

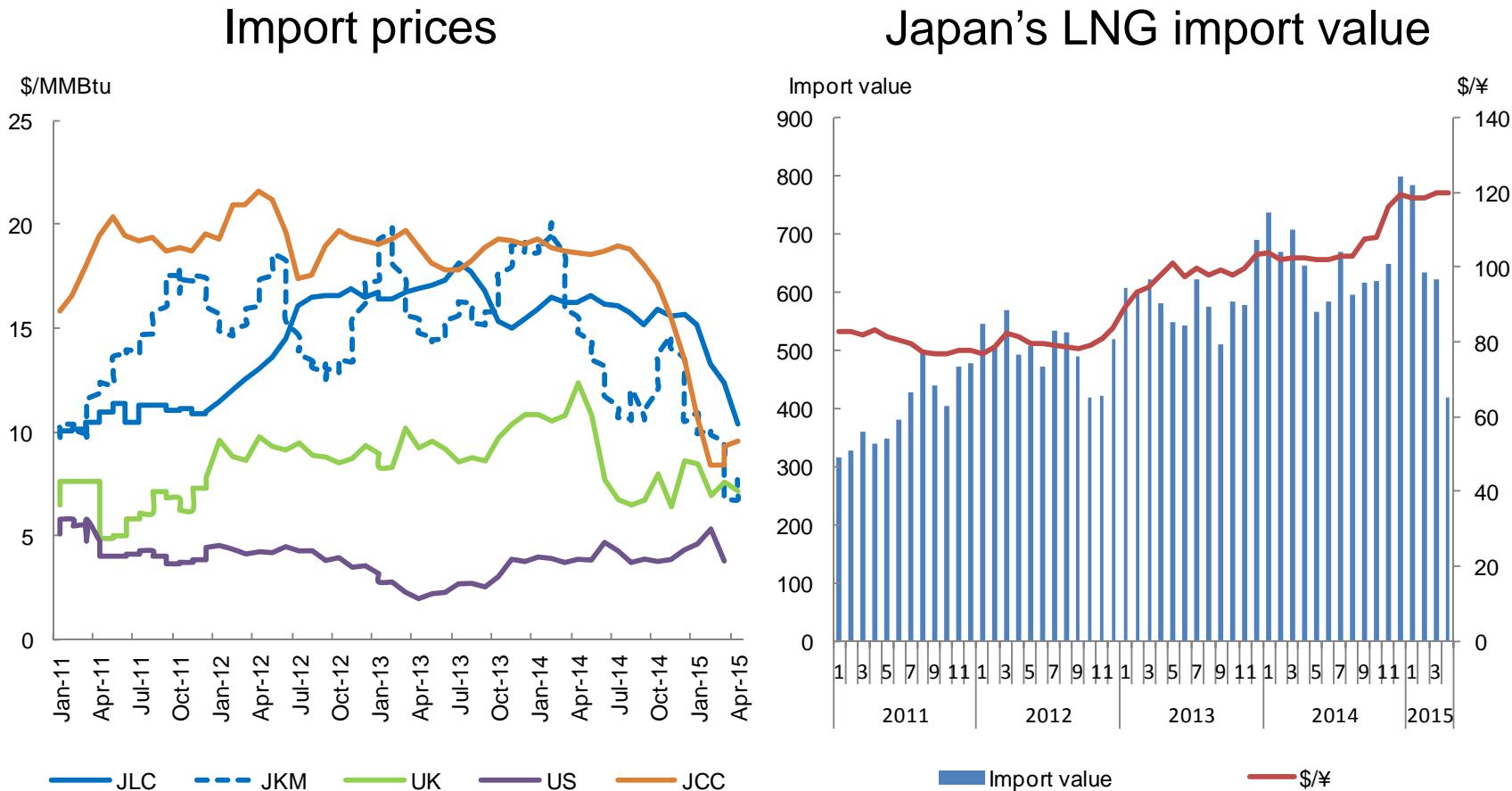
Lower oil price and its impact on natural gas markets

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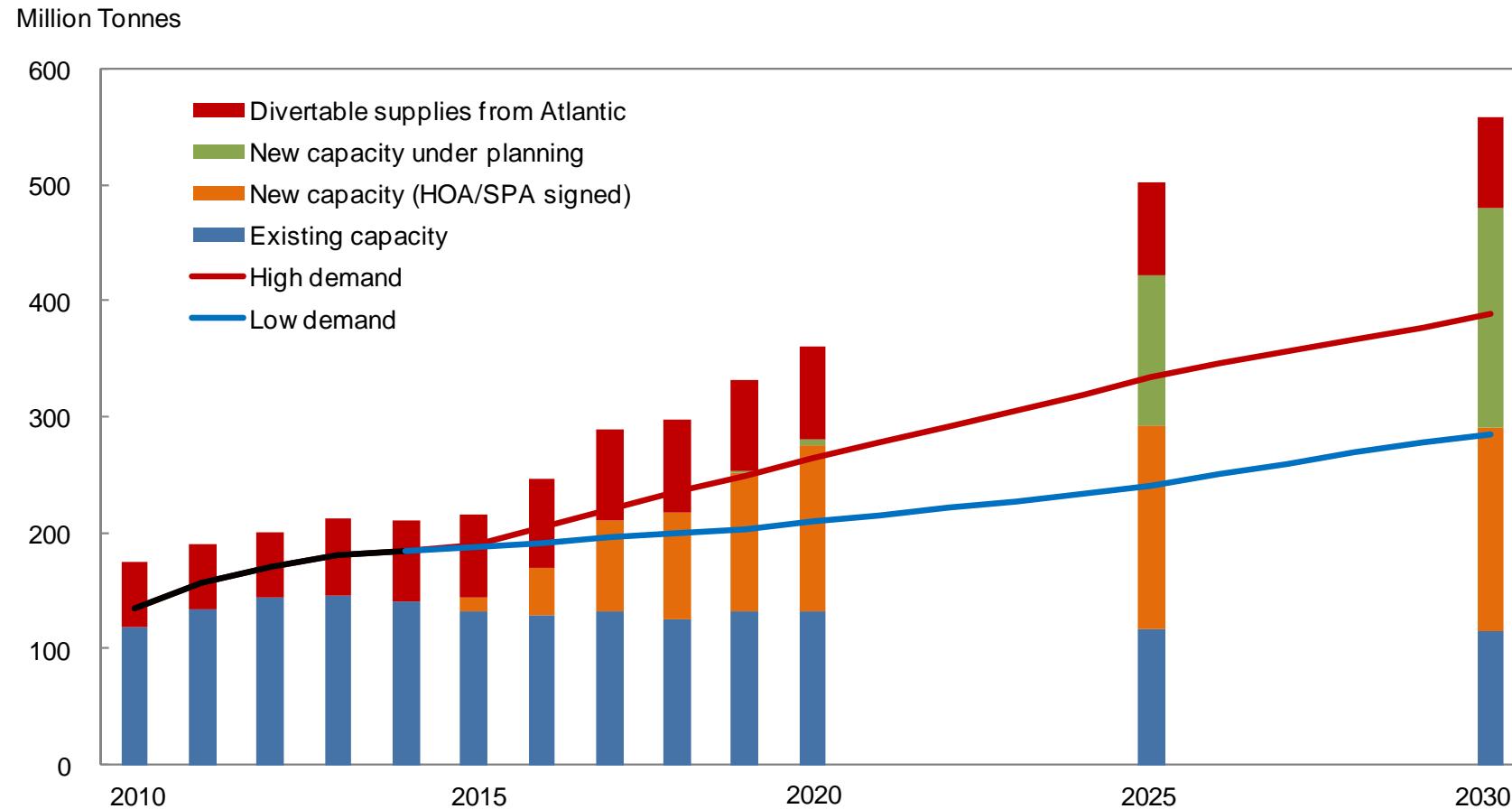
Oil and LNG import prices and value



Source: Energy Intelligence, EIA, Custom Statistics

- Lower oil price is decreasing Japan's LNG import price and value
- Asia Premium, especially on spot LNG, shrunk significantly

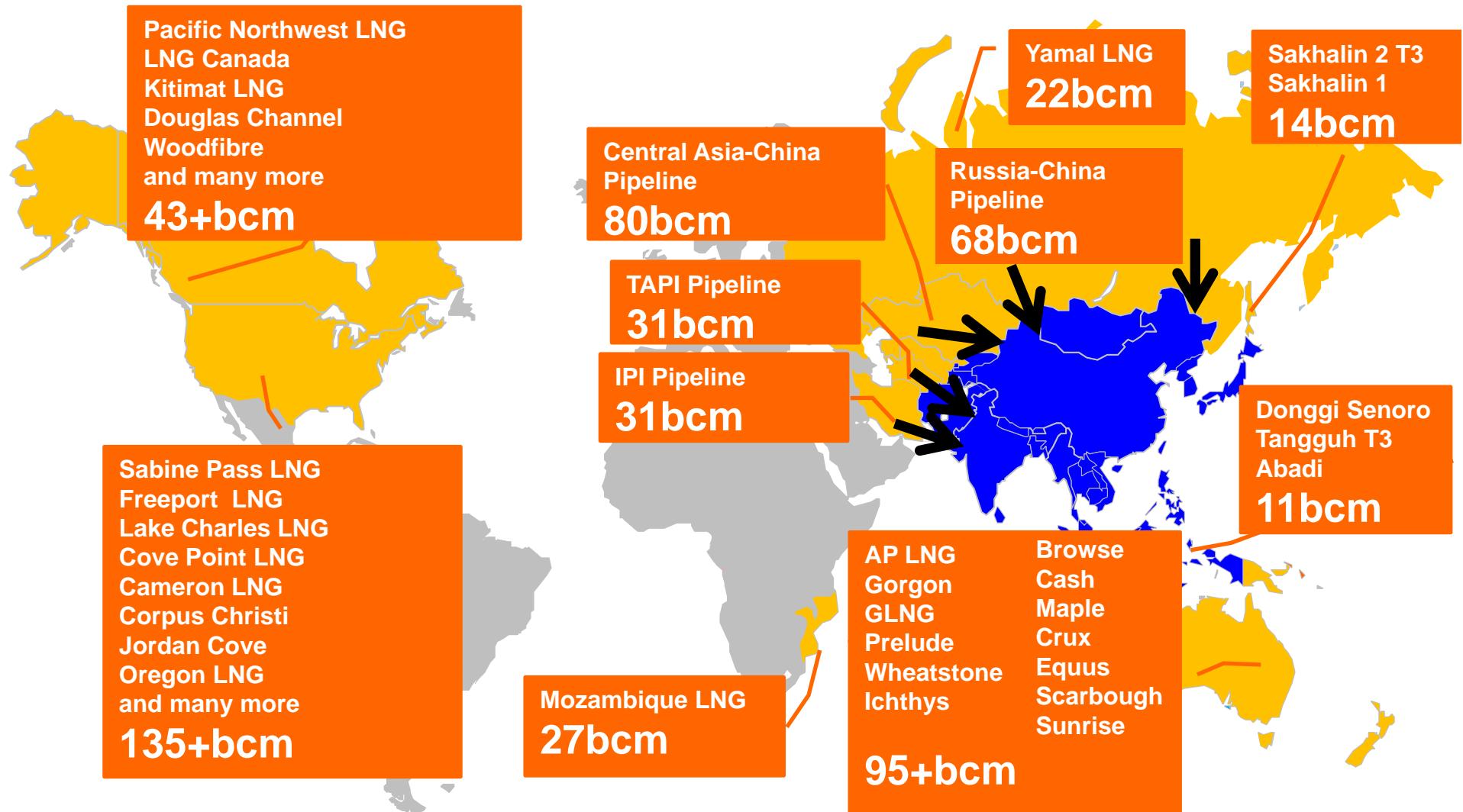
LNG outlook for Asia and Middle East



Source: IEEJ

- Not only lower oil price but “LNG surge” mainly in Australia and the US putting downward pressure on LNG price in Asia

Major new projects for Asia



- While lower LNG price is good news for importers, new upstream projects face challenges for securing upstream investments

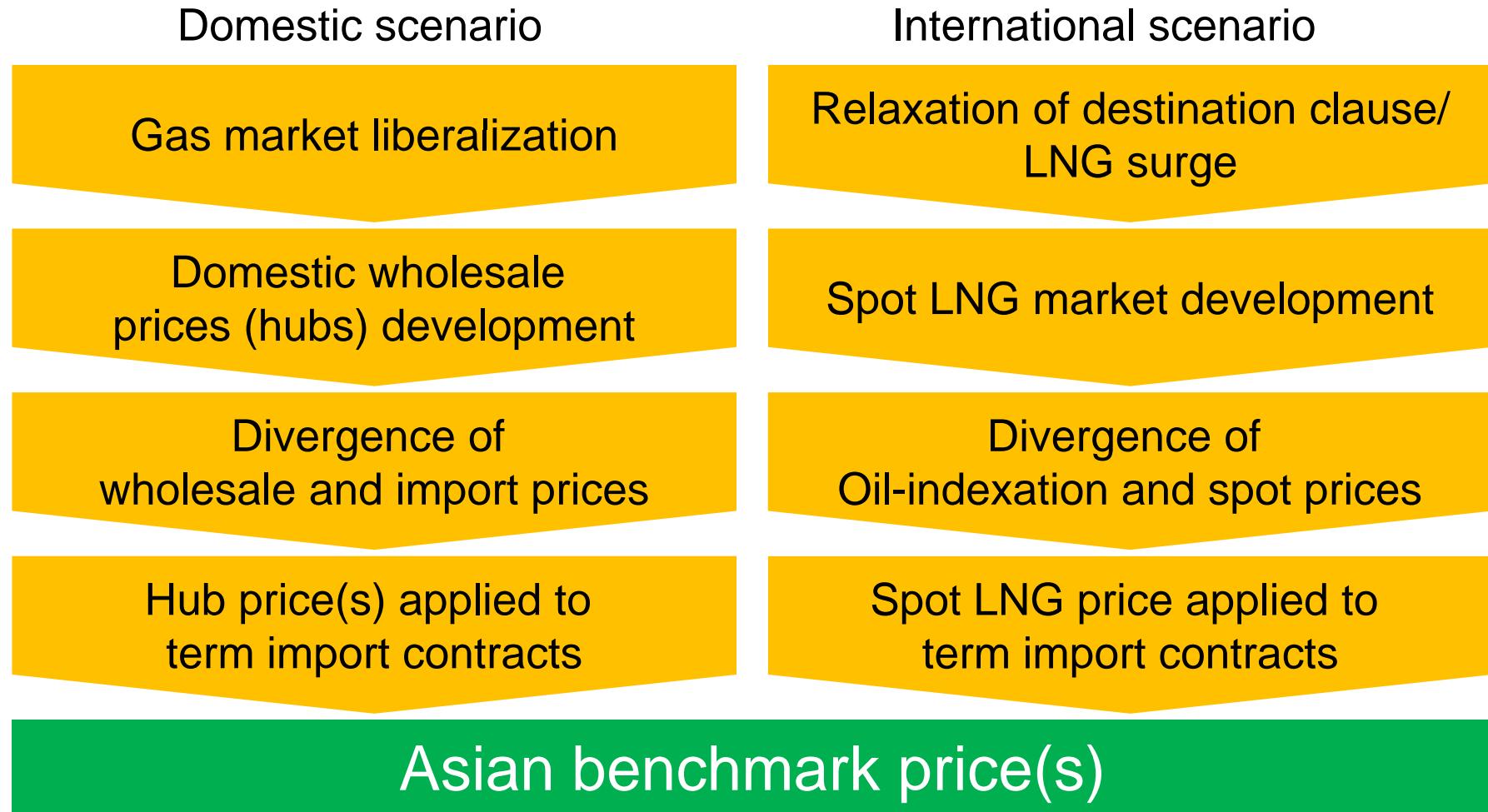


Natural gas pricing options for Asia

	Gas on gas competition pricing			Hybrids	Indexation
	Domestic Hubs in Asia	Henry Hub, NBP	Spot LNG	Oil	
Advantages	<ul style="list-style-type: none"> Possible to reflect regional market balance 	<ul style="list-style-type: none"> Already available Lower prices (for now) 	<ul style="list-style-type: none"> Already available 	<ul style="list-style-type: none"> Possibly the quickest solution 	<ul style="list-style-type: none"> Rational for power generation
Disadvantages	<ul style="list-style-type: none"> Not yet available Higher volatility 	<ul style="list-style-type: none"> Higher volatility Asia market balance not reflected 	<ul style="list-style-type: none"> Higher volatility Limited liquidity (so far) 	<ul style="list-style-type: none"> Gas market balance not reflected 	<ul style="list-style-type: none"> Lack of power market liquidity

- Although lower oil price incentivizes LNG buyers to stick to oil-indexation, the rationality issue remains
- Establishing benchmark pricing(s) through hubs in Asia and/or spot LNG pricing most rationale for Asia

How do we develop Asian benchmark price(s)?



- International scenario seems quicker for benchmark price(s) in Asia
- Flexibility in LNG trade is increasingly important to develop benchmark price