



The Impact of Capacity Investment at Major West Coast Ports and Terminals that Connect to the Movement of Containerized Agricultural Exports (Summary)

Alexis Heyman

This is a summary of "The Impact of Capacity Investment at Major West Coast Ports and Terminals that Connect to the Movement of Containerized Agricultural Exports" by Chris Carr and Cyrus Ramezani.¹ This research and analysis received funding from USDA's Agricultural Marketing Service (AMS) through cooperative agreement number 22-TMTSD-CA-0006. The opinions and conclusions expressed are the authors' and do not necessarily reflect the views of USDA or the Agricultural Marketing Service. The full report is available online at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5095941.

WHAT IS THE ISSUE?

West Coast ports are vital conduits for U.S. containerized agricultural exports, yet they face significant infrastructure challenges that can hinder efficient cargo handling. This report examines recent investments and future needs at the Ports of Oakland, Northwest Seaport Alliance (Seattle-Tacoma), Los Angeles, and Long Beach, with a focus on potential improvements benefiting agricultural exports.

These ports grapple with a complex web of issues, including aging facilities, congestion, space constraints, and stringent environmental regulations. They must also navigate competitive pressures, labor relations, funding limitations, and the need to adopt new technologies. The interplay of these factors creates a challenging environment for maintaining and enhancing port infrastructure to support agricultural exports.

HOW WAS THE STUDY CONDUCTED?

The information and data in this report comes from publicly available documents. Researchers examined port budgets, reports, and data, while also participating in industry events and advisory committee meetings. The insights of port officials, agricultural exporters, drayage-trucking providers, chassis providers, and various other stakeholders in the supply chain were considered.

¹ Carr and Ramezani are professors in California Polytechnic State University's Orfalea College of Business.

A key component of the study was the review of federal and state infrastructure grant programs and their impact on port development. The authors also scrutinized port strategic plans to understand future priorities. This multifaceted approach provided a robust examination of container flows, recent infrastructure initiatives, and their potential impact on agricultural exports.

It is worth noting that the study faced some limitations, particularly in reconciling inconsistencies in publicly available data and determining the status of ongoing infrastructure projects.

WHAT DID THE STUDY FIND?

The study revealed several key findings and led to important recommendations:

- Containerized agricultural exports continue to be a significant portion of outbound cargo at West Coast ports, despite fluctuations in overall volumes.
- Recent infrastructure investments have largely focused on modernizing terminals, improving on-dock rail systems, upgrading roadways, and implementing environmental initiatives. However, the pace of improvements still lags the growing needs of these ports and their stakeholders.
- Federal support grant programs, such as the Port Infrastructure Development Program, are providing crucial funding support. Additionally, California and Washington have bolstered their state-level support for port infrastructure.
- The strategic priorities of these West Coast ports encompass a range of initiatives. These include developing off-dock chassis facilities and expanding on-dock rail, enhancing refrigerated container infrastructure, and investing in transloading facilities. Ports are also focusing on zero-emission truck technology, exploring inland port development, improving terminal access, and upgrading digital infrastructure.

RECOMMENDATIONS

Based on these findings, the study recommends a multi-pronged approach to future infrastructure investment. Key areas for focus include:

- Strengthening reefer and transloading capabilities, particularly at Oakland and Northwest Seaport Alliance ports, and exploring innovative uses of available space, such as Oakland's Howard Terminal;
- A comprehensive strategy to support zero-emission truck adoption, the development of supporting infrastructure, and upgrading roads and highways to accommodate heavier zero-emission trucks;
- Pursuing viable inland port projects, improving port access roads, investing in and further developing data sharing platforms, and flexible solutions like "pop-up" container yards and extended gate hours.
- In conclusion, while recent investments have enhanced West Coast port infrastructure, continued federal and state funding support is crucial to address remaining needs and boost the competitiveness of U.S. agricultural exports. Priority should be given to projects that directly benefit agricultural shippers, such as reefer and transload facilities. Moreover, addressing challenges like zero-emission truck adoption will require ongoing collaboration between ports, shippers, and policymakers. This coordinated effort is essential to ensure that West Coast ports can effectively support the growing demands of containerized agricultural exports in an increasingly competitive global market.

PREFERRED CITATION

Heyman, Alexis. April 2025. *The Impact of Capacity Investment at Major West Coast Ports and Terminals that Connect to the Movement of Containerized Agricultural Exports (Summary)*. U.S. Department of Agriculture, Agricultural Marketing Service. Web. <<http://dx.doi.org/10.9752/TS445.04-2025>>

Tractor wheel icon: ID 33434254 © Tribalium | Dreamstime.com

Photo credit: Adobe Stock

USDA is an equal opportunity provider, employer, and lender.