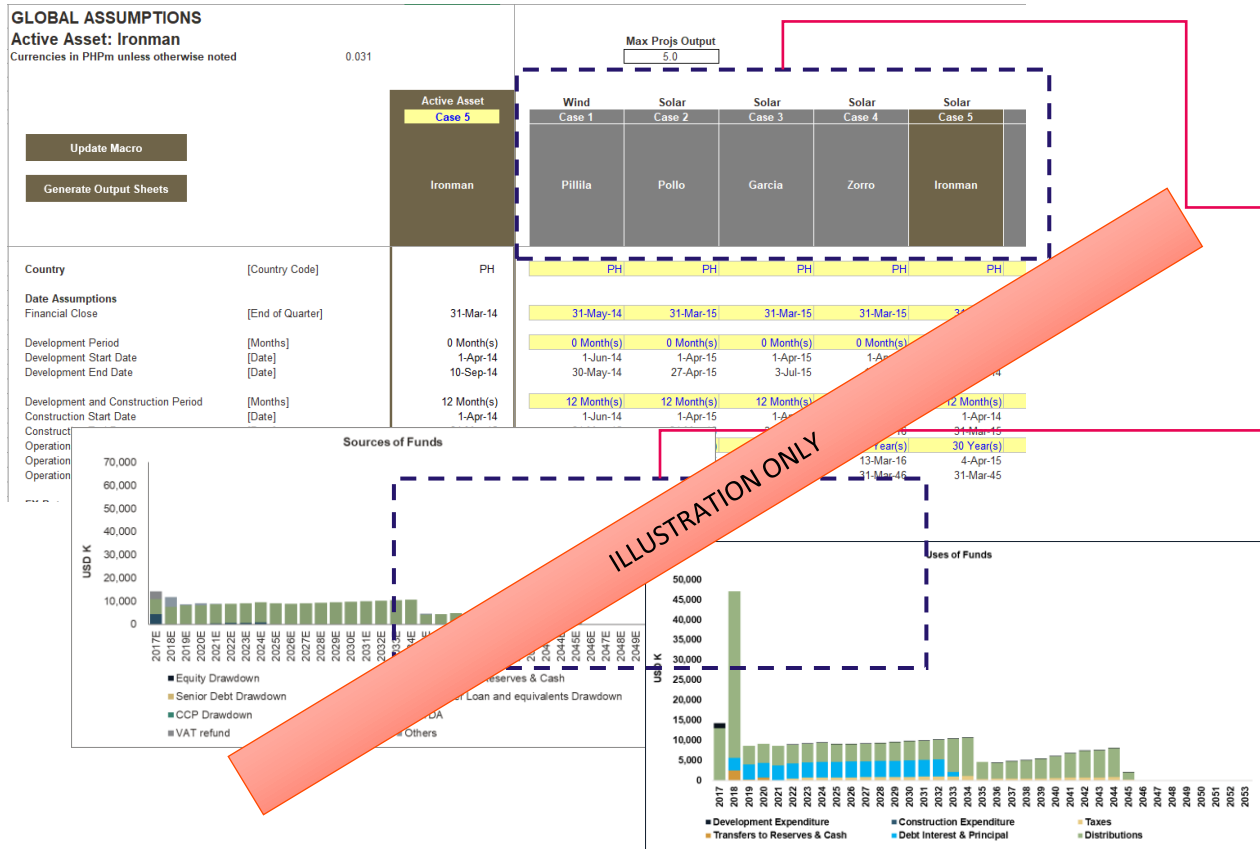
Industry Best practices

We follow below industry best practices for developing financial models for infrastructure projects.



PORTFOLIO FINANCIAL MODELLING

Portfolio Modelling – Sample



Structured Inputs for individual assets

- The inputs for each country will be organized in a structured manner in a single assumptions sheet; along with the functionality to use the model for any particular asset through user selection

Data Visualization

- Model to include data visualization via graphs for an interactive review of the assets on key parameters under various scenarios

PORTFOLIO FINANCIAL MODELLING

Portfolio Modelling – Sample

ANNUAL CONSO

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30
CASHFLOW STATEMENT											
EBITDA	PHPm	30,476	32,613	37,056	37,733	39,236	37,457	38,990	39,278	39,837	40,542
Tax Expense	PHPm	(1,792)	(1,716)	(2,441)	(2,447)	(2,522)	(2,384)	(2,545)	(2,589)	(2,726)	(2,903)
Change in NWC											
Capex											
Dividend Income											
Other Expenses											
Proceeds from Assets Sales											
Other Investing Activities											
INCOME STATEMENT											
Revenue											
Contracted Revenue	PHPm			41,457	43,116	46,733	49,094	47,756	49,571	50,129	51,088
Uncontracted Revenue	PHPm			2,362	2,589	2,503	4,735	4,719	4,928	5,144	5,251
Power Plant Revenue	PHPm			43,819	45,705	49,236	51,865	53,829	52,475	54,499	56,339
Steam Revenue	PHPm			-	-	-	-	-	-	-	-
Total Revenue	PHPm			43,819	45,705	50,753	51,865	53,829	52,475	54,499	56,339
Growth	%					11.0%	2.2%	3.8%	(2.5%)	3.9%	1.4%
Costs											
Geothermal Costs	PHPm			-	-	-	-	-	-	-	-
Purchased Services And Utilities	PHPm			(2,717)	(2,199)	(2,278)	(2,355)	(2,435)	(2,517)	(2,603)	(2,782)
Parts And Supplies Issued	PHPm			(548)	(566)	(586)	(604)	(624)	(644)	(664)	(708)
Repairs and Maintenance	PHPm			(1,180)	(1,219)	(1,261)	(1,301)	(1,343)	(1,386)	(1,430)	(1,523)
Rental, Insurance And Taxes	PHPm			(1,479)	(1,527)	(1,579)	(1,630)	(1,682)	(1,736)	(1,791)	(1,908)
Business And Related Expenses	PHPm			(104)	(108)	(111)	(115)	(119)	(122)	(126)	(134)
Personnel Costs	PHPm			(1,946)	(2,010)	(2,079)	(2,145)	(2,214)	(2,285)	(2,358)	(2,511)
Govt. Share	PHPm			(538)	(571)	(643)	(656)	(681)	(657)	(683)	(702)
Others	PHPm			-	-	-	-	-	-	-	-
Total Costs	PHPm			(8,512)	(8,201)	(8,537)	(8,806)	(9,097)	(9,346)	(9,655)	(10,268)
Growth	%			1.3%	(3.6%)	4.1%	3.2%	3.3%	2.7%	3.3%	3.1%
Purchased Services And Utilities	PHPm			(2,239)	(2,313)	(2,392)	(2,468)	(2,547)	(2,629)	(2,713)	(2,889)
Parts And Supplies Issued	PHPm			(58)	(60)	(62)	(64)	(66)	(69)	(71)	(75)
Repairs and Maintenance	PHPm			(101)	(105)	(108)	(112)	(115)	(119)	(123)	(131)

Consolidated CashFlows

- The consolidated cash-flow model will be prepared at the Group level to review major cash-flows over the projection period, as per requirements of client

FIRM PROFILE

A brief firm profile of YOG INFRA with an introduction to our service offerings.

YOG INFRA

About Us

Our objective is to drive economic growth and make positive social impact through sustainable infrastructure development.

YOG INFRA is an infrastructure focused financial advisory firm. We work with Developers and Development Finance Institutions (DFIs) and help them make informed investment decisions across infrastructure development lifecycle.

With our offices in Singapore and India, we work on projects globally, and the team brings strong experience in supporting development of infrastructure projects.

OUR SECTOR COVERAGE

The team members of YOG INFRA have experience in advisory services across below mentioned infrastructure sectors:



Renewable Energy (Solar, Wind, Hydro)



Energy Transition (storage, hybrids, EV)



Water and Waste Management



Transport (Road, Rail, Ports, Airports)



Urban Infra (Affordable Housing, Real Estate)



Social Infra (Health, Education, Sports)



INTERNATIONAL EXPERIENCE

We bring international experience across Asia, Middle East and Africa, which enables us to incorporate best industry practices in our services to help clients deliver sustainable infrastructure projects.



VARIED SECTOR KNOWLEDGE

We possess working knowledge of various infrastructure sectors to deliver sectoral learnings in our service offerings to clients and meet their specific objectives.



STRONG COUNTRY RELATIONSHIPS

We have developed strong relationships with local partners across Asia; which has proven valuable to get insight in the country specific context for our advisory services.



QUALIFIED PROFESSIONALS

All our team members are qualified and subject matter experts in their respective fields. We also have an expert panel with experienced professionals across multiple geographies.



ISO CERTIFICATION

We are ISO 9001:2015 certified company; an international standard that specifies requirements for a quality management system (QMS). We strive to consistently provide high quality deliverables.



VALUE-ADD SERVICES

We partner with other firms to provide complimentary value-add advisory services (technical, legal and tax) as per client requirements specific to the project/ transaction.

OUR SERVICE OFFERINGS

Infrastructure Advisory



PUBLIC PRIVATE PARTNERSHIPS (PPP)

- PPP Feasibility/ Options Assessment
- PPP Transaction Advisory



BUSINESS PLANS AND MARKET ENTRY STRATEGY

- Strategic Business Plans
- Country Assessments/ Market Entry Strategy



FINANCIAL MODELLING

- Development of Financial Models for infrastructure projects across sectors
- Model Reviews



DUE-DILIGENCE

- Commercial and Contractual due-diligence
- Review of transaction structure, project risk assessment and review of project agreements



PROJECT FINANCE

- Assessment of financing options
- Project Finance – Debt and Equity Raise for infrastructure projects



DEBT REFINANCING & RESTRUCTURING

- Debt refinancing
- Debt restructuring to improve or restore liquidity for infrastructure projects



TRAINING AND CAPACITY BUILDING

- Capacity Building for government agencies and private sector
- Training done by deal practitioners



RETAINERSHIP SERVICES

- Monthly retainer with our existing or new clients to help them meet their financial advisory needs across the board

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