Macro Asset & Liability Management

Insurance and Pension Fund potential contributions to infrastructure funding

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Through ALM (Asset & Liability Management), financial institutions arrange its investment portfolio to better match its liabilities profile

Micro-level ALM

ALM at Life Insurance companies and Pension Funds

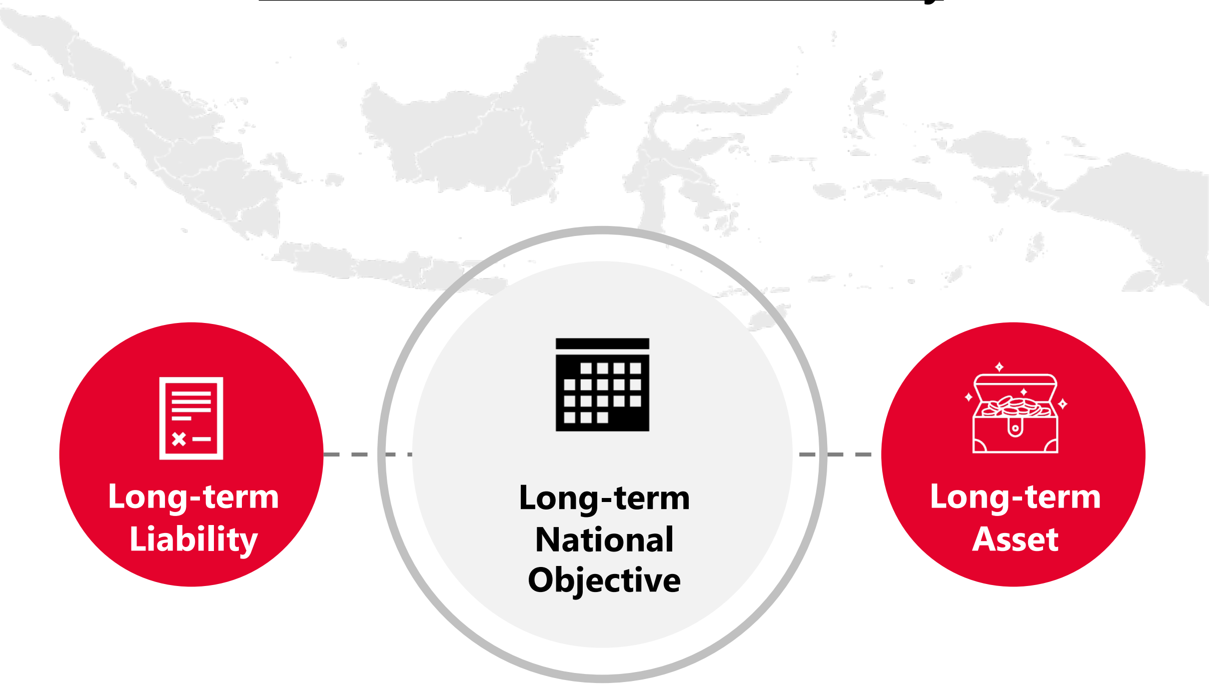
- **Aims to ensure life insurance companies & pension funds are able to meet its short, medium and long term obligations.**
- **ALM arranges the investment asset portfolio mix** with **various durations of assets matching** with **liability profile with a certain target yield.**

*Illustration

Maturity	5 years	10 years	> 10 years
Liability 1	USD [x]		
Asset 1	USD [x]		
Liability 2	USD [y]		
Asset 2	USD [y]		
Liability 3	USD [z]		
Asset 3	USD [z]		

Macro-level ALM

At national level, a Macro ALM potentially helps match the liabilities arising from one industry (or set of demographic) with assets from a different industry

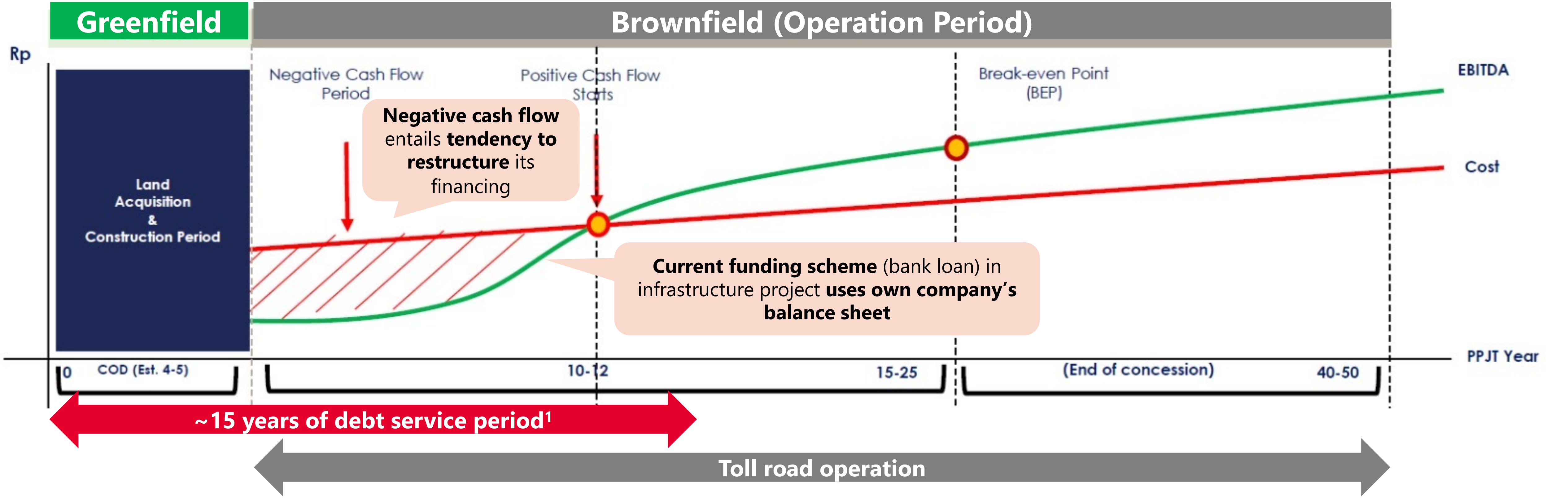


Focus of today's discussion: **Insurance & Pension Fund liabilities vs infrastructure assets**

Sources: IFG Analysis

Infrastructure projects tend to have a cash flow trend that is negative-to-minimal in short and medium term; and will start to turn positive in a very long term

Illustration cash flow trend in infrastructure project



Infra project asset-side

Infrastructure project typically has **negative – minimal net cash flow at early years of the project ..**

Infra project liability-side

.. Despite this, the project still have **obligation to repay its debt (principal and interest)**

Notes: 1) Periods where company pays its debt obligation

Sources: Bahana TCW Investment Management, IFG Analysis

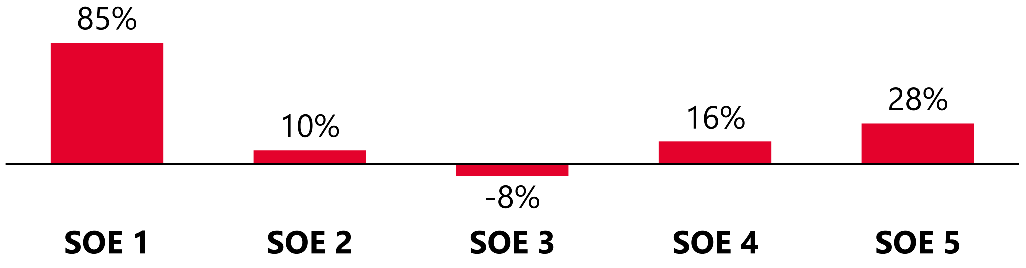
As a consequence of current financing scheme, construction SOEs have fallen into financial difficulties

Construction State Owned Enterprise ("SoE") capital and liquidity matrix (2022)

Unable to fulfill its obligation

Debt service ratio below 100%

DSCR = EBITDA / debt repayment



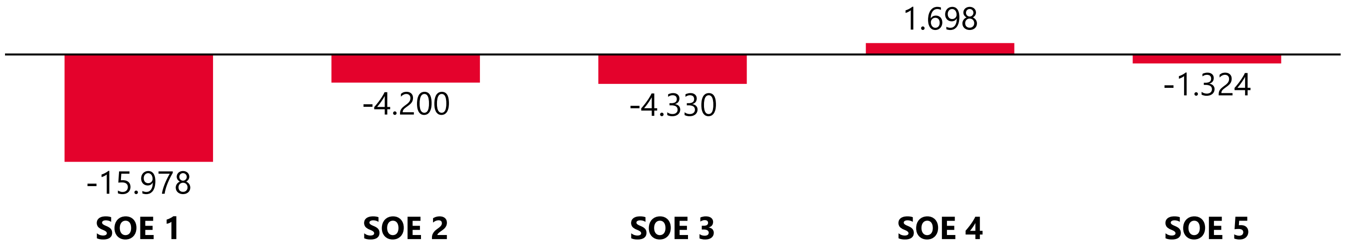
The majority of funding comes from debt

Majority D/E ratio above 100%

D/E = Debt / Equity

Negative free cash flow (Rp bn)

4 out of 5 Karya BUMNs posted losses in 2022 due to fairly high interest expenses



"Four Infrastructure SoEs are in debt of IDR 214 trillion, do they able to pay?"

Bahasa: "Empat BUMN Karya Terlilit Utang Rp 214 Triliun, Sanggup Bayar?"

"Infrastructure SoE's debt is mounting, profits are becoming victims"

Bahasa: "Utang BUMN Karya Menggunung, Laba Jadi Korban"

"Waskita Karya (WSKT) is sued, seven PKPU[2] requests came at the same time"

Bahasa: "Gugat Waskita Karya (WSKT), Tujuh Permohonan PKPU Datang Bersamaan"

Sources: Bahana TCW Investment Management, Public Information, IFG Analysis

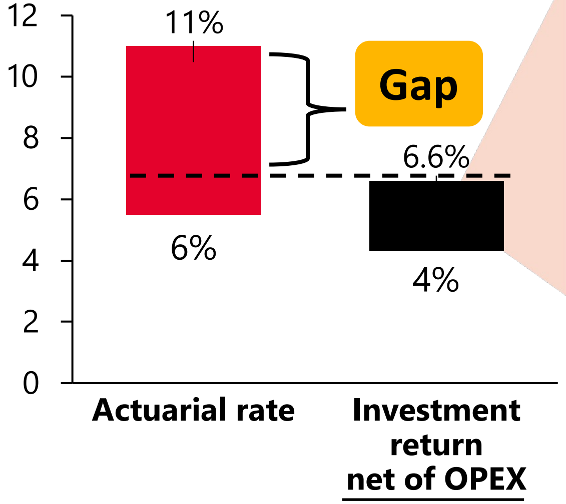
3

For many Defined Benefit pension funds, asset investment yield is lower than the liabilities discount rate

Actual discount rate > investment yield

Gap between the return from insurance and pension fund current investment allocation and the actuarial rate, i.e the rate at which liability is discounted..

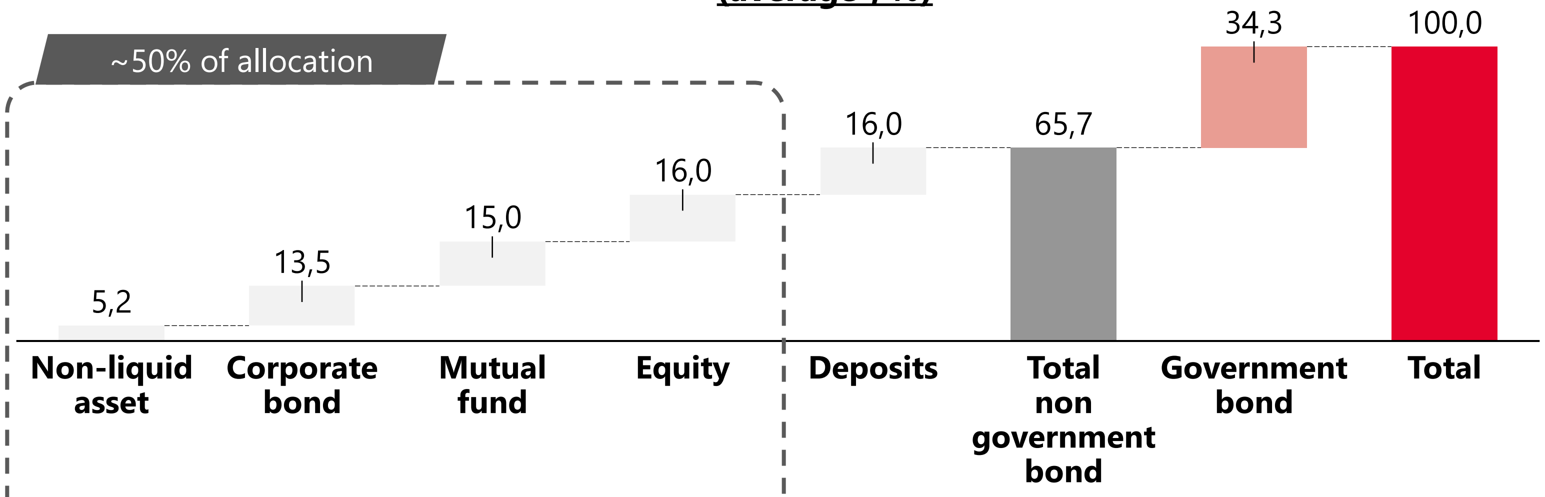
Comparison of actuarial rate and investment return[1]



More than 50% investment portfolio of insurance and Defined Benefit Pension Fund is comprised of some **volatile, short, and non-liquid investment**, while **only less than 50% is invested in government bond**

Significant portion (~50%) of the investment is allocated to **medium-high risk assets with short-medium term maturity**

Investment allocation (average[2], %)



	Non-liquid asset	Corporate bond	Mutual fund	Equity	Deposits	Total non government bond	Government bond	Total
Volatility	Not-volatile	Not-volatile	Volatile	Volatile	Not-volatile		Not-volatile	
Duration	Non-liquid	Short - med	Short - med	Short - med	Short		Med - long	

Notes: [1]) Range, for SOE pension fund industry, [2]) Average of 2020-2022

Sources: OJK, IFG Analysis

3 While current OJK regulation has encouraged investment in infrastructure, arranging it on B2B basis is challenging

Investment scheme 1 (participation via bond)

POJK 36 /2016

Insurance and pension fund can fulfill the minimum limit for Govt. Bonds investment **by investing in corporate bond of SoE Construction companies.**

Insurance and pension funds → Invest in corporate bond of SoE Construction companies → **SoE Construction company corporate bonds**

Investment scheme 2 (participation via equity)

Insurance and pension funds → Equity investment in infrastructure company → **SoE Infra Company** → **Infrastructure asset**

Insurance and pension funds → Acquisition on infrastructure asset → **Infrastructure asset**

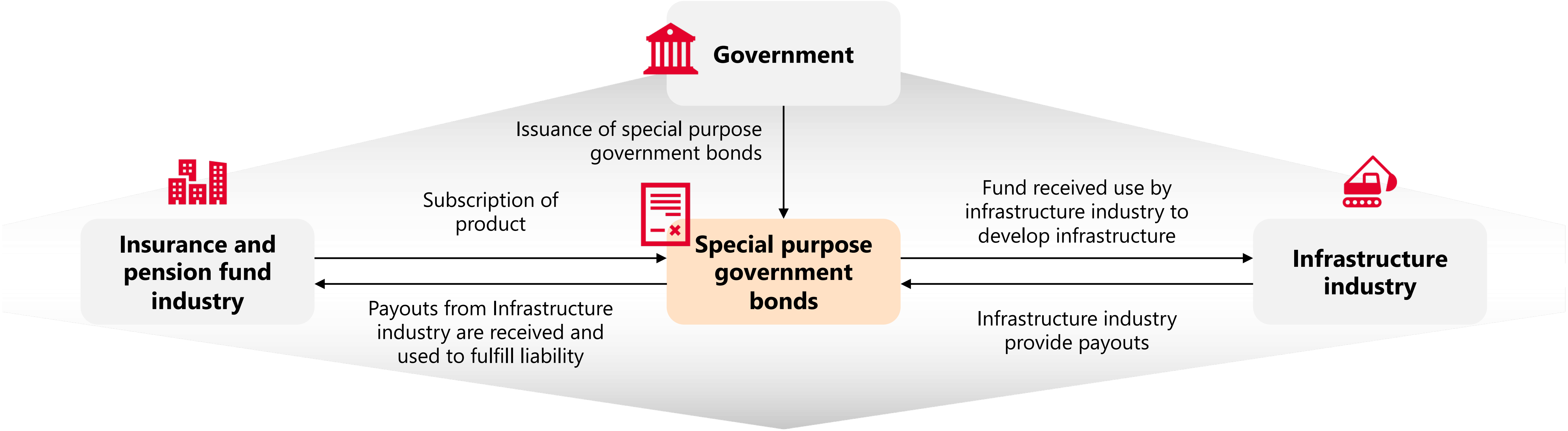
Notable challenge for each investment scheme

- Amidst **most of SoE Construction companies are in difficult financial condition,** investing in such companies poses **credit risk**
- **Scale issue – Going directly to infrastructure asset** for a particular pension fund would be **challenging as many pension funds are small scale**
- **To be viable on B2B commercially**, the infrastructure **must already operational**
- Insurance and pension fund still have a **short-term focus on investment maturity**

Given the challenges for B2B commercial arrangement above, government's facilitation would be required

Sources: POJK, Bahana TCW Investment Management, IFG Analysis

Government can facilitate a better ALM between long-term liability of pensions and life insurance companies and long-term infrastructure assets



How the macro asset-liability works ..

What insurance and pension industry can offer and needs

1. Can offer: **Massive pool of capital** for investment.
2. Needs: Relatively **secured investment that meets its liability profile.**

Special purpose government bonds

1. Late **medium - Long term maturity.**
2. **Guaranteed return.**
3. Relatively **low risk profile.**

What infrastructure industry can offer and needs

1. Can offer: **Investment opportunity** with **potentially higher investment return (12%-15%) .**
2. Needs: **Massive capital.**

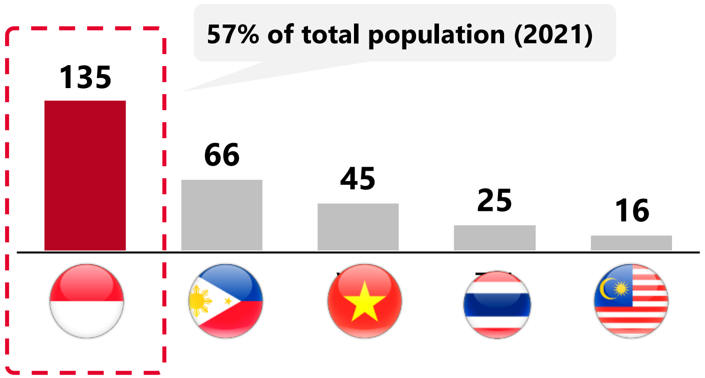
Sources: IFG Analysis

Macro asset-liability implementation via special purpose government bonds may provide solutions for Indonesia infrastructure, insurance, and pension industries

Insurance and pension fund liability profile

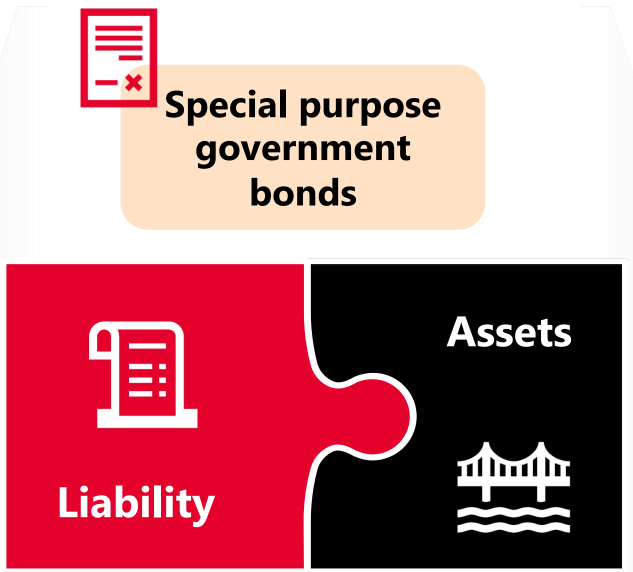
Young & active demographic, implies a longer duration pension liabilities;

Population under 30 in SEA



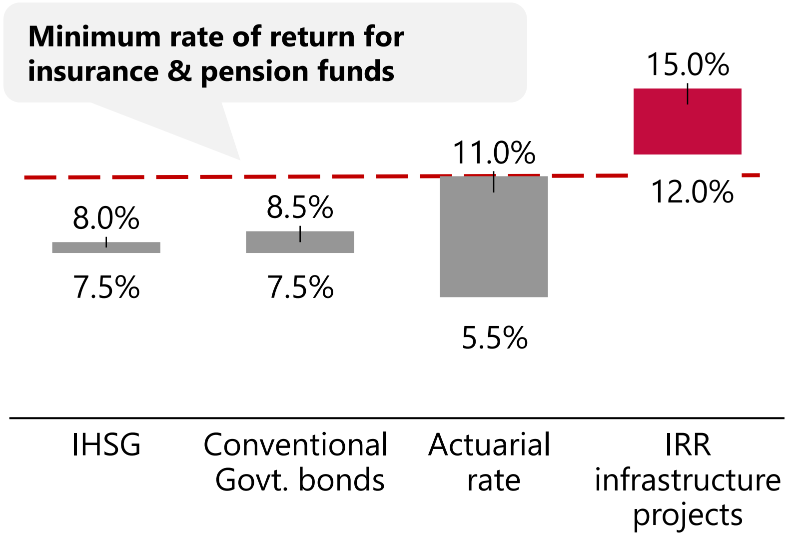
Require **investment return that Is higher than actuarial rate (>10%)** and **classified as safe asset**

Mortality rate as the basis of discounting amount of liability.



Infrastructure project profile

Higher and secured investment returns compared to actuarial interest rate (relatively higher rate of return (12%-15%)[1] compared to conventional capital market instruments (Shares, SUN)



Project with long term and significant return

Notes: [1]) Based on selected infrastructure projects, subsidiary of an SOE Company Update
Sources: Bloomberg, Public information, IFG Analysis

Neighboring countries (Singapore & Thailand) have provided incentive schemes for long-term deposits through pension funds and insurance

Will be further detailed in the following slide

Country	Incentive Schemes	Penetration[1]
Singapore	• CPF members would obtain benefits such as: ○ Tax exemptions on CPF contributions up to certain level; and ○ Investment return received by CPF members is risk-free and significantly higher than conventional government bonds.	**9.5%**
Thailand	• Tax deductibility on life insurance premiums (endowment with minimum duration of 10 years), • Health insurance premiums and retirement fund contribution receive tax relief up to certain level and subject to certain terms and conditions.	**5.3%**
Indonesia	• Current conditions in Indonesia, insurance premiums have no special benefits such as tax deductions (reliefs) and are subject to taxation; • However, pension fund contributions are not subject to taxation.	**1.9%**

Such **incentive schemes will create a robust pool of funds** that can be used **to help fund infrastructure projects**, and in the process would **increase the insurance penetration rate**.

Notes: [1]) Penetration on life and general insurance

Sources: PwC, Related countries tax website, IFG Analysis

4 Singapore's Central Provident Fund (CPF) invests in Special Government Bond (SSGS); the pool of fund is then invested through GIC (Singapore's SWF) for strategic investment

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Singapore Central Provident Fund (CPF) - mandatory social security system

Investment scheme

- CPF fund is **invested into Special Singapore Government Securities**.
- Proceed from the issuance of **SSGS will be optimized by the Singapore government.**
- Early redemption is possible **with notice and without penalty**.

Saving coverage:

- **Retirement** income
- **Home** ownership
- **Healthcare** financing

Tax deductions on pension contribution

Pension

Monetary Authority of Singapore

Monetary Authority

MAS issue SSGS

CPF subscribes to SSGS

SSGS

funds are invested through GIC

GIC

Singapore's SWF

to invest into

Strategic Investments

Yield SSGS > Yield Sg. Gov Bonds

- **Yield SSGS 2.5% - 6%**
- **VS yield of regular Gov Bonds** 0.5% - 4.0%

1. **CPF savings are protected** from market volatility.
2. **Minimize CPF members' exposure to investment risks.**
3. **ROI received by CPF members are risk-free** and significantly higher than other capital market instruments.

CPF statistics[1]

USD 392.8 bn
Asset under management ("AUM")

~84%
AUM compared to Singapore GDP

Notes: [1]) 2022 position, USD/SGD exchange rate of 1.3787
Sources: CPF website, IFG Analysis

Recommendation: Government can help facilitate better ALM through Special Purpose Bonds for infrastructure funding

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To be further explored	Some additional analysis to be done

1 We propose that **funding for infrastructure projects**, especially **greenfield and large scale, should not use the balance sheet of SoE Construction companies.**

Instead, Government should fund greenfield and large-scale infrastructure projects.

2 **To facilitate better ALM** between **long term liabilities of life insurance and pension funds, Government** can consider **issuing special purpose bonds for infrastructure funding** with **additional tax incentive or with better yield** than regular government bond.

- This will help increase funding for infrastructure; and
- At the same time, will potentially increase the participation and penetration of insurance and pension funds

Quantification of benefits to the government

- **Cost:** the infra-bond will cost more
- **Potential benefits** include
  - Learning from Singapore case, the **return** from GIC is **higher** than the cost of the special bond
  - Additional funding much needed for the infrastructure development NOW, with multiplier effects to the **economy**
  - **Higher participation** of pension and life insurance
  - **Better social security**

Mechanics is disbursing the fund

- **Either through sovereign wealth fund (e.g. INA),**
- **And/ or through existing BLU for Infrastructure fund, such as SMF**
- **And/ or through a newly setup agency**

Sources: IFG Analysis

Thank you