



# Potential Effects of a Long-Term Waiver of the Merchant Marine Act of 1920

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# Executive summary

The **Transportation Institute** engaged **PwC US Tax LLP (“PwC”)** to provide a focused assessment of selected economic effects that could result from a potential long-term waiver of the Merchant Marine Act of 1920. The analysis is structured to quantify a limited set of policy-relevant economic exposures using publicly available data and transparent, scenario-based assumptions.

The objective is not to calculate a comprehensive, economy-wide net-effect estimate. Instead, the report provides estimates for several measurable channels through which a sustained waiver could affect the US maritime sector and the broader domestic economy.

The report does not take a position on whether a long-term waiver should be granted, extended, limited, or denied. Its purpose is to identify and explain selected economic channels that may be relevant to policy deliberation.

The quantitative portion of the report centers on four metrics:

1. Tax revenue at risk;
2. Jobs and labor income exposed;
3. Domestic shipbuilding demand and associated industrial output at risk; and
4. Capital investment at risk.

These metrics were selected because they can be estimated transparently and because they connect directly to key policy considerations: public finances, workers, industrial capacity, and future investment decisions. For each metric, the report presents an estimate range, with assumptions clearly documented and results framed as potential exposures rather than predictions.

**Table ES-1** summarizes the four principal economic channels examined in the report and the time frame over which each is evaluated.

At the upper end of the illustrative range, a sustained waiver could place at risk up to \$1.8 billion in annual tax revenue, up to 133,700 total jobs, up to \$12.2 billion in annual labor income, up to \$26.5 billion in ten-year shipbuilding demand, and up to \$2.6 billion in annual maritime capital investment. These upper-end estimates are not probability-weighted values or forecasts of realized losses; they represent the higher-exposure end of the scenario range evaluated in this report.

**Table ES-1. – Summary of findings**

|          | <b>Metric</b>                                              | <b>Illustrative exposure range</b>                                                                      | <b>Interpretation</b>                                                                             |
|----------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>1</b> | Tax revenue at risk                                        | \$163 million to \$1.8 billion annually                                                                 | Tax collections associated with US-based maritime activity potentially exposed under the scenario |
| <b>2</b> | Jobs and labor income exposed                              | 3,600 to 21,650 direct jobs; 22,300 to 133,700 total jobs; \$2.0 billion to \$12.2 billion labor income | Direct employment and broader supply-chain and induced effects                                    |
| <b>3</b> | Domestic shipbuilding demand and industrial output at risk | \$294 million to \$2.6 billion annual demand; \$2.9 billion to \$26.5 billion over ten years            | Domestic vessel demand and related industrial output potentially exposed under the scenario       |
| <b>4</b> | Maritime capital investment at risk                        | \$1.1 billion to \$2.6 billion annually                                                                 | Potential delay, reduction, or redirection of fleet and shipyard investment                       |

Source: PwC calculations.

Note: The upper end of each range reflects the higher-exposure sustained waiver scenario. The analysis does not estimate effects under full repeal of the Act; effects under a broader or permanent repeal scenario could differ from, and potentially exceed, the illustrative waiver exposure shown here.

These four metrics reflect distinct channels through which a sustained waiver could affect the domestic economy: government revenues, jobs and labor income tied to maritime activity, the domestic shipbuilding base, and future private investment in vessels and shipyards. Together, they provide a practical way to assess economic exposure even where a full net-effect calculation is not feasible.

## Interpreting the report

The report quantifies selected domestic exposures. It does not estimate a single net national effect. Some potential nonquantifiable considerations may amplify the quantified domestic exposures in this analysis; others may offset a portion of them. Where those effects are uncertain or difficult to measure, they are addressed qualitatively rather than monetized.

Interpreting these results requires considering both potential domestic exposures and potential offsetting effects. Official US sources emphasize that commercial mariners, US-flag vessels, shipyards, and related infrastructure support national security and military sealift. That means changes to the commercial maritime base could have implications beyond the metrics quantified in this report.

At the same time, changes in waiver policy could create offsetting effects, such as lower shipping costs, increased vessel availability, or greater logistics flexibility on certain routes. These potential benefits are highly route-specific and uncertain in magnitude. Where foreign capacity is available, legally permitted, and cost savings are passed through to shippers or end users, some markets could experience lower transportation costs or improved logistics flexibility.

The magnitude of these effects may depend materially on the legal and regulatory treatment of foreign operators in domestic commerce, including the application of US tax, immigration, labor, wage-and-hour, reporting, or other compliance requirements. Those requirements could affect both the magnitude of potential shipper or end-user benefits and the degree of domestic tax-base, labor, and competitive exposure.

Accordingly, this report should be read alongside other legal, operational, and market-specific considerations.

# I. Policy context and scope

The Merchant Marine Act of 1920 (“the Act”), commonly known as the “Jones Act” (46 U.S.C. § 55102), is part of the broader US coastwise laws governing transportation between US points, including domestic shipping. Under the Act, no vessel may transport merchandise between points in the United States unless the vessel is US-built, US-owned, and coastwise endorsed by the US Coast Guard.<sup>1</sup> In other words, the Act requires goods transported domestically between US ports to be moved on US-flagged vessels. Since its enactment, the Act has been intended to support the US maritime sector.

Waivers of navigation laws may be granted under 46 U.S.C. § 501 when determined necessary in the interest of national defense.<sup>2</sup> US Customs and Border Protection publicly posts waiver requests and related information as part of the process.<sup>3</sup>

This report does not predict a specific policy decision. Instead, it evaluates a stylized long-term waiver scenario and provides a useful way to assess the scale and direction of domestic economic exposure under a materially different policy environment. For purposes of this report, “long-term” refers to a waiver environment sufficiently sustained to affect vessel deployment, labor demand, fleet renewal, shipyard demand, and capital-planning decisions, rather than a short-term emergency, cargo-specific, or vessel-specific waiver. In general, an Act waiver could allow foreign-flagged vessels to transport commodities between US ports. Scenario-based assumptions can reflect how activity could shift away from US-flag shipping, domestic shipbuilding, or US-based investment and labor.

This report evaluates the potential economic effects of a hypothetical long-term waiver of the Act across four metrics of domestic economic exposure, supported by qualitative narratives where effects are difficult to quantify. **Table I-1** summarizes the scope of the analysis and quantitative limitations.

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<sup>1</sup> 46 U.S.C. § 55102, *Transportation of merchandise*, available at: <https://www.law.cornell.edu/uscode/text/46/55102>.

<sup>2</sup> 46 U.S.C. § 501, *Waiver of navigation and vessel-inspection laws*, available at: <https://www.law.cornell.edu/uscode/text/46/501>.

<sup>3</sup> US Customs and Border Protection, “*Jones Act Waiver Request*,” available at: <https://www.cbp.gov/trade/jones-act-waiver-request>.

**Table I-1. – Qualitative and quantitative analysis measures**

|   | Included in quantitative analysis                                                    | Acknowledged qualitatively, but not quantified                                                     |
|---|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1 | Tax revenue at risk from reduced US-flag shipping and shipbuilding activity          | Potential national-security and military sealift implications                                      |
| 2 | Jobs and labor income exposed across maritime transportation and shipyard sectors    | Potential freight-cost reductions, vessel availability improvements, and pass-through to end users |
| 3 | Potential reduction in domestic shipbuilding demand and associated industrial output | Potential long-run shifts in trade patterns, modal choices, or route selection                     |
| 4 | Maritime capital investment at risk under prolonged regulatory uncertainty           | Any single net economic or welfare effect for the US economy as a whole                            |

The potential economic effects of modifying the Act are uncertain and involve meaningful trade-offs. Prior government analysis has recognized that outcomes can vary depending on how the law is changed.<sup>4</sup>

Given that complexity, this analysis does not evaluate a comprehensive welfare model. Instead, it focuses on four metrics designed to capture distinct channels through which a sustained waiver could affect the domestic economy. Together, they provide a practical way to assess economic exposure while keeping the analysis focused on measurable domestic channels.

This approach reflects two practical considerations. First, policymakers benefit from estimates that are transparent, replicable, and grounded in publicly available data. Second, several important considerations, such as military readiness, strategic resilience, freight-rate pass-through, or route-specific consumer price effects, are real but difficult to quantify quickly and consistently across all relevant markets.

The analysis is therefore framed around identifiable domestic economic exposure under a sustained waiver environment. It does not assume that all potential benefits of broader vessel availability are absent; rather, it recognizes that those effects are difficult to estimate credibly in a public-data study and are therefore discussed qualitatively instead of being quantified.

<sup>4</sup> US Government Accountability Office, *Puerto Rico: Characteristics of the Island's Maritime Trade and Potential Effects of Modifying the Jones Act*, GAO-13-260 (2013), available at: <https://www.gao.gov/products/gao-13-260>.

## II. Analytical framework and data sources

This analysis is designed as an order-of-magnitude assessment. Its goal is to provide a policy-relevant estimate of directional economic exposure, grounded in publicly available information and clearly stated assumptions, without implying false precision. Where appropriate, results are presented as scenario-based ranges and distinguish among 1) direct effects, activity within the industries or sectors modeled directly, including US-flag shipping, domestic shipbuilding, and other maritime industries within the analytical scope; 2) indirect effects, activity supported through purchases of goods and services from suppliers, contractors, and other upstream businesses; and 3) induced effects, activity supported by household spending from labor income generated in the direct and indirect sectors.

The reported ranges are based on a limited number of key scenario assumptions, including assumptions regarding the degree of activity shift, the share of shipbuilding activity tied to domestic commercial demand, and the responsiveness of fleet and shipyard investment to a sustained waiver environment. The use of scenario-based ranges is also consistent with prior government analysis showing that estimates of the Act's economic effects are highly sensitive to assumptions regarding shipping-cost differentials, the legal treatment of foreign operators, and market responses.<sup>5</sup>

- Publicly available data serve as the source of the baseline activity analysis, including Bureau of Labor Statistics (“BLS”) employment and wage data, Bureau of Economic Analysis (“BEA”) and Census economic data, US Maritime Administration (“MARAD”) information on the US maritime sector, and company disclosures.<sup>6</sup>
- The directly exposed shipping industry is defined using a NAICS-based industry scope, consistent with the industry scope employed in PwC’s 2019 study of the shipping industry. Subsectors in the industry scope are described in the appendix.<sup>7</sup>
- Potential exposure under a long-term waiver is estimated using scenario-based assumptions that reflect how activity could shift away from US-flag shipping, domestic shipbuilding, or US-based investment and labor.
- Where appropriate, the report distinguishes between direct effects and broader supply-chain and induced effects so readers can understand both the core and expanded economic footprint at risk.
- Qualitative issues that are important but not readily quantifiable are acknowledged explicitly so that the report remains balanced.

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<sup>5</sup> US Government Accountability Office, *Maritime Issues: Assessment of the International Trade Commission’s 1995 Analysis of the Economic Impact of the Jones Act*, RCED-98-96R (1998), available at: <https://www.gao.gov/products/rced-98-96r>.

<sup>6</sup> See, e.g., US Bureau of Labor Statistics, “QCEW Overview,” available at: <https://www.bls.gov/cew/overview.htm>; US Bureau of Economic Analysis, “GDP by Industry,” available at: <https://www.bea.gov/data/gdp/gdp-industry>.

<sup>7</sup> See PwC, *Contribution of the Jones Act Shipping Industry to the US Economy* (2019), p. 16, Table 6.

### III. Quantified findings

This section presents the report's four quantified metrics: tax revenue at risk, jobs and labor income exposed, domestic shipbuilding demand and associated industrial output at risk, and maritime capital investment at risk.

**Table III-1. – Analytical structure**

|          | <b>Metric</b>                             | <b>Illustrative building blocks</b>                                                                                                                                            | <b>Primary outputs</b>                                                        |
|----------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>1</b> | Tax revenue at risk                       | <ul style="list-style-type: none"> <li>• Industry activity baseline</li> <li>• Taxable income and payroll proxies</li> <li>• State and local allocation assumptions</li> </ul> | Annual range for federal, state, and local tax revenue at risk                |
| <b>2</b> | Jobs and labor income exposed             | <ul style="list-style-type: none"> <li>• Direct employment baseline</li> <li>• Wage baseline</li> <li>• Multipliers where appropriate</li> </ul>                               | Direct jobs and total jobs exposed; associated labor income range             |
| <b>3</b> | Shipbuilding demand and industrial output | <ul style="list-style-type: none"> <li>• Commercial shipbuilding baseline</li> <li>• Domestic vessel demand assumptions</li> <li>• Industrial output proxy</li> </ul>          | Annual and/or multiyear demand and output at risk                             |
| <b>4</b> | Capital investment at risk                | <ul style="list-style-type: none"> <li>• Recent fleet and shipyard investment</li> <li>• Public company disclosures</li> <li>• Project pipeline assumptions</li> </ul>         | Annual investment at risk and narrative on potential deferrals or redirection |

Together, these metrics are intended to show how a sustained waiver could affect public finances, workers, industrial capacity, and future investment through distinct but related channels. In each case, the estimates are intended to reflect economic activity potentially placed at risk under a sustained waiver environment, rather than a prediction of immediate one-for-one losses. The ranges below are intended as exposure estimates under illustrative scenarios, not as forecasts of realized outcomes. The width of the ranges reflects the sensitivity of the results to key assumptions. In particular, the low end of each range should be interpreted as a conservative lower-exposure sustained waiver scenario, not as a short-term waiver scenario. The high end reflects a higher-exposure sustained waiver scenario, not an upper bound on potential effects under a broader statutory repeal or permanent structural change.

## A. Tax revenue at risk

Tax revenue is one of the most policy-relevant metrics in this study because it connects potential changes in maritime activity to public finance at the federal, state, and local levels. A long-term waiver could affect tax collections if activity shifts away from US-flag operators, US-based labor, and domestic shipbuilding toward activity that is taxed differently, or taxed to a lesser extent, in the United States. To the extent activity shifts toward foreign operators, foreign crews, or offshore production, the resulting tax base may not remain within the same federal, state, and local jurisdictions, even if some related economic activity continues elsewhere. Depending on the scale and structure of any activity shift, this could affect corporate income taxes, payroll taxes, and other business-related tax payments associated with the domestic maritime sector. Changes in tax revenue may affect the fiscal capacity of federal, state, and local governments and therefore have direct implications for budgeting and public services.

**Table III-2** summarizes the estimated annual federal, state, and local tax revenue potentially placed at risk under illustrative long-term waiver scenarios. A sustained waiver could put \$163 million to \$1.8 billion in annual federal, state, and local tax revenue at risk, driven by reduced activity in US-flag shipping and domestic shipbuilding.

**Table III-2. – Tax revenue at risk**

| Measure                          |                                |
|----------------------------------|--------------------------------|
| Total annual tax revenue at risk | \$163 million to \$1.8 billion |
| Federal component                | \$126 million to \$1.2 billion |
| State and local component        | \$37 million to \$616 million  |

Source: PwC calculations.

Note: The low end reflects a conservative sustained waiver scenario in which a relatively limited share of US-flag activity shifts away from domestic operators. It is not intended to represent a short-term emergency waiver scenario.

The estimates do not separately quantify differences in the tax treatment, reporting obligations, or enforceability of tax obligations for foreign operators conducting US domestic voyages. To the extent foreign operators do not bear tax obligations comparable to those borne by US-flag operators, fiscal exposure could differ from the quantified estimates. Conversely, if foreign operators are subject to equivalent US tax obligations, differences in tax treatment could be reduced.

These estimates should not be interpreted as a prediction that all identified tax revenue would be lost immediately or in full under a long-term waiver. Rather, they are intended to illustrate the order of magnitude of federal, state, and local tax revenues associated with domestic maritime transportation and shipbuilding activity that could be placed at risk if a sustained waiver were to reduce US-flag shipping activity, domestic

shipyard demand, or related payroll and business income. Actual fiscal effects would depend on the extent of any market shift, the timing of industry adjustment, and the degree to which activity is reduced, relocated, or replaced over time.

## B. Jobs and labor income exposed

Employment and labor income show how policy changes affect US workers, households, and communities. A long-term waiver could affect US employment by enabling substitution toward foreign vessels and crews, which could reduce demand for US-based maritime labor and related supply-chain services. In other words, both US workers and supply chains tied to maritime transportation and shipbuilding may be affected. For this reason, the analysis is presented as direct employment exposure along with broader indirect and induced effects. The distinction between direct and total exposure separates core maritime-sector exposure from broader domestic supply chain spillovers.

**Table III-3** summarizes the estimated employment and labor income potentially exposed under illustrative long-term waiver scenarios. A sustained waiver could place 3,600 to 21,650 US maritime and shipyard jobs at risk. Including broader supply-chain and induced effects, 22,300 to 133,700 US jobs could be at risk, representing \$2.0 billion to \$12.2 billion in annual labor income.

**Table III-3. – Jobs and labor income exposed**

| Measure                                                                       |                                 |
|-------------------------------------------------------------------------------|---------------------------------|
| Direct jobs exposed                                                           | 3,600 to 21,650                 |
| Total jobs exposed<br>(including indirect and induced effects)                | 22,300 to 133,700               |
| Total annual labor income exposed<br>(including indirect and induced effects) | \$2.0 billion to \$12.2 billion |

Source: PwC calculations.

Note: The low end reflects a conservative sustained waiver scenario with limited displacement of US-flag shipping, domestic shipbuilding, and related support activity. It should be read as a lower-exposure case under the long-term waiver framework, not as a short-term waiver case.

These estimates should not be interpreted as a prediction that all identified jobs or labor income would be lost immediately or in full under a long-term waiver. Rather, they are intended to illustrate the order of magnitude of employment and labor income currently supported by US-flag shipping and domestic shipbuilding activity that could be placed at risk if a sustained waiver were to reduce demand for US-based vessels, shipyard production, or supporting services. Actual employment effects would depend on the scale

and duration of any market shift, the pace of industry adjustment, and the extent to which workers and firms are able to redeploy labor and resources over time.

## C. Domestic shipbuilding demand and industrial output at risk

A long-term waiver could affect domestic shipbuilding demand due to changes to the incentive to build, maintain, or replace vessels within the United States. If operators can rely more heavily on foreign-flagged vessels, or vessels that are otherwise not coastwise-qualified in domestic trade, demand for US-built vessels could weaken over time. The potential decrease in demand could affect shipyards, skilled labor, and related manufacturing activity. Because shipyard activity supports specialized labor, supplier relationships, and productive capacity that may be difficult to rebuild quickly once lost, even partial reductions in commercial demand may have longer-lived effects than the immediate output figures alone would suggest. This metric addresses the domestic industrial base, not just shipping services. The shipbuilding analysis is not limited to large oceangoing vessels; where supported by the underlying fleet and investment data, it also reflects relevant domestic vessel classes, including tug, towboat, barge, and other nonoceangoing vessel activity associated with domestic maritime service.

**Table III-4** summarizes the estimated domestic shipbuilding demand and associated industrial output potentially exposed under illustrative long-term waiver scenarios. A sustained waiver could reduce demand for US-built vessels by \$2.9 billion to \$26.5 billion over the next decade, with resulting effects on domestic shipyards and skilled labor. The shipbuilding demand estimates apply a fixed 20-percent Act-relevant share to the domestic shipbuilding baseline; the low/high range reflects differences in waiver-driven displacement, fleet-renewal response, and industrial-output conversion assumptions, not a different Act share of shipbuilding activity.<sup>8</sup>

**Table III-4. – Domestic shipbuilding demand and industrial output at risk**

| Measure                                       |                                  |
|-----------------------------------------------|----------------------------------|
| Annual domestic shipbuilding demand at risk   | \$294.0 million to \$2.6 billion |
| Ten-year domestic shipbuilding demand at risk | \$2.9 billion to \$26.5 billion  |
| Associated annual industrial output at risk   | \$235.2 million to \$2.6 billion |

Source: PwC calculations.

<sup>8</sup> The waiver analysis applies a fixed 20-percent share to NAICS Code 336611 – Ship Building and Repairing. This assumption is supported by PwC’s updated yard-level analysis using 2024 data, which indicates an estimated relevant allocation of approximately 24 percent. The 20-percent assumption is therefore below the updated yard-level estimate and represents a conservative current-case allocation for purposes of the waiver analysis. Because a higher allocation would increase the estimated domestic shipbuilding demand and industrial output at risk, the 20-percent share provides a reasonable and conservative basis for estimating the portion of NAICS Code 336611 activity relevant to the analysis.

These estimates are not intended to imply that all identified shipbuilding demand or industrial output would be lost immediately under a long-term waiver. Instead, they are designed to show the approximate scale of US shipyard activity that could be placed at risk if a sustained waiver were to weaken incentives to acquire, maintain, or replace US-built vessels. The results depend materially on the fixed 20-percent assumption for the share of domestic shipyard activity tied to commercial Jones Act demand, as well as on assumptions regarding activity displacement, fleet renewal, and the conversion of demand into domestic industrial output. For that reason, they should be interpreted as scenario-based ranges that illustrate potential exposure under alternative assumptions, rather than as a precise forecast. Actual effects would depend on how vessel operators respond to the policy environment, the mix of vessel types affected, and the degree to which reduced commercial demand is offset by other sources of activity.

## **D. Maritime capital investment at risk**

A sustained waiver could dampen capital investment by altering expectations regarding future demand for US-flag vessels and domestic shipbuilding, leading firms to delay, reduce, or redirect capital. Although this is a forward-looking metric and therefore less directly observable than employment or payroll, it remains useful because changes in capital-planning behavior often precede measurable changes in output, employment, and productive capacity. Capital investment decisions shape the future scale, productivity, and competitiveness of the domestic maritime sector.

**Table III-5** summarizes the maritime capital investment potentially exposed under illustrative long-term waiver scenarios. A sustained waiver could place \$1.1 billion to \$2.6 billion in annual US maritime investment at risk, including fleet and shipyard investments that may be delayed, reduced, or redirected under prolonged regulatory uncertainty. The investment-at-risk range is calculated by applying a 15 percent to 35 percent investment-response factor to an annual maritime investment baseline of approximately \$7.3 billion, composed primarily of annualized fleet renewal capex, shipyard modernization capex, and supporting maritime capital.

The 15-percent to 35-percent investment-response factor reflects a sensitivity test rather than an empirically estimated elasticity. It is intended to capture the share of relevant fleet and shipyard investment that could be delayed, reduced, or redirected under prolonged regulatory uncertainty. The low case reflects partial deferral or reprioritization of investment while much of the baseline capital program continues; the high case reflects a broader capital-planning response to a sustained waiver environment, but it does not assume that all identified investment is canceled.

**Table III-5. – Maritime capital investment at risk**

| Measure                                    |                                |
|--------------------------------------------|--------------------------------|
| Annual maritime capital investment at risk | \$1.1 billion to \$2.6 billion |

Source: PwC calculations.

These estimates should not be read as a forecast that all identified investment would be canceled or withdrawn immediately under a long-term waiver. Rather, they are intended to capture the order of magnitude of fleet and shipyard investment that could be exposed to delay, reduction, or redirection if a sustained waiver were to alter expectations regarding future demand for US-flag vessels and domestic shipbuilding. Actual investment effects would depend on the duration and perceived permanence of the waiver, firms' capital planning cycles, financing conditions, and the extent to which companies choose to defer, relocate, or reprioritize investment over time.

## IV. Important effects outside the quantitative scope

Not every material effect of a long-term waiver can be quantified using the public-data approach applied in this report. Some considerations may amplify the quantified domestic exposures, while others may partially offset them. The discussion below identifies those issues qualitatively because they may still be relevant to policy decisions.

### A. Potential amplifying effects not quantified

**National security and military sealift readiness.** Official US sources state that commercial mariners, vessels, and intermodal facilities are vital for national security, and US Transportation Command (“USTRANSCOM”) notes that commercial sealift is central to how the Department of Defense executes ocean transportation.<sup>9, 10</sup> To the extent a sustained waiver were to weaken the domestic commercial base that supports mariners, vessels, or shipyards, the implications could extend beyond the quantified economic metrics in this report. These considerations are relevant to policy even though they are not quantified in this report, because they concern capabilities and readiness relationships that official sources identify as strategically important.

**Industrial capability and strategic resilience.** The Government Accountability Office (“GAO”) has noted that commercial shipbuilding supports the maritime industry and contributes to broader national-security capability, even as US commercial shipbuilding has declined over time.<sup>11</sup> A reduction in commercial demand could therefore have consequences for workforce continuity, supplier networks, and industrial readiness that are difficult to quantify in a rapid study.

**Reliability, assured access, and regular service.** A sustained waiver could also affect the reliability and continuity of domestic maritime service, with effects varying by route, cargo mix, and market structure. In some markets, regular US-flag liner or scheduled service may support shipper confidence and supply-chain planning. For example, GAO has noted that Jones Act carriers provide scheduled service between the US mainland and Puerto Rico, while foreign carriers serving Puerto Rico generally do so as part of broader international routes.<sup>12</sup> On routes where cargo volumes are much stronger in one direction than the other, regular domestic service may help support predictable schedules; comparable foreign-flag service would depend on whether foreign carriers find the route commercially attractive as a dedicated service or as part

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<sup>9</sup> US Maritime Administration, “About Us,” available at: <https://www.maritime.dot.gov/about-us>.

<sup>10</sup> US Transportation Command, “Sealift,” available at: <https://www.ustranscom.mil/mov/sealift.cfm>.

<sup>11</sup> US Government Accountability Office, *Commercial Shipbuilding: Maritime Administration Needs to Improve Financial Assistance Programs*, GAO-25-107304 (2025), available at: <https://www.gao.gov/products/gao-25-107304>.

<sup>12</sup> GAO, Puerto Rico: *Characteristics of the Island’s Maritime Trade and Potential Effects of Modifying the Jones Act*, GAO-13-260 (2013), pp. 10–12, available at: <https://www.gao.gov/products/gao-13-260>.

of a broader multistop network. These service-continuity considerations are not captured in the quantified employment, tax, shipbuilding, or investment estimates.

**Foreign-operator dependence risk.** A sustained shift toward foreign operators could also raise ownership, control, and service-continuity considerations, particularly where assured access or national-security resilience are policy objectives. These considerations are difficult to quantify and would depend on the specific operators, routes, cargoes, and market conditions involved.

**Local community effects.** In places where maritime activity is concentrated, changes in employment or investment may affect surrounding businesses, local tax bases, and civic institutions in ways that exceed what a narrow industry-only view would imply.

## **B. Potential offsetting effects not quantified**

**Lower shipping costs on some routes or commodities.** Some stakeholders have argued that a waiver could reduce transportation costs where foreign-flag capacity is less costly or more readily available than US-flag capacity. However, the magnitude of any such cost reduction may depend on whether foreign operators serving domestic routes are subject to US tax, immigration, labor, wage-and-hour, reporting, or other legal and regulatory requirements.<sup>13</sup> If such requirements apply, some cost advantages associated with foreign-flag participation may be reduced. GAO has described the debate as complex and multifaceted and has reported concerns from some shippers about higher costs under current law, while also noting important data limitations.<sup>14</sup> Recent academic work also finds that constraints imposed by the Act can raise petroleum prices in some US markets, suggesting that any assessment of a sustained waiver should acknowledge the possibility of offsetting consumer or shipper benefits in at least some sectors.<sup>15</sup>

**Greater vessel availability or logistics flexibility in some circumstances.** To the extent a waiver broadens access to vessels, some markets could experience short-term operational flexibility or reduced bottlenecks. The magnitude of any such effect would depend on the route, cargo, timing, and the degree to which cost savings are passed through to customers.

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<sup>13</sup> See, e.g., K&L Gates, “Foreign Vessels Operating Under the Jones Act Waiver Should Consider What Other U.S. Laws May Apply,” republished by JD Supra, available at: <https://www.jdsupra.com/legalnews/foreign-vessels-operating-under-the-6993635/>. The article discusses legal uncertainty regarding foreign vessels operating under Jones Act waivers, including tax, immigration, labor, and related compliance questions.

<sup>14</sup> GAO, Puerto Rico: *Characteristics of the Island’s Maritime Trade and Potential Effects of Modifying the Jones Act*, GAO-13-260 (2013).

<sup>15</sup> Ryan Kellogg and Richard L. Sweeney, “*Impacts of the Jones Act on U.S. Petroleum Markets*,” NBER Working Paper No. 31938 (2023), available at: <https://www.nber.org/papers/w31938>.

**Potential distributional differences across stakeholders.** Some parties could benefit from lower transportation costs even while US-based shipping, shipbuilding, labor, or tax collections face adverse effects. Those tradeoffs are real, but a full distributional analysis is beyond the scope of this report.

## **C. How these considerations should be interpreted**

These qualitative considerations do not negate the quantified findings; they place them in broader context. They are included to help interpret the quantified results as part of a broader policy discussion.

In particular, potential offsetting effects should not be interpreted as automatic or uniform across routes. They depend on route economics, cargo balance, vessel availability, cost structure, regulatory conditions, and pass-through to shippers or end users. As a result, any offsetting effects may vary materially across markets.

## **V. Limitations and interpretation**

This report is not a comprehensive net-effect or general-equilibrium study of the US economy. Its quantified results are presented as ranges and scenario-based exposures, not as forecasts of realized outcomes. The analysis relies primarily on publicly available information and allocation assumptions where complete data are unavailable, including assumptions about the degree of activity shift, the commercial share of shipbuilding activity, and the timing of fleet renewal and investment decisions. The analysis is economic in nature and should not be interpreted as a legal opinion on waiver authority or as a prediction of any particular policy decision.

The analysis also does not provide a legal conclusion regarding the extent to which foreign vessels or foreign operators would be subject to US tax, immigration, labor, wage-and-hour, or other legal requirements while operating under a long-term waiver; those issues could materially affect both the magnitude of potential offsetting benefits and the domestic exposures discussed in this report.

The report relies on public-data-based estimates to make the analysis easier to review, replicate, and update. A more comprehensive model would require substantially more assumptions regarding freight-rate changes, pass-through to end users, route-level substitution, and long-run market adjustment. By focusing on identifiable domestic exposures, the report provides estimates that can be evaluated against the public data sources and assumptions described in the appendix.

Readers seeking a full national welfare estimate would need a broader model with correspondingly wider uncertainty.

## VI. Conclusion

This report provides four measurable channels through which a potential long-term waiver of the Merchant Marine Act of 1920 could affect the US maritime sector and the broader domestic economy: tax revenue, jobs and labor income, domestic shipbuilding demand and associated industrial output, and maritime capital investment. Together, these metrics give policymakers and stakeholders a practical set of order-of-magnitude indicators grounded in public data and transparent assumptions.

At the same time, a sustained waiver could produce offsetting effects in some markets, especially where vessel availability or transportation costs are binding constraints. It could also have broader national security and strategic-resilience implications that extend beyond what can be credibly quantified in a focused economic exercise. In the face of uncertainty, this report identifies several economic channels that can be evaluated and updated as better information becomes available.

As such, the report is intended to inform policy deliberation, rather than recommend a position, by identifying selected domestic economic channels and explaining what is, and is not, quantified.

# Appendix: Data sources and methodology

## A. Purpose and analytical approach

This appendix describes the data sources, methods, and interpretive guardrails used in this report. The analysis is designed to provide order-of-magnitude estimates of selected economic exposures associated with a sustained waiver of the Merchant Marine Act of 1920. It is not intended to resolve the full literature on the Act's economy-wide effects but rather to document the narrower framework used here to estimate several identifiable domestic channels of exposure. This design is intended to complement, rather than replicate, prior literature that examined broader trade-offs associated with the Act using different methods and for specific markets or regions.<sup>16</sup> It is not a comprehensive economy-wide net effect study and it should not be interpreted as a prediction of immediate one-for-one losses. Instead, the report focuses on four measurable categories of exposure: (1) tax revenue at risk, (2) jobs and labor income exposed, (3) domestic shipbuilding demand and industrial output potentially affected, and (4) maritime capital investment at risk. The report also acknowledges relevant qualitative considerations that may amplify or offset the quantified effects, including national-security, supply-chain, and market-pass-through considerations.

The legal and policy backdrop is important to this framing. The coastwise merchandise statute generally requires merchandise transported between points in the United States to move on coastwise-qualified vessels, and waiver procedures are governed by 46 U.S.C. § 501 and administered through US Customs and Border Protection. Current waiver procedures require information on vessel availability and a national-defense rationale, which is one reason this report treats the waiver scenario as a stylized policy environment rather than a literal prediction of how any single vessel-specific waiver would operate in practice. This report does not provide legal advice and should not be read as a legal interpretation of the scope of waiver authority. Similarly, the report does not opine on the application of noncoastwise legal or regulatory requirements to foreign vessels operating under a waiver; the economic implications of those issues are addressed qualitatively where relevant.

## B. Key scenario assumptions

The principal scenario assumptions used to develop the reported ranges are summarized below. These assumptions are intended to bound a plausible range of domestic economic exposure under a sustained waiver environment rather than to predict a single expected outcome. In general, the low case reflects more

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<sup>16</sup> See, e.g., GAO, *Puerto Rico: Characteristics of the Island's Maritime Trade and Potential Effects of Modifying the Jones Act*, GAO-13-260 (2013); GAO, *Maritime Issues: Assessment of the International Trade Commission's 1995 Analysis of the Economic Impact of the Jones Act*, RCED-98-96R (1998); and Ryan Kellogg and Richard L. Sweeney, "Impacts of the Jones Act on U.S. Petroleum Markets," NBER Working Paper No. 31938 (2023).

limited activity shift and investment response, while the high case reflects a larger degree of responsiveness. The low case should therefore be interpreted as a conservative lower-exposure case within a sustained waiver framework, not as a separate short-duration waiver scenario.

- **Degree of activity shift from US-flag shipping.** The analysis assumes that a sustained waiver could lead to some substitution away from US-flag operators, US-based labor, and related domestic maritime activity. The low and high cases differ in the assumed share of activity potentially exposed under a sustained waiver environment.
- **Exposure of labor income and employment.** Employment and labor income exposure are linked to the share of directly affected domestic maritime and shipbuilding activity. Where broader economic effects are shown, indirect and induced effects are estimated separately using transparent input-output relationships or similarly transparent multiplier assumptions.
- **Commercial share of domestic shipbuilding activity.** The shipbuilding analysis applies a fixed 20-percent Act-relevant share to the domestic shipbuilding baseline in both the low and high cases. This assumption reflects an estimate of the portion of domestic shipbuilding and repair activity plausibly tied to commercial demand covered by the Act, after excluding military, government, and other unrelated activity to the extent practicable. The 20-percent allocation is supported by PwC's updated yard-level analysis using 2024 data, which indicates an estimated relevant allocation of approximately 24 percent. The fixed 20-percent assumption is therefore below the updated yard-level estimate and represents a conservative current-case allocation for purposes of the waiver analysis. Since the same 20-percent share is used in both scenarios, the reported low/high range is driven by other scenario parameters, including the assumed activity shift under a sustained waiver, the fleet-renewal response, and the industrial-output conversion factor. A higher commercial allocation would increase the estimated shipbuilding exposure, so the 20-percent assumption provides a reasonable and conservative basis for estimating the portion of domestic shipbuilding and repair activity relevant to the analysis.
- **Timing of fleet renewal and replacement.** The shipbuilding analysis assumes that changes in domestic vessel demand would emerge over time rather than all at once. The reported ranges therefore reflect differing assumptions regarding the pace of fleet acquisition, maintenance, and replacement decisions.
- **Tax-revenue relationships.** The tax analysis assumes that exposed domestic maritime activity can be translated into approximate federal, state, and local tax exposure using tax-relevant relationships derived from public information, including payroll-based, income-based, output-based, or observed-payment proxies, depending on the component being estimated.

- **Investment response to regulatory uncertainty.** The capital-investment analysis assumes that a sustained waiver could affect expectations regarding future demand for US-flag vessels and domestic shipbuilding, leading some share of relevant fleet and shipyard investment to be delayed, reduced, or redirected.
- **Treatment of indirect and induced effects.** Not every metric includes the same breadth of ripple effects. In general, the tax and investment analyses rely primarily on direct exposure measures, while the employment analysis presents broader indirect and induced effects where the underlying data and modeling approach support doing so.
- **No assumption of immediate one-for-one losses.** Across all four metrics, activity identified as “at risk” is treated as exposed under the modeled scenario, not as activity that would disappear immediately or in full. Actual effects would depend on the scale and timing of market adjustment, firm behavior, and the extent to which activity is reduced, relocated, replaced, or otherwise restructured over time.

**Table B-1** summarizes the directional differences between the low and high cases for the principal scenario categories.

**Table B-1. – Key assumption categories**

| Assumption category                                           | Low case | High case | Rationale/source                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Activity shift from US-flag shipping                          | 5%       | 30%       | Scenario range for long-term broad-based waiver exposure                                                                                                                                                                                                                                                                                                                         |
| NAICS Code 336611 Act-relevant share                          | 20%      | 20%       | Yard-level current attribution, intended as a conservative current-case allocation. PwC's updated yard-level analysis using 2024 data indicates an estimated relevant allocation of approximately 24 percent; the fixed 20-percent assumption is therefore below the updated yard-level estimate. A higher commercial allocation would increase estimated shipbuilding exposure. |
| NAICS Code 488390 Act-relevant share                          | 79.2%    | 79.2%     | Water-transportation allocation based on 2022 Economic Census                                                                                                                                                                                                                                                                                                                    |
| Federal payroll tax rate                                      | 15%      | 15%       | Employer + employee FICA approximation                                                                                                                                                                                                                                                                                                                                           |
| Federal individual income tax average effective rate on wages | 7%       | 13%       | Conservative average effective-rate scenario range applied to the exposed wage-income base; not a marginal tax rate. The model does not simulate taxpayer-level filing status, deductions, credits, or household income distribution.                                                                                                                                            |
| Federal business-income tax proxy                             | 8%       | 16%       | Applied to IMPLAN other property income as a business-income proxy; range reflects that economic profits are not equivalent to taxable corporate income and that realized federal corporate income tax burdens may differ from the 21% statutory rate.                                                                                                                           |
| State/local average income tax rate proxy                     | 3%       | 7%        | Scenario range based on state/local tax burden reasonableness checks                                                                                                                                                                                                                                                                                                             |
| Other state/local tax-to-output proxy                         | 1%       | 3%        | Scenario range based on Census state and local government finances data                                                                                                                                                                                                                                                                                                          |
| Fleet renewal response                                        | 80%      | 120%      | Sensitivity around fleet replacement timing                                                                                                                                                                                                                                                                                                                                      |
| Industrial output per \$ demand                               | 80%      | 100%      | Direct output conversion factor. Converts estimated shipbuilding demand at risk into domestic industrial output at risk; 100% is used when demand is measured as domestic shipyard output, with a lower low-case factor reflecting possible non-output components or leakage.                                                                                                    |
| Investment response                                           | 15%      | 35%       | Scenario-based share of relevant fleet and shipyard investment potentially delayed/reduced/redirected under prolonged regulatory uncertainty; low case reflects partial deferral; high case reflects broader capital-planning response.                                                                                                                                          |

## C. Primary public data sources

**Definition of the Jones Act shipping industry.** For purposes of the baseline analysis, the directly exposed Jones Act shipping industry is defined using the same NAICS-based industry scope employed in PwC's 2019 study of the shipping industry. The six core subsectors are shown in **Table C-1**.

**Table C-1. – NAICS-based definition of the Jones Act shipping industry**

| Category                        | NAICS Code    | Description                                                                                                                          |
|---------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Water transportation            | 483113        | Coast and Great Lakes Water Freight Transportation                                                                                   |
| Water transportation            | 483114        | Coast and Great Lakes Water Passenger Transportation                                                                                 |
| Water transportation            | 483211        | Inland Water Freight Transportation                                                                                                  |
| Water transportation            | 483212        | Inland Water Passenger Transportation                                                                                                |
| Shipbuilding                    | 336611 (part) | Ship Building and Repairing (Jones Act-relevant portion)                                                                             |
| Shipbuilding/support activities | 488390 (part) | Other Support Activities for Water Transportation (Jones Act-relevant portion, including routine maintenance from floating drydocks) |

Source: Based on PwC, *Contribution of the Jones Act Shipping Industry to the US Economy* (2019), Table 6.

The industry scope includes Act-relevant portions of ship building and repairing and support activities for water transportation. These categories may include activity associated with both oceangoing and non-oceangoing domestic vessel classes, depending on the underlying data source and allocation applied. For example, the investment baseline described below uses both MARAD oceangoing fleet data and non-MARAD vessel counts from the US Army Corps of Engineers (“USACE”) Waterborne Transportation Lines of the United States (“WTLUS”), which includes domestic vessel classes beyond large oceangoing vessels. The extent to which those vessel classes affect the shipbuilding demand and investment estimates depends on the allocation and replacement-cost assumptions applied in the model.

In the 2019 PwC study, these six-digit NAICS subsectors were used to define the shipping industry for purposes of measuring the industry’s economic contribution. In the present report, the same industry scope is used as the starting point for measuring directly exposed domestic maritime activity under a stylized long-term waiver scenario. As in the earlier study, some categories may require allocation assumptions to distinguish Act-relevant activity from non-Act, military, government, or otherwise noncomparable activity, particularly within shipbuilding and support-activity categories.

This industry definition does not imply that all activity captured within the shipbuilding-related categories is attributable to commercial Act demand. Where relevant, the present analysis follows the same general approach as PwC’s 2019 study by distinguishing commercial activity from military, government, or other noncomparable activity within the relevant shipbuilding-related categories, while adapting the precise allocation assumptions to the purposes of this waiver analysis.

This industry definition is used to anchor the baseline employment, payroll, output, shipbuilding, and investment measures used throughout the waiver analysis, even though the present report estimates exposure under a stylized waiver scenario rather than the total economic contribution of the industry itself.

**Employment and wages.** The primary source for direct employment and wage estimates is the US Bureau of Labor Statistics' Quarterly Census of Employment and Wages ("QCEW"), which publishes employment and wage data by detailed NAICS industry and geography and covers more than 95 percent of US jobs.<sup>17</sup> Where occupational wage benchmarks or workforce mix information are needed, the report draws on BLS Occupational Employment and Wage Statistics ("OEWS"), which provides occupational employment and wage estimates based on a large establishment survey.<sup>18</sup>

**Industry output, value added, and supply-chain relationships.** The analysis draws on the US Bureau of Economic Analysis ("BEA") for industry-level value added and related national-account concepts. BEA's GDP-by-Industry statistics report value added, compensation of employees, gross operating surplus, and taxes on production and imports less subsidies by industry.<sup>19</sup> Where broader supply-chain effects are shown, the report relies on BEA input-output accounts, which map inter-industry purchasing relationships and provide direct and total requirements frameworks that are widely used to study indirect economic effects.<sup>20</sup>

**Maritime sector context.** For fleet, domestic shipping, and sector-structure context, the report uses public information from the US Maritime Administration ("MARAD"), including US-flag fleet data and MARAD background material on domestic shipping and national security.<sup>21</sup> MARAD maintains current US-flag fleet lists and explicitly frames domestic shipping laws and the broader maritime transportation system as relevant to national security.

**Shipbuilding and business activity data.** To supplement shipbuilding and manufacturing benchmarks, the report uses US Census Bureau business statistics. The Census Bureau's Annual Integrated Economic Survey ("AIES") replaced and integrated several annual business surveys, including the Annual Survey of Manufactures ("ASM"), and provides national and subnational information on business revenues, expenses, payroll, and employment.<sup>22</sup>

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<sup>17</sup> US Bureau of Labor Statistics, "QCEW Overview," available at: <https://www.bls.gov/cew/overview.htm>.

<sup>18</sup> US Bureau of Labor Statistics, "Occupational Employment and Wage Statistics Overview," available at: [https://www.bls.gov/oes/oes\\_emp.htm](https://www.bls.gov/oes/oes_emp.htm).

<sup>19</sup> US Bureau of Economic Analysis, "GDP by Industry," available at: <https://www.bea.gov/data/gdp/gdp-industry>.

<sup>20</sup> US Bureau of Economic Analysis, "Input-Output Accounts," available at: <https://www.bea.gov/data/industries/input-output-accounts-data>.

<sup>21</sup> US Maritime Administration, "U.S.-Flagged Fleet – Dashboard," available at: <https://www.maritime.dot.gov/data-reports/us-flag-fleet-current>.

<sup>22</sup> US Census Bureau, "Annual Integrated Economic Survey (AIES)," available at: <https://www.census.gov/programs-surveys/aies.html>.

## D. Metric-by-metric methodology

### 1. Tax revenue at risk

The tax analysis estimates the order of magnitude of federal, state, and local tax revenues associated with domestic maritime transportation and shipbuilding activity that could be placed at risk under a sustained waiver environment. The approach combines estimates of potentially exposed domestic economic activity with tax-relevant ratios or effective tax relationships derived from public information. The analysis focuses on tax categories most plausibly linked to maritime business activity, including payroll-related taxes, business-income-related taxes, and selected state and local business taxes where public information supports a reasonable approximation.

Federal payroll tax exposure is estimated by applying an approximate 15 percent FICA rate to exposed payroll. Federal individual income tax exposure is estimated using a 7 percent to 13 percent average effective federal individual income tax rate applied to exposed wage income. An average effective rate is used rather than a marginal rate because the analysis estimates aggregate tax revenue associated with a block of exposed wage income, not the tax on an additional dollar earned by a specific taxpayer. The range is intended to reflect Internal Revenue Service (“IRS”) Statistics of Income (“SOI”) division evidence that effective individual income tax rates vary materially by income level and filing circumstances, and that average rates are generally below statutory marginal rates because of deductions, credits, filing status, income composition, and progressive rate brackets.<sup>23</sup> Federal business income tax exposure is estimated by applying an 8 percent to 16 percent effective federal corporate income tax rate to exposed business income. Business income is proxied using IMPLAN “other property income” for the relevant sectors. The effective-rate range is used instead of the 21 percent statutory corporate income tax rate because IMPLAN other property income is an economic income concept rather than taxable corporate income, and because actual federal income tax collections may be affected by entity type, depreciation, deductions, credits, losses, and timing differences. State and local tax exposure is estimated using payroll- and output-based proxies, including a 3 percent to 7 percent average state/local income tax rate range and a 1 percent to 3 percent other-state/local-tax proxy applied to exposed output.

The tax estimates do not model taxpayer-specific attributes such as entity type, apportionment, credits, net operating losses, depreciation timing, or state-by-state tax rules.

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<sup>23</sup> IRS SOI publishes individual income tax-rate and tax-share statistics, including distributions of adjusted gross income, total income tax, and average tax rates by income percentile. IRS Publication 1304, *Individual Income Tax Returns Complete Report*, provides data on sources of income, adjusted gross income, deductions, taxable income, income tax, tax credits, and tax payments. These data support use of average effective tax-rate assumptions that vary by income level, but they do not provide a maritime-sector-specific effective individual income tax rate.

These estimates are intended to reflect exposure, not a prediction that all associated tax revenue would disappear immediately or in full. Actual fiscal effects would depend on the scale of any activity shift, how quickly it occurred, and whether affected activity were reduced, relocated, replaced, or otherwise restructured over time.

## **2. Jobs and labor income exposed**

The employment analysis begins with a baseline estimate of direct employment and labor income in the relevant maritime transportation, shipbuilding, and selected supporting industries. Scenario-based assumptions are then applied to estimate the share of that activity that could be exposed under a sustained waiver environment. Where broader economic effects are presented, indirect and induced impacts are estimated separately using transparent input-output relationships or similarly transparent multiplier assumptions.

Direct employment is based primarily on BLS QCEW employment for the six NAICS categories listed in Table C-1, adjusted for the Act-relevant shares of NAICS Codes 336611 and 488390. Total employment exposure includes indirect and induced effects estimated using input-output relationships / multiplier factors from the latest IMPLAN model for the relevant sectors. The low and high cases apply the assumed activity-shift range to the direct and total employment baseline. The total/direct relationship reflects sector-weighted IMPLAN results for the modeled sectors rather than a single generic multiplier.

These estimates are not intended as a prediction that all identified jobs or labor income would be lost immediately. Rather, they illustrate the approximate scale of employment and labor income currently supported by domestic maritime activity that could be exposed if a sustained waiver were to reduce demand for US-based vessels, shipyard production, or related support services.

## **3. Domestic shipbuilding demand and industrial output**

The shipbuilding analysis starts with a baseline estimate of commercial US shipyard activity and applies scenario-based assumptions regarding the portion of that activity that could be exposed if a sustained waiver were to weaken incentives to acquire, maintain, or replace US-built vessels.

Because US shipyards may participate in both commercial and defense-related work, the analysis does not treat all shipbuilding activity within the relevant NAICS categories as Act-related commercial demand. Consistent with PwC's 2019 industry study, the analysis isolates the portion of shipyard activity most plausibly tied to commercial vessel construction, maintenance, and replacement related to activity covered

by the Act, while excluding military, government, or otherwise noncomparable activity to the extent practicable using public information and scenario-based allocation assumptions.

This metric is especially sensitive to assumptions about the commercial share of shipyard output, the mix of vessel types affected, and the pace at which fleets are renewed or replaced. For that reason, the results should be read as scenario-based ranges illustrating potential exposure under alternative assumptions, not as a precise forecast of realized shipyard losses.

#### **4. Maritime capital investment at risk**

The investment analysis starts with a baseline view of recent or planned fleet and shipyard investment and applies scenario-based assumptions regarding the portion of that investment that could be delayed, reduced, or redirected if a sustained waiver were to alter expectations regarding future demand for US-flag vessels and domestic shipbuilding.

The 15-percent to 35-percent response factor reflects a sensitivity test rather than an empirically estimated elasticity. It is intended to bracket the portion of relevant fleet renewal, shipyard modernization, and supporting maritime capital that could be delayed, reduced, or redirected as firms update capital plans under a sustained waiver environment. The lower end reflects limited deferral or reprioritization while most baseline capital spending continues; the upper end reflects a broader capital-planning response, but it does not assume cancellation of all relevant investment.

The investment baseline is anchored primarily to an annualized fleet renewal estimate derived from MARAD oceangoing fleet data and non-MARAD vessel counts from the USACE WTLUS, supplemented by Census Annual Capital Expenditure Survey (“ACES”) shipyard capital expenditure data. Because investment decisions are inherently forward-looking, this metric is best understood as a measure of exposure and risk rather than a direct observation of realized losses.

Table D-1. – Key investment category and baseline source

| Investment category         | Baseline source                                                                         | Treatment                                                                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Fleet capex / orders        | MARAD and WTLUS fleet counts; vessel-class replacement-cost and useful-life assumptions | Annualized replacement capex baseline                                                                                                             |
| Shipyard modernization      | Census ACES NAICS Code 336611 capex                                                     | Multiplied by Act-relevant shipbuilding share                                                                                                     |
| Supporting maritime capital | Census ACES NAICS Code 488390 capex                                                     | Multiplied by Act-relevant share. It does not include all port authority, terminal, inland waterway, or public infrastructure capital investment. |

Actual investment effects would depend on the duration and perceived permanence of the waiver, firms' capital-planning cycles, access to financing, and the extent to which companies choose to defer, relocate, or reprioritize investment over time.

## E. Scenario design and interpretation

The report is structured around illustrative scenarios rather than a single deterministic forecast. This approach is appropriate because the magnitude of any effect would depend on a number of uncertain factors, including the scope and duration of the waiver environment, the degree of substitution toward foreign-flag capacity, market-specific competitive conditions, firm behavior, and the extent to which affected activities can be replaced or redeployed. The scenarios are intended to bracket a plausible range of outcomes rather than to define a single expected path.

For that reason, results are presented as **ranges** or **scenario-based estimates** rather than as single point values. Throughout the report, the phrase “at risk” is used deliberately to indicate exposure under the modeled scenario, not a guaranteed realized loss.

## F. Treatment of direct, indirect, and induced effects

The report distinguishes between three effect types where relevant:

- **Direct effects:** activity within US-flag shipping, domestic shipbuilding, and any other directly modeled maritime industries.
- **Indirect effects:** activity supported through purchases from suppliers and contractors.

- **Induced effects:** activity supported by household spending tied to labor income generated in the direct and indirect sectors.

Not every metric requires all three layers. For example, the tax and investment analyses rely primarily on direct measures, while the employment analysis may also present broader multiplier-based effects where the underlying data and modeling approach support doing so. The report is designed to label these effect types explicitly to avoid double counting and to allow readers to separate core industry exposure from broader economic spillovers. BEA's input-output accounts are the principal public framework used to characterize these inter-industry relationships.<sup>24</sup>

## G. Nonquantified considerations

The report acknowledges several relevant issues that are important to the policy discussion but are outside the scope of the quantified estimates. These include potential national-security implications, resilience of the domestic maritime industrial base, mariner availability, strategic sealift considerations, and possible cost or operational benefits to shippers or end users from lower shipping costs or greater vessel availability on some routes. The magnitude of any such cost or operational benefits may vary by route, cargo, market conditions, and regulatory treatment.

These effects are noted qualitatively because they are potentially important but difficult to quantify credibly in a rapid public-data study. MARAD explicitly links the maritime transportation system and domestic shipping laws to national security, and USTRANSCOM and Military Sealift Command use commercial sealift and US merchant mariners as part of the broader strategic sealift portfolio. At the same time, some proponents of broader waiver use argue that greater access to foreign-flag capacity could reduce costs or improve logistics flexibility in certain markets. The report therefore treats these issues as contextual considerations that may amplify or offset the quantified effects, while recognizing that they are beyond the scope of the order-of-magnitude estimates presented here.

## H. Key limitations

Several limitations are important when interpreting the results.

First, the analysis relies primarily on public data, which can lag current market conditions and may not capture firm-level or route-level developments in real time. The tax estimates also do not model taxpayer-specific filing status, dependents, deductions, credits, non-wage income, state-by-state apportionment, or

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<sup>24</sup> US Bureau of Economic Analysis, *"Input-Output Accounts."*

the distribution of affected workers across income groups. Second, some industry categories include a mix of activities, requiring allocation assumptions to distinguish the portions most relevant to domestic maritime transportation and commercial shipbuilding. Third, because the report is designed as a rapid, transparent assessment, it does not attempt to model all potential economy-wide equilibrium effects, consumer pass-through effects, or long-run substitution patterns. Fourth, the report does not quantify every potentially relevant consideration, including national security value, strategic-readiness implications, or possible consumer benefits from lower transport costs.

Accordingly, the results should be understood as policy-relevant estimates of economic exposure, not as a complete accounting of all possible costs or benefits associated with a sustained waiver scenario. They are best understood as screening estimates intended to inform policy discussion under uncertainty.

## **I. Data vintage and updates**

Unless otherwise noted, the report uses the latest publicly available data as of June 2026. Where multiple public sources are combined, minor differences in timing, geography, or industrial classification may require reconciliation. If material new public information becomes available after the report's close date, results may change.

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