

‘Short way round: Strategic Impacts for East Asia from the NSR, and implications for Singapore as a global shipping hub’

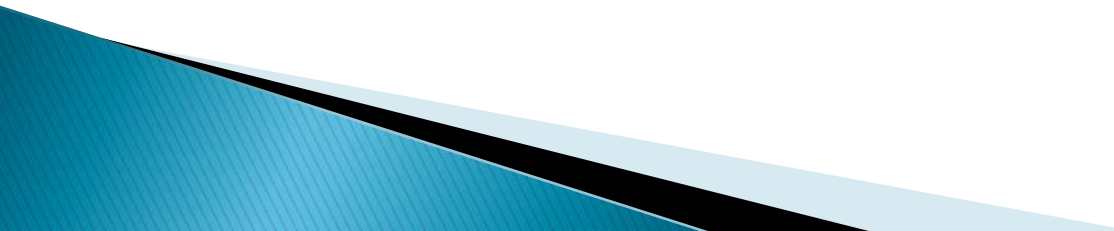
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Over the Top: Now and Then >>

Structure

- ▶ Key assumptions
 - ▶ Metrics of maritime commerce
 - ▶ NSR: case for
 - ▶ NSR: case against
 - ▶ Threat or opportunity for Singapore?
 - ▶ Conclusion
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Assumptions

- ▶ North-western Route, via Canada, also significant – my focus is on NSR, via Russia
- ▶ Short way round for whom?
- ▶ ‘Strategic’ impact refers to geo-economic factors
- ▶ Natural resource exploitation a more significant – and related – driver in Arctic

Conclusions

- ▶ NSR poses no serious trade displacement concern for Singapore
- ▶ Short-term niche opportunities, but
- ▶ Restrictions and high costs of Arctic navigation will remain a drag on NSR’s potential
- ▶ More ‘cons’ than ‘pros’?

Arctic short-cuts



North-western sea route

Northern sea route

Metrics of Maritime Commerce:

How to reckon economic potential of NSR?



4 main variables of maritime logistics:

1. **Distance** bears on costs and delivery times.
2. **Ship size** brings economies of scale, but restrictions on draft/length restrict access to shallow water, chokepoints, and ports.
3. **Ship type** also influences efficiency, eg flexibility for backhaul cargo, specific designs for cold weather/ice.
4. **Speed** determines journey time, bunker cost, design. Most merchant ships operate within 13–23 knot range (LA–Shanghai at 13 kt = 19 days; at 24 kt = 10 days)

Real world complications

Other factors can be decisive in choice of routing:

- ▶ fuel costs
- ▶ security (piracy, war risk),
- ▶ canal tolls (Suez, Panama) and compulsory pilotage fees
- ▶ availability of intermodal transportation options
- ▶ labour relations, etc.

Difficulty predicting these real-world factors with accuracy steers shipping industry towards tried and tested, flexible options.

NSR – open for business?

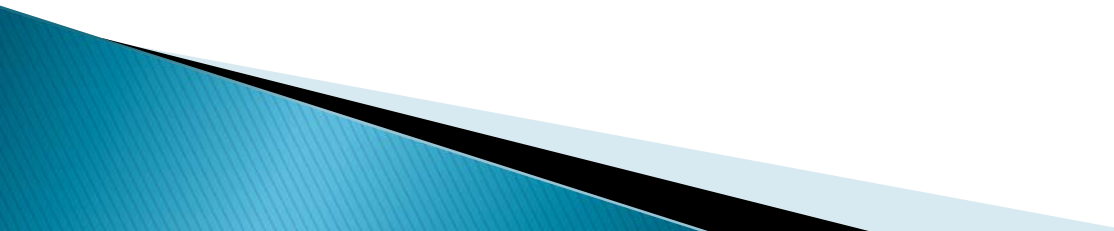
The case ‘for’



NSR: the advantages

- ▶ **Distance** cut from north Asia to northern Europe. Among major liner routes, biggest saving = Yokohama–Rotterdam, 7,000km or 1 / 3rd Suez route.
- ▶ **Niche routes** for point-to-point trade made viable. Scandinavian and Siberian ports gain most from better access to North Asia's importers.
- ▶ From 4 months to 12 months?
- ▶ Lower **carbon emissions**
- ▶ Improved **security** – too cold for pirates!

Other Arctic activity

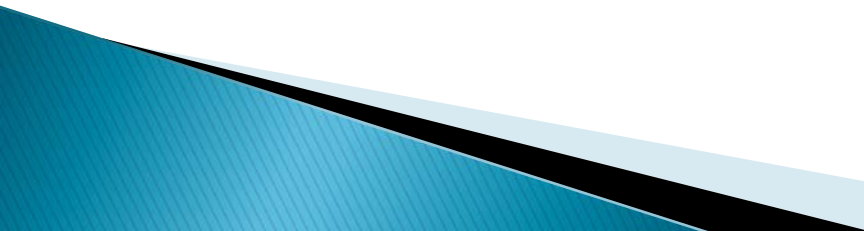
- ▶ **Fishing:** interest in areas beyond Arctic EEZs now opening up in summer.
 - ▶ **Oil and gas:** Scramble already under way for seabed resources among 'Arctic Eight'. China also showing interest in Arctic energy resources, as part of its strategy to reduce dependence on Straits of Malacca.
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NSR – marginal impact?

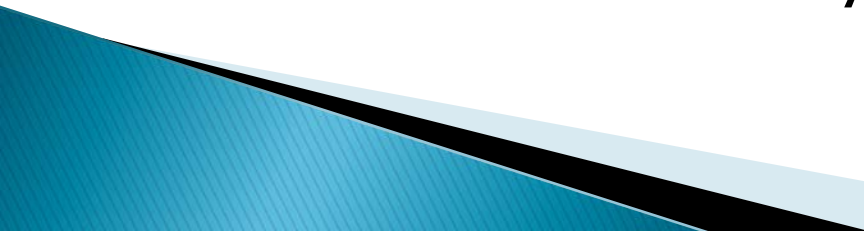
The case ‘against’



NSR: the limitations.1

- ▶ **Distance** gains mainly on north European and Russian routes to north Asia. Less incentive for others to switch to NSR. Panama Canal expansion a factor for Arctic routes to western Atlantic.
 - ▶ **Navigational safety:** shrinking ice cap increases collision risk from loose ice. Unmapped submerged features.
 - ▶ **Capacity restrictions and limited seasonal access:** Arctic navigation problematic even if ice free.
 - ▶ Safety issues compromise **speed**, therefore impact efficiency and profitability of NSR.
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NSR: the limitations.2


- ▶ **Direct costs**: ice-breaking services and compulsory pilotage fees. Tolls?
 - ▶ **Indirect costs**: 4-month prior clearance required from Russian authorities – bureaucratic overhead.
 - ▶ Heavy capital investment in ice-class vessels.
 - ▶ **Limited infrastructure**: Arctic environment requires more support infrastructure along Siberian coast. Ship repair, bunker, SAR etc.
 - ▶ **Climate uncertainty**
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NSR – implications for Singapore:

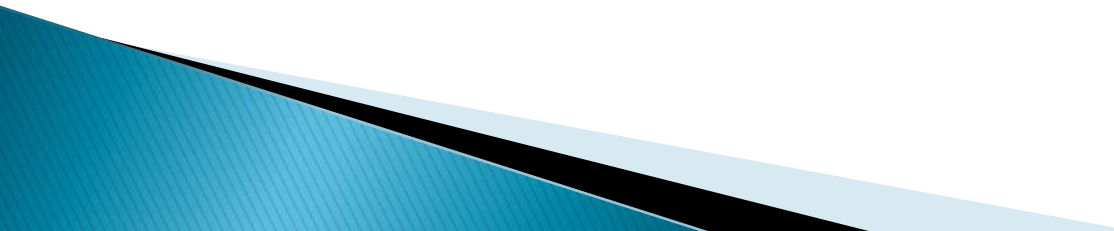
Displacement risks and niche opportunities



NSR: threat or opportunity?

- ▶ Main **concern** for Singapore is displacement of trade/port service. Few grounds for concern. NSR likely to have marginal effect on global shipping movements –most won't be realised until 2040–50.
 - ▶ Displacement positively offset by growth in intra-Asian trade – Singapore geographically well positioned to benefit. Asia's 2 major growth poles, India and China, unlikely to see much direct advantage from NSR. Gulf oil flows to NE Asia unaffected.
 - ▶ Singapore retains other advantages in governance and maritime infrastructure.
 - ▶ Few direct **advantages** for Singapore from NSR either. Potential niche opportunities in Arctic oil and gas exploration, marine insurance, ice-class ship design etc. Singapore seeking observer status in Arctic Council.
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CONCLUSION

- ▶ Shorter distances via NSR may cut direct transportation costs, but must be set against direct costs of ice-breaker and pilotage fees, plus indirect costs of ice-class vessels, insurance, maintenance and reduced speeds.
 - ▶ Niche opportunities available (eg Scandinavian ore exports to north Asia), but NSR will probably have marginal impact for short to medium term.
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**Thank you, and
any questions?**

