

Viewpoint

Managed decline needs managed integration

Why unbundling has become a dependency risk

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What this paper argues

- Gas and LNG markets are becoming more differentiated: some are growing, some are maturing, and others face declining domestic supply despite continuing demand.
- The challenge is not simply lower demand. It is the growing mismatch between molecules, infrastructure, contracts, customers and organisational models.
- The industry's historic separation into specialist businesses improved competition and efficiency, but it also created dependencies between participants with different incentives.
- A producer, infrastructure owner, buyer or investor may make a rational standalone decision that reduces value across the wider system.
- New and existing investments must therefore be assessed across the entire value chain, not solely on their individual economics.
- Greater integration does not necessarily require common ownership. It can be created through evolution in contracting, governance, shared planning, aligned incentives and coordinated decision-making.
- Inside companies, functional expertise must be complemented by mechanisms that connect upstream, infrastructure, operations, commercial, finance, regulatory and strategy teams.
- Leadership must shift from optimising individual assets and functions to stewarding value, resilience and risk across the whole system.
- The industry was built through integration. In many markets, it will need to mature, transition or decline through integration too.

Executive summary

For much of the past three decades, the gas and LNG industry has been shaped by growth.

Not uninterrupted growth. Not risk-free growth. Not growth evenly distributed across every market or every part of the value chain. But enough growth to support a powerful organising assumption: that tomorrow's gas market would, in aggregate, be larger than today's.

That assumption is weakening. But it is not weakening everywhere in the same way.

This is important. The gas industry is not moving from growth to decline as one global system. It is becoming more differentiated. Some markets are mature or declining. Some continue to grow. Some indigenous production sources are in decline while demand remains resilient or increases. Some markets are switching from domestic gas to LNG. Others may seek to

reduce LNG dependence through domestic production, pipeline supply, renewables, nuclear or efficiency. Meanwhile, global LNG supply is entering a new phase; we are expecting around 320 Bcm per year of new LNG export capacity to enter the market by the early 2030s, reshaping trade, affordability and supply security.

The issue, therefore, is not simply "demand disappearing". It is the growing mismatch between demand, supply, infrastructure, contracts and organisational models across different parts of the value chain.

Europe provides one version of the challenge: mature demand, reduced Russian pipeline supply, energy transition pressure, deadlines for cessation of LNG imports and a continuing need for supply security. Southeast Asia provides another: demand growth, but in many cases rising exposure to imported fuels and LNG as domestic resources

mature. The IEA describes Southeast Asia as a major driver of global energy demand growth to 2035, while also highlighting structural vulnerabilities linked to import dependence and concentrated supply routes. Japan is different again: a mature, import-dependent market where domestic LNG demand has been under pressure, with utilities increasingly managing portfolio surplus and resale exposure. Trinidad and Tobago offers another variant: a gas-export economy where domestic upstream decline affects LNG and petrochemical feedstock, while the wider global LNG market remains relevant to its export opportunity.

The common point is that the historic separation of value-chain positions is becoming a more material risk.

In a growing market, unbundling created focus. It allowed participants to specialise, compete, allocate risk and

Executive summary continued

improve performance within distinct parts of the value chain. In a more uncertain market, the same unbundling can expose participants to dependency risk: the value of any one position increasingly depends on how the rest of the chain behaves over time.

Managed decline, or managed maturity, is therefore not only a market issue. It is an integrated value-chain issue. It is also an organisation effectiveness issue.

That conclusion has been reinforced by recent Gas Strategies work on offshore/onshore gas transportation and processing infrastructure in a mature basin. While the specifics are particular to that system, the broader lesson is relevant well beyond mature basins: molecule management and infrastructure management can no longer be treated as separate disciplines. A material risk for molecule producers is

that, while the incentive of the infrastructure owner may be to reduce availability and gradually decommission capacity (to keep the system economic as overall throughput declines), the individual producers' business model is reliant on that infrastructure being available as long as technically possible. In this instance, value incentives are not aligned.

In a mature or changing system, the value of the molecule depends on the infrastructure that can process, condition, transport and deliver it. The value of the infrastructure depends on the molecules available to use it. The interface between the two becomes the strategy.

Figure 1: From functional efficiency to integrated stewardship

Market situation	Example logic	Primary risk	Business model implication	Organisation effectiveness implication
Mature or declining demand, changing supply mix	Europe-style markets facing transition, security-of-supply needs and changing import dependence	Infrastructure, contracts and portfolios may be misaligned with lower or more volatile demand	Shift from growth optimisation to resilience, cost recovery and selective reintegration	Cross-functional decisions needed across commercial, infrastructure, regulatory and stakeholder teams
Growing demand, declining indigenous supply	Southeast Asia-style markets where demand grows but domestic resources mature	New import dependence, LNG exposure and infrastructure lock-in	New investments must test affordability, utilisation and full-chain coherence	Investment appraisal must integrate upstream, LNG procurement, infrastructure, power and policy assumptions
Mature demand, import-dependent supply	Japan-style LNG markets	Long-term procurement and portfolio positions may outlive domestic demand	Portfolio optimisation, resale capability and downstream optionality become critical	Commercial, trading, customer and strategy teams need integrated decision rights
Declining domestic supply serving export infrastructure	Trinidad-style LNG and petrochemical systems	Feedgas decline threatens utilisation of liquefaction and industrial infrastructure	Value preservation depends on upstream renewal, third-party access and infrastructure alignment	Enterprise governance must connect upstream development, processing, LNG marketing and national stakeholder priorities
New investment in any part of an unbundled chain	New field, pipeline, regas, storage, LNG or downstream development	Standalone economics may fail if adjacent links do not behave as assumed	Due diligence must test whole-chain behaviour over asset life	Leadership must challenge assumptions across functions, counterparties, policy and end-of-life obligations
Mature basin infrastructure	Offshore gas and processing systems	Molecules and infrastructure may be managed separately despite physical interdependence	Managed decline requires integrated molecule and infrastructure planning	Organisation becomes the integration mechanism through governance, incentives and shared planning

Different markets, common dependency risks

The industry has been here before, but in reverse.

The early development of gas and LNG was built through integration. Upstream resource development, offshore gathering systems, processing facilities, pipelines, liquefaction, shipping, receiving terminals, downstream market creation, long-term offtake, credit support and government alignment were often developed as part of a coherent chain.

That was necessary because individual links in the chain could not carry the risk alone. A liquefaction plant needed reserves, shipping, buyers and financing. A buyer needed supply reliability, infrastructure and contractual confidence. A field development needed market access. Gas processing systems needed feedgas of the right volume, quality and reliability.

As the industry matured, the logic changed. Competition replaced

regulation. Liberalisation created new access models. Long-term contracts were replaced by short-term or spot markets. LNG became more flexible. Portfolio players emerged. Hubs became more liquid. Infrastructure, trading, shipping, regasification and downstream supply increasingly became distinct sources of value. The industry unbundled because it could.

For a long period, that made sense. When a system is in steady state, a pipeline owner and its shipper, for example, are both incentivised to ensure the availability of that pipeline, and to perhaps facilitate expansion. Both parties depend on each other for capturing value.

But market diversity now changes what needs to be connected. In Europe, the question may be how to preserve resilience and manage infrastructure costs as

demand evolves. In Southeast Asia, the question may be how to develop new LNG and gas infrastructure when domestic supply is maturing and import exposure is growing. In Japan, the question may be how to manage long-term LNG positions in a market where domestic demand is mature. In Trinidad, the question may be how to preserve LNG and petrochemical value when domestic gas supply is constrained.

These are different market situations. But they share a common feature: standalone optimisation is no longer enough.

A producer may rationally seek to monetise remaining reserves. An infrastructure owner may rationally seek to recover fixed costs. A buyer may rationally seek flexibility. A regulator may rationally seek affordability and security of supply. An investor may rationally assess a field,

terminal, pipeline or LNG position on its own economics. Each objective may be legitimate. But if the wider chain does not remain coherent, economic and aligned, the standalone case may fail.

That is why unbundling has become a dependency risk.

This applies to those already exposed in the value chain. Producers, infrastructure owners, buyers, traders and regulators may each control a defined position, but the value of that position increasingly depends on decisions made elsewhere. Molecules depend on processing, transportation and market access. Infrastructure depends on future throughput, gas quality and commercial utilisation. Buyers depend on upstream and midstream decisions they may not control.

It also applies to those considering new investment or development. A new field, processing investment, pipeline commitment,

LNG supply position, regasification project or downstream opportunity cannot be assessed only on standalone economics. Investors must test whether the wider chain on which the opportunity depends will remain coherent over the expected life of the investment.

Will the necessary infrastructure still be operating? Will tariffs remain economic as volumes change? Will gas quality remain compatible with processing capability? Will counterparties continue to have aligned incentives? Will regulators support cost recovery? Will customers still need the same service? Will emissions and decommissioning obligations alter the economics before payback?

These are no longer peripheral due diligence questions. They go to investability.

The mature basin lesson

A mature basin is not simply an upstream question. Nor is it simply an infrastructure question. It is a system question. Its future value depends on how molecules and infrastructure are managed together through uncertainty, declining throughput, changing commercial incentives and evolving policy expectations.

Utilisation risk is no longer just an asset-level issue. Lower or less predictable throughput affects operating philosophy, maintenance strategy, compression requirements, processing economics, tariff structures, system reliability and customer confidence. Molecules cannot be valued in isolation either. Their value depends on whether the system can receive, process, condition, blend, transport and deliver them reliably.

This is the central insight: in mature and changing gas systems, value increasingly sits at the interface.

That interface is often where current commercial and organisational models are weakest. Physical systems are integrated by nature. Commercial arrangements often are not. Organisational structures often are not either.

If these issues are managed separately, options may close prematurely. Infrastructure may be retired before all economically recoverable resources have been produced. Remaining molecules may be stranded by unavailable or uneconomic processing capacity. Late-life investment may be deferred because no individual participant, function or business unit can capture enough of the system value.

From efficiency to stewardship

The industry has become very good at efficiency. Competitive markets have rewarded sharper procurement, better trading, higher utilisation, lower costs, improved availability and tighter capital discipline.

Those capabilities remain essential. But they are no longer sufficient.

A market entering maturity, transition or differentiated growth requires stewardship as well as efficiency. Efficiency asks: how do I maximise performance within my segment or function? Stewardship asks: how do we preserve and create value across the system as demand, supply, utilisation, policy and customer requirements change?

This shift is organisational.

From efficiency to stewardship

Many companies are still organised around the logic of stable markets, functional specialism and efficiency. Upstream teams manage reserves. Infrastructure teams manage availability. Commercial teams manage contracts and positions. Finance teams manage risk and capital discipline. Regulatory and stakeholder teams manage external obligations.

In stable conditions, that model works well. It creates expertise, accountability and efficiency. But as external conditions change with greater frequency, speed and uncertainty, its limitations become more exposed. Molecule strategy may need to adapt to infrastructure constraints. Infrastructure strategy may need to adapt to production profiles, gas quality, demand patterns or regulation. Commercial strategy may need to respond to both market volatility and physical system limits.

These choices cannot be made effectively if each function optimises within its own boundary and alignment occurs only after the fact. It requires recognition of one problem, one accountable owner, one fact base, one integrated team and one enterprise recommendation.

The issue is not that functional structures are wrong. They remain necessary. The issue is that they must now be complemented by cross-functional mechanisms capable of making integrated decisions at pace.

Better cross-functional decision-making does not require dismantling functional structures. It requires overlaying them with clear enterprise decision rights, common assumptions, whole-chain economics and incentives linked to shared outcomes. Technical, commercial, operational, financial and regulatory expertise must be brought together when choices are still being shaped, rather

than after each function has reached its own conclusion. The organisation then becomes an active mechanism for integration, connecting positions that may remain legally, commercially or structurally separate.

The industry was built through integration. In many markets, it may need to mature, transition or decline through integration too. But integration will not happen simply because the market requires it. It has to be designed into strategy, evolution in contracts, governance, capabilities, incentives and operating models.

The next phase of advantage in gas and LNG may therefore belong not only to those with the strongest assets, but to those with the most effective organisations: organisations able to connect molecules and infrastructure, commercial ambition and physical reality, functional expertise and enterprise response, strategy and execution. 



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