International Trade and the Bay Area Economy

Regional Interests and Global Outlook 2012–2013

A Bay Area Council
Economic Institute Report

March 2013

Project Sponsors

International Trade and the Bay Area Economy

Regional Interests and Global Outlook 2012–2013

A Bay Area Council Economic Institute Report
March 2013

Fifth in a Series

Fourth edition, 2010
Third edition, 2008
Second edition, 2005
First edition, 2003

Acknowledgments

This report was prepared by Sean Randolph, President & CEO of the Bay Area Council Economic Institute. Robert Yu, an intern with the Institute from Oberlin College, contributed to its research and drafting. Pam Winter copyedited the manuscript and produced the page layout and graphics.

The Institute particularly wishes to thank the sponsors of this study, who since its first edition in 2003 have consistently supported its publication: Wells Fargo, the Port of Oakland, and San Francisco International Airport.

Bay Area Council Economic Institute
201 California Street, Suite 1450, San Francisco, CA 94111
(415) 981-7117 ▪ Fax (415) 981-6408
www.bayareaeconomy.org ▪ bacei@bayareacouncil.org

Contents

1

Global Economic Outlook

After a severe recession in 2008–2009, the global economy is experiencing a halting recovery. China's once ebullient growth is slowing, but growth in developing economies is generally healthy. Economic growth in most developed economies, on the other hand, remains slow. The global outlook is dampened by developments in the eurozone, which is entering another recession.

The global economy is slowly recovering from the Great Recession that began in 2008. World output is projected to rise by 3.6 percent in 2013. That number will be an improvement from 3.3 percent in 2012 but down from 3.9 percent in 2011. Continuing a long-term trend, developing economies are on the whole experiencing higher rates of economic and trade growth than advanced economies, where the United States and Japan are growing at a stronger pace than Europe. Asian economies will experience the strongest growth in 2013, joined by Africa, which is also gathering economic momentum.

Two ongoing risks threaten this outlook. In the Euro Area, fiscal austerity and sovereign debt concerns could impact bank asset quality, leading to the tightening of credit standards and declining GDP. This is already happening. The debt crisis in Southern Europe—focused on Spain, Portugal, Italy and Greece—is now impacting healthier economies including Germany, which up to now has been the continent's economic engine but has also seen its growth rate fall. The eurozone's purchasing managers index has been in negative territory since mid-2011, indicating falling output and employment.

The following forecasts are based on October 2012 International Monetary Fund data.

Canada

Canada is in advanced stages of recovery and should see relatively stable growth, slowing from 2.4 percent in 2011, to 1.9 percent in 2012 and 2.0 percent in 2013.

Mexico

Mexico is also expected to see relatively stable growth slowing from 3.9 percent in 2011, to 3.8 percent in 2012 and 3.5 percent in 2013.

Europe (Euro Area)

Beset with structural economic challenges, growth in the Euro Area is expected to fall from 1.4 percent in 2011 to -0.4 percent in 2012, and recover to 0.2 percent in 2013.

United Kingdom

Growth in the United Kingdom is expected to drop from 0.8 percent in 2011, to -0.4 percent in 2012 and recover to 1.1 percent in 2013.

Russia and Central & Eastern Europe

Growth rates in Central & Eastern Europe are expected to fall from 5.3 percent in 2011, to 2.0 percent in 2012 and to recover to 2.6 percent in 2013.

Russian growth is expected to decline slowly from 4.3 percent growth in 2011, to 3.7 percent in 2012 and 3.8 percent in 2013.

Japan

Japan's negative growth of -0.8 percent in 2011 reflected the impact of the earthquake on its economy. Positive growth of 2.2 percent is expected in 2012, and 1.2 percent in 2013.

Although the numbers appear promising, the Itochu Economic Research Institute in Tokyo warns that they are in part the product of government policy, such as the 20 trillion yen ($249 billion) pledged for reconstruction (i.e., infrastructure), and therefore are not reflective of Japan's true economic position.

China

China's growth slowed from 10.4 percent in 2010 to 9.2 percent in 2011, and the IMF forecasts further decline to 7.8 percent in 2012, with a rebound to 8.2 percent in 2013.

Korea

Korea's growth rate is expected to drop from 3.6 percent in 2011 to 3.5 percent in 2012, then rise to 4.0 percent in 2013.

India

Like China, many have expected that India would help lift the global economy, but its economic output has in fact dropped from 10.1 percent in 2010 to 6.8 percent in 2011. The IMF projects growth to drop further, to 4.9 percent in 2012, and then rise to 6.0 percent in 2013.

Southeast Asia

One of the strongest regions from the standpoint of sustained economic expansion, Southeast Asia is expected to see growth climb from 4.5 percent in 2011 to 5.4 percent in 2012 and 5.8 percent in 2013.

Latin America

Growth in Latin America is expected to drop from 4.5 percent in 2011 to 3.2 percent in 2012 and to return to 3.9 percent in 2013.

Africa

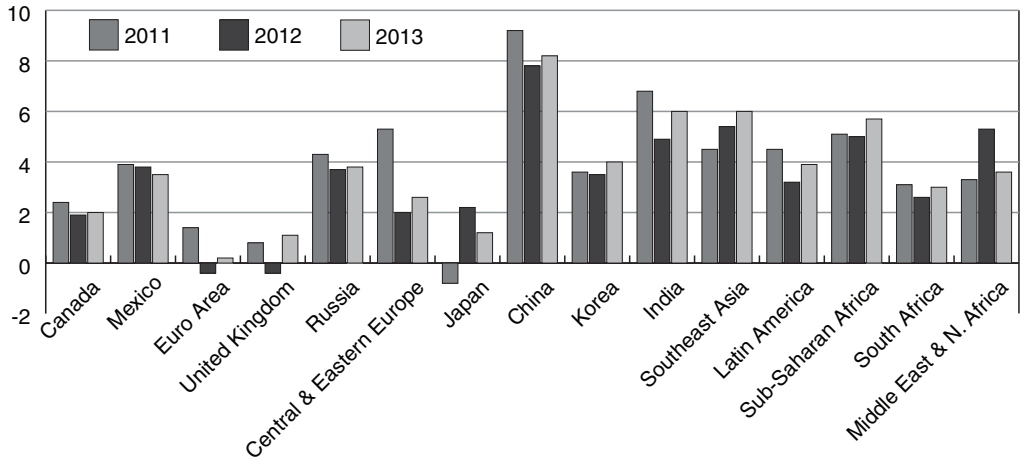
In a turn-around, Sub-Saharan African countries are projected to see positive growth rates, at 5.1 percent in 2011, 5.0 percent in 2012 and 5.7 percent in 2013.

South Africa was particularly hit by the slowdown in the Euro Area, and is projected to have lower growth rates than Sub-Saharan Africa as a whole, slowing from 3.1 percent in 2011 to 2.6 percent in 2012, and recovering to 3.0 percent in 2013.

Middle East and North Africa (MENA)

Growth rates in the MENA region are expected to rise from 3.3 percent in 2011 to 5.3 percent in 2012, and slide back to 3.6 percent in 2013. Due to political unrest, however, growth rates in individual countries are uncertain and may vary widely.

Projected Real GDP Growth, 2011, 2012 and 2013 (Annual Percent Change)



Source: International Monetary Fund, *World Economic Outlook*, October 2012

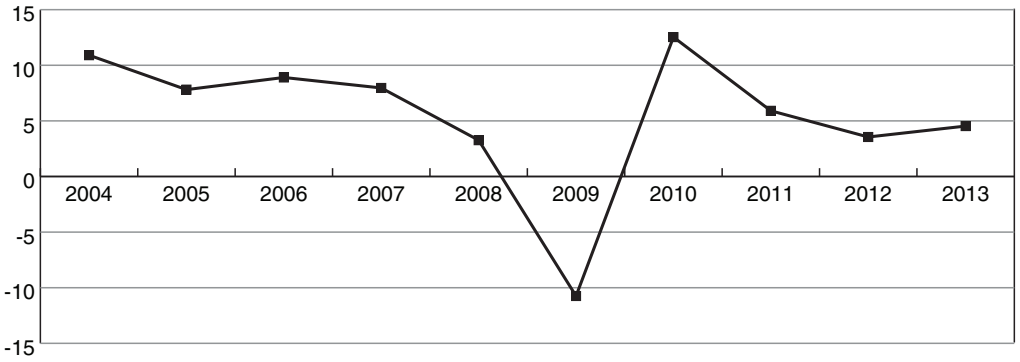
2

Global Trade Outlook

Following significant growth in 2010, global trade is growing modestly. Fiscal austerity is likely to constrain trade growth in much of Europe, but this will be counterbalanced by faster market growth in many developing economies.

After a strong rebound (12.5 percent growth) from the Great Recession in 2010, world trade lost momentum, slowing to just 5.9 percent in 2011. This was primarily attributable to factors such as the European sovereign debt crisis and the tsunami in Japan. The World Trade Organization (WTO) projects that growth in global trade in goods will slow further to 3.6 percent in 2012. The International Monetary Fund (IMF), the World Bank (WB), and the WTO all predict that world trade will increase modestly in 2013.

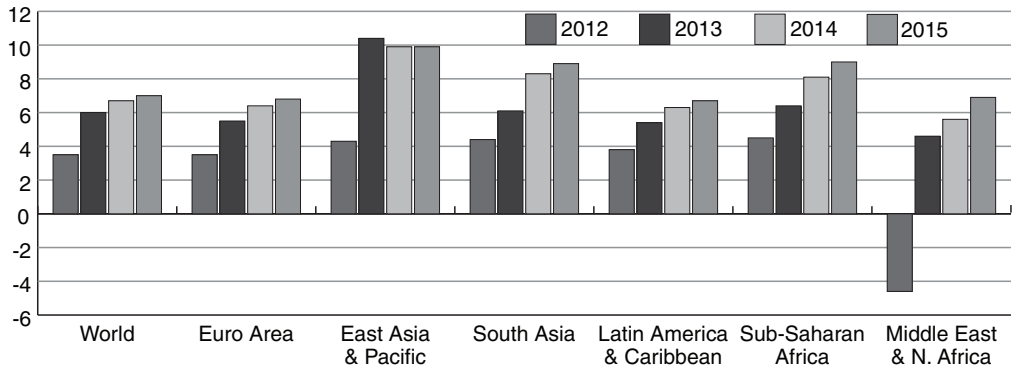
Volume of World Trade in Goods and Services, 2004–2013 (Average of Annual Percent Change for Exports and Imports)



Source: International Monetary Fund, *World Economic Outlook*, October 2012

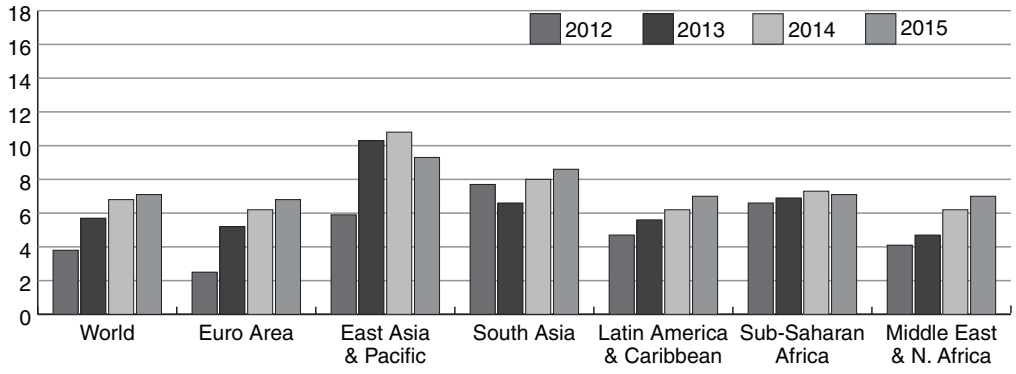
A long-term trend shows exports by developed economies growing at a significantly slower pace than exports by developing economies. In 2011, developed economies surpassed expectations with export growth of 4.7 percent while developing economies underperformed compared to recent years with 5.4 percent growth. Nevertheless, the IMF, WTO, and WB all project a widening gap between the export growth of developed and developing economies for 2012 and 2013, reflecting a return to the long-term trend. Several adverse developments contributed to the stunted export growth of developing economies in 2011. Interruption of oil supplies in Libya in conjunction with country-specific internal issues caused African exports to fall 8 percent in 2011. The Japan tsunami and Thai floods disrupted global supply chains, reducing exports from several Asian developing countries. This weakness carried forward into 2012. Asian and other developing country exports should see stronger growth in 2013.

Projected Global Exports, 2012–2015 (Annual Percent Change)



Source: The World Bank, *Global Economic Prospects*, Volume 6, January 2013

Projected Global Imports, 2012-2015 (Annual Percent Change)

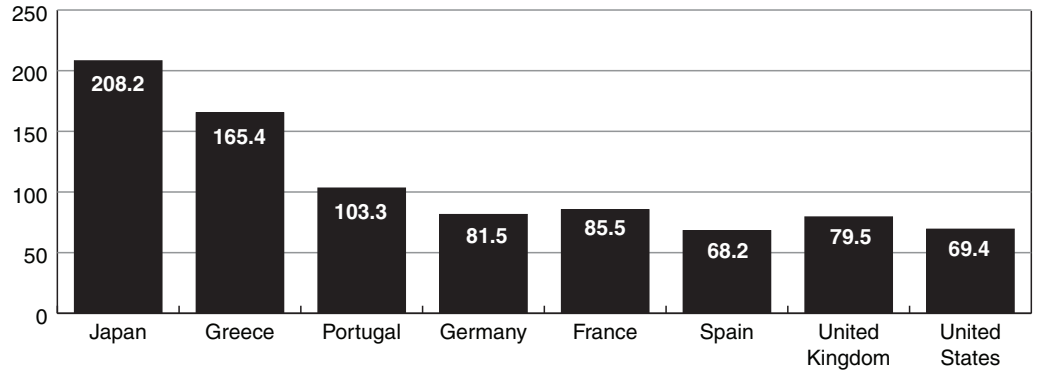


Source: The World Bank, *Global Economic Prospects*, Volume 6, January 2013

Austerity and Government Spending in Europe, the United States and Japan

Since April 2010, when Greece first requested financial assistance from other European countries and the IMF to help cover maturing debt, governments worldwide have reassessed their debt levels. This has emerged as a serious issue as debt-to-GDP ratios in developed countries continue to rise. In 2011, Japan recorded a debt-to-GDP ratio of 208.2 percent. Public debt in France, Germany and the United Kingdom ranged from 79.5 to 85.5 percent of GDP, while debt in Spain, Portugal, and Greece ranged from 68.2 to 165.4 percent of GDP, according to CIA estimates.

Public Debt Compared to Gross Domestic Product in Advanced Economies (Percent of GDP, 2011)



Source: U.S. Central Intelligence Agency, *Country Comparison*, 2011

Since Greece's initial 2010 bailout, three other European countries have sought assistance: Ireland received an €85 billion bailout in 2010, Portugal received a €78 billion bailout in 2011, Greece received a second €130 billion bailout on top of its first €110 billion bailout, and most recently Spain was given a €100 billion bailout in 2012. To preserve financial stability, the European Union created the European Financial Stability Facility (EFSF) with a €440 billion lending capacity in 2010. As the crisis has continued, the European Union has also focused on the more permanent European Stability Mechanism (ESM), which will have a lending capacity between €500 billion and €1 trillion. Debt management is a major issue in the United States as well, as evidenced by the "fiscal cliff" debate.

While debt reduction is an essential step towards economic sustainability, fiscal stringency in the near term is likely to lead to lower consumption and hence reduce trade. Exports have risen steadily since 2010, and as of mid-2012 U.S. exports were continuing to grow, with robust sales in most markets compensating for weak demand in Europe. Continuing economic problems in Europe and slowing economies in large emerging markets such as China and Brazil suggest that trade will face significant headwinds in 2013.

Exchange Rates, China and the U.S. Trade Balance

In July 2005, China (responding to U.S. pressure) revalued its currency upward by 2.1 percent, and afterward allowed the yuan to appreciate within a controlled range. The yuan appreciated 21 percent against the dollar from 2005 to 2008, but as the world economy began to falter in July 2008, Chinese policymakers locked the exchange rate at 6.83 to the dollar. In May 2010, again under pressure from its trading partners in the U.S., Europe and Japan, China announced that it would allow more flexibility but that any appreciation would be gradual. In the months immediately following, the yuan appreciated only 1 percent, disappointing many observers. In April 2012, in accord with China's goal to rebalance its economy toward domestic consumption, China's central bank increased the daily trading band from .5 percent to 1 percent. However in August 2012, an official Chinese newspaper called for a depreciation of the yuan to counter falling exports. The yuan depreciated 1.1 percent against the dollar in the first half of 2012, after rising 4.7 percent against the dollar in 2011.The IMF has described the yuan as being "moderately undervalued" against a basket of currencies. A stronger yuan makes Chinese exports more expensive in foreign markets and foreign goods cheaper for Chinese consumers.

United States Trade Balance with China (Billions of Dollars)

2004	2005	2006	2007	2008	2009	2010	2011
-162.25	-202.28	-234.10	-258.51	-268.04	-226.88	-273.06	-295.42

Source: U.S. Census Bureau, *Foreign Trade Statistics*, May 2012

Reflecting the impact of the global recession on trade, China's merchandise exports fell 16 percent in 2009, then tracked the recovery, growing 31 percent in 2010 and 20 percent in 2011.

Understanding the bilateral trade balance with China is complicated by the growth of intra-firm trade and of trade in intermediate goods within Asia. Approximately half of Chinese exports are produced by foreign firms, which import as much as two-thirds of their components from other countries and capture a large share of the final products' value. McKinsey & Company[1] estimates that imported goods accounted for 40 to 55 percent of the total value of Chinese exports in 2010. Other Asian economies that once exported technology products directly to the U.S. are now exporting components to China, where they are assembled into finished products for export to global markets. This happened as manufacturing assembly increasingly shifted from countries such as Japan, Hong Kong, Taiwan and Korea to the Chinese mainland. Indicative of China's prominent role in Asian production chains, China's imports dropped at a 27 percent annual rate in 2011 between the first and second quarters, coinciding with the Japan tsunami.

Through these intra-firm and intermediate goods transactions, China runs large trading surpluses with the U.S. and Europe but runs deficits with other trading partners. This has the effect of magnifying Chinese trade surpluses (at the point of export) with the U.S., while diluting bilateral U.S. deficits with other Asian countries. The Federal Reserve Bank of San Francisco notes that goods and services imported from China account for only 2.7 percent of U.S. personal consumption, or about one quarter of the 11.5 percent share of personal consumption accounted for by imported goods. Of that 2.7 percent, only half (1.2 percent) reflects the actual cost of the imported goods, while the other half goes to U.S. businesses and workers transporting and selling Chinese-made goods. On average, for every dollar spent on an item "Made in China", 55 cents is for services produced in the United States.[2]

In the face of persistent bilateral deficits, some in Congress have threatened retaliatory action against China based on alleged currency manipulation. The American Chamber of Commerce in China and the Congressional Research Service note that this approach is oversimplified, emphasizing yuan devaluation while minimizing other factors that explain the large China-U.S. trade surplus (e.g. China's propensity to save in contrast to the United States' high propensity to consume).

Should the dollar weaken and the yuan strengthen permanently, U.S. exports would benefit. However, the U.S. would almost certainly suffer a long-term diminution in its global economic influence. Trade strategy based on a weakened currency is a two-edged sword.

[1]Horn, John, Vivien Singer and Jonathan Woetzel, "A Truer Picture of China's Export Machine," *McKinsey Quarterly*, October 2010.

[2] Hale, Galina and Bart Hobijn, "The U.S. Content of 'Made in China'," *FRBSF Economic Letter*, August 8, 2011.

Updating the U.S. Export Control Regime

In 2010, the Obama Administration unveiled the U.S. Export Control Reform Initiative, which fundamentally reforms the 1970s system that was born during the Cold War. The reform includes three phases that improve national security while streamlining export lists and procedures, benefiting small businesses. The first two phases reconcile various definitions, regulations, and policies, while the third phase will create a single licensing agency and unified information technology system. Business organizations and trading partners ranging from NATO allies to China and India support the initiative, as it is expected to facilitate more efficient trade with allies and partners. Completion and implementation of the initiative is on the Administration's agenda for 2013.

Imports, Exports and the Trade Balance

In 2011, the U.S. trade deficit rose to $560 billion, a 16 percent increase from 2010, but still down 26 percent from its 2006 high. The 2012 January–April deficit increased to $201 billion, up from $181 billion in 2011 and $159 billion in 2010.

While bilateral U.S. import and export balances are important, the paradigm for how global trade is conducted has evolved beyond the traditional model—in which products are made in one country and shipped to another—toward a more distributed process where the final product contains intellectual property, components and processing contributed by several countries. In this model, design and basic research may be done in one country and applied (product) research in another, with final assembly done in a third from components sourced in multiple locations.

This globally distributed process is particularly prevalent among multinational and large companies in the IT sector. A technology product from China might count as a Chinese import in U.S. trade data, but may contain mostly imported components produced by U.S. or other multinational companies. If Intel designs a processor in California but manufactures it in a plant in Israel or Ireland, trade statistics do not capture the value of the design; and if the finished product is sold in the U.S., it is classified as an import, even though the lion's share of the value and profit accrues to Intel. The interpretation of data regarding bilateral trade balances is therefore not as simple as the raw figures often suggest.

The effect of these patterns on estimates of trade value can be seen, for example, in the following table from a 2010 analysis that identifies the component cost and inputs in the Apple iPhone 4.

Major Components in the Apple iPhone 4 (16GB), 2010

Subsection: Part Description	Supplier	Supplier HQ Location	Component Cost as % of Total	Component Cost
Applications Processor	Samsung	Korea	5.73%	$10.75
Applications Processor: DRAM Memory	Samsung	Korea	7.36%	$13.80
Flash Memory	Samsung	Korea	14.40%	$27.00
Radio Frequency: Baseband	Infineon	Germany	6.25%	$11.72
Radio Frequency: Transceiver	Infineon	Germany	1.24%	$2.33
Radio Frequency: Memory	Intel	U.S.	1.44%	$2.70
Radio Frequency: Misc. PAM Components	Skyworks	U.S.	—	[inc. in misc. costs below]
Radio Frequency: Misc. PAM Components	TriQuint	U.S.	—	[inc. in misc. costs below]
Radio Frequency: SAW Module	Murata	Japan	—	[inc. in misc. costs below]
Radio Frequency: Misc. Costs	[see above]		4.40%	$8.25
Connectivity: WiFi/BT	Broadcom	U.S.	4.16%	$7.80
Connectivity: GPS	Broadcom	U.S.	0.93%	$1.75
Interface & Sensors: Touchscreen Controller	Texas Instruments	U.S.	0.66%	$1.23
Interface & Sensors: Audio Codec	Cirrus Logic	U.S.	0.61%	$1.15
Interface & Sensors: Accelerometer	ST Micro	Switzerland	0.35%	$0.65
Interface & Sensors: Gyroscope	ST Micro	Switzerland	1.39%	$2.60
Remaining Misc. Components	Unidentified	—	51.08%	$95.78
Total			100%	$187.51

Source: iSuppli Corporation, "iPhone 4 Carries Bill of Materials of $187.51, According to iSuppli," June 2010, with calculations by Bay Area Council Economic Institute.

Summary of World Trade Volumes (Annual Percent Change)

	10-Yr. Averages										Projections	
	1994–2003	2004–2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
World Export and Import Volume (Average of Annual Percent Change)												
World Trade Volume	6.9	5.4	10.6	7.8	9.3	7.9	2.9	-10.5	12.9	5.8	4	5.6
Price Deflator												
In U.S. Dollars	0.2	4.2	9.4	5.2	5.2	7.5	11.3	-10.6	5.5	10.9	-0.2	-0.2
In SDRs	0.2	3.2	3.5	5.5	5.6	3.3	7.7	-8.4	6.7	7.1	2.1	-0.2
Export Volume												
Advanced Economies	6.2	4.4	9.3	6.2	8.9	6.8	1.9	-11.5	12.2	5.3	2.3	4.7
Developing Economies	8.7	7.7	13.3	11.9	11.5	10.5	4.7	-7.7	14.7	6.7	6.6	7.2
Import Volume												
Advanced Economies	6.9	3.7	9.3	6.3	7.8	5.2	0.5	-12.2	11.5	4.3	1.8	4.1
Developing Economies	7	9.4	15.8	12.1	11.9	14.9	9	-8.1	15.3	8.8	8.4	8.1

Source: International Monetary Fund, *World Economic Outlook*, October 2012

Advanced Economies Export Volumes in Goods and Services (Annual Percent Change)

	10-Yr. Averages										Projections	
	1994–2003	2004–2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Advanced Economies	**6.2**	**4.4**	**9.3**	**6.2**	**8.9**	**6.8**	**1.9**	**-11.5**	**12.2**	**5.3**	**2.3**	**4.7**
United States	4.7	5.7	9.5	6.8	9	9.3	6.1	-9.4	11.3	6.7	4.1	4.9
Euro Area	6.6	3.6	7.7	5.3	9.1	6.7	0.7	-13	11.1	6.3	1.4	3.2
Germany	7.2	5.3	10.7	7.7	13.1	8	2.7	-13.6	13.7	8.3	1.8	3.8
France	6	1.8	4.2	3.1	5.5	2.3	-0.6	-12.2	9.3	5	1.2	2.1
Italy	3.9	2	6.3	3.4	8.4	6.2	-2.8	-18.5	11.6	5.6	1	1.3
Spain	8.5	3.6	4.2	2.5	6.7	6.7	-1.0	-10.5	13.5	9.0	2.1	4.4
Japan	4.4	4.5	14.0	6.2	9.9	8.7	1.4	-24.2	24.2	0.0	5.2	7.1
United Kingdom	5.9	3.1	5.1	7.7	11.7	-1.3	1.3	-9.5	7.4	4.6	1.4	4.4
Canada	5.9	0.8	5.0	1.9	0.6	1.2	-4.7	-13.8	6.4	4.4	4.0	4.2
Other Advanced Economies	7.7	5.9	12.8	7.8	9.2	8.1	3.3	-6.6	13.3	4.7	1.9	6.3
Major Advanced Economies	5.3	4.1	8.6	5.9	9.2	6.0	1.8	13.6	12.5	5.5	2.9	4.3
Newly Industrial-ized Asian Economies	9.2	7.7	17.1	9.4	10.8	9.9	4.2	-6.6	18.1	5.5	3.0	7.8

Source: International Monetary Fund, *World Economic Outlook*, October 2012

Advanced Economies Import Volumes in Goods and Services (Annual Percent Change)

	10-Yr. Averages										Projections	
	1994–2003	2004–2013	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Advanced Economies	**6.9**	**3.7**	**9.3**	**6.4**	**7.7**	**5.3**	**1.0**	**-12.2**	**11.4**	**4.4**	**1.7**	**3.3**
United States	8.2	3.2	8.0	7.1	4.9	5.9	1.5	-13.4	13.1	7.0	4.2	4.6
Euro Area	6.6	3	7.1	6.0	8.3	6.7	1.9	-11.1	9.2	4.1	-0.5	1.8
Germany	6.2	4.9	8.2	6.2	11.8	5.4	3.3	-9.2	11.7	7.4	2.4	3.1
France	6.3	2.3	6.0	5.6	5.0	5.5	0.9	-9.6	8.9	4.9	-1.2	1.5
Italy	5.3	1	4.8	3.5	7.9	5.2	-2.9	-13.4	12.7	0.4	-7.3	-0.2
Spain	9.8	1.7	6.2	9.6	7.7	10.2	-8.0	-17.2	9.2	-0.9	-5.7	-2.8
Japan	6	3.2	7.9	4.2	4.5	2.3	0.4	-15.7	11.2	6.3	5.7	4.3
United Kingdom	6.9	2.2	7.0	6.9	10.1	-1.7	-1.8	-11.0	8.0	0.5	1.6	1.0
Canada	5.4	4.1	8.0	7.1	4.9	5.9	1.5	-13.4	13.1	7.0	4.2	5.0
Other Advanced Economies	7	5.8	13.2	7.7	8.8	8.7	3.7	-10.2	15.2	4.7	2.3	5.5
Major Advanced Economies	6.8	3.2	8.5	5.8	7.4	3.2	-0.5	-12.0	11.2	4.8	2.4	3.0
Newly Industrial-ized Asian Economies	7.5	6.4	15.9	7.7	9.4	8.5	3.6	-9.9	18.7	3.2	2.0	6.5

Source: International Monetary Fund, *World Economic Outlook*, October 2012

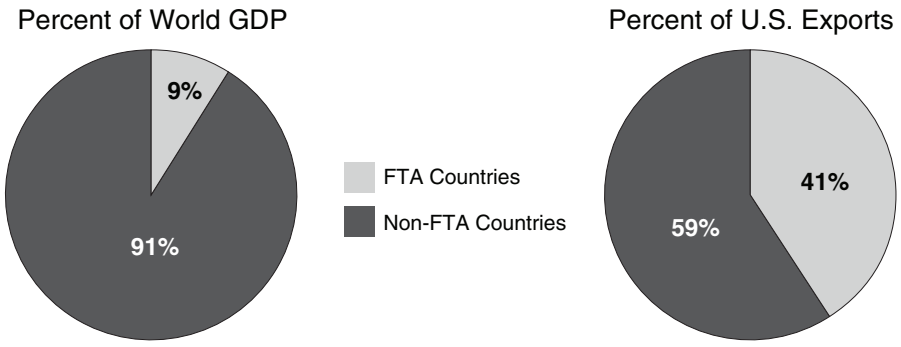
3

The Trade Negotiating Agenda

With 96 percent of the world's consumers outside the United States and 13 percent of the U.S. gross domestic product tied to exports, the stakes for California companies in an open trading environment are high. National initiatives in conjunction with new Free Trade Agreements provide fresh opportunities for U.S. companies.

Regional and bilateral trade agreements serve as important vehicles for reducing trade barriers. The United States has Free Trade Agreements (FTAs) in force with 20 countries. Global (multilateral) agreements, however, remain the backbone of trade liberalization and World Trade Organization (WTO) members are continuing talks to comprehensively reduce barriers through the Doha Round.

U.S. Free Trade Agreements 2010



Source: International Trade Administration, U.S. Dept. of Commerce, "Free Trade Agreements," 2010.

Trade Negotiations in the World Trade Organization

In 2012, the WTO welcomed the accession of Russia as a new member on August 22 and the extension of the Government Procurement Agreement. Russia's membership is widely seen as a positive development; the incorporation of the world's largest country and its ninth largest economy will strengthen global trade. The revision of the Government Procurement Agreement will expand market coverage by $80–100 billion, according to

WTO estimates. Participants began negotiating the revision of the 1994 agreement ten years ago, finally concluding in March 2012. Changes are designed to increase transparency and reduce corrupt practices. The next step will be to increase coverage through expanded membership: countries including China, Jordan, and Ukraine are currently in the accession process.

Despite these advances, progress with the Doha Round of global trade negotiation has been disappointing. Launched more than 10 years ago in 2001, the Doha Round focuses on market access for agriculture, manufactured goods, and services. Last convened in December 2011 and six years past the target date for completion, the negotiations remain stalled.

In 2011, the WTO also focused attention on Preferential Trade Agreements (PTAs), which increased fourfold in the last two decades to reach 300 active agreements. Addressing coherence issues such as overlap, competition and discrimination between PTAs and the multilateral trading system, the Committee on Trade and Development (CTD) agreed to implement improved transparency requirements. As a result, a standard format for notifying the CTD of PTAs was created. Since then, China, India, and Taiwan have notified the CTD of PTAs under the new requirements.

In 2012, the WTO turned to Non-Tariff Measurers (NTMs). Evidence suggests that with falling tariffs, NTMs account for an increasing share of trade restrictions and currently are double the level imposed by tariffs. To address the negative impact of NTMs on trade, the WTO has identified four areas for improvement: transparency, balance between policy commitments and policy flexibility, effective identification criteria and international cooperation around global production chains. In particular, the WTO is focusing on Technical Barriers to Trade and Sanitary and Phytosanitary (TBT/SPS) measures. It is currently deploying the Integrated Trade Intelligence Portal (I-TIP), which will improve the accessibility of NTM data. Once NTM data is more accurately collected, the WTO should be in a better position to discern legitimate NTMs from measures designed for protectionist purposes.

Approved in 1996, the Information Technology Agreement (ITA) has proved highly successful; its 70 participants account for over 96 percent of world trade in IT products, enabling world IT product exports to double from the base level of $600 billion in 1996 to $1.4 trillion in 2010. Nevertheless, tariffs on some IT products remain high in some economies outside the agreement and many new IT products are not covered by the existing language. The United States is co-sponsoring a concept paper with Canada, Japan, Korea, Taiwan and Singapore, proposing that the ITA committee update the agreement to expand product coverage and include important non-participating countries, such as Mexico, Russia, Brazil and South Africa, that produce information and communications technology (ICT) goods and services.

The U.S. will also promote an ambitious International Services Agreement in 2013.

Information on the current status of the Doha Round negotiations and related WTO negotiations can be accessed on the WTO website at http://www.wto.org, and on the U.S. Trade Representative's website at http://www.ustr.gov.

National Export Initiative

In January 2010, President Obama announced the National Export Initiative with the goal of doubling U.S. overseas sales by 2015. The initiative increased funding for the Commerce Department's U.S. and Foreign Commercial Service and created an Export Promotion Cabinet which reports to the president and consists of officials from the Departments of Commerce, State and Agriculture; the Export-Import Bank; the U.S. Trade Representative; and the Small Business Administration. The Initiative is on track: in FY 2011, the Export-Import Bank set a third straight export financing record of $32 billion and, since 2010, U.S. exports have grown more than 34 percent, reaching a record $2.1 trillion in goods and services exports.

Bilateral Trade Agreements

While at the outset the Obama Administration chose to focus trade policy on exchange rates and enforcement of existing trade agreements, the National Export Initiative and the proposed Trans-Pacific Partnership reflect the fact that enforcement by itself is not sufficient to significantly increase exports.

After successfully negotiating a series of bilateral Free Trade Agreements, including NAFTA, the ability of the United States to negotiate new agreements narrowed in 2007 with the expiration of Trade Promotion Authority (TPA) that had allowed Congress to approve trade agreements in a simple up-or-down vote. Agreements with Panama, Colombia, and Korea that were concluded during the Bush Administration were grandfathered under these rules, while new agreements not covered by TPA are subject to a line-by-line congressional approval process.

Free Trade Agreements have been politically contentious. Congressional opposition, primarily among Democratic legislators, has focused on enforcement of labor rights and adequacy of environmental policies and their enforcement, and Democratic support has been linked to the Trade Adjustment Assistance Act (TAA). While these issues divide Republicans and Democrats, compromises were reached in 2012 regarding the South Korea, Panama and Columbia agreements, which were approved with Administration support.

The United States now has 14 Free Trade Agreements in effect with 20 countries. The most recent agreements with Colombia, Panama and Korea, which after long delays were approved by Congress in 2012, offer particular opportunities. The South Korean agreement, the largest since NAFTA

(1994), will phase out 95 percent of tariffs on consumer and industrial exports and is projected to increase U.S. exports by $10.9 billion. As a major trading partner with Asia, California particularly stands to benefit.

In the meantime, other countries are continuing to expand their FTA portfolios. China, for example, has 11 agreements in effect and another 3 under negotiation. The EU has 28 FTAs in effect and four under negotiation. (The United States, China, and the European Union do not have FTAs with each other.)

Effective Dates of U.S. Free Trade Agreements, 1985–2009

U.S.-Israel	April 1985
NAFTA	January 1994
U.S.-Jordan	December 2001
U.S.-Chile	January 2004
U.S.-Singapore	January 2004
U.S.-Australia	January 2005
U.S.-Bahrain	January 2006
U.S.-Morocco	January 2006
U.S.-Central America and Dominican Republic (CAFTA-DR)	March 2006
U.S.-Oman	January 2009
U.S.-Peru	February 2009

New U.S. Free Trade Agreements

U.S.-Colombia Free Trade Agreement

In 2011, U.S. exports to Colombia totaled $14.3 billion. The U.S.-Colombia FTA, implemented in May 2012, immediately removes tariffs on 80 percent of U.S. exports of consumer and industrial products, with the remaining tariffs phasing out by 2022. This FTA will help U.S. exporters stay competitive; Colombia implemented trade agreements with Mercosur (Brazil, Argentina, Paraguay, Uruguay, and Venezuela) in 2009 and with Canada in 2011.

U.S.-Panama Free Trade Agreement

The U.S.-Panama FTA, approved in October 2012, removes tariffs on 87 percent of U.S. consumer and industrial product exports, with the remaining tariffs phasing out over ten years. This will dramatically reduce costs for U.S. exporters, as industrial goods and agricultural products have until now faced tariffs up to 81 percent and up to 260 percent, respectively.

The agreement offers particular opportunities for U.S. businesses involved in infrastructure, through improved access to the $5.25 billion Panama Canal

expansion project and $10 billion in other planned infrastructure projects. In 2011, construction equipment and machinery exports to Panama totaled $355 million.

U.S.-Korea Free Trade Agreement

The U.S.-Korea FTA was implemented in March 2012. The agreement represents the largest FTA since NAFTA and is predicted to have a larger impact than the previous nine agreements combined. Under the FTA, 80 percent of U.S. exports to Korea become duty free immediately, and 95 percent of bilateral trade will be duty free within five years. The U.S. International Trade Commission predicts that the elimination of tariffs on goods will add $10 billion to annual merchandise exports to Korea. (In 2009, the value of U.S. exports to Korea was $28.6 billion.) This growth is expected to improve the U.S. trade balance with South Korea by up to $4 billion, with U.S. auto companies particularly benefitting.

Trans-Pacific Partnership

In December 2009, the Obama administration announced that the United States would pursue a new regional Asia-Pacific Free Trade Agreement. The United States approached an initial group of seven countries (Australia, Brunei, Chile, Peru, New Zealand, Singapore and Vietnam), with Malaysia joining in 2010. Although the U.S. already has FTAs with Australia, Chile, Malaysia, Peru and Singapore, it is seeking additional avenues for economic engagement in the Asia-Pacific region. The Trans-Pacific Partnership (TPP) also addresses concerns that Asia-Pacific countries might consider a regional trading arrangement that excludes the United States, an idea that has been proposed before and reflects growing intra-Asian trade. The U.S. share of Asia-Pacific trade fell 3 percent from 2003 to 2008, despite a 63 percent increase in exports to the region.

Although negotiations to include Japan have stalled due to opposition from Japanese rice farmers, talks with Canada and Mexico have made significant progress; in June 2012, both countries became negotiating partners, increasing the number of negotiating parties to nine and magnifying the TPP's potential scope. The TPP is being framed as an agreement that other countries can join in the future. Although alternative Asia-Pacific agreements have been proposed that would not include the U.S., most regional governments welcome a continued U.S. role.

Russian Federation Accession to the World Trade Organization

Following lengthy negotiations, Russia formally became a member of the WTO in August 2012. All WTO members now have unconditional free trade with Russia under WTO rules. For U.S. companies to benefit from the lowering of Russian tariffs and other trade liberalization measures, however,

Congress must first authorize the president to extend Permanent Normal Trade Relations (PNTR) status to Russia. The House of Representatives voted to approve PNTR in November 2012, and a vote in the Senate is pending.

Russia is the world's ninth largest economy and has seen sustained growth, with an increasing number of middle and upper income consumers. Under the terms of its accession to the WTO, Russia will, among other measures, join the WTO Procurement Agreement; eliminate industrial subsidies (or modify them so that any subsidy would not be contingent on exportation or the use of domestic over imported goods); reduce trade-distorting agricultural support from a ceiling of $9 billion in 2012 to $4.4 billion by 2018; align Sanitary and Phytosanitary (SPS) measures with WTO rules; align technical barriers and standards with the WTO's Technical Barriers to Trade (TBT) agreement; and apply the provisions of the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights.

Free Trade with Europe

Early discussions are underway regarding a U.S.-EU Comprehensive Economic Agreement. As with possible Japanese participation in the Trans-Pacific Partnership, agricultural policy is likely to be a stumbling block. A successful conclusion would provide a significant stimulus to both economies.

4

International Trade in the Bay Area

Major Bay Area companies across a range of industries continue to benefit from global sales. Although the long-term trend was disrupted in 2008–2009, leading Bay Area companies derive an increasing share of total revenues from overseas sales.

Compared to non-exporting industries, exporting industries encounter more competition, resulting in higher skill levels and better wages. The Brookings Institution has found that workers in exporting industries earn 1–2 percent higher wages for every $1 billion of exports by the industry in which they work.[3]

The benefits of exporting are evident in small and medium-sized enterprises (SMEs), which account for 46 percent of California's merchandise exports. In 2010, SME manufacturers that export generated more than twice the total revenue of their non-exporting counterparts; between 2005 and 2009, exporting SMEs also displayed higher revenue growth (37 percent) compared to non-exporting SMEs (-7 percent), and over 70 percent higher labor productivity. Similarly, SME service exporters attained nearly four times more revenue per firm as non-exporters and labor productivity twice that of non-exporters.

Bay Area Export Profile

In 2011, the Bay Area's exports of goods totaled over $52 billion, comprising 30 percent of California's total exports. The Bay Area ranks as the fourth largest exporting region in the U.S. For more detail on the five metro areas that comprise the Bay Area, see Appendix III.

According to a 2012 report by the Brookings Institution, in 2010 exports supported 378,000 jobs in the Bay Area, of which 197,000 were in direct production.[4] Trade-related jobs were distributed across the region, with the

[3] Istrate, Emilia, Jonathan Rothwell and Bruce Katz, *Export Nation: How U.S. Metros Lead National Export Growth and Boost Competitiveness* (Washington, DC: The Brookings Institution, Metropolitan Policy Program, July 2010).

[4] Istrate, Emelia and Nicholas Marcia, *Export Nation 2012: How U.S. Metropolitan Areas Are Driving National Growth* (Washington, DC: The Brookings Institution, Metropolitan Policy Program, March 2012).

highest concentration in the San Francisco-Oakland-Fremont and the San Jose-Sunnyvale-Santa Clara areas.

Exports of Goods from U.S. Metropolitan Areas
Top 3 Metro Areas and Bay Area Region by Export Value, 2011

Metro Area	Export Value 2011
New York-Northern New Jersey-Long Island, NY-NJ-PA	$105,102,032,574
Houston-Sugar Land-Baytown, TX	$104,457,341,453
Los-Angeles-Long Beach-Santa Ana, CA	$72,688,940,296
Bay Area	**$52,200,777,610**
San Jose-Sunnyvale-Santa Clara, CA	$26,712,129,511
San Francisco-Oakland-Fremont, CA	$23,573,785,813
Santa Rosa-Petaluma, CA	$1,132,227,666
Vallejo-Fairfield, CA	$484,096,736
Napa, CA	$298,537,884

Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

(Metro areas are those defined in December 2009 by the Bureau of the Census. This data is based on Origin of Movement (OM) ZIP-code-based series and is therefore not comparable with data based on an OM state-based series.)

Bay Area Region Metro Exports Value, 2011
(Percent Share of California Exports)

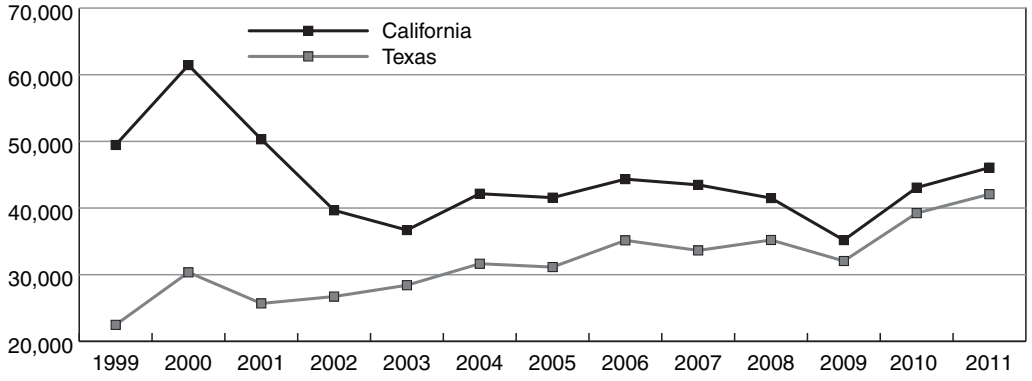
Metro Area	Percent Share of Export Value
San Jose-Sunnyvale-Santa Clara, CA	15.2
San Francisco-Oakland-Fremont, CA	13.5
Santa Rosa-Petaluma, CA	0.6
Vallejo-Fairfield, CA	0.3
Napa, CA	0.2

Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

The region's merchandise exports are led by technology, including computers and electronic equipment, transportation equipment, machinery, miscellaneous manufactured products, and chemicals.

Global demand for the Bay Area's technology products and services helps drive economic growth and supports California's role as the nation's largest technology exporter. For California's top 28 tech companies, 62 percent of sales were international in 2011. However, since 2001, California's status as the nation's leading technology exporter has slipped relative to second ranked Texas. Although it is at it's highest point since 2002, California's $46.1 billion in technology goods exports in 2011 (primarily from the Bay Area) is 25 percent below its 2000 peak of $61.4 billion.

Computer and Electronic Products Exports, California and Texas ($ Millions)



Source: International Trade Administration, "TradeStats Express"

Notwithstanding the prominence of technology in the region's export profile, the Bay Area sells a diverse range of products and services overseas, including apparel, consumer products, business and financial services, education services, engineering, urban planning and architectural design services, processed food, and wine.

Global Sales by Bay Area Companies

In 2010, the Bay Area Council Economic Institute analyzed leading Bay Area companies' international sales compared to domestic sales. A number of the region's best-known companies from both technology and non-technology industries were reviewed. The results showed a falloff in both domestic and international markets, with international markets being hardest hit. This finding ran against a trend found in previous Economic Institute studies that showed an increasing share of revenues associated with international markets compared to domestic markets.

The Economic Institute revisited those companies in 2012 to see how the patterns identified in 2010 (and in previous reports in 2008, 2005 and 2003) had changed. A comparison found that of the 38 companies tracked, 28 saw both their international sales and their domestic sales rise, 7 saw their international sales increase while their domestic sales fell, 2 saw their domestic sales increase while their international sales fell, and only one saw both decrease. These numbers suggest that markets in general have recovered, with international markets growing fastest.

Of the companies tracked, 22 saw their *share* of revenues from international markets increase relative to domestic markets, 12 saw their share of revenues from domestic markets increase relative to international markets, and 4 saw their share of revenues remain the same. These findings again suggest a return to the long term trend.

2010 and 2011 Net Sales of Leading Bay Area Companies (Millions of Dollars)

	Net Sales 2010		Net Sales 2011		Growth 2010–2011	
Companies	U.S.	Intl.	U.S.	Intl.	U.S.	Intl.
Adobe Systems Inc.	$1,835	$1,965	$2,045	$2,172	11.40%	10.54%
(Note: U.S. = Americas)	(48.30%)	(51.70%)	(48.49%)	(51.51%)		0
Advanced Micro Devices, Inc.	$779	$5,715	$460	$6,108	-40.95%	6.88%
	(12%)	(88%)	(7%)	(93%)		+5
Agilent Technologies	$1,760	$3,684	$2,016	$4,599	14.55%	24.84%
	(32.33%)	(67.67%)	(30.48%)	(69.52%)		+2
Apple Computer, Inc.	$28,538	$36,682	$41,592	$66,658	45.74%	81.72%
	(43.76%)	(56.24%)	(38.42%)	(61.58%)		+5
Applied Materials, Inc.	$1,147	$8,402	$1,963	$8,554	71.14%	1.81%
(Note: U.S. = North America)	(12.01%)	(87.99%)	(18.67%)	(81.33%)		-7
Ariba, Inc.	$230.5	$89.5	$276.1	$167.9	19.78%	87.60%
	(72.03%)	(27.97%)	(62.18%)	(37.82%)		+10
Autodesk, Inc.	$654	$1,713.70	$702	$1,951.8	7.34%	13.89%
(Note: U.S. = Americas)	(27.62%)	(72.38%)	(26.45%)	(73.55%)		+1
Cadence Design Systems, Inc.	$383	$553	$489	$660	27.88%	19.36%
	(40.89%)	(59.11%)	(42.56%)	(57.44%)		-2
Check Point Software Technologies, Inc.	$480	$618	$554	$693	15.46%	12.13%
	(43.69%)	(56.31%)	(44.41%)	(55.59%)		-1
Chevron Corporation	$100,747	$136,318	$120,414	$178,365	19.52%	30.84%
	(42.5%)	(57.5%)	(40.3%)	(59.7%)		+2
Cirrus Logic, Inc.	$46.41	$174.5	$66.52	$303.05	43.34%	73.58%
	(21%)	(79%)	(18%)	(82%)		+3
Cisco Systems, Inc.	$21,740	$18,300	$23,115	$20,103	6.32%	9.85%
(Note: U.S. = U.S. & Canada)	(54%)	(46%)	(54%)	(46%)		0
The Clorox Company	$4,151	$1,083	$4,113	$1,118	-0.92%	3.23%
	(79.31%)	(20.69%)	(78.63%)	(21.37%)		+1
Cypress Semiconductor Corp.	$113.01	$554.78	$142.24	$735.29	25.87%	32.54%
	(17%)	(83%)	(16%)	(84%)		+1
eBay Inc.	$4,214.22	$4,942.06	$5,483.64	$6,168.01	30.12%	24.81%
	(46.03%)	(53.97%)	(47.06%)	(52.94%)		-1
Electronic Arts	$2,009.70	$1,644.30	$1,830.39	$1,758.61	-8.92%	6.95%
(Note: U.S. = North America)	(55.00%)	(45.00%)	(51.00%)	(49.00%)		+4
Fair, Isaac & Company, Inc.	$393.67	$211.98	$390.40	$229.28	-0.83%	8.16%
	(65%)	(35%)	(63%)	(37%)		+2

	Net Sales 2010		Net Sales 2011		Growth 2010–2011	
Companies	U.S.	Intl.	U.S.	Intl.	U.S.	Intl.
Gap Inc.	$10,48	$4,181	$9,935	$4,614	-5.23%	10.36%
	(71.49%)	(28.51%)	(68.29%)	(31.71%)		+3
Gilead Sciences, Inc.	$4,224.04	$3,725.39	$4,608.34	$3,777.04	9.10%	1.39%
	(53.14%)	(46.86%)	(54.96%)	(45.04%)		-2
Google, Inc.	$14,074.08	$15,246.92	$17,436.30	$20,468.70	23.89%	34.25%
	(48%)	(52%)	(46%)	(54%)		+2
Hewlett-Packard Company and Subsidiaries	$7,124.60	$13,231.40	$7,784.35	$14,456.65	9.26%	9.26%
	(35%)	(65%)	(35%)	(65%)		0
Intel Corporation	$6,549	$37,074	$8,411	$45,588	28.43%	22.96%
	(15.01%)	(84.99%)	(15.58%)	(84.42%)		-1
JDS Uniphase Corporation	$662	$702	$878	$927	32.57%	32.06%
(Note: U.S. = Americas)	(48.54%)	(51.46%)	(48.63%)	(51.37%)		0
KLA-Tencor Corporation	$345.94	$1,474.82	$603.28	$2,571.89	74.39%	74.39%
	(19%)	(81%)	(19%)	(81%)		0
Levi-Strauss & Co. and Subsidiaries	$2,549	$1,862	$2,716	$2,046	6.55%	9.89%
(Note: U.S. = Americas)	(57.79%)	(42.21%)	(57.04%)	(42.96%)		+1
LSI Logic Corporation	$431	$1,439	$520	$1,524	20.64%	5.93%
	(23.06%)	(76.94%)	(25.45%)	(74.55%)		-2
Network Appliance, Inc.	$1,965.70	$1,965.70	$2,612.53	$2,510.07	32.91%	27.69%
	(50%)	(50%)	(51%)	(49%)		-1
Novellus Systems, Inc.	$323.80	$1,025.36	$432.91	$919.94	33.70%	-10.28%
	(24%)	(76%)	(32%)	(68%)		-8
Oracle Corporation and PeopleSoft Inc.	$13,819	$13,001	$18,352	$17,270	32.80%	32.84%
(Note: U.S. = Americas)	(51.52%)	(48.48%)	(51.52%)	(48.48%)		0
Plantronics, Inc.	$380.58	$233.26	$403.33	$280.28	5.98%	20.16%
	(62%)	(38%)	(59%)	(41%)		+3
Quantum Corporation	$449	$233	$430	$242	-4.17%	4.10%
(Note: U.S. = Americas)	(65.87%)	(34.13%)	(63.98%)	(36.02%)		+2
Safeway	$34,782	$6,268	$36,923	$6,707	6.15%	7.01%
	(84.73%)	(15.27%)	(84.63%)	(15.37%)		0
Seagate Technology LLC	$2,962.70	$8,432.30	$3,181.59	$7,789.41	7.39%	-7.62%
	(26%)	(74%)	(29%)	(71%)		-3
Trimble Navigation Limited	$595.21	$698.73	$739.83	$904.24	24.30%	29.41%
	(46%)	(54%)	(45%)	(55%)		+1

	Net Sales 2010		Net Sales 2011		Growth 2010–2011	
Companies	U.S.	Intl.	U.S.	Intl.	U.S.	Intl.
URS Corporation	$8,385	$809	$8,330	$1,246	-0.66%	53.93%
	(91.37%)	(8.82%)	(87.27%)	(13.05%)		+4
Varian Medical Systems, Inc.	$970	$1,387	$975	$1,622	0.52%	16.94%
	(41.15%)	(58.85%)	(37.54%)	(62.46%)		+4
VeriSign Inc.	$419	$261	$473	$299	12.73%	14.55%
	(61.61%)	(38.39%)	(61.23%)	(38.77%)		0
Yahoo! Inc.	$4,425	$1,899	$3,303	$1,681	-25.36%	-11.48%
	(69.97%)	(30.03%)	(66.27%)	(33.73%)		+4

Sector Outlook

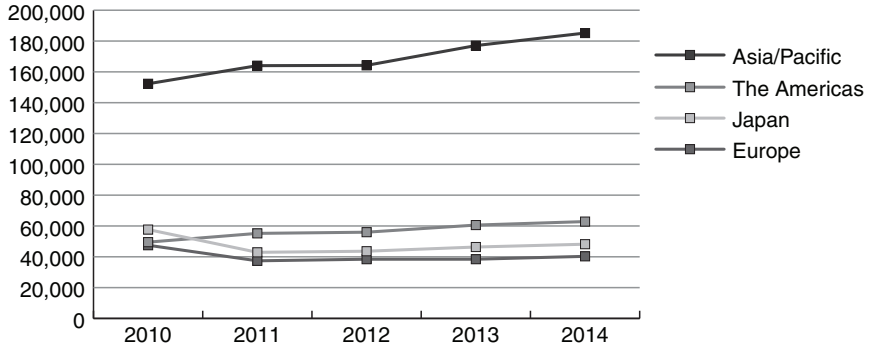
While the Bay Area is a highly diversified exporter of goods and services, three sectors that distinguish the region's export profile are information technology, education, and food and wine.

Semiconductors and Information Technology

Because most IT (Information Technology) products incorporate semiconductors, semiconductor sales can be taken as a proxy for information technology markets.

Tracking the weak global economic recovery, the semiconductor market is expected to grow 0.4 percent in 2012 to $301 billion, up from its 2009 low of $229.9 billion. The largest growth will be in the Americas (3.2 percent), followed by Japan (1.7 percent) and the Asia-Pacific region (0.1 percent). The Asia-Pacific region still accounts for an overwhelming share of semiconductor trade; semiconductors are the United States' second largest export to China.

Semiconductor Sales Regional Market Forecast (Shipment in Millions of Dollars)



Source: Semiconductor Industry Association, "Semiconductor Forecast," Nov. 2012.

Education

Education occupies a distinct place in the Bay Area's trade profile. (Education provided to foreigners is considered a service export.) With one of the nation's largest concentrations of institutions of higher learning, the region attracts students from around the world. In the 2010–2011 academic year, California hosted 96,535 foreign students (a 4 percent increase from the previous year), contributing $2.99 billion to the California economy. Within California, the Bay Area is home to six of the top ten California institutions with the largest foreign student populations, including UC Berkeley, UC Davis and Stanford, and it hosts 4 percent of foreign students (31,000) studying in the United States.[5]

In 2011, the leading countries of origin for foreign students studying in California were China (20.8 percent), South Korea (12.9 percent), India (11.8 percent), Taiwan (6.0 percent), and Japan (5.8 percent). The leading fields of study for foreign students were business and management, engineering, physical and life sciences, and math and computer sciences.

Food and Wine

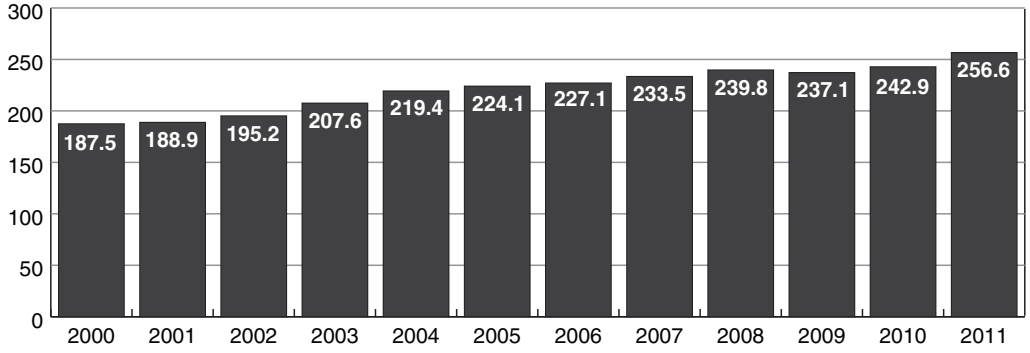
California's primary agricultural export destinations, absorbing 60 percent of the state's exports, are Canada, the European Union and Japan. China (including Hong Kong) and Mexico round out the top five destinations.

California's agricultural exports are as diverse as their destinations. The state's top export commodities are almonds, dairy products, wine, walnuts, and rice. A large proportion of the state's agricultural products are shipped through the Port of Oakland, which links the Bay Area to the Central Valley and the state's agricultural sector.

Wine is perhaps the region's most distinctive agricultural export. California is the fourth largest wine producer in the world after Italy, France, and Spain. In 2009, wine was the number one finished agricultural product in the state, dropping behind dairy products in 2010. California wine, primarily from Northern California, accounts for over 90 percent of total U.S. wine production.

[5] Institute of International Education, "Open Doors 2011," http://www.iie.org/opendoors

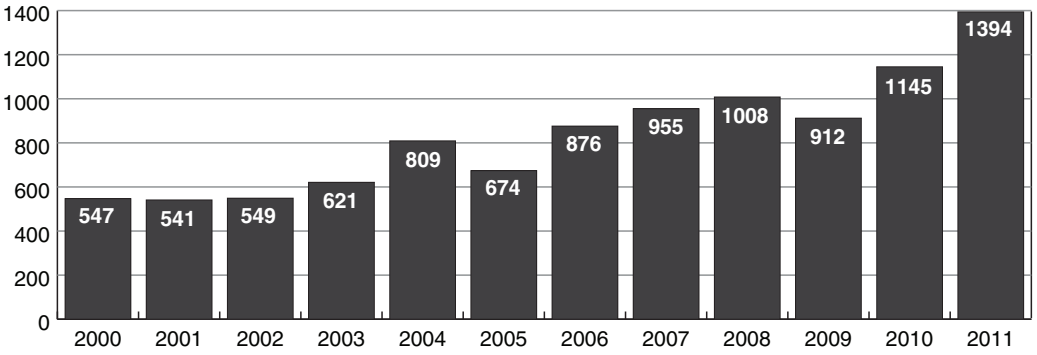
California Winery Shipments to U.S. and World Markets, 2000–2011 (Millions of 9-liter Cases)



Source: Wine Institute

Reflecting the impact of the global recession, wine exports fell 9.5 percent in 2009 to $912 million. In 2010 they rebounded, reaching $1145 million in 2010 and $1394 million in 2011. The European Union accounts for 34% of U.S. wine exports ($478 million), followed by Canada ($379 million) and Hong Kong ($163 million)[6]—together comprising 73 percent of U.S. wine exports.

U.S. Wine Exports, 2000-2011 (Millions of Dollars)



Source: Wine Institute

[6] Hong Kong reduced its wine import duties from approximately 80 percent in 2006 to zero in 2008, spurring an increase in wine volume and per bottle value.

U.S. Wine Export Markets, Value and Volume
Year to Date, January–December, 2011 and 2010

Partner Country Ranked by 2011 Value	Value ($ Millions) 2011	2010	Percent Change	Volume (Millions of Liters) 2011	2010	Percent Change
European Union	477.64	434.81	9.85	251.58	248.01	1.44
Canada	379.40	307.85	23.24	68.49	59.94	14.26
Hong Kong	162.97	117.50	38.70	27.37	24.62	11.17
Japan	105.43	75.89	38.93	23.74	20.95	13.33
China	62.13	43.74	42.04	16.08	12.50	28.71
Switzerland	25.02	24.03	4.15	8.21	9.56	-14.12
Vietnam	21.26	5.81	266.06	6.66	7.10	-6.25
Mexico	18.52	18.37	0.78	5.09	4.53	12.53
Macau	15.38	8.62	78.41	3.91	2.05	91.29
Korea South	12.64	11.17	13.13	3.43	3.38	1.60
Singapore	12.19	8.09	50.59	3.29	2.35	39.85
Taiwan	9.32	7.70	21.07	2.51	2.10	19.10
Russia	8.62	6.85	25.94	2.21	0.50	340.75
Philippines	8.19	7.91	3.62	2.15	1.90	12.81
Bahamas	5.88	5.34	10.12	1.43	1.60	-10.30
Thailand	5.71	4.05	40.96	1.34	1.01	31.91
Panama	4.39	2.98	47.31	1.31	1.01	30.26
Dominican Republic	3.87	2.58	50.28	1.23	0.94	31.32
Brazil	3.60	1.71	109.98	1.12	0.51	118.60
Other Countries	51.39	49.75	3.30	14.57	16.62	-12.33
World Total	**1,393.55**	**1,144.81**	**21.73**	**445.72**	**421.16**	**5.83**

Source: Wine Institute and Global Trade Information Services, using data from the U.S. Dept. of Commerce
Columns may not sum to exact totals due to rounding.

5

Trade Gateways

Bay Area ports and airports are among the largest in the nation and serve as major gateways for trade. Trade volumes fell during the recession but are recovering. The Port of Oakland is investing in infrastructure upgrades that will enable it to better compete with other West and East Coast ports.

Measured by value of shipments, California is home to four of the top twenty foreign trade gateways in the U.S. (the Port of Oakland is the 21st), making it a vital point of connection for international trade, particularly with the Asia-Pacific region. California is home to all of the top five trade gateways on the West Coast—two in the Bay Area (the Port of Oakland and San Francisco International Airport) and three in Los Angeles (the Port of Los Angeles, the Port of Long Beach and Los Angeles International Airport)—with imports accounting for 71 percent of shipping collectively. Although ports handle the largest share of foreign trade by volume, California's two largest airports (Los Angeles and San Francisco) play the major role in moving high-value exports.

With the global recession, trade passing through Bay Area marine ports has fallen 10 percent since 2009 and 30 percent for Bay Area airports since 2007, magnifying concerns that California gateways are losing market share, especially to East Coast ports. More recently, however, with improvements in the global economy, California trade gateways have begun returning to pre-recession levels of activity.

Airports

Beyond facilitating the international flow of goods and people, the Bay Area's airports play a major role in supporting service exports such as business consulting, education and tourism. San Francisco International Airport (SFO), Oakland International Airport (OAK) and San Jose International Airport (SJC) together handled over 58 million passengers in 2011, 1.5 million more than in 2010, but still down from the 2007 pre-recession high of 61 million. SFO is the Bay Area's primary portal for global traffic with links to 55 international cities on 26 carriers, and has the largest international terminal (measured by square footage) in North America. SFO handles the lion's share of the

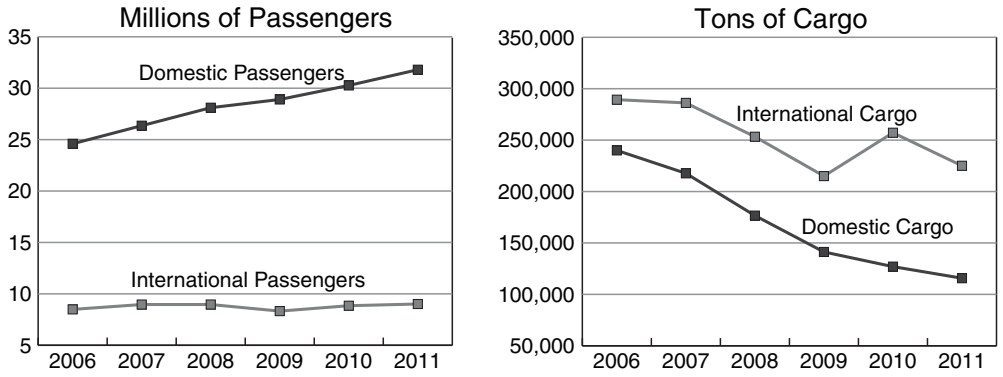
region's international passenger traffic with 22 percent of passengers in 2011 arriving from or departing to international destinations.[7]

San Francisco International Airport Passenger and Cargo Traffic, (Year to Year Percent Change)

	2006–2007	2007–2008	2008–2009	2009–2010	2010–2011
Passenger					
Domestic	6.9%	6.3%	2.7%	4.8%	4.9%
International	5.7%	-0.8%	-7.7%	6.5%	1.7%
Cargo					
Domestic	-9.3%	-18.9%	-20.0%	-10.1%	-8.9%
International	-1.1%	-11.5%	-15.1%	19.6%	-12.5%

Source: San Francisco International Airport

San Francisco International Airport Passenger and Cargo Volumes, 2006–2011

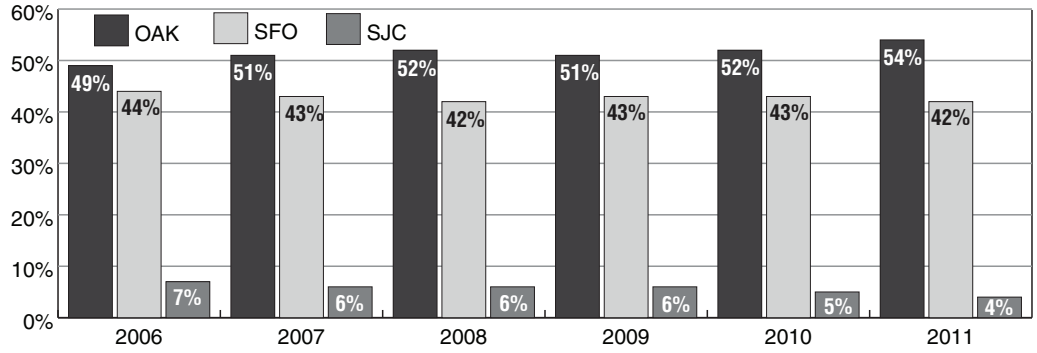


Source: San Francisco International Airport

California airports handle trade with a significantly higher value per kilogram than most other U.S. airports. According to the most recent Bureau of Transportation Statistics (BTS) report, in 2008 SFO experienced a value-to-weight ratio higher than any other airport in the country except Dallas/Fort Worth International Airport. Goods shipped through Bay Area gateways are dominated by high technology products such as computers, semiconductors, electronic equipment, medical equipment and telecommunications equipment. With competitive facilities, a West Coast location and proximity to the region's globally-oriented technology industries, SFO naturally connects to Asian markets; the primary origin and destination countries on nonstop international flight segments to and from SFO are Japan, South Korea and Taiwan.

[7] San Francisco International Airport, "Fact Sheet" (051412), http://www.flysfo.com/web/export/sites/default/download/about/news/pressres/fact-sheet/pdf/SFO_Facts.pdf

Air Cargo Market Share for Bay Area Airports, 2006–2011



Source: Oakland International Airport

OAK handles the majority of the Bay Area's total air cargo market at 54 percent, with an export profile led by such technology products as computer and office equipment, measuring and control devices, and medical supplies (see Appendix II). SFO ranks as the fifth largest airport in the nation by cargo value, with 42 percent of the Bay Area's total air cargo market, but 93 percent of its international air cargo market. SJC's cargo volumes account for less than 5 percent of the Bay Area market and are declining.

Tracking the global recession, air cargo volumes and flights declined at all three Bay Area airports from 2007 to 2011; the only brief year-over-year increases in air cargo were experienced in 2010 at OAK and SFO. From their 2007 pre-recession highs, air cargo volumes are down 26 percent at OAK, 32 percent at SFO, and 52 percent at SJC at this writing. For the future, both domestic and international air cargo volumes through Bay Area airports are expected to grow significantly, according to forecasts by the Metropolitan Transportation Commission, with total air cargo volume (which is tied closely to economic growth) forecast to increase 92 percent by 2035.

Ports

When measured by annual TEU (twenty-foot equivalent unit) volume, Oakland is the fifth largest container facility in the United States and the third largest in California after the Ports of Los Angeles and Long Beach. In 2011, the Port of Oakland processed 2.3 million TEUs, an increase of 16 percent from 2009. It is one of the few container ports in the nation that exports (55 percent) more than it imports (45 percent), when measured in TEUs. However, the port's imports substantially exceed its exports when measured by value. This is explained by the fact that imports are led by higher value finished goods (machinery, electronics, apparel) while comparatively cheaper goods and raw and recycled materials account for most exports (fruits and nuts, meat, waste paper, metal scrap).

Port of Oakland Exports and Imports by Region, 2011 ($ Millions)

Region	Exports	Imports
Asia	9,568	19,861
China	*2,426*	*13,019*
Japan	*3,279*	*2,055*
Taiwan	*1,011*	*1,232*
Other	*2,852*	*3,555*
Europe	1,559	1,556
Germany	*467*	*576*
Other	*1,092*	*980*
Australia	493	836
Other	2,912	4,351
Total International Trade	**14,532**	**26,604**

Source: Port of Oakland

While the Port of Oakland handles 82 percent of the region's maritime trade, the Bay Area's ports at Richmond, Benicia, San Francisco and Redwood City, plus the inland port at Stockton, also handle significant maritime trade. The Port of Stockton is a primary Northern California port for bulk cargo, with the remainder handled at San Francisco and Redwood City. Richmond and Benicia handle mostly automobiles and trucks. Although it is a substantial maritime center, Northern California handles only 10.7 percent of West Coast tonnage, which primarily passes through the Port of Los Angeles (31.9 percent) and the Port of Long Beach (25.6 percent).

Total Revenue Tonnage, West Coast, 2011

	Total Revenue Tonnage	Percent of Total West Coast Tonnage
Southern California	207,889,731	59.90%
Northern California	36,999,185	10.70%
Port of Oakland	*30,284,909*	*8.70%*
Port of Stockton	*2,161,275*	*0.60%*
Port of Richmond	*1,126,200*	*0.30%*
Pacific Northwest: Oregon and Columbia River	41,585,693	12.00%
Pacific Northwest: Washington	60,533,074	17.40%
West Coast Total	347,007,683	100.00%

Source: Pacific Maritime Association

Maritime trade can be measured by weight (revenue tonnage) or containers (TEUs). These measurements can reflect different types of cargo: dry bulk (loaded or unloaded via conveyor belts), liquid bulk (shipped in tanks, such as petroleum or vegetable oil), neo-bulk (such as automobiles, scrap and steel, or newsprint), break bulk (handled in packaged units), and general cargo (shipped in containers). Bay Area ports saw total cargo TEUs fall 10 percent in 2009, breaking a longstanding trend of year-on-year trade growth dating back to 1994. Since then, the Port of Oakland has rebounded to pre-recession levels (its highest since 2007) and handled 2.3 million TEUs in 2012; by 2020, it is projected to handle 3.4 million TEUs, according to the Tioga Group, Inc.

Southern California shows no signs of relinquishing its 60 percent share of West Coast maritime business. The Los Angeles and Long Beach ports are undergoing two important expansions: on the marine side, the Port of Los Angeles will finish dredging its main channel to a depth of -53 feet in 2012, allowing the largest post-Panamax[8] ships to dock; on the land side, the two ports are seeking approval for a $500-million near-dock intermodal facility that will improve on-dock rail capabilities, increase efficiency and reduce air pollution. Despite these improvements, Southern California and other West Coast ports face similar competitive challenges, especially in relation to the expansion of the Panama Canal.

At a cost of $5.25 billion, the Panama Canal is expanding with a third set of locks to accommodate more and wider ships. Currently, the Canal only accommodates ships carrying up to 4,400 TEU containers, but in 2015 the Canal will welcome ships carrying 12,600 containers—appropriately referred to as super post-Panamax ships. The Panama Canal Authority (ACP) states that the new canal will increase West Coast maritime business through West Coast-to-Latin America trade. The overriding concern of West Coast ports is that a significant amount of current Asia-to-East Coast traffic that is currently shipped through West Coast ports for transit by rail to East Coast destinations will instead be diverted through the Panama Canal. In 2011, 70 percent of all U.S. imports from Asia arrived by ship at the West Coast. The impact could be significant, as according to the ACP, 61 percent of Northeast Asia-to-East Coast trade travels via intermodal systems (traversing the U.S. by land) in contrast to 38 percent via the Panama Canal. The ship-to-rail route costs 10 percent to 25 percent more than the all-water path, but is currently faster.

[8] The suffix "max" is used to refer to ships that are sized to pass through specific "bottlenecks" while carrying the maximum amount of cargo: e.g., vessels designed to pass through the Panama Canal are called "Panamax."

Revenue Tonnage, Northern California Ports, 2011

Total Revenue Tonnage				Containers		
	Total	% of Coast	% Chg. fr. 2010	Total (TEUs)	% of Coast	% Chg. fr. 2010
San Francisco	724,563	0.2%	46.1%	41	<0.1%	272.7%
Redwood City	709,620	0.2%	66.8%	-	-	-
Oakland	30,284,909	8.7%	2.7%	1,754,343	11.6%	2.4%
Richmond	1,126,200	0.3%	43.4%	-	-	-
Crockett	705,950	0.2%	7.9%	-	-	-
Benicia	862,767	0.0%	-24.9%	-	-	-
Port Chicago	47,409	<0.1%	-15.3%	2,780	<0.1%	-14.9%
Stockton	2,161,275	0.6%	86.7%	86	<0.1%	75.5%
West Sacramento	329,957	0.1%	-6.1%	12	<0.1%	100.0%
Eureka	46,535	<0.1%	660.0%	-	-	-
Area Total	**36,999,185**	**10.3%**	**7.1%**	**1,757,262**	**11.6%**	**2.4%**

General Cargo				Automobiles and Trucks		
	Total	% of Coast	% Chg. fr. 2010	Total	% of Coast	% Chg. fr. 2010
San Francisco	43,317	0.6%	91.4%	-	-	-
Redwood City	-	-	-	-	-	-
Oakland	17,749	0.2%	13.2%	443,329	2.4%	25.8%
Richmond	-	-	-	700,600	3.8%	46.0%
Crockett	-	-	-	-	-	-
Benicia	-	-	-	852,530	4.6%	-22.7%
Port Chicago	149	<0.1%	396.7%	-	-	-100.0%
Stockton	329,945	4.4%	11.4%	-	-	-
West Sacramento	300,684	4.0%	18.7%	-	-	-
Eureka			-100.0%	-	-	-
Area Total	**691,844**	**9.3%**	**17.6%**	**1,996,459**	**10.8%**	**3.2%**

Bulk Cargo				Lumber and Logs		
	Total	% of Coast	% Chg. fr. 2010	Total	% of Coast	% Chg. fr. 2010
San Francisco	680,549	1.1%	43.8%	-	-	-
Redwood City	709,620	1.2%	66.8%	-	-	-
Oakland	-	-	-	-	-	-
Richmond	425,600	0.7%	39.9%	-	-	-
Crockett	705,950	1.2%	7.9%	-	-	-
Benicia	10,237	<0.1%	-77.7%	-	-	-
Port Chicago	-	-	-	-	-	-
Stockton	1,829,868	3.0%	112.6%	-	-	-
West Sacramento	29,069	<0.1%	-70.3%	-	-	-
Eureka	-	-	-	46,535	2.1%	704.7%
Area Total	**4,390,893**	**7.2%**	**28.9%**	**46,535**	**2.1%**	**704.7%**

Source: Pacific Maritime Association, 2011 Annual Report

West Coast ports remain competitive for two reasons: intermodal transport is faster than all-water methods, and future ships will boast such large capacities that even the expanded Panama Canal will not suffice. Ship-to-rail routes for shipping from Asia to the U.S. East Coast take about 18 days, in contrast to 22–28 days through the Panama Canal; thus, time sensitive industries such as fashion apparel may not benefit from the all-water route. Additionally, starting in 2013 some ships will carry up to 18,000 containers, exceeding the capacity even of the expanded Panama Canal.[9]

The Port of Oakland recently received several major grants. In 2011, the U.S. Army Corps of Engineers granted the port $18 million to support annual maintenance dredging of the port's -50 foot channel and berths (a 2009 improvement that enables the port to handle the largest ships). Most recently, the port received $15 million in Transportation Investment Generating Economic Recovery (TIGER) grant awards from the U.S. Department of Transportation to improve rail access at the site of the old Oakland Army Base.

The planned renovation of the Oakland Army Base is a 372-acre project designed to improve the port's efficiency. The marine terminal redevelopment entails replacing aged entry and exit gates and installing new ship-to-shore cranes to expedite the transfer of containers to and from the planned rail yard across the street. Currently, the Port only moves 15% of container traffic by rail, the lowest percentage along the West Coast. The intermodal rail terminal will allow trains 12,000 feet long, reduce truck emissions, and capitalize on state-of-the-art rail-mounted gantry cranes that span multiple tracks. One hundred acres of the former Oakland Army Base will convert to trade, logistics, and light industrial facilities, offering more options to shippers and reducing highway congestion. In another effort to reduce congestion and improve efficiency, 7th Street will move above the rail lines via grade separation, improving access to the port and pathways for civilians.

The Port also developed two significant relationships during 2009 and 2011. In 2009 it finalized a unique 50-year $686 million contract with Ports America, which transferred the control of 166 acres of the port's terminals to the private port terminal operator. In 2010, the port strengthened its ties with China through a Memorandum of Understanding (MOU) with China Merchant Holdings International Company Limited (CMHI), a leading Chinese container terminal operator and logistics provider. The agreement magnifies a strategic relationship between the port and CMHI by creating joint services and benefits for shippers and ocean carriers. CMHI controls one-third of Chinese container traffic.

[9] There are already vessels deployed in the Trans-Pacific and other trade routes that exceed the widths of the third set of Panama Canal locks. Oakland has had a few of them call—MSC Fabiola and MSC Beatrice, for example.

Northern California Green Trade Corridor

On October 26, 2010, federal, state and local officials announced California's new Green Trade Corridor, created from a $30 million federal TIGER grant. The Trade Corridor, or Marine Highway, is a waterborne shipping route between Oakland, Stockton and West Sacramento, creating more efficient transportation, and reducing freeway congestion and air pollution. To prepare for the Marine Highway, the Port of Stockton installed two new 140-ton cranes. Additionally, the Port of Oakland funded an $8.5 million electrical grid project that supplies berthed ships with electricity, allowing them to shut their engines and reduce pollution while at berth. The grant also supports two barges, which carry 350 containers each. Currently 1,600 filled and empty containers move via truck between the two cities each day. Full service of the Marine Highway is expected to begin in 2013.

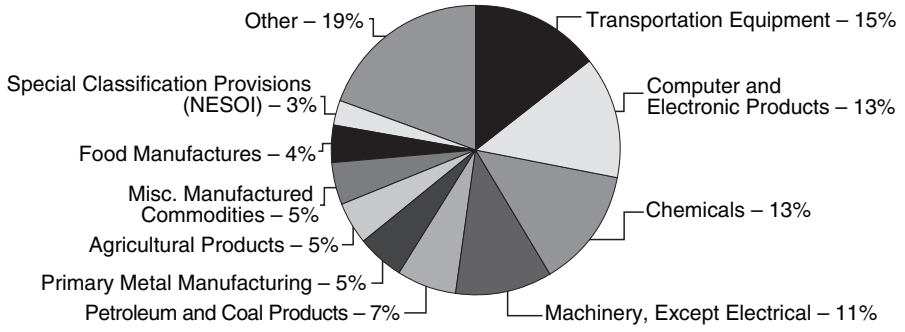
Trade Services – California Returns to China

After an extended absence from the international trade field since the closing of the California Trade and Commerce Agency and its network of foreign offices in 2003, California took a step to rebuild its trade services with legislation passed in October 2012 that formally established the Governor's Office of Business and Economic Development (GoBiz), including dedicated international trade staff. Under that legislation, the state was also authorized to contract with nonprofit partners to provide trade services overseas. The first California office to be opened under this authority will be in China, operating through a public-private partnership with the Bay Area Council. The office will be located at the Council's existing office in Shanghai, will engage a statewide network of trade and business organizations, and will be funded entirely with private resources. More information on the California China office and the services provided by GoBiz can be accessed at http://business.ca.gov.

Appendix I

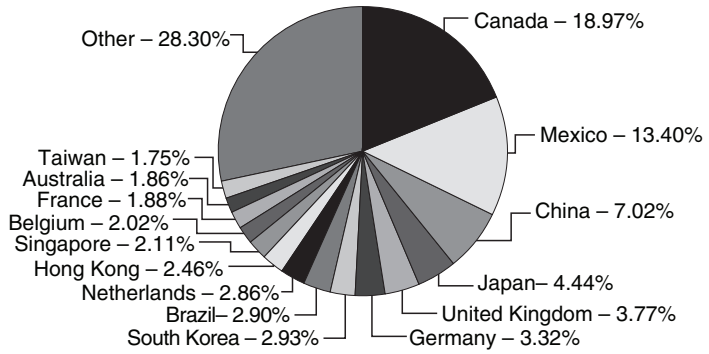
U.S. Trade Patterns

U.S. Top Manufactured Exports by Dollar Value, 2011



Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

U.S. Top Export Markets by Dollar Value, 2011



Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

U.S. International Trade in Goods and Services, Balance of Payments Basis (Millions of Dollars)

	Balance			Exports			Imports		
Period (CY)	Total	Goods	Services	Total	Goods	Services	Total	Goods	Services
2002	-417,432	-474,491	57,059	980,879	697,439	283,440	1,398,311	1,171,930	226,381
2003	-490,984	-540,409	49,425	1,023,519	729,816	293,703	1,514,503	1,270,225	244,278
2004	-605,357	-663,507	58,150	1,163,146	821,986	341,160	1,768,502	1,485,492	283,010
2005	-708,624	-780,730	72,106	1,287,441	911,686	375,755	1,996,065	1,692,416	303,649
2006	-753,288	-835,689	82,401	1,459,823	1,039,406	420,417	2,213,111	1,875,095	338,016
2007	-696,728	-818,886	122,158	1,654,561	1,163,957	490,604	2,351,289	1,982,843	368,446
2008	-698,338	-830,109	131,770	1,842,682	1,307,499	535,183	2,541,020	2,137,608	403,413
2009	-379,154	-505,758	126,603	1,578,945	1,069,733	509,212	1,958,099	1,575,491	382,608
2010	-494,737	-645,124	150,387	1,842,485	1,288,882	553,603	2,337,222	1,934,006	403,216
2011	-559,880	-738,413	178,533	2,103,367	1,497,406	605,961	2,663,247	2,235,819	427,428

Source: U.S. Department of Commerce, International Trade Administration, Office of Trade and Economic Analysis
(Details may not equal total due to seasonal adjustments and rounding.)

U.S. Manufactured Exports, 2011 (Millions of Dollars)

Product Description	Dollar Value ($ Millions)
336--Transportation Equipment	217,929
334--Computer and Electronic Products	201,165
325--Chemicals	197,139
333--Machinery, Except Electrical	156,984
324--Petroleum and Coal Products	101,851
331--Primary Metal Mfg	76,473
111--Agricultural Products	71,978
339--Miscellaneous Manufactured Commodities	69,694
311--Food Manufactures	59,942
990--Special Classification Provisions, NESOI	42,690
Total for All Industries (including industries not listed)	1,480,432

Source: U.S. Department of Commerce, International Trade Administration, Office of Trade and Economic Analysis

Bilateral Trade Agreement Implementation (China, U.S. and EU)

China Free Trade Agreements	
Partner Country	**Year Implemented**
Hong Kong	2003
Thailand	2003
Macau	2004
Chile	2006
Pakistan	2007
New Zealand	2008
Singapore	2009
ASEAN	2010
Peru	2010
Taiwan	2010
Costa Rica	2011

U.S. Free Trade Agreements	
Partner Country	**Year Implemented**
Israel	1985
NAFTA	1994
Jordan	2001
Chile	2004
Singapore	2004
Australia	2005
Bahrain	2006
Morocco	2006
CAFTA-DR	2006
Oman	2009
Peru	2009
Korea	2012
Colombia	2012
Panama	2012

EU Free Trade Agreements	
Partner Country	**Year Implemented**
Switzerland	1973
Norway	1973
Iceland	1973
Liechtenstein	1973
Andorra	1991
San Marino	1992
Turkey	1995
Faroe Islands	1997
Palestinian Authority	1997
Tunisia	1998
Israel	2000
Morocco	2000
Mexico	2000
South Africa	2000
Jordan	2002
Lebanon	2003
Chile	2003
Egypt	2004
Republic of Macedonia	2004
Algeria	2005
Croatia	2005
Bosnia & Herzegovina	2008
Albania	2009
Montenegro	2010
Serbia	2010
South Korea	(Provisional) 2011
Colombia	signed 2011
Peru	signed 2011
Colombia	signed 2011
Peru	signed 2011

Appendix II

California Trade Patterns

U.S. Exports to All Countries, By State, 2005–2011
In Rank Order by 2011 Value (Millions of Dollars)

State	2005	2006	2007	2008	2009	2010	2011
Texas	129,346	150,890	168,229	192,222	162,995	206,961	251,006
California	116,690	127,771	134,319	144,806	120,080	143,192	159,122
New York	51,841	59,132	71,116	81,386	58,743	69,696	84,888
Florida	33,444	38,558	44,858	54,238	46,888	55,365	64,904
Illinois	36,169	42,135	48,896	53,677	41,626	50,058	64,823
Washington	33,078	42,391	52,089	54,498	51,851	53,353	64,767
Louisiana	19,404	23,477	30,319	41,908	32,616	41,356	54,976
Michigan	37,849	40,500	44,555	45,136	32,655	44,768	51,003
Ohio	35,110	38,161	42,562	45,628	34,104	41,494	46,416
United States	901,082	1,025,967	1,148,199	1,287,442	1,056,043	1,278,263	1,480,432

Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

California Goods Exports by Region and Top Countries, 2011

Region	2011 Level ($ Millions)	2011 Share (Percent)	2010–2011 Growth (Percent)	2001–2011 Average Annual Growth Rate (Percent)
Asia (all Asia excluding Turkey)	59,824	37.60%	10.04%	5.43%
NAFTA partners	43,075	27.07%	15.96%	4.87%
Europe (all Europe including Turkey)	29,167	18.33%	6.65%	2.44%
Latin America and Caribbean	33,885	21.29%	23.58%	6.53%
Africa	870	0.55%	-3.86%	9.98%
Top 15 Export Destinations				
Mexico	25,805	16.22%	23%	5.38%
Canada	17,269	10.85%	7%	4.53%
China	14,188	8.92%	14%	12.52%
Japan	13,096	8.23%	8%	-0.40%
South Korea	8,426	5.30%	5%	6.38%
Hong Kong	7,664	4.82%	13%	7.33%
Taiwan	6,245	3.92%	-4%	2.91%
Germany	5,310	3.34%	4%	2.49%
Netherlands	4,573	2.87%	11%	1.28%
United Kingdom	4,154	2.61%	-1%	-1.91%
Singapore	4,139	2.60%	3%	1.14%
India	3,796	2.39%	15%	20.43%
Australia	3,716	2.34%	18%	6.40%
Brazil	2,931	1.84%	4%	11.99%
Belgium	2,681	1.68%	20%	9.65%
All Countries	**159,122**	**100%**	**11%**	**4.72%**

Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Share of Exports for Top 10 Goods Exporting Sectors, 2011

Sector	California (Percent)	Rest of U.S. (Percent)
334--Computer and Electronic Products	28.95%	11.74%
336--Transportation Equipment	9.43%	15.36%
333--Machinery, Except Electrical	9.28%	10.76%
339--Miscellaneous Manufactured Commodities	8.23%	4.28%
325--Chemicals	7.81%	13.98%
111--Agricultural Products	6.67%	4.64%
311--Food Manufactures	5.55%	3.87%
910--Waste And Scrap	4.33%	1.96%
324--Petroleum and Coal Products	3.56%	7.28%
335--Electrical Equipment, Appliances & Components	2.85%	2.85%
Total	**86.65%**	**76.72%**

Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

California Goods Export Destinations by Share, 2011

	Export Share (Percent)		Rank	
Country	California	Rest of U.S.	California	Rest of U.S.
Mexico	16%	13.06%	1	2
Canada	11%	19.95%	2	1
China	9%	6.79%	3	3
Japan	8%	3.98%	4	4
South Korea	5%	2.65%	5	9
Hong Kong	5%	2.18%	6	10
Taiwan	4%	1.49%	7	16
Germany	3%	3.32%	8	6
Netherlands	3%	2.86%	9	8
United Kingdom	3%	3.91%	10	5
Singapore	3%	2.05%	11	12
India	2%	1.34%	12	17
Australia	2%	1.80%	13	14
Brazil	2%	3.03%	14	7
Belgium	2%	2.06%	15	11

Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Exports to California's Top 5 Export Markets, 2009–2011

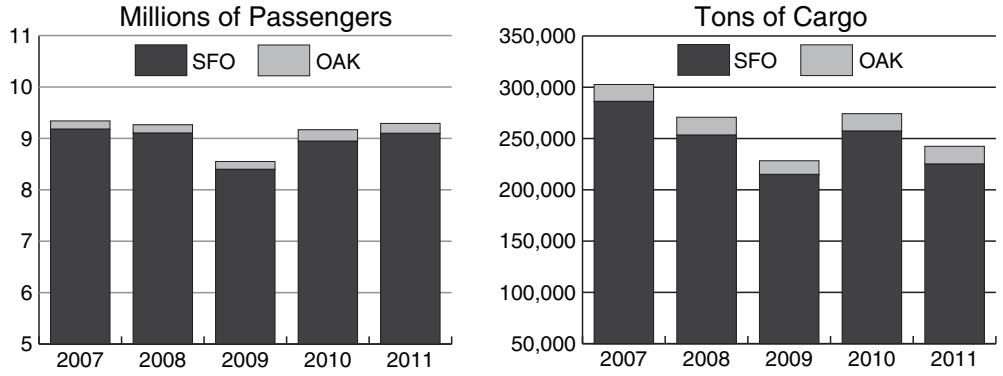
	($ Millions)			% Change
Top Five Sectors	2009	2010	2011	2010–2011
Mexico				
334--Computer and Electronic Products	4,506	6,464	9,288	44%
336--Transportation Equipment	1,553	1,793	2,012	12%
333--Machinery, Except Electrical	2,010	1,612	1,836	14%
325--Chemicals	1,065	1,230	1,387	13%
311--Food Manufactures	914	1,038	1,368	32%
Total Top Five	**10,048**	**12,137**	**15,892**	**115%**
Total All Sectors	**17,474**	**20,949**	**25,805**	**23%**
Canada				
334--Computer And Electronic Products	3,719	5,087	5,801	14%
111--Agricultural Products	1,960	2,218	2,361	6%
336--Transportation Equipment	1,535	1,062	1,043	-2%
311--Food Manufactures	853	906	1,036	14%
333--Machinery, Except Electrical	813	896	945	5%
Total Top Five	**8,879**	**10,169**	**11,186**	**37%**
Total All Sectors	**14,315**	**16,198**	**17,269**	**7%**
China				
334--Computer and Electronic Products	2,947	3,769	3,733	-1%
910--Waste and Scrap	2,119	2,336	2,982	28%
336--Transportation Equipment	841	1,251	1,650	32%
333--Machinery, Except Electrical	927	1,360	1,368	1%
325--Chemicals	758	894	929	4%
Total Top Five	**7,593**	**9,609**	**10,663**	**64%**
Total All Sectors	**9,744**	**12,469**	**14,188**	**14%**
Japan				
334--Computer and Electronic Products	2,629	2,777	2,873	3%
336--Transportation Equipment	1,491	1,508	1,859	23%
311--Food Manufactures	1,367	1,194	1,374	15%
325--Chemicals	1,010	1,065	1,106	4%
333--Machinery, Except Electrical	789	1,089	1,047	-4%
Total Top Five	**7,286**	**7,633**	**8,259**	**41%**
Total All Sectors	**10,902**	**12,180**	**13,096**	**8%**

Exports to California's Top 5 Export Markets, 2009–2011 (continued)

	($ Millions)			% Change
Top Five Sectors	2009	2010	2011	2010–2011
South Korea				
333--Machinery, Except Electrical	945	1,887	1,933	2.00%
334--Computer and Electronic Products	1,496	1,971	1,510	-23.00%
910--Waste and Scrap	658	855	1,184	38.00%
311--Food Manufactures	404	562	816	45.00%
336--Transportation Equipment	468	548	536	-2.00%
Total Top Five	**3,972**	**5,823**	**5,979**	**60.00%**
Total All Sectors	**5,913**	**8,027**	**8,426**	**5.00%**

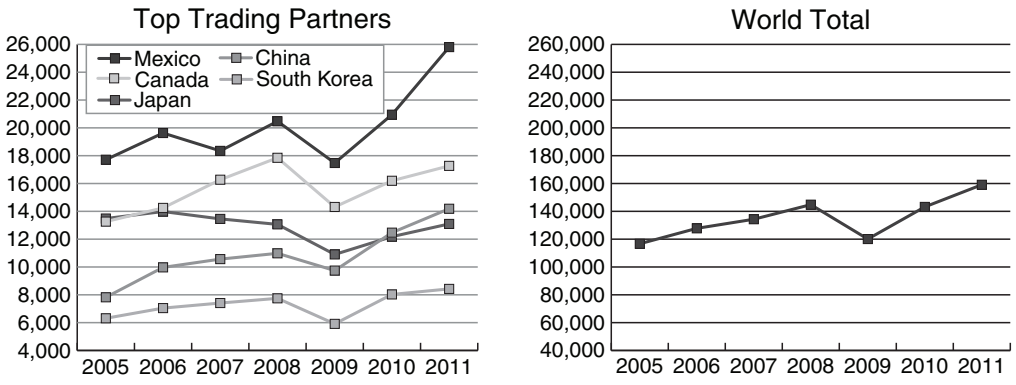
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

SFO & OAK International Passenger and Cargo Shares (2007–2011)



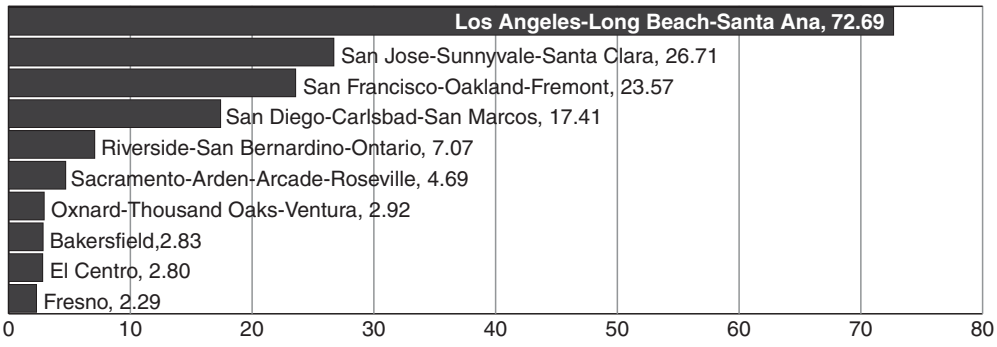
Source: San Francisco International Airport

California Export Trends, 2005–2011 (Millions of Dollars)



Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Top 10 California Metropolitan Areas by Export Value, 2011 (Billions of Dollars)

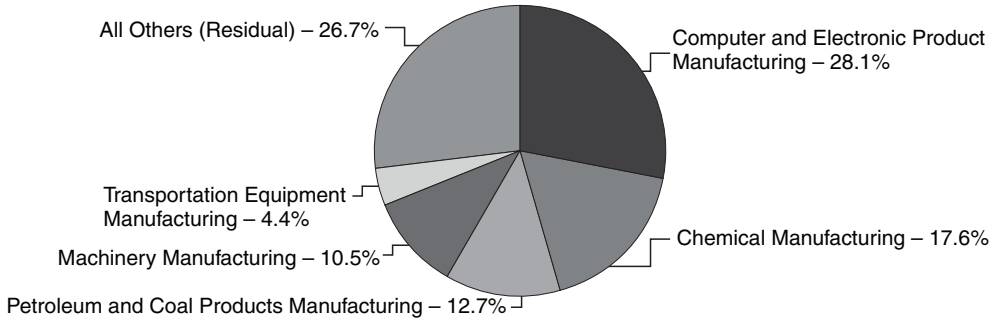


Source: Office of Trade and Industry Information, International Trade Administration, U.S. Department of Commerce

Appendix III

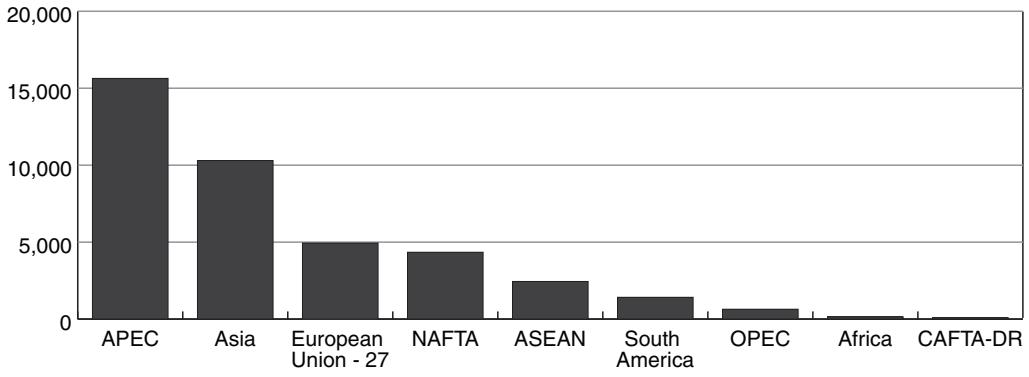
Bay Area Trade Patterns

San Francisco-Oakland-Fremont, CA Metro Area Exports Top 5 Global NAICS Categories by Export Value, 2011



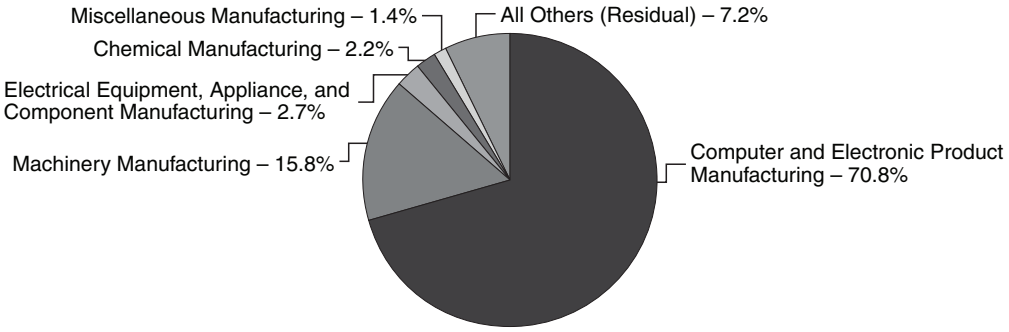
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

San Francisco-Oakland-Fremont, CA Metro Area Exports Destination by Export Value, 2011 (Millions of Dollars)



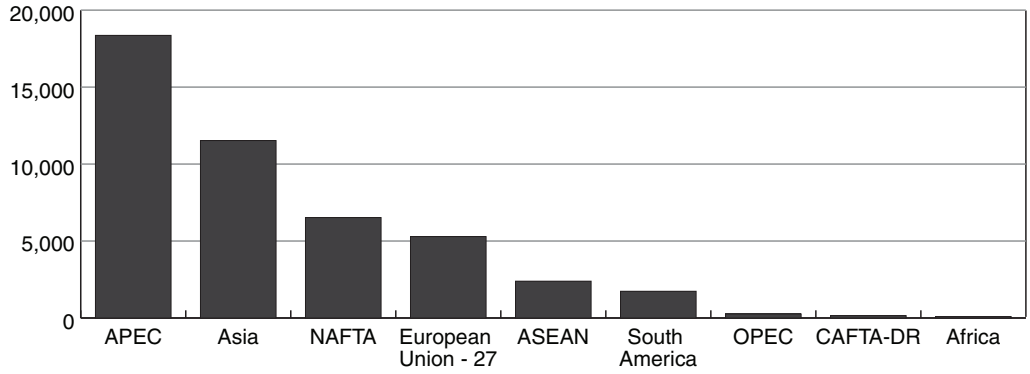
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

San Jose-Sunnyvale-Santa Clara, CA Metro Area Exports Top 5 Global NAICS Categories by Export Value, 2011



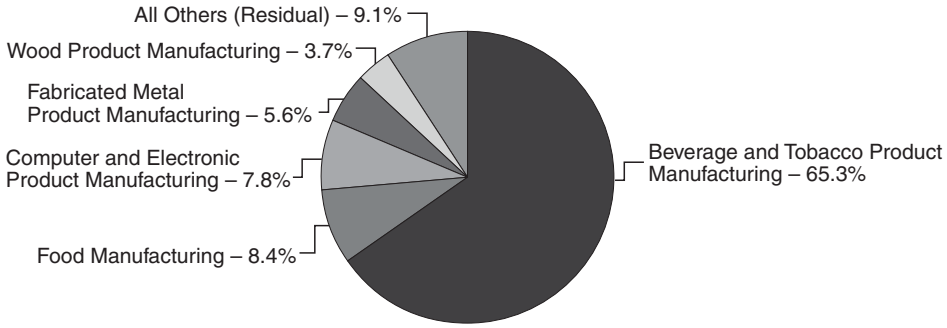
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

San Jose-Sunnyvale-Santa Clara, CA Metro Area Exports Destination by Export Value, 2011 (Millions of Dollars)



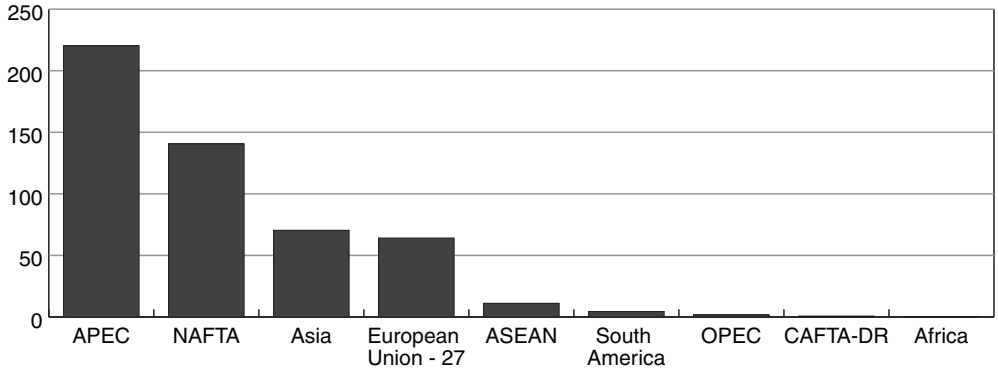
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Napa, CA Metro Area Exports
Top 5 Global NAICS Categories by Export Value, 2011



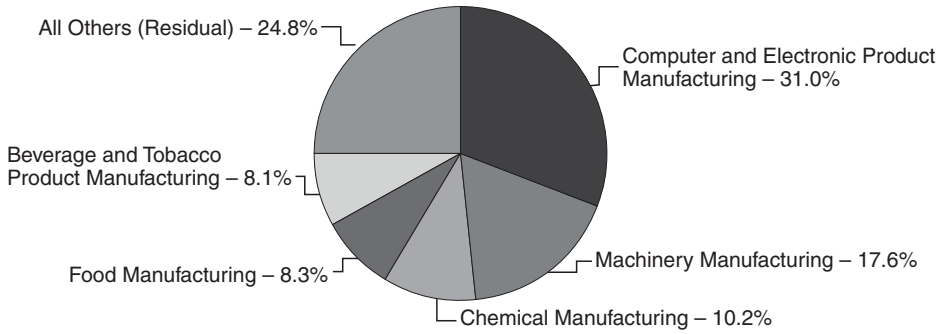
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Napa, CA Metro Area Exports
Destination by Export Value, 2011 (Millions of Dollars)



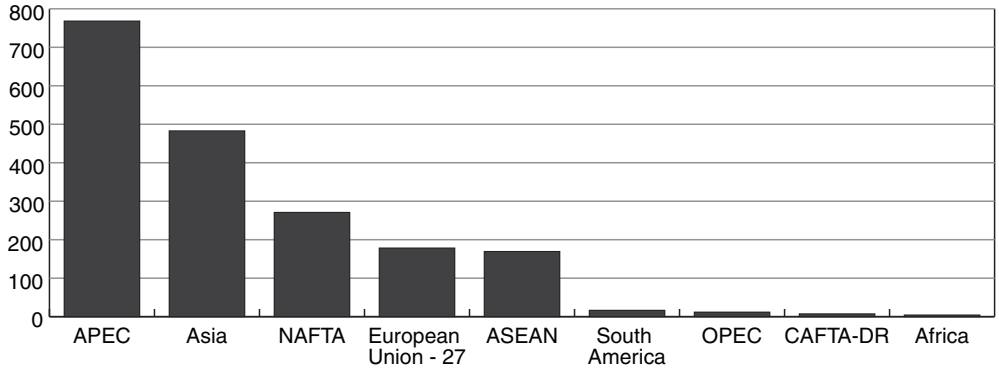
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Santa Rosa-Petaluma, CA Metro Area Exports
Top 5 Global NAICS Categories by Export Value, 2011



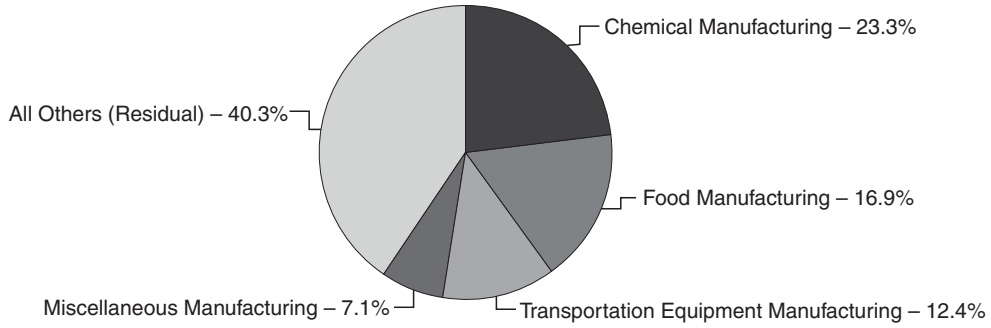
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Santa Rosa-Petaluma, CA Metro Area Exports
Destination by Export Value, 2011 (Millions of Dollars)



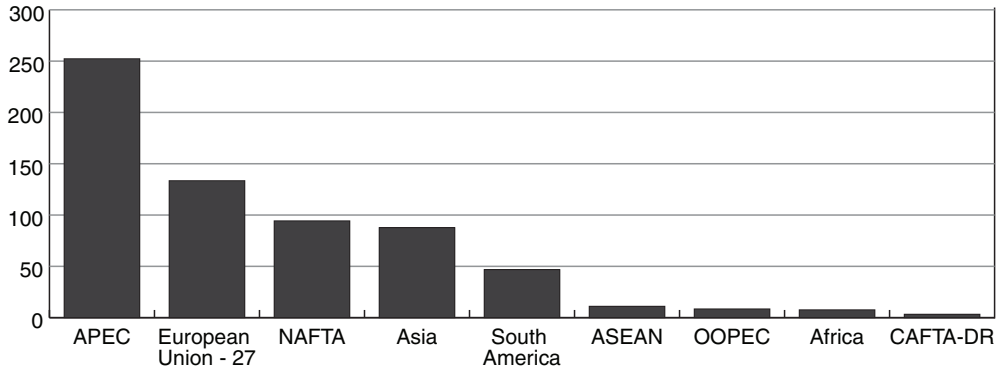
Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Vallejo-Fairfield, CA Metro Area Exports
Top 4 Global NAICS Categories by Export Value, 2011



Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

Vallejo-Fairfield, CA Metro Area Exports
Destination by Export Value, 2011 (Millions of Dollars)



Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce

The Bay Area Council Economic Institute is a partnership of business with labor, government, higher education and philanthropy, that works to support the vitality and competitiveness of the Bay Area and California economies. The Association of Bay Area Governments is a founder and partner. The Economic Institute also supports and manages the Bay Area Science and Innovation Consortium (BASIC), a partnership of Northern California's leading scientific research laboratories and companies. Through its economic and policy research and its many partnerships, the Economic Institute addresses major issues impacting the competitiveness, economic development and quality of life of the region and the state, including infrastructure, trade and globalization, science, innovation, and governance. A public-private Board of Trustees oversees the development of its products and initiatives.

BAY AREA COUNCIL
ECONOMIC INSTITUTE

201 California Street, Suite 1450
San Francisco, California 94111
P 415.981.7117 F 415.981.6408
www.bayareaeconomy.org
bacei@bayareacouncil.org