California's Competitive Advantage in Global Trade

CMANC Meeting September 13, 2018



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California's Clear Logistical Advantage: LOCATION, LOCATION, LOCATION

- CA is the most populous state in the Nation-Almost 40 million people
- LA/LB Second largest US population center- CAPTIVE MARKET!
- Most extensive intermodal rail services to Chicago, Dallas, Columbus, the Northeast and Atlanta to move DISCRETIONARY CARGO
- So Cal is the transloading capital of the country with more than 1.5 billion square feet of industrial real estate for SHIPPER FLEXIBILITY
- Deep Water and BIG SHIP ready and no canals or bridges to navigate from Asia to CA
- Oakland leading gateway and last port outbound for exports from the agricultural rich Central Valley. EQUIPMENT BALANCE

Trans Pacific Services dominated by USWC Ports

Number of Services & Deployed Capacity by Trade Lane - July 2018





The everchanging face of Global Container Trade

Evolution of Alliances

Prior April 2017		As of April 1, 2017		New Alliances as of April 2018
2M		2M ALLIANCE + HMM		2M ALLIANCE + HMM
Maersk Line		Maersk Line		Maersk Line ⁴
MSC		MSC HMM		MSC HMM
СКҮНЕ		THE ALLIANCE		THE ALLIANCE
COSCO ——— K Line ——— Yang Ming ——— Hanjin Shipping ¹		K Line — Yang Ming — Hapag-Lloyd —		Ocean Network Express ⁵ Yang Ming Hapag-Lloyd
Evergreen	<u> </u>	Mitsui OSK Lines	_//	
G6		NYK Line		
APL ² Hapag-Lloyd ————		OCEAN ALLIANCE		OCEAN ALLIANCE
HMM Mitsui OSK Lines		CMA CGM		CMA CGM
NYK Line OOCL		China COSCO Shipping Evergreen OOCL		China COSCO Shipping Evergreen OOCL
O3		¹ Hanjin Shipping was declared bankrupt ir	n early 2017	
CMA CGM	_/	² APL has been acquired by CMA CGM ³ UASC has merged with Hapag-Lloyd		
UASC ³		⁴ Maersk acquisition of Hamburg Sud end of ⁵ Ocean Network Express (ONE) began op		2018

The past two to three years have seen considerable M&A activity:

- Hamburg Sud acquiring CCNI
- Hapag-Lloyd buying CSAV and UASC
- CMA CGM acquiring APL, OPDR
- MSC buying Tirrenia
- Hanjin bankruptcy
- COSCO/China Shipping merger
- Maersk Line acquiring Hamburg
 Sud
- Merger of K Line, Mitsui OSK Lines and NYK Line into ONE

Other transactions are imminent:

- COSCO acquiring OOCL; approval from Chinese government received late June 2018
- CMA CGM to acquire Mercosul from Maersk Line, announced June 2017

Trade Routes

Mergers and Acquisitions effects on Ports

Alliances and Consolidation of Container Shipping Industry



As of the date of this Official Statement, there are three main shipping alliances, 2M+H, THE Alliance and OCEAN Alliance. In 2014, Maersk and Mediterranean Shipping Company established the "2M Alliance," which according to Maersk, is a 10-year pact for Asia-Europe, trans-Atlantic and trans-Pacific routes. In 2017, Hyundai Merchant Marine Shipping became a partner in 2M through a strategic cooperation agreement, and the name of the alliance changed to 2M+H. "THE Alliance," established in 2017, consists of NYK Line, MOL, "K" Line, Yang Ming, and Hapag-Lloyd. In April 2018, NYK Line, MOL and "K" Line became one company, the Ocean Network Express (ONE). According to THE Alliance, "established in 2017 consists of CMA CGM, Evergreen, OOCL and COSCO. According to OCEAN Alliance, the pact will be for ten years and will include Asia-Europe, Asia-Mediterranean, trans-Pacific to United States West Coast and East Coast ports, trans-Atlantic, Asia-Red Sea and Asia-Middle East routes. According to IHS Markit/PIERS, these three alliances shipped over 85% of all imports from Asia to the United States during calendar year 2017. Many of the container-shipping lines that are part of 2M+H, THE Alliance and OCEAN Alliance operate at the Port.

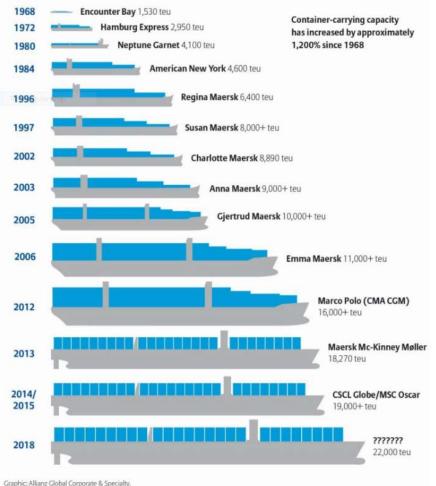
Source: City of Long Beach Harbor Revenue Refunding Short Term Notes, Series 2018A Preliminary Official Statement 66

Smooth Sailing or Troubled Waters for CA Ports?

- Fewer, yet larger terminals to accommodate big ships with surges of volume
- What to do with smaller, less functional marine terminals?
- Consolidate and Optimize! See NWSA, Port of Oakland, Middle Harbor at POLB
- Appointment Systems and "peel off" yards
- Easier said than done... Lease provisions, new environmental docs, CAPEX
- Geopolitical Issues (National Security, Tariffs, etc.)
- Responsible Growth vs. Irresponsible Contraints?

Trade Growth Seems Inevitable

50 years of Container Ship Growth



Approximate ship capacity data: Container-transportation.com

To transport the 19,224 TEU capacity of the MSC Oscar you would need:

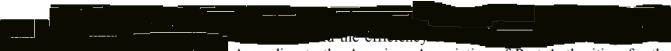




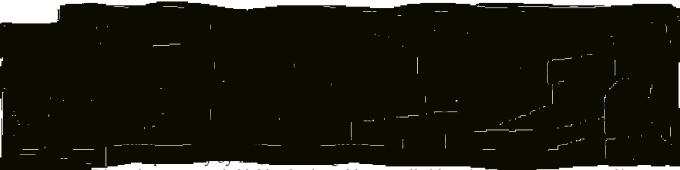
Is CA's clear advantage being threatened?

Port Competition

not factures, however the harbor Department cannot predict the scope of any such impact at this time. In addition, the imposition of fees that apply only to the Port or to a group of ports that includes the Port, may increase the cost to ocean carriers of utilizing the Port and may ultimately result in those ocean carriers using competing port facilities. The Harbor Department may reduce the tariffs or other charges applicable to its ocean carriers to moderate some or all of the potential impact, which in turn would reduce Revenues. See "—Factors Affecting Demand for Port Facilities" above.



systems for neurocear economics. According to the American Association of Port Authorities, for the calendar year ended December 31, 2017, the top nine container ports in the nation in terms of container cargo were: (1) Port of Los Angeles (9.3 million TEUs), (2) Port of Long Beach (7.5 million TEUs), (3) Ports of New York and New Jersey (6.7 million TEUs), (4) Port of Savannah (4.0 million TEUs); (5) The Northwest Seaport Alliance (Ports of Seattle and Tacoma) (3.7 million TEUs), (6) Port of Norfolk (2.8 million TEUs), (7) Port of Houston (2.5 million TEUs), (8) Port of Oakland (2.4 million TEUs), and (9) Port of Charleston (2.2 million TEUs).



Discretionary cargo is highly elastic and is controlled largely by cargo owners and/or ocean carriers who can direct and redirect cargo to any port they choose. Currently, approximately 65% of the

Maintaining our advantage....?

- Discretionary Cargo is extremely elastic
- Competition from other Ports and States is keen- Economic Development Tool
- Canada has developed an Asia Pacific Gateway Corridor Initiative and a National Trade Corridors Fund
- The Panama Canal has been widened
- WHAT IS CALIFORNIA'S PLAN?

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CETHANK YOU!

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