

26th World Gas Conference

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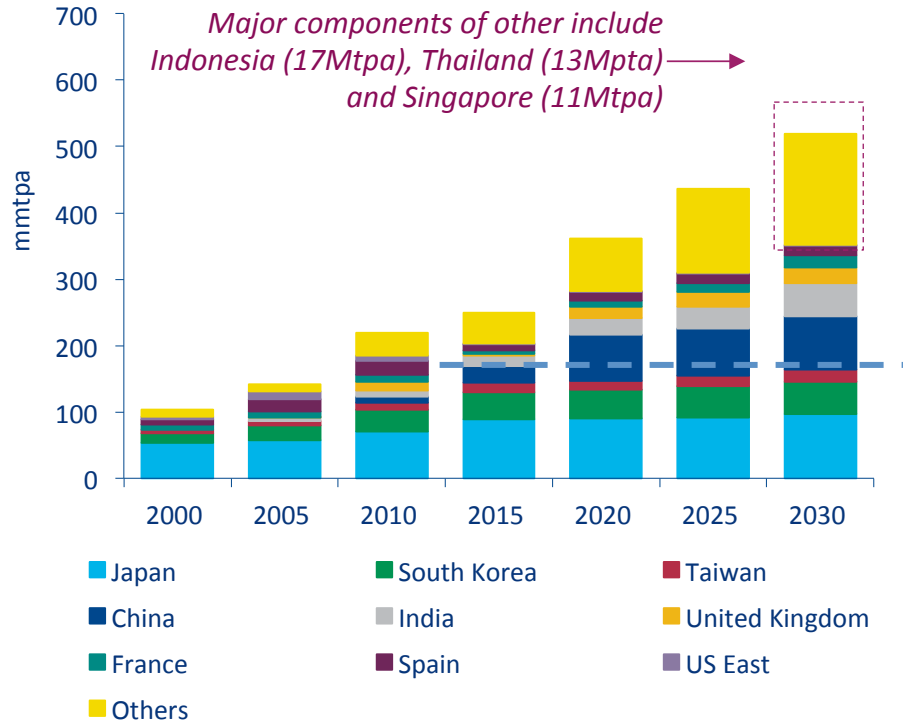
The Importance of Pricing on Major LNG Investment Decisions

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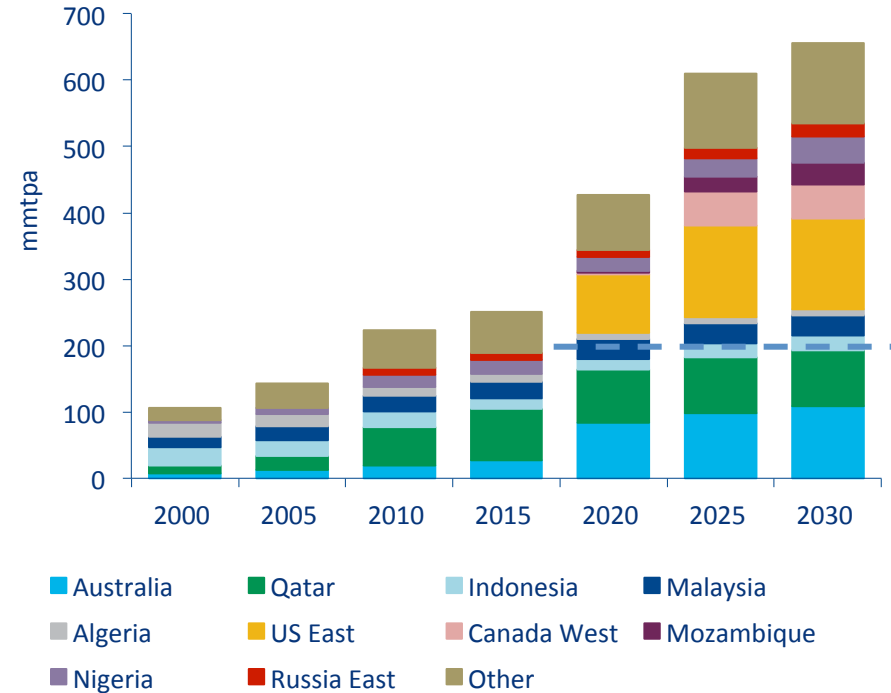


Regional Demand & Supply

LNG Demand by Region

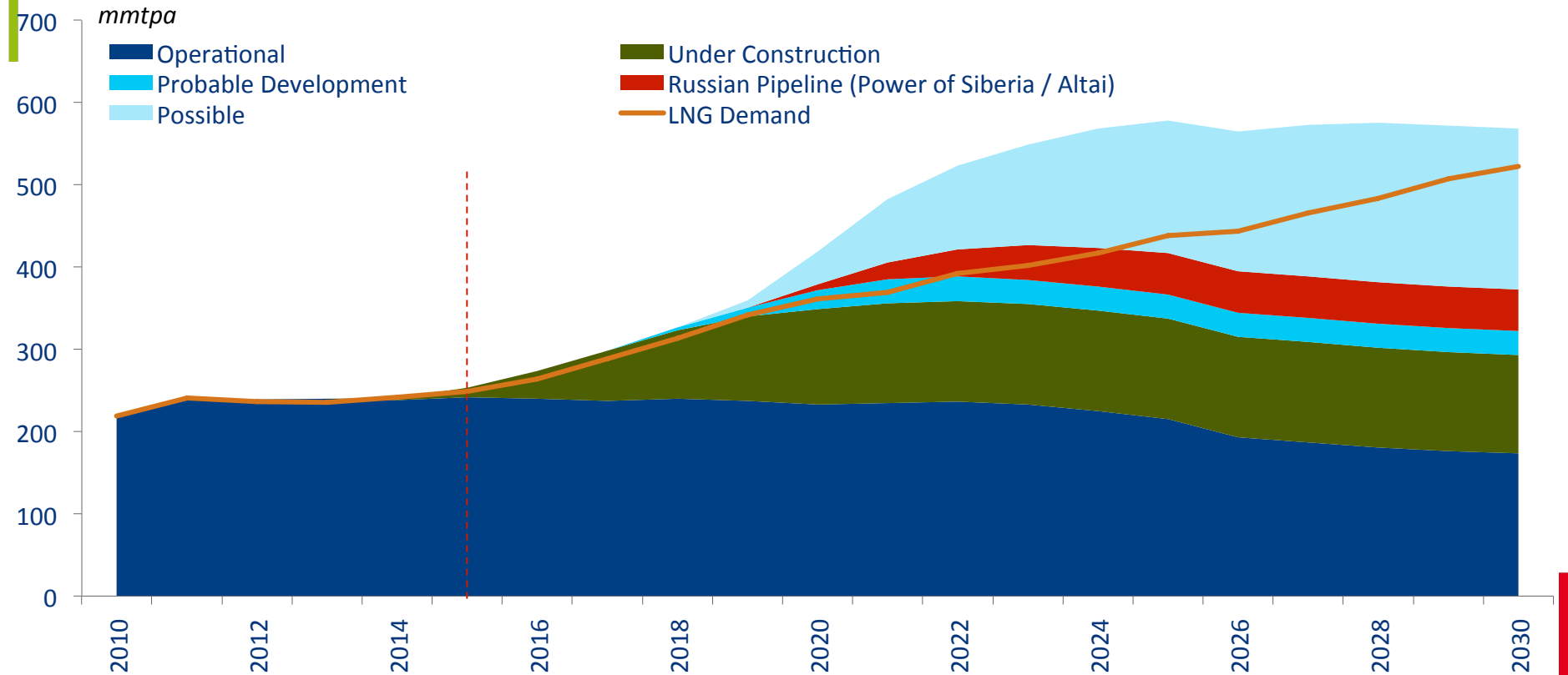


LNG Supply by Region



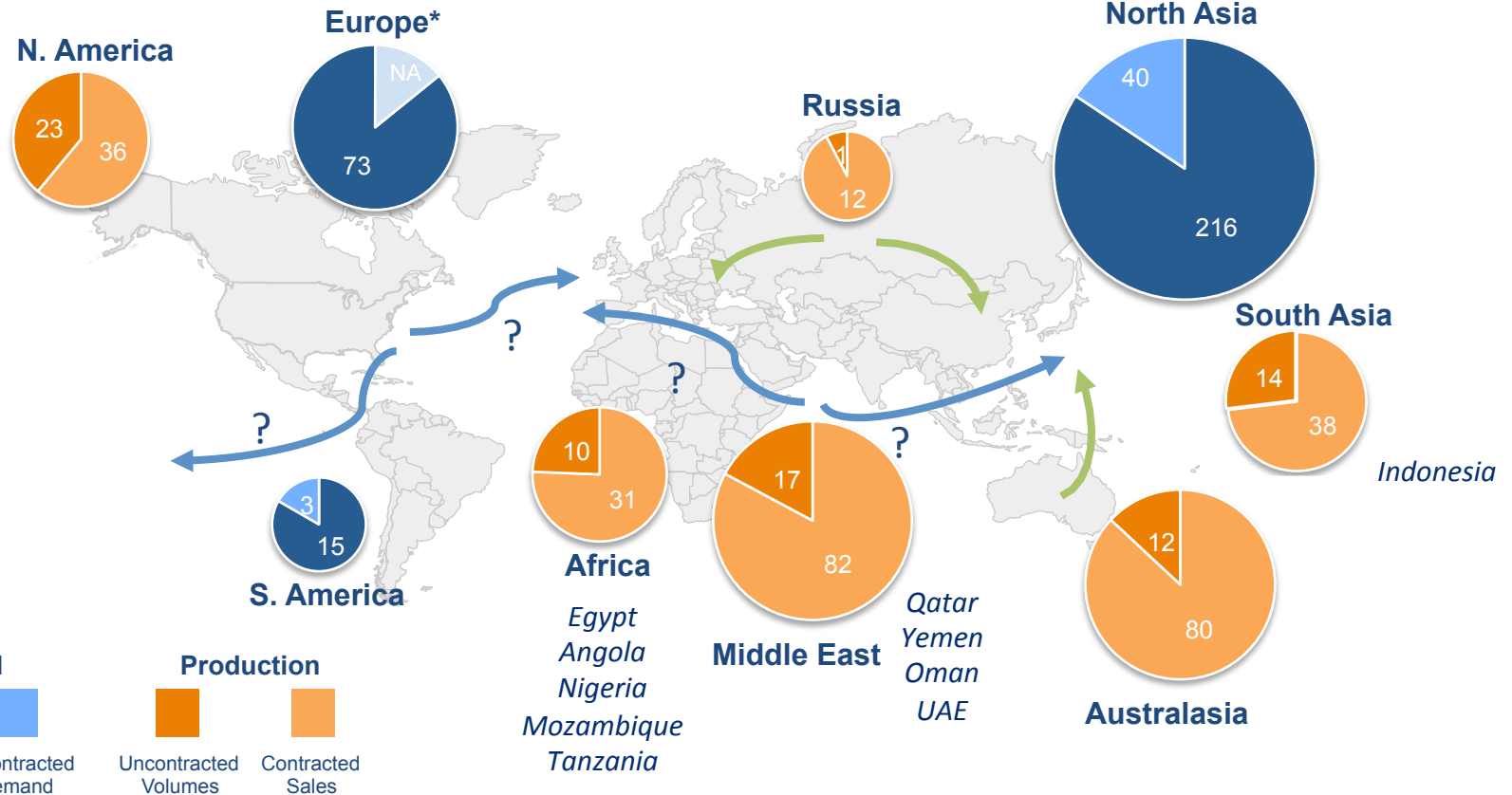
Source: WoodMackenzie.

LNG Demand versus Supply



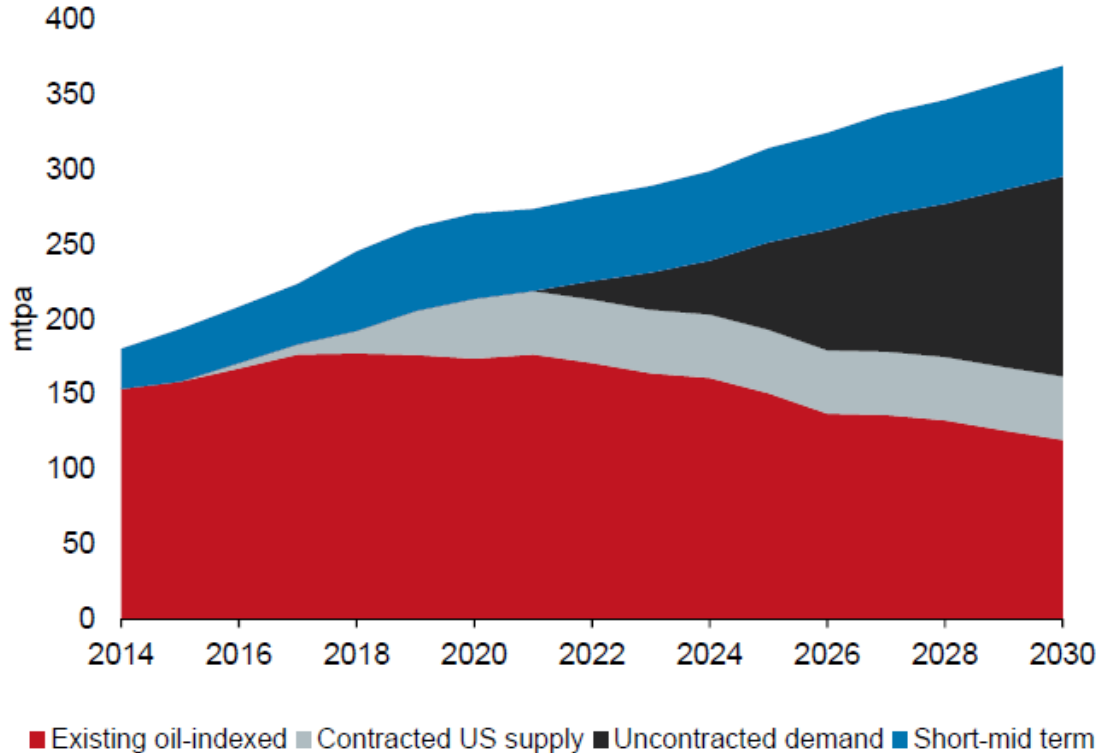
Source: WoodMackenzie. Power of Siberia capacity estimated at full rate of 40bcm/y, Altai capacity estimated at full run rate of 30 bcm/y.

Expected LNG flows



Historically volumes are benchmarked to oil

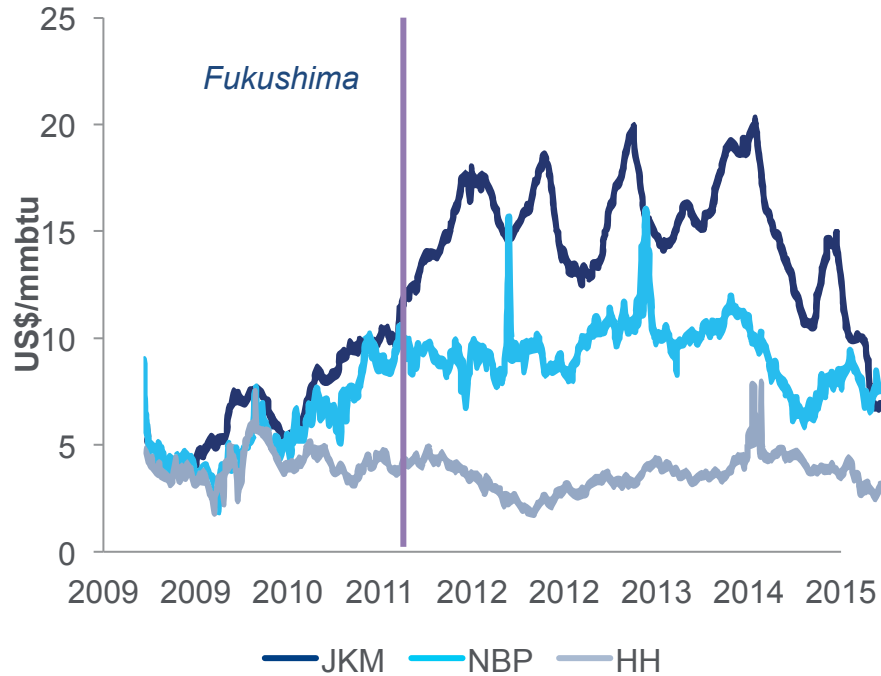
LNG Contracts into Asia Pacific



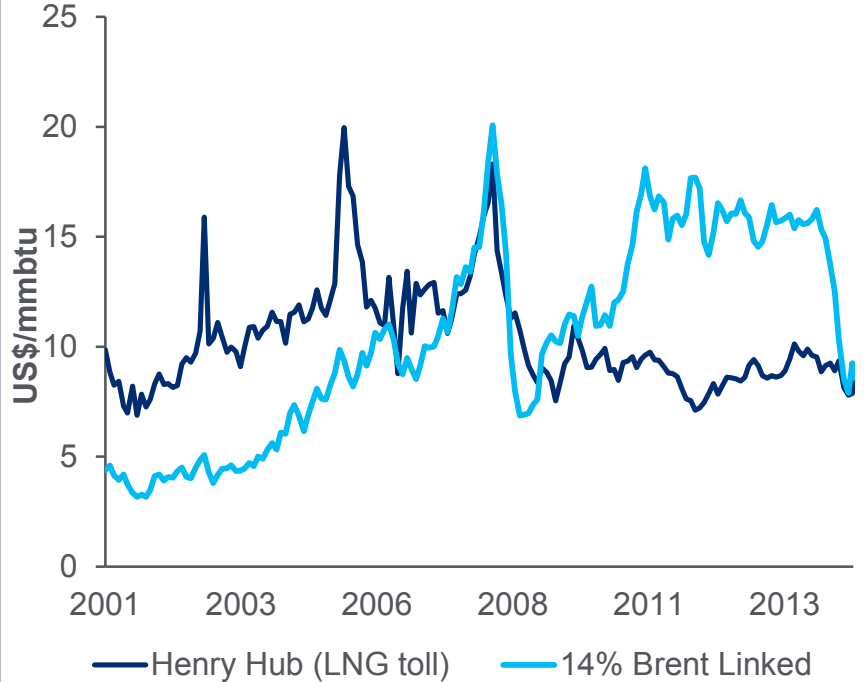
- Natural roll-off in oil-indexed contracted volumes due to roll-off of currently sanctioned projects
- Pre-FID projects currently largely uncontracted
- Emergence of Henry Hub and shorter dated contracts

Trends in LNG pricing

JKM premium vs NBP and HH



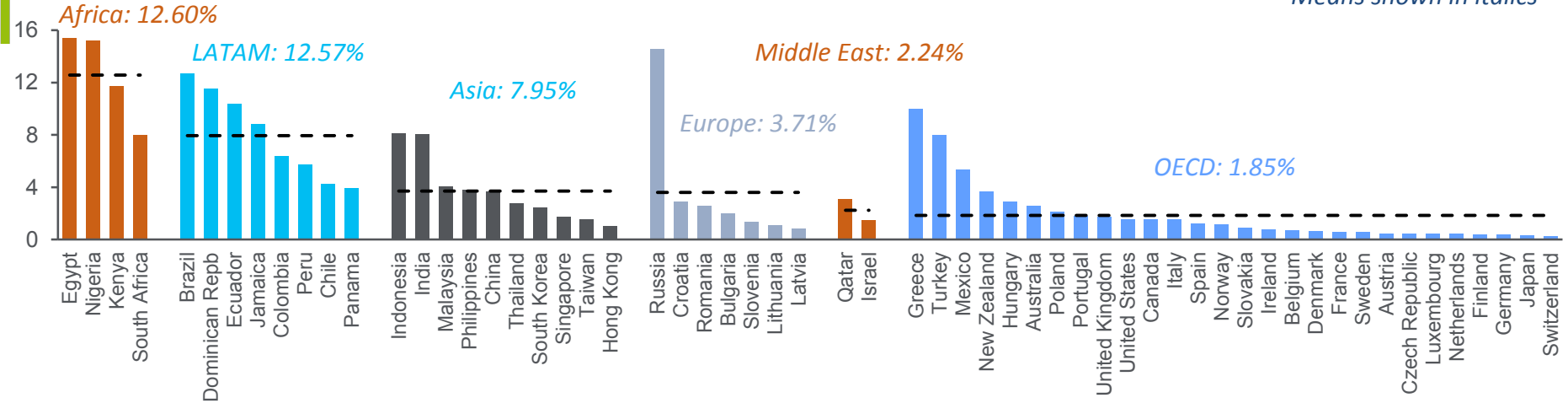
Asian Landed LNG Price: Henry Hub vs Oil Linked (US\$/mmbtu)



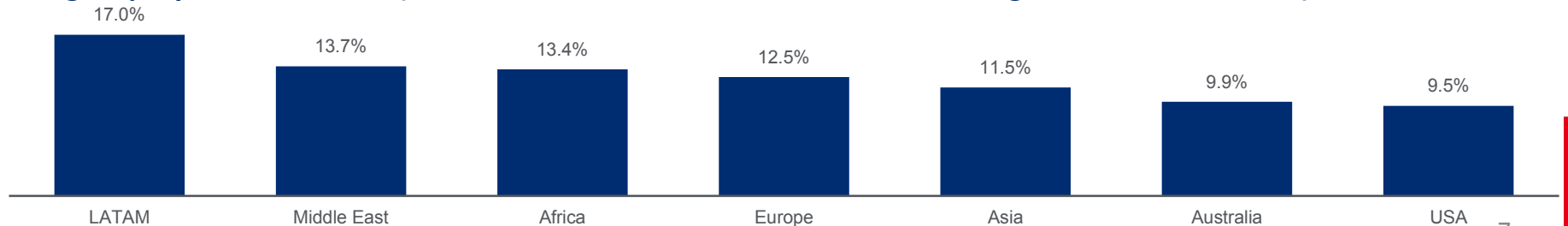
What are the return expectations?

Local Sovereign Bond Index Yield (% , select countries)

Means shown in italics

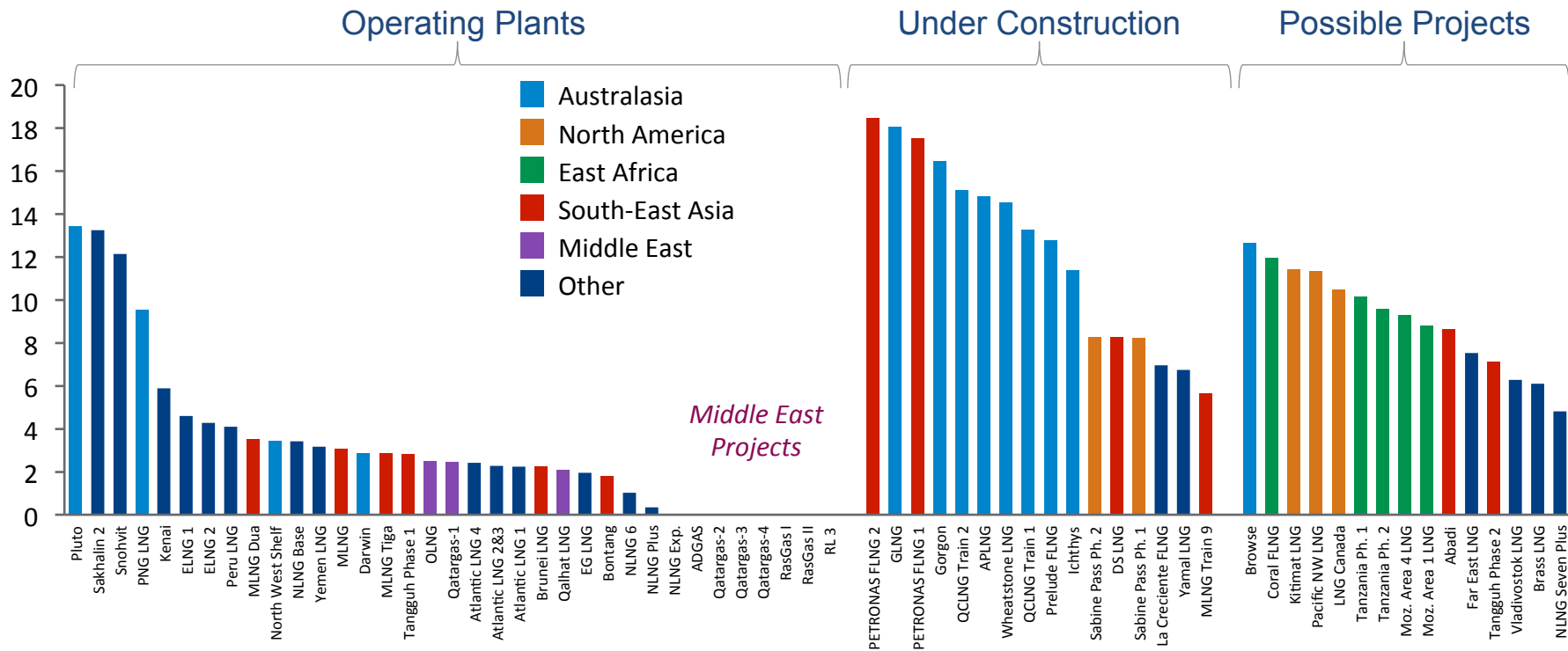


Average Equity Market Return (local index in select countries, forward looking based on consensus)



Breakeven Price for LNG Plants (FOB)

US\$/mmbtu for 12% IRR



How the sponsors are approaching investment

1

Sponsor funding

- E.g. Gorgon, QCLNG
- E&P majors explore and develop projects on risk
- FID requires contracted offtake position

2

Project finance

- E.g. Ichthys, PNG LNG
- Once sponsors achieve FID project finance often reduces sponsor capital requirements
- Projects require contracting of capacity prior to accessing PF and sanctioning

*derisk by
development / offtakers*

3

Infrastructure
divestment

- E.g. BG Pipeline (QCLNG)
- Sponsor de-risking once project is operating
- Opportunity for sponsor to de-risk at infrastructure / yield returns

Conclusion

- *LNG is a key fuel source in the energy mix and despite the large increase in capacity in recent years, demand continues to grow..... rapidly*
- *Projects are increasingly in non-OECD countries and more expensive to complete, resulting in higher breakeven pricing requirements*
- *Global LNG flows have tested historical contracting strategies..... the low Henry Hub pricing has prompted new pricing options for Asian buyers*
 - *However long term price stability is still a key requirement for investment decision making*
- *Sponsors are increasingly focused on improving the return on capital from a given project*
 - *As such project financing and the introduction of infrastructure capital and listed "Yield Co" products are being tested*