X-LNG CASE STUDY · NOV 2024

LNG Expansion in the Pacific

+$83.1M

the Mexico advantage with Suez and Panama closed

80 cargoes · 7 × 174K vessels **2025 programme** · Gate and Futtsu **Forward curves** HH, TTF and JKM

Two books, same demand

Both serve Gate and Futtsu with 80 cargoes on seven 174K vessels through 2025

BOOK 1 · US GULF ONLY

- **80 cargoes** from Sabine Pass
- 115% HH + $3.5 tolling fee
- Everything crosses Panama or Suez to reach Asia

BOOK 2 · US GULF + MEXICO

- **60 cargoes** from Sabine Pass, same terms
- **20 cargoes** from Costa Azul, 120% HH + $3 tolling
- The Pacific coast reaches Asia without any canal

Demand: Gate spot at 90% TTF minus $0.50 regas · Futtsu spot at 90% JKM. Canals modelled fully open or fully closed.

More in every state, safer in the bad one

Full-year P&L, canals open and closed, re-optimised per state

US GULF ONLY

$1,013.4M

canals open, full-year P&L

Canals closed	$993.0M
Closure hit	-$20.4M
Closed flows	78 Gate · 2 Futtsu

→

+$74.8M

US GULF + MEXICO

$1,088.2M

canals open, full-year P&L

Canals closed	$1,076.1M
Closure hit	-$12.2M
Closed flows	60 Gate · 20 Futtsu

Exact engine results: open $1,013,418,557 → $1,088,249,229 · closed $992,984,431 → $1,076,062,599.

Shut both canals

The resilience test, re-optimised under full closure

01

The drawdown gap

What a double closure costs each book, and what Mexico adds before any crisis

-$20.4M	-$12.2M	+$74.8M	+$83.1M
US-only closure hit	diversified closure hit	Mexico uplift, canals open	Mexico uplift, canals closed

A double canal closure costs the US-only book over twenty million dollars; the diversified book gives up twelve.

And the Mexican cargoes **add value before any crisis**: the uplift exists in the open state too.

Asia stays served through the Pacific

Cargo flows under full closure, re-optimised

CALYPSO COMMODITIES

1. **US only: Asia is abandoned**
   The book retreats to Europe almost entirely: 78 cargoes to Gate, just 2 reach Futtsu the long way.

2. **With Mexico: 20 cargoes keep flowing east**
   All twenty Costa Azul cargoes reach Futtsu without touching a canal, while Sabine Pass backfills Europe with 60.

3. **Open state, same pattern**
   70 Gate and 10 Futtsu from the US-only book against 57 Gate and 23 Futtsu when Costa Azul is in the mix.

CALYPSO
COMMODITIES

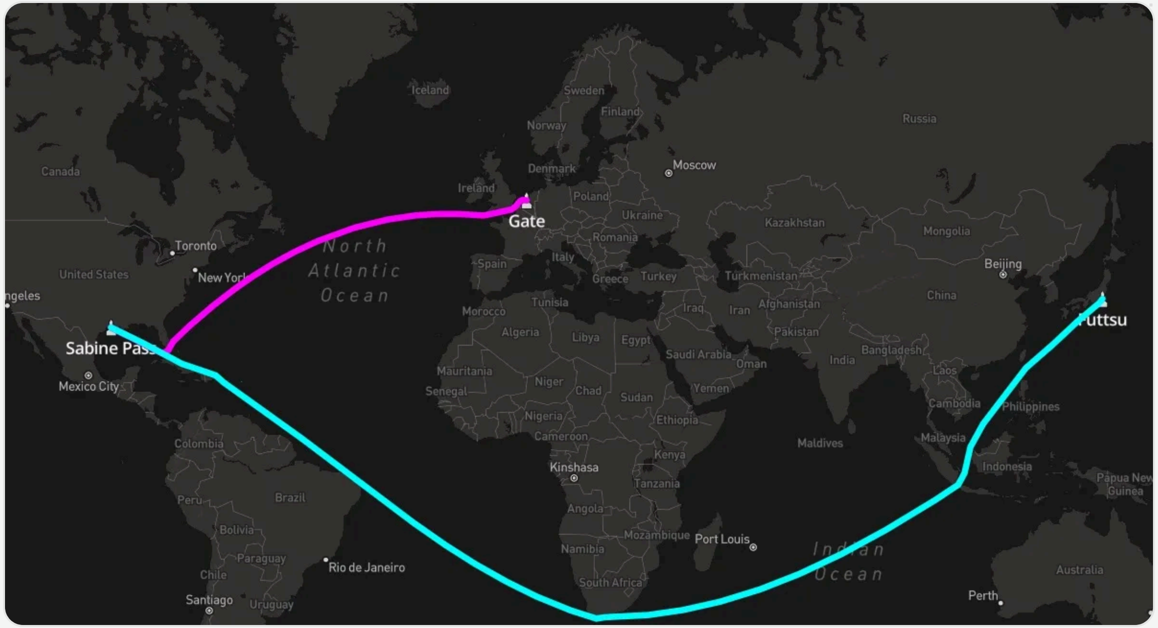
THE VERDICT

Pacific supply raises P&L in every state: the closure hit nearly halves.

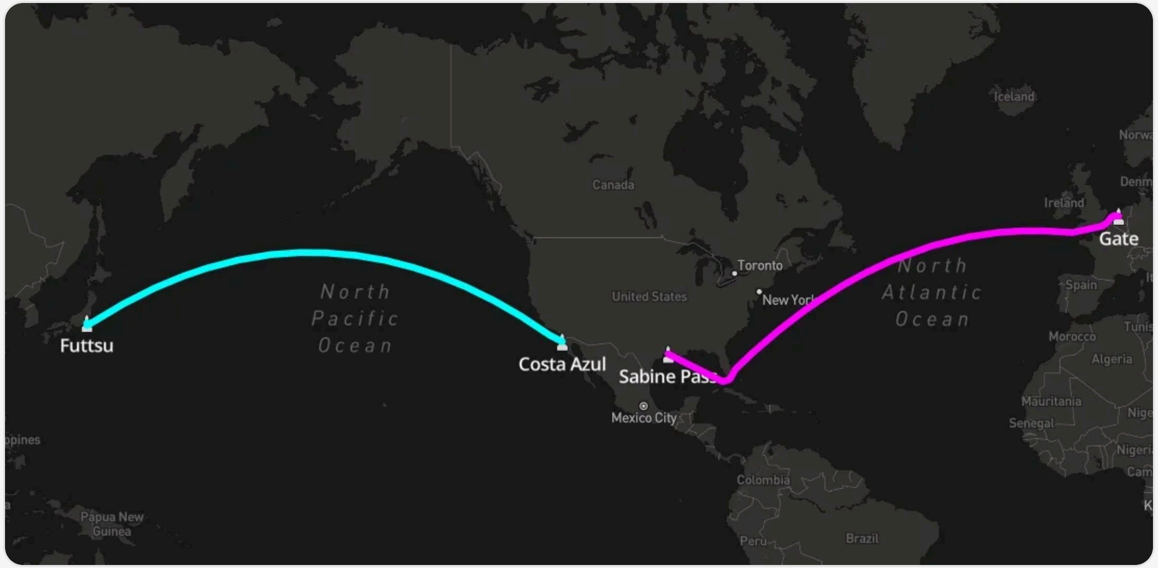
Diversification here is not an insurance premium, it pays before any crisis. Twenty Costa Azul cargoes lift the book by $74.8M with canals open, $83.1M with them closed, and cut the drawdown from $20.4M to $12.2M.

Straight from the engine

The re-optimised routes under a double closure



US GULF ONLY · CANALS CLOSED · FUTTSU THE LONG WAY



WITH COSTA AZUL · CANALS CLOSED · ASIA VIA THE PACIFIC

Takeaways

What Pacific supply buys, and what it does not

CALYPSO COMMODITIES

✓ **Mexico pays before any crisis**
+$74.8M with canals open: the diversified book earns more in every state, not just the stressed one.

✓ **The closure hit nearly halves**
-$12.2M against -$20.4M under a double closure, because Costa Azul reaches Asia without touching Panama.

! **The US-only book concentrates canal risk**
Under closure it retreats to Europe almost entirely; Asian demand is served by just two long-way cargoes.

Modelled with X-LNG

Whole-portfolio optimisation for LNG books

CALYPSO COMMODITIES

1

Your world goes in

Contracts, vessels, charter rates, prices, spot assumptions and constraints, the full book, not a slice.

2

One optimal plan comes out

Feasible, P&L-maximising and constraint-compliant, re-solved for every scenario in minutes.

3

Every number checks out

Each result can be recalculated by hand, transparency your risk committee can audit.

Cloud-based, any portfolio size · built and advanced daily by ~25 mathematicians, physicists and computer scientists.

Quantify what diversification buys your book

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