

**California and the World Economy:
Exports, Foreign Direct Investment
and U.S. Trade Policy**

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Preface

In September 2002, the California World Trade Commission requested the Public Policy Institute of California to provide background material on California's global interactions. The purpose of this material is to supply essential information in advance of the Commission's preparation of its biennial report.

This report fulfills that request. It includes information about California exports, foreign direct investment, and U.S. and foreign trade policies that might influence these and other aspects of the state economy.

This paper reports overall, regional, and industry trends along with information on U.S. trade agreements and trade policy. An appendix focuses on California's major trade and investment partners, reporting on each country individually with separate sections on the Asia Pacific Economic Cooperation forum and the European Union.

The appendix is available, with the text of this document, on the PPIC Web site at www.ppic.org.

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1. Introduction

California's residents and economy engage with the global economy in many different ways. In the realm of goods trade, California manufacturers supply the world with exports of computer technology, while the state's citizens purchase imported cars, toys, and clothing. In the realm of services trade, the state exports services through foreign students learning in California's universities and foreign residents watching Hollywood movies abroad, while it imports services through the travel of Californians to other countries.

Because the global market is far larger than the state or U.S. markets, exports can help increase employment, and export-related jobs often pay more than other jobs. Exports can also introduce a "learning-by-doing" aspect to business and eventually lead to a company establishing a subsidiary abroad. As of August 2002, California was the second-leading merchandise export state by one measure, with \$61.6 billion worth of exports for the year to date. Texas was first, with \$62.3 billion. This ranking represents a change from historic trends since at least 1988, in which California occupied the top position. New York was a distant third, with \$24.7 billion.

Foreign direct investment (FDI) is another important avenue through which Californians engage in global exchange. California companies set up wholesaling and manufacturing facilities abroad both to serve foreign markets and to produce cheaper inputs or final goods for use back home, and foreign companies do the same in California.

Attracting investment from abroad remains a goal of many states, as it can expand employment opportunities for U.S. residents by leading to the establishment of new businesses and the introduction of new technologies and management methods. As of 1999, the year of latest available data, California had more employees in foreign-owned firms (638,800) than any other state. Texas and New York were tied for a distant second at 410,200.

Key State policy goals include expanding exports and attracting foreign direct investment. This report will present background and perspective on exports and FDI, two key measures of California's international business activity. The next section discusses trends in exports and FDI, describing each of these measures by region and industry. Section 3 focuses on trade policy, discussing past and projected U.S. trade agreements and other current U.S. trade policies. A final section presents ideas on what California policy makers might consider as they plan the state's role in international business. An appendix, presented as a separate document, profiles California's top export markets and foreign direct

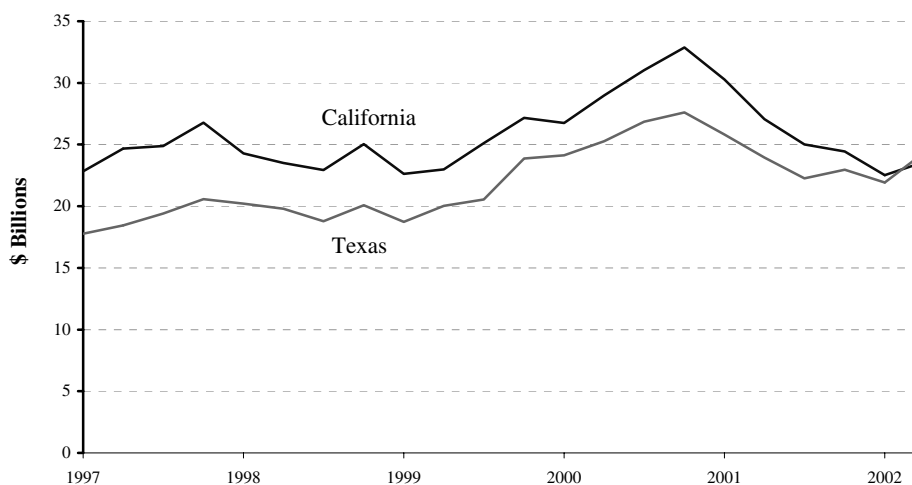
investors. For each partner country, it discusses trends in economic performance, California exports, and California FDI, trade barriers, and trade agreements. The appendix also gives projections for export demand for each market.

2. Trends in Exports and Foreign Direct Investment

2.1. Trends in California Exports

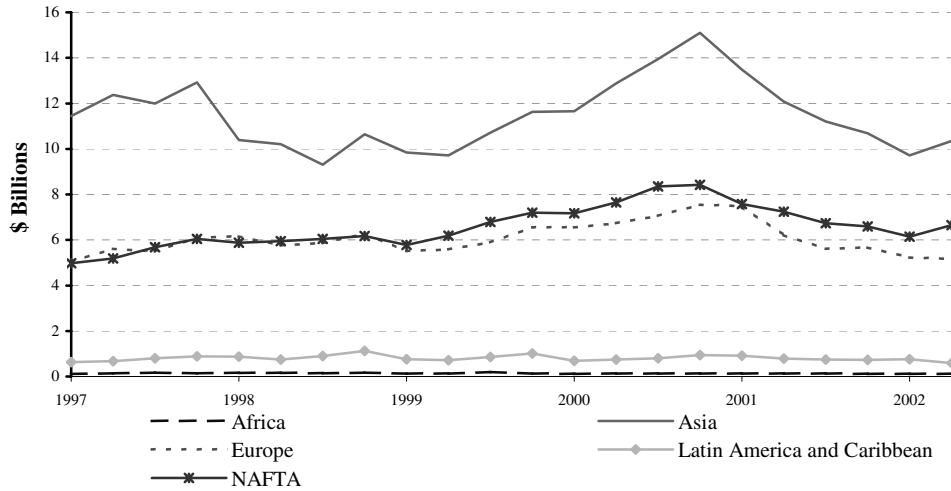
Among U.S. states, California has held the number one spot in merchandise exports for at least 15 years. In 2001, California exports accounted for 14.6 percent of total U.S. exports followed by Texas (13.0 percent) and New York (5.8 percent).¹ California's ability to maintain its top ranking depends its ability to sustain the vigorous pace of growth exhibited throughout most of the 1990s. From 1990 to 1997, California exports grew on average 9.4 percent per year compared to 8.1 percent for other states. From 1997 to 2001, however, California exports grew at an annual average rate of 1.9 percent compared to 1.5 percent for the rest of the United States. Partial figures for 2002 look even less promising. As of August 2002, California exports had declined 17 percent from the previous year, resulting in Texas moving ahead of California as the top exporting state. Whether this is a permanent change is unclear; recent growth figures for California exports do not appear to follow a straight trend. A 3.4 percent decline in 1998 was followed by sluggish growth of 2.2 percent in 1999. In 2000, California exports grew by 22 percent, their fastest growth in more than a decade. This spurt was followed in 2001 by a decline of 11 percent, the sharpest drop in more than a decade.

Figure 2.1
Has California Lost its Bragging Rights?
(Trends in Quarterly Exports)



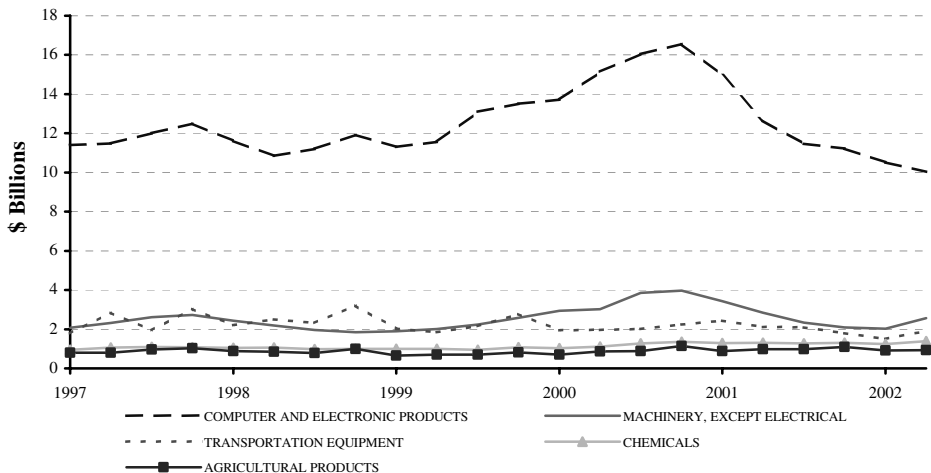
¹ Unless otherwise noted, "exports" refers to merchandise exports and does not include exports of services.

Figure 2.2
California Exports by Region
(Trends in Quarterly Exports)



Although California’s export growth has fluctuated significantly in recent years, several characteristics have remained constant. California’s exports are highly concentrated in the high-technology sector, and a significant share is headed for Asia. These concentrations are responsible for the dramatic run-up and decline of California’s exports. A regional breakdown of export trends shows that exports to Asia grew in 2000 and sank in 2001. The same pattern is evident in the industrial breakdown of exports. The computer and electronic industry experienced a dramatic increase in 2000 and an even more dramatic decline in 2001.

Figure 2.3
California Exports in Top Five Industries
(Trends in Quarterly Exports)



California's high concentration of computer and electronics exports is a dramatic contrast from the pattern in the rest of the United States. A similar departure is California's smaller share of exports of transportation equipment (the rest of the nation's largest sector) and chemicals. California's dominance in the high-technology sector becomes more evident when one considers that 30.4 percent of U.S. exports in computer and electronic products originate in California. It takes four other states combined (Texas, Florida, Massachusetts, and New York) to produce a similar share (29.5 percent). The fact that a large share of California exports is accounted for by the high-technology sector, coupled with tremendous demand growth in that sector throughout the 1990s, helps explain the dramatic growth in California exports during the last decade. California's vigorous export growth during this period can also be explained by the fact that California sells commodities whose share of world trade has been increasing and sells them to countries that, until 1998, had been growing rapidly.

Table 2.1
Shares of Total Exports by Industry, 2001

Industry	California (%)	Rest of U.S. (%)
Computer and Electronic Products	47.1	18.4
Machinery (except electrical)	10.0	11.3
Transportation Equipment	7.9	19.5
Chemicals	4.9	11.8
Agricultural Products	3.7	3.4
Food and Kindred Products	3.7	3.7
Electrical Equipment, Appliances, and Components	3.1	3.5
Fabricated Metal Products	2.3	2.9
Plastics and Rubber Products	1.5	2.4
Apparel and Accessories	1.0	0.9
Total	85.2	77.9

Table shows top 10 California export industries.

Source: Miser Database—Origin of Movement Series

California exports are characterized by their dependence on Asian markets. Nearly 45 percent of all California exports are destined for Asian markets compared to 24.3 percent for those of the rest of the United States. In 2001, California accounted for 23.8 percent of all U.S. exports to Asia, more than any other individual state. Texas, Washington, and New York accounted for 9.3, 8.7, and 6 percent, respectively. The top three trading partners are the same for both California and the rest of the United States, but Japan receives a significantly larger share of California exports whereas the rest of the country sends a larger share of its exports to Canada (Table 2.2).

Table 2.2
Top Export Destinations, 2001

Country	Export Share (%)			Rank	
	California	Rest of U.S.	Difference	California	Rest of U.S.
Mexico	15.3	13.6	1.7	1	2
Japan	13.7	6.9	6.8	2	3
Canada	11.1	24.3	-13.3	3	1
Taiwan	5.3	2.0	3.3	4	12
United Kingdom	5.2	5.6	-0.4	5	4
Korea	4.7	2.7	2.0	6	7
China	4.4	2.3	2.0	7	10
Germany	4.4	4.1	0.3	8	5
Netherlands	4.0	2.4	1.6	9	8
Singapore	4.0	2.2	1.8	10	11
Hong Kong	3.7	1.6	2.1	11	14
Malaysia	2.4	1.1	1.3	12	--
France	2.1	2.8	-0.7	13	6
Australia	2.0	1.4	0.5	14	--
Philippines	1.9	0.9	1.0	15	--
Brazil	1.1	2.4	-1.3	--	9
Belgium	1.1	2.0	-0.9	--	13
Switzerland	0.8	1.4	-0.6	--	15

Source: MISER database—Origin of Movement Series.

Box 1. What Do State Export Data Tell Us?

The U.S. Census Bureau's Foreign Trade Division prepares two types of state export data. They can differ significantly, and neither is meant to represent actual production for export, though in some cases they come close.

The first series is the Origin of Movement (OM) series. This is the most widely cited data on state exports and is the series used in this manuscript. In 2001, California's OM exports totaled almost \$106.8 billion. The OM series represents the transportation origin of the good—where it started its export journey. It was developed to meet the needs of transportation planners. Depending on who is recording the data, the point of origin could be the place of production, the location of a distributor or warehouse, the state of origin for the commodity that has the largest share of a multi-product shipment, or even a foreign trade zone in which the product was stored before export.

The U.S. Department of Commerce estimates that the OM series may closely represent the place of actual production for manufactured goods, but performs less well with bulk commodities such as agricultural goods.

The other series is the Exporter Location (EL) series. This series is available not only at the state level but at the metropolitan area level as well. In 2001, California's EL exports totaled about \$114.4 billion. The EL series represents the source of the export initiative, or the location of the person or entity most responsible for effecting the export. It was developed as an indicator of export marketing activity. Depending on who is recording the data, the location of the exporter could be that of the marketing division of an exporting company, a company headquarters, a wholesaler, or the place of production. Because of new methods of reporting export transactions, the U.S. Census Bureau will discontinue the EL series starting in 2003.

The U.S. Department of Commerce estimates that for manufactured items, the location of the exporter coincides with the location of production almost 90 percent of the time. However, this pattern certainly varies by state, and the U.S. Census Bureau cautions against using both the OM and EL series as measures of production origin.

Because neither of these series performs well for bulk commodities, this report relies on data from the Agricultural Issues Center at the University of California at Davis for more detailed estimates of California's agricultural exports.

Sources: "Appendix: Guide to State and Sub-State Export Data," U.S. Department of Commerce, International Trade Administration, Undated, <http://www.ita.doc.gov/td/industry/otea/state/technote.html>, and "State Export Data Series," U.S. Census Bureau, Foreign Trade Division, August 23, 2002, <http://www.census.gov/foreign-trade/aip/elom.html>.

Exports by Region

California's exports have become increasingly concentrated in Japan, Canada, and Mexico. In 1988, these countries absorbed 32.6 percent of total California exports; by 2001 this number had increased to 40 percent. During this period, the export share of Mexico more than doubled, from 6.8 percent to 15.3 percent, while that of Japan fell from 17.5 percent to 13.7 percent. The share to Canada also rose, from 8.4 percent to 11.1 percent. The distribution of California exports across continents has also changed, with a larger share going to North American Free Trade Agreement (NAFTA) partners and smaller shares going to the European, Latin American, and African markets. The share of exports going to Asia has remained largely unchanged. These changes coincided with the entry-into-force first of the U.S.-Canada Free Trade Agreement, then of the NAFTA, and also with the economic stagnation of Japan in the 1990s.

Table 2.3
California Exports by Region and Top Countries

Region	2001 (\$ millions)	Share %	Growth (%)		Average Annual Growth Rate (%)	
			2000-01	2001-02*	1997-2001	2001-05**
Asia	47,443	44.4	-11.5	-21.5	-0.7	7.1
NAFTA Partners	28,159	26.4	-10.9	-13.7	6.5	4.4
Europe	24,968	23.4	-10.5	-24.0	2.9	5.5
Latin America & Caribbean	3,173	3.0	-0.1	-20.3	1.4	--
Africa	502	0.5	2.0	-10.2	-2.9	--
Top 15 Export Destinations						
Mexico	16,343	15.3	-6.7	-5.2	10.1	5.4
Japan	14,635	13.7	-11.0	-30.3	-2.4	4.5
Canada	11,816	11.1	-16.1	-24.3	2.4	2.9
Taiwan	5,664	5.3	-23.1	-10.3	-0.1	8.9
United Kingdom	5,589	5.2	-6.6	-31.9	2.7	5.5
Korea	5,035	4.7	-27.2	-13.9	-3.9	7.0
China	4,676	4.4	31.9	-4.2	23.5	13.6
Germany	4,657	4.4	-11.5	-35.5	5.2	5.5
Netherlands	4,318	4.0	-12.9	-19.9	8.7	5.5
Singapore	4,227	4.0	-15.7	-26.4	-5.7	5.8
Hong Kong	3,934	3.7	-5.2	-12.7	1.6	6.7
Malaysia	2,554	2.4	-14.2	-24.0	-2.7	8.0
France	2,242	2.1	-23.8	-19.8	-0.7	5.5
Australia	2,085	2.0	-14.6	-3.5	-1.9	4.4
Philippines	2,011	1.9	4.2	-45.5	1.6	6.5
Total All Countries	106,777	100.0	-10.8	-19.6	1.9	5.8

Sources: MISER Database—Origin of Movement Series, and authors' calculations.

* Growth through 2nd quarter.

**Author's estimates. Figures for Europe and the European countries reflect growth estimates for all Western European nations: the European Union, the European Free Trade Association, Monaco, and the Vatican. Figures for Australia reflect growth estimates for Australia and New Zealand combined.

Asia

Asia is the main foreign destination for California goods. In 2001, \$47.4 billion worth of California-origin merchandise exports—44.4 percent of all California-origin exports—were destined for Asian markets. During the 1990s, exports to the region experienced robust growth fueled by dramatic economic growth in Southeast and East Asia. At the peak of the economic boom in the tiger economies (1995-1996), exports to Asia hovered around 53 percent of California's total, or \$54.7 billion - more than double the \$26.7

billion exported in 1990.² However, the onset of the Asian financial crisis in 1997 proved detrimental to California exports. In 1998, exports to Asia declined 16.8 percent. A quick recovery by some key Asian markets, such as Korea's, coupled with an increase in global demand for high-technology products, led to a 27.9 percent surge in exports to the region in 2000. However, this dramatic increase did not continue into 2001. It was instead followed by an 11.5 percent decline. This decline has continued well into 2002. August 2002 figures show an 18.8 percent slide from last year's figures. By comparison, exports from the rest of the United States to Asia only declined 2.1 percent during the same period.

Asia's importance to California's exports is more evident when one considers that eight of California's top 15 export destinations are in Asia. These eight countries combined account for 40 percent of all California exports. In contrast, the same eight countries account for only 19.8 percent of rest of U.S. exports. European countries tend to rank higher for the rest of the United States than for California.

NAFTA Partners

Combined, Canada and Mexico represent the fastest growing market for California exports from 1997-2001 with an annual average growth rate of 6.5 percent. Growth accelerated during the second half of the 1990s after the signing of NAFTA (14.9 percent compared to 10.2 percent for the first half of the 1990s). In 1999, the NAFTA region surpassed all European countries combined to become the second most common destination for California exports. Despite this tremendous growth, the share of California exports heading for Mexico and Canada is smaller than that from the rest of the United States. In 2001, California sent 26.4 percent of its exports to Mexico and Canada, whereas the rest of the United States sent 38 percent. This difference is in large part due to California's lower relative exports to Canada. In 2001, the rest of the United States sent 24.3 percent of its exports to Canada in 2001, while California sent only 11.1 percent.

Europe

California also exports a smaller share of its total exports (23.4 percent) to Europe than does the rest of the United States (25.2 percent). Europe's relative importance as a destination for California exports declined during much of the last decade but has recently rebounded. In 2001, Europe received nearly \$25 billion, or 23.4 percent, of California exports, with the 15 members of the European Union accounting for 91.3 percent of these exports. Europe is the second fastest-growing destination for California exports. In

² The four tiger economies include Hong Kong, Korea, Singapore, and Taiwan. Other Asian countries experiencing significant economic growth included China, Malaysia, and Thailand.

2002, California's year-to-date exports to Europe were almost twice that of either Texas or New York.

Latin America (excluding Mexico), the Caribbean, and Africa

Latin America, the Caribbean, and Africa do not represent significant markets for California exports. The share of total exports heading for these regions remains below 5 percent despite an impressive 154 percent increase in exports destined for Latin America and the Caribbean during the 1990-1995 period. In 2001 exports to Latin America and the Caribbean were \$3.2 billion, while exports to Africa amounted to only \$502 million. Among U.S. states, Florida and Texas were the leaders in exports to Latin America (excluding Mexico) and the Caribbean at \$14.8 billion and \$8.5 billion, respectively. California exports to Latin America grew an average of 1.4 percent per year from 1997 to 2001, but experienced a sharp drop of 20.3 percent between the first half of 2001 and the first half of 2002. California's exports to Africa have been falling at a rate of about 3 percent per year, extending a decline that began in 1990.

Exports by Industry

Manufactured goods dominate California exports (Table 2.4).³ In 2001, manufactured goods accounted for 92.2 percent of total merchandise exports, up from 86.6 percent in 1988. Nine of California's top 10 export industries are manufactured goods.

Within manufacturing, California exports are highly concentrated in high-technology sectors. In 2001, exports of computers and electronic products accounted for almost half of all California merchandise exports despite an 18.1 percent decline in 2001. As with California exports in general, a large share of these computer and electronic goods are destined for Mexico, Canada, and Japan, which together receive 35 percent of all exports by that industry.

³ In our rankings of industries, we exclude the categories "miscellaneous manufacturing" and "special classification provisions, nesoi."

Table 2.4
California's Top Export Industries

Industry	2001 (\$ millions)	Share %	Growth (%)		Average Annual Growth Rate (%)	
			2000-01	2001-02*	1997- 2001	2001-05**
ALL INDUSTRIES	106,777	100.0	-10.8	-19.6	1.9	5.8
Computer and Electronic Products	50,311	47.1	-18.1	-25.6	1.5	6.7
Machinery (except Electrical)	10,695	10.0	-22.4	-26.8	2.4	7.0
Transportation Equipment	8,445	7.9	3.5	-25.0	-3.2	6.1
Chemicals	5,190	4.9	8.7	0.2	5.5	5.3
Agricultural Products	3,916	3.7	9.1	-0.2	2.2	2.3
Food and Kindred Products	3,901	3.7	13.6	-5.2	3.8	3.2
Electrical Equipment, Appliances, and Components	3,325	3.1	-16.2	-20.9	1.6	6.4
Fabricated Metal Products	2,450	2.3	17.0	-14.6	7.8	6.7
Plastics and Rubber Products	1,639	1.5	-1.8	-10.0	4.4	5.7
Apparel and Accessories	1,120	1.1	-0.8	-4.4	-1.1	2.2

Sources: MISER Database—Origin of Movement Series, and authors' calculations.

* Growth through 2nd quarter. **Authors' estimates.

Agricultural Exports

California is both the top producer of agricultural products and the top exporter of such products in the United States. The state-level export data compiled by the U.S. Census Bureau and the U.S. Department of Agriculture do not adequately measure actual state-level agricultural exports. This report therefore relies on separate data compiled by the Agricultural Issues Center (AIC) at the University of California, Davis. In 2001, California exported \$6.52 billion worth of agricultural products. The AIC estimates the value of California agricultural exports at almost \$6.3 billion for 2000. This figure represents 13 percent of total U.S. agricultural exports. The share of California's agricultural output that is exported ranged between 16 and 19 percent between 1995 and 2000.

Despite these high numbers, agricultural exports have actually declined every year since 1997 except 2000. The annual average growth rate from 1997 to 2001 was -1.7 percent. The cause of these declines is not clear. Agricultural prices are notoriously volatile, and these declines may have been due to price decreases, quantity decreases, or both. In addition, agricultural exports are relatively small compared to California manufacturing exports. In 2001, they totaled only 6.6 percent of the value of manufacturing exports.

Table 2.5
California Agricultural and Manufacturing Exports, 1997 to 2001

	1997	1998	1999	2000	2001
Agricultural Exports (AIC)	6,979	6,650	6,115	6,526	6,522
Manufacturing Exports (MISER)	91,292	88,259	90,810	111,529	98,431
Agriculture Relative to Manufacturing	7.6%	7.5%	6.7%	5.9%	6.6%

Agricultural exports are from the Agricultural Issues Center; manufacturing exports are from the MISER Database—Origin of Movement Series. All values are in millions of current dollars.

California's agricultural exports can be found in markets around the world. They are concentrated in the top three markets, however. Canada, the European Union, and Japan receive nearly half of all agricultural exports. China (including Hong Kong) and South Korea round out the top five markets for agricultural exports. Mexico, which up to 2000 had grown an average of 29 percent per year since 1997 in its purchase of California agricultural exports, dropped to sixth place in 2001 after suffering a 29.3 percent decline.

California's agricultural export products are as diverse as their destinations. In 2001, California's top agricultural export commodities included almonds, cotton, wine, table grapes, and dairy products (milk and cream).

Table 2.6
California Agricultural Exports by Destination

	2001 (Millions of Dollars)	Share of Total %	Average Growth 1997-2001 %	Growth 2000-2001 %
Canada	1,137	17.4	4.2	-4.5
European Union	1,025	15.7	--	-1.7
Japan	951	14.6	-7.6	-8.2
China and Hong Kong	324	5.0	--	--
South Korea	279	4.3	-6.5	6.5
Mexico	277	4.2	23.8	-29.3
Taiwan	218	3.3	--	-8.4
Indonesia	103	1.6	--	--
India	94	1.4	--	--
Malaysia	64	1.0	--	--
Singapore	57	0.9	--	--
Philippines	44	0.7	--	--
Thailand	40	0.6	--	--
United Arab Emirates	35	0.5	--	--
Israel	31	0.5	--	--
Total Agricultural exports	6,522	100.0	-1.7	-0.1

Source: Agricultural Issues Center, University of California, Davis.

Services Exports

A final component of exports is services exports. World trade in services is growing, and the Uruguay Round Agreements of 1994 formally brought services trade under international discipline through the General Agreement on Trade in Services. In 2001, services exports accounted for more than 28 percent of total U.S. exports.

Private services exports are divided into spending by tourists and other travelers, passenger fares, payments for transportation services (such as port services), royalties and license fees, and other private services, such as education, banking and finance, and professional services. For example, all spending by a foreign student at a California university is considered an export of education services. Any spending by foreign tourists visiting California is considered an export of travel services.

There are no official estimates of services exports by state. In 2000, U.S. private services relative to U.S. private aggregate gross state product measured almost 3.2 percent. If California had exported private services in the same ratio, total private services exports from California would have totaled slightly more than \$38 billion. This figure is greater than the combined exports from California's second- through sixth-ranked

manufacturing export industries—non-electrical machinery, transportation equipment, chemicals, miscellaneous manufacturing, and electrical equipment.

2.2. Trends in California Foreign Direct Investment

California has more workers employed in foreign-owned firms than any state and hosts the highest level of foreign ownership of property, plant, and equipment compared to all other states. In 1999, the most recent year of available data, 638,800 employees worked in foreign-owned firms in California. In the United States as a whole, about 6 million employees worked in foreign-owned firms, with the California share amounting to 10.6 percent. California has had the highest level of employment in foreign-owned firms since at least 1977, the first year of available data. Employment in foreign-owned firms amounted to about 4.6 percent of California's total employment, as compared to 4.7 percent in the rest of the country.

As with total employment in foreign-owned firms, California has the highest level of manufacturing employment in foreign-owned firms. In 1999, manufacturing employees in foreign-owned firms totaled 199,000, or 31.2 percent of all employees in foreign-owned firms in California. These 199,000 workers accounted for 8.9 percent of all manufacturing employees in foreign-owned firms in the United States. Manufacturing employees in foreign-owned firms in California totaled 10.4 percent of all California manufacturing employees in 1999, whereas the comparable figure was 12.3 percent for all other states combined.

Along with employment, foreign affiliates own more property, plant, and equipment (PPE) in California than in any other state. Much of that is in the form of commercial property. In 1999, total PPE owned by foreign-owned firms measured \$115.6 billion, of which almost \$35.0 billion was commercial property. Those totals are 10.8 percent and 19.3 percent of the U.S. totals, respectively.

Although official 2001 data are not available, FDI in California likely has grown significantly since 1999, as FDI in the United States grew markedly in 2000. In 1999, the direct investment position of foreign investors in the United States totaled \$956 billion, and in 2000, this total increased to more than \$1.2 trillion, a 27 percent increase. The rise was much smaller between 2000 and 2001, with a total direct investment position of a bit more than \$1.3 trillion in 2001, an increase of about 9 percent. (For a more detailed explanation of foreign direct investment data, see Box 2, "What Do State Foreign Direct Investment Data Tell Us?")

If the direct investment position in California increased at the same pace as the direct investment position in the United States as a whole, and if the employment level is closely correlated with direct investment position, then an estimated total for employment in foreign-owned companies in the state would be 813,000 in 2000 and 892,000 in 2001. These totals mean employment in foreign-owned companies would have amounted to 5.6 percent of California non-farm employment in 2000 and 6.1 percent in 2001, significant increases from 1999.⁴

⁴ These numbers will be reasonable estimates under three conditions: (1) the California share of PPE owned by foreign affiliates in the United States stayed steady from 1999 to 2001, (2), the ratio of employees to PPE in California stayed steady from 1999 to 2001, and (3), direct investment position and PPE are highly correlated. In 1999, the simple correlation coefficient of DIP and PPE for 66 countries investing in the United States was 0.97.

Box 2. What Do State Foreign Direct Investment Data Tell Us?

Foreign direct investment (FDI) in the United States is defined as ownership or control by one foreign person or entity of at least 10 percent of a U.S. business. This U.S. business is known as an affiliate. FDI contrasts with foreign portfolio investment, which is foreign investment into U.S. stock or bond markets or investment into companies at less than a 10 percent ownership level.

The U.S. Bureau of Economic Analysis, the agency in charge of FDI statistics, does not actually report FDI at the state level. Rather, it reports data on the operations of foreign affiliates in each state. These operational data include employees, manufacturing employees, ownership of property, plant, and equipment, and ownership of commercial property.

It reports these data based on broad industry categories and by country of the ultimate beneficial owner (UBO). The country of the UBO may be different from the country of the immediate owner. Specifically, the UBO is the entity, proceeding up the ownership chain, that is not owned more than 50 percent by any other entity. Therefore, if a U.S. company owns an affiliate in the Netherlands, and the Dutch affiliate builds a plant in California, the immediate owner would be the Dutch company, but the UBO would be the American company. In California in 1999, 1.3 percent of all workers in foreign affiliates worked in affiliates whose UBO was an American company, and these affiliates owned 6.3 percent of all PPE owned by foreign affiliates in California.

For most states, the BEA reports data only on major regions and eight countries. However, through a standing arrangement with the state's Technology, Trade and Commerce Agency, the BEA releases California data on a much wider set of countries and industries. It has this arrangement with only one other state, Florida.

For the nation as a whole, the BEA reports operating data on foreign affiliates and actual flows of direct investment. Specifically, these flows are the value of equity investment in foreign affiliates, loans from the foreign parent to the foreign affiliate, and the retained earnings of the foreign affiliate. The cumulation of these flows is known as the direct investment position, and this report uses direct investment position to estimate operating data for 2001.

We assume that the ratio of PPE to direct investment position is about constant, as is the ratio of employment to PPE. We have all three variables for 1999, but only direct investment position for 2001. Using the 1999 ratios, we can back out 2001 estimated PPE and employment on a nationwide basis. Assuming that California employment relative to national employment is about constant between 1999 and 2001, we can back out estimated 2001 California employment in foreign affiliates. Many of these assumptions are not as strongly supported as might be hoped, so the 2001 estimates should be treated as very rough.

Sources: "Foreign Direct Investment in the United States: Description of Data," U.S. Department of Commerce, Bureau of Economic Analysis, August 7, 2001, <http://www.bea.doc.gov/bea/di/fddscript.htm>, personal communication with the BEA, and other information.

FDI by Region

Of California's big three export markets, only Japan is a big investor in California. Canada ranks number four and Mexico is barely on the charts. Of the top ten investors in California, European nations make up the majority, with the United Kingdom and Germany taking the number two and three slots. This pattern has not changed significantly in recent years and seems unlikely to change in the near future.

Table 2.7
Foreign Direct Investment in California by Region and Country, 1999

Region or Country	Employment	Manufacturing Employment	Property, Plant, and Equipment	Commercial Property
	Thousands		Millions of Dollars	
All Countries	638.8	199.3	115,630	34,963
Regions				
Europe	336.3	102.6	57,406	11,192
Asia Pacific	192.8	73.4	43,693	17,262
NAFTA*	71.2	17.8	10,561	4,723
Latin America	32.5	9.6	3,032	1,008
Middle East	3.5	0.5	1,234	1,005
Africa	1.4	0.1	154	14
Countries				
Japan	151.3	61.5	32,847	11,494
United Kingdom	93.0	39.2	13,298	2,349
Germany	67.1	18.0	10,467	2,435
Canada	63.7	12.7	9,385	4,335
Switzerland	53.8	12.5	4,264	406
France	47.0	13.3	7,209	1,731
Netherlands	36.4	8.9	18,533	3,155
Australia	12.8	4.8	3,769	--
Taiwan	8.1	--	1,379	--
Korea	7.7	--	2,228	--
Mexico	7.5	--	--	--
Hong Kong	5.4	--	1,808	--
Singapore	3.0	--	717	--
China	0.6	--	83	--
Malaysia	0.5	--	299	--
Philippines	0.5	--	83	--
Addendum: Estimates for 2001				
	Employment		Property, Plant, and Equipment	
All Countries	892.4		153,000	

Sources: U.S. Bureau of Economic Analysis and California Technology, Trade, and Commerce Agency. Mexico employment is an estimate, and actual employment is between 5,000 and 9,999.

*Figures for NAFTA are authors' estimates.

Europe

Europe is by far the largest source of FDI in California. In 1999, nearly 53 percent of all people in California who worked for a foreign-owned firm worked for a European-owned firm. European ownership applied to a bit less than half of all foreign-owned PPE, implying European-owned firms are slightly more labor-intensive than other firms. Europe's share of greater than 50 percent employment suggests that Europe is becoming a more prominent investor in California. Between 1977 and 1985, Europe's share of employment in foreign-owned firms ranged from 56 percent to more than 60 percent, but fell to as low as 48 percent in 1997, due to a rise in investment from other countries rather than an absolute decrease in investment from Europe. This share and the absolute level of employment increased in both 1998 and 1999. Europe's share of PPE actually fell from more than 68 percent in 1979 to a low of 39 percent in 1997, but has risen in the two years since then.

About 40 percent of European PPE is in manufacturing, compared to about 33 percent for all other foreign investors. The largest manufacturing sector for European investment is chemicals. European investment is also stronger than the state average in finance.

Using the estimates for 2001 described above, Europe's prominence has increased in 2000 and 2001. These estimates indicate employment of almost 498,000 workers in 2001, or almost 56 percent of the total.

Asia Pacific

Asian Pacific countries are second to Europe in investment activity in California. As a share of total employment in foreign-owned firms, employment in California at Asian-owned firms peaked in 1992 at more than 36 percent. It fell to 30 percent in 1999. Asian-owned firms in California employ a higher proportion of manufacturing workers, at 36 percent, and own a much higher share of commercial property, at 49 percent. In fact, Asian-owned firms in California hold more commercial property than firms from any other region.

In terms of PPE, Asian-owned firms are particularly strong in computers and electronic products, wholesale trade, and real estate. Almost three-quarters of all foreign-owned computer and electronics product industry PPE in California is owned by Asian firms, and the share rises above 90 percent for the subgroup of computer and peripheral equipment.

The Asia-Pacific investment position in the United States rose in 2000 but fell between 2000 and 2001. Based on these changes, the position in California has probably decreased since 1999. The estimates discussed above

indicate employment of 213,000 in businesses owned by investors from the Asia-Pacific region, or 24 percent of all employees in foreign-owned firms.

NAFTA

Firms owned by investors from the NAFTA countries employed 71,200 Californians in 1999, about 11 percent of all workers in foreign firms. Of these employees, about 10.5 percent worked in Mexican firms, an increase from 8.8 percent in 1998.⁵ This portion is far higher than in the United States as a whole, where the comparable figure is 4.8 percent. Employment in Mexican-owned firms has doubled from 3,700 to about 7,500

Canada's FDI in California far surpasses that of Mexico. In 1977, more than 15 percent of all workers in foreign-owned affiliates in California worked in Canadian affiliates. That portion fell to a low of less than 7 percent in 1992 but has since risen to about 10 percent, where it now stands. Actual employment in Canadian-owned firms is now about the same as it was in 1990.

Between 1999 and 2001, the direct investment position of the two NAFTA partners in the United States increased less than did overall direct investment in the United States (25 percent versus 38 percent). However, this smaller increase was due mostly to Canada. Mexico's direct investment position skyrocketed from \$2.0 billion to \$7.8 billion between 1999 and 2000 before falling slightly to \$7.4 billion in 2001. This pattern left Mexico with a 6.4 percent share of the value of NAFTA direct investment in the United States compared to 2.2 percent in 1999. These figures imply total employment of 104,000 workers in California companies owned by Mexican and Canadian investors in 2001, of which more than 25,000 were in Mexican companies. This estimate is probably an overstatement, but given Mexican investment trends in the United States, it is likely that employment in Mexican-owned firms in California has risen substantially. Latin America (excluding Mexico), Middle East, and Africa

FDI from Latin America, the Middle East, and Africa into California represents a very small portion of total FDI, but it has been rising recently. In 1999, about 4.7 percent of all workers in foreign-owned affiliates in California worked in affiliates owned by companies from these three regions. Employment rose from 12,800 in 1991 to 25,000 in 1999 in Latin American-owned firms, from 1,100 to 3,500 in Middle Eastern-owned firms, and from less than 1,000 to about 1,400 for African-owned firms. Given national investment trends for firms from the three regions, employment in California likely rose slightly, to 27,000 or more in 2001.

⁵ Employment for Mexico is an estimate. Actual employment ranged between 5,000 and 9,999. Actual employment in 1998 totaled 6,500.

FDI by Industry

Manufacturing Versus Non-Manufacturing Investment

By far the largest share of foreign activity in California takes place in non-manufacturing industries (Table 2.8). In fact, California has seen a steady erosion of relative employment in foreign-owned manufacturing since the late 1970s. In 1979, the peak year, almost 57 percent of all California workers in foreign-owned businesses worked in manufacturing. That figure had fallen to about 35 percent by 1999.⁶ This decline mirrors trends in the United States as a whole, but the drop-off has been steeper for California. In 1979, more than 57 percent of all U.S. workers in foreign-owned businesses worked in manufacturing. By 1999, that figure had fallen to between 43 and 44 percent. Interestingly, the period 1997-1999 saw a slight reversal of this trend. Employment in manufacturing foreign affiliates in California rose 16.6 percent in that period, whereas in non-manufacturing foreign affiliates it rose 9.9 percent. For the United States as a whole, those figures were 17.5 and 15.3 percent, respectively.

In California, computer and electronics firms, which employed 9.3 percent of all workers in foreign-owned firms in 1999 and more than one-quarter of all workers in foreign-owned manufacturing. A close second for all sub-sectors was administration and support facilities (8.4 percent of all workers in foreign-owned firms) followed by hotels and restaurants (7.6 percent).

Because of changes in classification systems, it is difficult to estimate total manufacturing FDI in California in 2001. For the United States as a whole, the direct investment position in manufacturing grew 32 percent between 1999 and 2001, while that in non-manufacturing grew 42.4 percent. Given California's comparative advantage in non-manufacturing industries, the gap between manufacturing and non-manufacturing probably widened.

⁶ This figure represents employees in manufacturing firms—not all of who are manufacturing employees—as opposed to the figures for manufacturing employees discussed in previous sections.

Table 2.8
FDI in California by Industry, 1999

Industry	Employment	Property, Plant, and Equipment	Commercial Property
	Thousands	Billions of Dollars	
All Industries	638.8	115.6	34.9
Manufacturing	224.2	37.6	2.0
Non-Manufacturing	414.6	78.0	33.0
<i>Of which:</i>			
Miscellaneous Non-Manufacturing	166.0	18.0	4.8
Wholesale Trade	93.1	14.7	2.1
Information	50.8	11.6	2.5
Retail	50.0	3.0	2.0
Finance, Insurance and Real Estate	31.5	6.8	1.4
Professional, Scientific, and Technical	15.4	1.1	0.2
Services			
Real Estate	7.8	22,768	20,002

Notes: Miscellaneous non-manufacturing includes agriculture, mining, utilities, construction, transportation and warehousing, and other; information includes publishing, motion picture and sound recording, broadcasting and telecommunications, information services and data processing; finance, insurance, and real estate excludes banking.

Californians in Foreign-Owned Non-Manufacturing Businesses

Nearly two-thirds of all workers in foreign-owned businesses in California were in non-manufacturing industries in 1999, and that share has probably risen. Table 2.9 shows total employment in foreign-owned businesses by industry for non-manufacturing industries in 1999.

Table 2.9
Employment in Foreign-Owned Non-Manufacturing Companies, 1999

Industry	Employees (thousands)	Percent of Total
Agriculture, Mining, Construction, Transportation	166,000	40.0
Wholesale Trade	93,100	22.5
Information Industries	50,800	12.3
Retail Trade	50,000	12.1
Finance and Insurance (except Banking)	31,500	7.6
Professional, Scientific, and Technical Services	15,400	3.7
Real Estate	7,800	1.9
Total	414,600	100.0

Nearly 40 percent of total employment in foreign-owned non-manufacturing industries is in a broad group that includes agriculture, mining, utilities, construction, transportation and warehousing, and miscellaneous services. Administration facilities and hotels and restaurants,

are also included in this category. The next most important industries for foreign ownership are wholesale trade and information industries, the latter of which includes publishing, motion pictures and sound recording, broadcasting and telecommunications, and information services and data processing. Of these non-manufacturing industries, finance and information industries have grown the fastest in recent years. Finance grew 44.5 percent in employment between 1997 and 1999, and information grew 21.0 percent.

3. Trade Agreements

Countries throughout the world appear to have accelerated their efforts at negotiating trade agreements. Fifty years ago, the General Agreement on Tariffs and Trade (GATT) was virtually the only trade liberalization agreement in force. Now, a complex web of bilateral, regional, and multilateral agreements governs global commerce. The United States, though somewhat late in negotiating bilateral and regional agreements, has embarked on those negotiations with a vengeance. The Bush administration has floated ideas for bilateral and regional trade agreements with countries in Latin America, Africa, and Asia. Despite these plans, the most important agreements remain those negotiated on a world-wide basis, now under the auspices of the World Trade Organization, and the NAFTA. In what follows, we review existing trade agreements and discuss possible future agreements.

3.1. Review of Existing Trade Agreements

NAFTA

The North American Free Trade Agreement came into force on January 1, 1994. The principal innovation of the NAFTA was to bring Mexico into the free trade area then comprised of only the United States and Canada. Immediately upon NAFTA's entry into force, many U.S. exports became eligible for duty-free treatment in Mexico. All remaining tariffs were scheduled for elimination, with either five-, ten-, or 15-year phase-out periods. Since 1994, there have been three joint sessions at which the tariff phase-out schedule has been accelerated. Other important features of the agreement include strict rules on non-tariff barriers, such as technical barriers to trade, the opening of government procurement processes to firms in all three countries. The agreement also addresses issues surrounding FDI, trade in services, border crossing for business people, and intellectual property rights.

NAFTA's aggregate effect on California's exports is unclear. The data suggest an increased rate of growth in exporting by California firms to Mexico and Canada, but not a very significant change. In the five years prior to the entry into force of NAFTA, California's exports grew at an average annual rate of 19.2 percent per year. In the seven years following, California's exports grew slightly faster at 20.0 percent per year. In the years after NAFTA, California's exports to Mexico grew at a rate more than seven percentage points faster than in the years prior. At the same time, exports to Canada slowed by an average of almost five percentage points in each year. The extent to which this growth is entirely due to the NAFTA and would not have otherwise occurred is not clear.

Although California's trade with Mexico has expanded dramatically in the years since NAFTA was put in place, the expansion has not been uniform across industries. California's two major export industries (electronic and electric equipment and industrial machinery and equipment) both expanded sharply in the post-NAFTA years. The average annual growth rate in the years since 1994 was almost double that of the pre-NAFTA years, in excess of 34 percent in each case. Other important export sectors have seen their exports grow more slowly in the last seven years. Transportation equipment, in particular, has been growing at 15 percent per year, a rate that is less than half of its pre-NAFTA growth rate of 31 percent.

Although not a panacea for all industries, NAFTA has also provided security to both California exporters and investors pursuing direct investment opportunities in Mexico. On the export side, the Mexican government during the 1980s pursued a broad policy of unilateral liberalization. It was often argued that NAFTA was a way for Mexico to lock in that liberalization. The Mexican currency crisis of the mid-1990s was surely the first significant test of this lock-in. Although it is highly likely that the liberalizations of the 1980s would have been undone without NAFTA, Mexico under NAFTA remains more open than it has been at any time in the last 50 years.

Investors, now have opportunities that were previously unavailable and a mechanism for settling disputes in the event of a government expropriation. The agreement also ensures that U.S. investors in Mexico are treated the same as domestic firms; in particular, NAFTA entitles them to the right to repatriate profits and capital, the right to fair compensation in the event of expropriation, and the right to international arbitration in disputes between investor and government that involve monetary damages. Despite this more attractive investment landscape, the investment position of U.S. firms in Mexico has grown no more quickly than it has in other parts of the world. In the post-NAFTA years, the direct investment position of the U.S. investors has more than doubled in both Mexico and the rest of the world.

Other provisions of the agreement are less important, but still worthy of note. The NAFTA expands the principles governing services trade and liberalizes trade in services broadly, though not exhaustively. In particular, aviation transport, maritime, and basic telecommunications industries are not covered. The agreement includes provisions strengthening intellectual property provisions in Mexico and opens government procurement to bidders from the United States.

The Uruguay Round of Multilateral Trade Negotiations

The WTO is the successor to the GATT, which has been the primary forum for broad trade liberalization since the late 1940s. Through successive negotiating rounds, signatories to the GATT lowered tariffs on a large number of goods and started introducing measures to lower non-tariff barriers. In early 2002, the WTO had 144 members and 32 observer nations.

The Uruguay Round, completed in April 1994, revolutionized the governance of world trade by creating the WTO and by putting a number of new areas of economic exchange under international governance. These included services trade, trade-related investment measures, and intellectual property rights. The Uruguay Round Agreements entered into force for the United States in 1995.

In addition to lowering tariffs on manufactured products, the Uruguay Round Agreements made modest progress on reducing subsidies and border restrictions for agricultural goods, included a new subsidies code, and contained a “phase-out” agreement for the Multifibre Arrangement (MFA). The MFA governed a great deal of trade in textiles and apparel from 1974 but was replaced by the UR Agreement on Textiles and Clothing in 1995. The new agreement calls for an end to bilateral regulation of apparel trade and the end of quotas. Table 3.1 lists the main results of the Uruguay Round Agreements.

Table 3.1
Important Results of the Uruguay Round

Tariffs	<p>Trade with developed countries: Reduced tariffs by 40 percent (from an average of 6.3 percent down to 3.8 percent) Eliminated imports duties and other charges on information technology products (only 40 countries are part of this agreement, but these countries account for more than 92 percent of world trade in this sector) Increased the value of imports that receive duty-free-treatment Reduced the proportion of products that are charged tariffs above 15 percent, from 7 percent to 5 percent Increased the number of imports whose tariff rates are bound, from 78 percent to 99 percent, creating an upper limit (and thus more certainty) to these tariffs</p> <p>Trade with developing countries: Reduced the proportion of products that are charged tariff above 15.0 percent, from 9 percent of products to 5 percent Increased the number of imports whose tariff rates are bound, from 78 percent to 99 percent</p>
Agriculture	<p>Converted non-tariff restrictions into tariffs, a process known as tariffication Bound tariffs on all agricultural products Stipulated the reduction of tariffs an average of 36 percent by developed countries over six years, and 24 percent by developing countries over 10 years Eliminated bans on certain agricultural products Reduced export subsidies by 36 percent, from \$22.5 billion to \$14.5 billion, and reduces domestic subsidies by 18 percent, from \$197 billion to \$162 billion</p>
Intellectual Property	<p>The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) establishes uniformity in the guidelines for protecting intellectual property: Granted computer programs the same protection as literary works Outlined how databases should be protected Expanded international copyright rules to cover rental rights (i.e., authors of computer programs and producers of sound recordings have the right to prohibit the commercial rental of their works) Granted producers the right to prevent unauthorized reproduction of their recordings for up to 50 years Established uniform trademark protection Developed protections for industrial designs and integrated circuit designs for 10 years Set patent duration at 20 years Established protection of trade secrets</p>

Source: World Trade Organization, "Trading Into The Future," March 2001; World Trade Organization Web Site, and *California's Vested Interest in U.S. Trade Liberalization Initiatives*, by Jon D. Haveman, San Francisco: Public Policy Institute of California, 2001.

The Uruguay Round results are sufficiently broad and complex that assessing the benefits to California will not be possible for some time, if ever. However, about three-fifths of the tariff reductions affecting California exporters during the 1990s are not directly attributable to other liberalizing agreements. This aspect of the agreement places an upper bound on the tariff-reducing effect of the Uruguay Round Agreements on California's

exports. As tariffs fell by approximately 45 percent between 1993 and 1998, the Uruguay Round may have been responsible for a decline of 27 percent in terms of the tariffs faced by California exporters. These figures are for manufacturing industries only. The changes in barriers against trade in agricultural commodities and services are much too complex to be represented as simply as for manufacturing. Our conservative estimate is that this decline was responsible for an increase in California exports of approximately \$10 billion, or somewhere in the neighborhood of a 10 percent increase in California exports.

Information Technology Agreement

In 1996, 43 countries signed onto the Information Technology Agreement (ITA). The ITA liberalizes trade in sectors such as semiconductors, telecommunications equipment, computers and computer equipment, and software. Member countries committed to the elimination of barriers to trade in these goods by 2000, although some countries were granted extended phase-out periods. These countries combined account for 90 percent of this half-trillion-dollar market. Subsequent negotiations were to have taken place towards an ITA-II in the latter half of the 1990s but never materialized. Nonetheless, this liberalization is of great significance to California as these products make up an important part of California imports and exports. Information technology products, sometimes called “enablers,” are critical components to the production of other products, many of which are produced in California.

In 1997, the first year of implementation for the ITA, U.S. exports of products covered by the agreement accounted for 14 percent of all U.S. exports, or \$96 billion. Unfortunately, the state export data are not sufficiently disaggregated to produce a corresponding figure. We can, however, estimate that of California’s exports in 1997, 30 percent, or more than \$30 billion, were covered by the ITA. By 2001, we estimate that over \$35 billion, or 33.5 percent, of California’s exports were covered by the ITA. The small increase in exports of these products as a percentage of California’s exports may reflect either the fact that barriers to trade in these goods were relatively low to begin with or the downturn in the high-technology export market. As evidence of the latter possibility, California’s ITA exports accounted for 38 percent of total exports in 2000, a share that is significantly higher than the corresponding 2001 figure.

Free Trade Agreements with Israel and Jordan

The United States is currently a party to two free trade agreements outside of the NAFTA. These are with Israel and Jordan. The United States-Israel Free Trade Agreement was implemented on September 1, 1985 and called for the phased elimination of duties on all products by January 1,

1995. Currently, Israel's agricultural sector is the only sector for which substantial barriers remain. Quantitative or non-tariff measures are permitted on the basis of agricultural policy or religious grounds. Nonetheless, tariffs remain in many agricultural sectors and are sometimes quite high.

As of 2001, Israel ranked 22nd on the list of California's trading partners. At the end of the second quarter of this year, that ranking was unchanged. Trade with Israel in 2001 amounted to just over \$800 million, down from just over \$1 billion in 2000. Major exports to Israel include computer and electronic products, electrical and non-electrical machinery, and agricultural products. Exports of agricultural products amounted to \$31 million in 2001.

The United States-Jordan Free Trade Agreement was implemented on December 17, 2001. As such, it is much too early to see any benefits in terms of expanded California exports. It is also the case that Jordan ranked 66th on the list of California's trading partners at the end of 2001, with exports of just over \$32 million. As of the end of the second quarter of 2002, however, California exports to Jordan doubled those of 2001, amounting to over \$30 million. Computer and electronic goods, agricultural products, and food and kindred products make up the bulk of California's exports to Jordan.

Effect of China's Entry in the WTO

After years of negotiations, China became a full member of the WTO on December 11, 2001. The China agreement opened the way for Taiwan as well, which became a member on January 1, 2002. In 2001, Taiwan was California's fourth-leading export destination, behind only Mexico, Japan, and Canada. China was seventh. Both countries held those same rankings through the second quarter of 2002. Although overall California exports through the second quarter of 2002 fell 19.6 percent relative to the same period in 2001, they fell much less for both trading partners—10.3 percent for Taiwan and 4.2 percent for China. California's 2001 exports to Taiwan were \$5.7 billion, and those to China were \$4.7 billion.

Although Taiwan is the larger trading partner, trade with China is growing quickly. Between 1997 and 2001, California exports to Taiwan stayed about constant, while exports to China grew more than 23 percent annually. In addition, China is by far the larger country—2001 GDP of \$1,159 billion versus \$281 billion for Taiwan—and growing rapidly.

Because of China's size and the nature of its government, predicting the effect of China's WTO entry on California is beyond the scope of this report. It is important to note that WTO entry will mean both lower barriers to California exports to China and lower barriers to Chinese exports to

California. Key aspects of China's accession include commitments to liberalize trade in industrial and agricultural goods and services, and reforms to promote transparency and fairness in business dealings. The actual trade patterns resulting from accession will depend on the continued growth of the Chinese market, China's willingness to honor its commitments, the willingness of trade partners such as the United States to pursue compliance, and production patterns within China. This last factor will be heavily influenced by FDI flows. Insofar as accession makes China a more inviting site for foreign-owned production, WTO membership could result in steep increases in Chinese exports along with the hoped-for increases in Chinese imports.

3.2. Survey of Future Agreements

The United States will see a flurry of efforts at new trade agreements in the next few years. The stated policy of the Bush administration is to create a "competition in liberalization," in which the U.S. negotiates trade agreements at the global, regional, and bilateral levels.⁷ The approval of Trade Promotion Authority in August gave a boost to this plan.

The administration is currently negotiating the Doha Round of multilateral trade liberalization within the World Trade Organization, the Free Trade Area of the Americas, and free trade agreements with Singapore and Chile. In October, the U.S. Trade Representative (USTR) notified Congress of its intent to negotiate free trade agreements with the five members of the Central American Economic Integration System (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) and with Morocco. Also in October, the U.S. International Trade Commission completed a report on the economic effects of a free trade agreement with Taiwan, as requested by the U.S. Senate Finance Committee. At the APEC summit in Los Cabos, Mexico at the end of October, President Bush announced an "Enterprise for ASEAN Initiative," which will include bilateral free trade agreements with members of ASEAN (Association of Southeast Asian Nations).⁸ Finally, in November, the USTR notified Congress of an intent to negotiate a free trade agreement with the Southern African Customs Union (Botswana, Lesotho, Namibia, South Africa, and Swaziland) and then with Australia.

⁷ "2002 Trade Policy Agenda," Washington, D.C.: Office of the United States Trade Representative, p. 1, <http://www.ustr.gov>.

⁸ ASEAN members include Brunei Darussalam, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam. Of these countries, Singapore was the 10th largest California export partner in 2001, Malaysia was number 12, Philippines was number 15, Thailand was number 16, Indonesia was number 26, Vietnam was number 52, Brunei was number 58, Cambodia was number 105, Laos was number 148, and Burma was number 163.

For California, the more important agreements will be those stemming from the Doha Round. California trades little with Latin American countries, except Mexico, and though it trades a great deal with ASEAN nations, the separate bilateral agreements will proceed at different speeds and may introduce a complicated array of rules of origin and other trade rules that may cut into possible benefits.

The Doha Agenda

In November 2001, the members of the WTO agreed to start a new round of multilateral trade negotiations. Since it was launched in Doha, Qatar, it has been dubbed the Doha Round of negotiations and is scheduled for completion by January 1, 2005, an extremely ambitious deadline. As these agreements have become more complex, it is extremely difficult to judge their effects. In general, however, they have led to dramatic reductions in tariffs worldwide, increased market access, and an expansion of world trade. We will highlight those parts of the negotiating program that are particularly relevant for California.

Agriculture is an important subject of the negotiations, which are aimed at improving market access, reducing and eventually phasing out export subsidies, and reducing trade-distorting domestic subsidies. In July 2002, the United States presented a proposal that would lower all agricultural tariffs to 25 percent or less, decreasing the global average from 62 percent to 15 percent. The proposal would cap all trade-distorting subsidies at 5 percent of the value of a country's agricultural production, which would reduce global agricultural subsidies by more than \$100 billion. Because a large portion of California agriculture is unsubsidized, any reduction in global subsidies should help the state's agricultural competitiveness.

At least two goals in the area of intellectual property may be of interest to the state. Responding to the threat of HIV/AIDS, the ministers called for the implementation and interpretation of the WTO's Agreement on Trade-Related Aspects of Intellectual Property (the TRIPS Agreement) to promote access to existing medicines. They also called on developed member countries to provide incentives for technology transfer to least-developed countries.⁹ The other goal of interest to California is the establishment of a multilateral system of notification and registration of geographical indications for wines and other alcohol. This measure is to take place by the WTO's fifth ministerial meeting, to be held in Cancun Mexico, in September 2003.

⁹ "Declaration on the TRIPS Agreement and Public Health," Geneva: World Trade Organization, November 20, 2001, WT/MIN(01)/DEC/2.

Another area to be negotiated is trade and the environment. A major goal in this area is the reduction or elimination of tariffs and other barriers on trade in environmental goods and services, a California strength. Other topics to be negotiated include coordination between the WTO and the multilateral environmental agreements and the effect of environmental measures on market access, with specific attention to the exports of poor countries.

The WTO work program also includes measures about electronic commerce. Specifically, it calls for a trade framework conducive to the development of electronic commerce and commits members to duty-free access to all electronic transmissions at least until the fifth ministerial in 2003.

The ability to meet these goals is not certain. As such, we hesitate to speculate in any concrete way on the benefits to California. We can assert, however, that if this round is as successful as recent rounds have been, California stands to gain significantly.

Free Trade Area of the Americas

On November 1, 2002, trade ministers of the 34 Western Hemisphere nations negotiating the Free Trade Area of the Americas met in Quito, Ecuador in the seventh trade ministerial regarding the FTAA. At this meeting, the United States and Brazil assumed co-chairmanship of the process through its projected completion in 2005.

At first glance, the proposed FTAA would appear to be very important to California. The 33 Western Hemisphere nations (only Cuba is excluded) negotiating with the United States absorbed more than 29 percent of California exports in 2001. However, those nations include Mexico and Canada, California's first- and third-leading export destinations, and the United States already has free trade agreements with those two countries. The 31 other proposed members of the FTAA absorbed \$3.1 billion worth of California exports in 2001, only 2.9 percent of the total. This judgment depends on the accuracy of the state export data, but even if it were off by half, exports to all of the rest of the western hemisphere would still be smaller than the combined exports to Taiwan and China, for example.

The participating countries are currently engaged in market access negotiations regarding agriculture, industrial goods, services, investment, and government procurement. Other areas under negotiation include intellectual property, subsidies, dumping, and countervailing duties,

competition policy, dispute settlement, electronic-commerce, and interactions with civil society.¹⁰

Key results of the Quito meeting include:

- The agreement of all countries to submit market access offers by February 15, 2003, and revised offers by July 15. Offers will proceed from current tariff rates rather than from the higher tariff rates that countries are allowed to levy under their WTO commitments.
- The launch of a Hemispheric Cooperation Program (HCP) to build trade capacity in small and developing countries.
- The release of the second draft of the proposed text of the FTAA.

The next ministerial meeting will take place in Miami in 2003, with the following meeting set for Brazil in 2004.

The biggest wildcard in the negotiations has been thought to be disagreements between the United States and Brazil, as Brazil has been at odds with the United States over which trade should be freed—particularly regarding agriculture—and because during the recent presidential campaign, winning candidate Luiz Inacio Lula da Silva and his Workers Party took a dim view of the FTAA. However, party officials recently signaled that they planned to negotiate seriously with the aim of lowering U.S. barriers to products in which Latin America specializes.¹¹

A key issue in the Brazil-United States exchanges will be agriculture. In granting the Bush Administration trade promotion authority in August, Congress required special consultations on so-called import-sensitive products, in particular agricultural goods. Brazil is a major producer of sugar, oranges, orange juice, soybeans, and other agricultural products that face high barriers that the United States is reluctant to remove. It is not clear how much of a problem this issue will cause. During a September 2002 press briefing, Deputy U.S. Trade Representative Peter Allgeier said that the 34 countries had agreed that nothing would be excluded from negotiations. However, to include such items with Congress' approval, the USTR will have to demonstrate that reducing barriers will have sufficient benefits for the United States. Furthermore, this will be more likely if trading partners reduce their own barriers significantly. In addition, progress on agriculture

¹⁰ "Trade Facts: Free Trade in the Americas: To Quito and Beyond," Washington, D.C.: Office of the United States Trade Representative, undated.

¹¹ "Lula's party backs free trade area talks," by Raymond Colitt in São Paulo, *Financial Times*, November 7, 2002.

in the FTAA negotiations will depend on progress on agriculture in the Doha Round negotiations, as the United States is reluctant to change its own agricultural policies without changes in the policies of Europe and Japan, both of which intervene heavily in agricultural markets.

Pending Bilateral Agreements

The Bush administration is actively pursuing bilateral trade agreements, broadly similar in nature to the NAFTA. Including the ten ASEAN members, no fewer than 22 countries have been named as potential partners to these agreements. Although similar in nature, they are not similar in order of magnitude. With the exception of Taiwan and Australia, none of the potential partners are strong economic partners for the United States. Many, however, are politically strategic.

At their core, the agreements are likely to be very similar, with the following as important goals in most of the negotiations:

- Eliminating tariffs on a broad basis,
- Reforming policies that might affect perishable agricultural products or those agricultural products whose production follows a definite cycle,¹²
- Improving intellectual property protection,
- Strengthening protections for foreign investors, and
- Ensuring that partners allow goods and services to be delivered electronically and that they will not apply customs duties to or discriminate against digital products.

In the rest of this section, we provide additional details on each agreement and possible implications for California.

Singapore-U.S. Free Trade Agreement

Negotiations for a Singapore FTA started under the Clinton administration. The Singapore FTA is now viewed by the Bush administration as a possible “model for the Asia-Pacific region, encouraging trade liberalization, regulatory reform and transparency.”¹³ The agreement is almost finished, and a draft environmental review is open for public comment.

¹² The terminology is “perishable or cyclical agricultural products.”

¹³ Letter from USTR Robert Zoellick to J. Dennis Hastert, speaker of the U.S. House of Representatives, October 1, 2002.

California exports to Singapore in 2001 were more than \$4.2 billion, or almost 4 percent of all California exports, placing Singapore as the state's tenth-largest export destination.

The main goals of the proposed Singapore-U.S. treaty that have particular relevance for California include those listed above. The intellectual-property goal for the Singapore agreement includes enhancements for new technologies beyond Singapore's commitments in the TRIPS Agreement. However, tariff liberalization plays a much smaller role in U.S.-Singapore trade than in trade with other countries, as Singapore does not impose tariffs on imported products.

Chile-U.S. Free Trade Agreement

The Chile FTA, now being negotiated, is a good example of the administration's drive for competitive liberalization. In an October 1, 2002 letter to the Congress, USTR Robert Zoellick outlined a number of reasons for pursuing a Chile-U.S. FTA, including assisting "U.S. efforts to create competition among countries for liberalization in the Western Hemisphere, thus furthering our efforts to establish a Free Trade Area of the Americas (FTAA)." The treaty is also meant to help Chile lock in its market-oriented economic policies.

The idea of a Chile-U.S. agreement emerged in the first Bush administration. In 1994, the Clinton administration announced an interest in extending NAFTA to Chile, and started negotiations in 2000. Canada and Mexico both negotiated free trade agreements with Chile after the implementation of NAFTA.

California exports to Chile in 2001 were almost \$281 million, or 0.3 percent of all California exports, placing Chile as the state's 30th-largest export destination.

- In addition to those listed above, the main goals of the proposed Chile-U.S. treaty that have particular relevance for California include:
- Garnering Chile's support for a WTO goal of eliminating all export subsidies on agricultural products,
- Seeking the elimination of what the United States considers to be unjustified Chilean sanitary and phyto-sanitary restrictions that have blocked U.S. exports of meat, dairy, poultry, and other agricultural products,

- Enhancing intellectual-property protections for new technologies beyond Chile's TRIPS commitments.

Australia-U.S. Free Trade Agreement

The Australia trade agreement is the latest in a series of planned bilateral trade agreements, with notification sent from the USTR to Congress on November 14. In his letter notifying Congress, USTR Robert Zoellick wrote that the purpose of the agreement would be to increase goods and services trade, foreign investment, and business integration, particularly in the information technology sector, as a means of increasing efficiency and competitiveness in the U.S. economy.

Australia was California's fourteenth-largest export partner in 2001, receiving almost \$2.1 billion worth of exports, or about 2 percent of the total.

Aside from goals listed above, the main U.S. goals for the Australia agreement include:

- Eliminating Australia's government export monopoly for wheat, barley, sugar, and rice,
- Obtaining Australian support for the U.S. position in the WTO negotiations regarding the elimination of agricultural export subsidies while preserving certain U.S. agricultural programs, and
- Raising Australia's intellectual property protection beyond its TRIPS commitments in areas of new technology.

Morocco-U.S. Free Trade Agreement

As with any trade agreement, the proposed Morocco agreement has a political dimension. In his letter to the U.S. House of Representatives, USTR Robert Zoellick noted that the agreement was meant to strengthen "relations with a country that was one of the first to condemn the September 11 terrorist attacks," and that trade liberalization "will support this Administration's commitment to promote more tolerant, open, and prosperous Muslim societies."

California exports to Morocco in 2001 were \$23 million, or 0.02 percent of the total.

The goals that have particular relevance for California include:

- Including Morocco in the WTO Information Technology Agreement,

- Eliminating non-tariff barriers that might affect new U.S. technologies,
- Obtaining Morocco's support for a WTO goal of eliminating all export subsidies on agricultural products, and
- Fully reciprocal access for U.S. textile and apparel products.

Central America-U.S. Free Trade Agreement

The United States currently extends unilateral trade preferences to the five members of the Central American Economic Integration System (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) through the Caribbean Basin Economic Recovery Act and the Caribbean Basin Trade Partnership Act. This proposed FTA is an effort to replace the unilateral preferences with a reciprocal agreement. This is also the direction Europe is moving with its main unilateral preference program, the ACP-EC (Africa, Caribbean, Pacific-European Communities) Partnership Agreement. Like the Chile FTA, the Central American FTA is viewed by the USTR as a way to bring momentum to negotiations for the Free Trade Area of the Americas.

California exports to the five Central American nations were \$428 million in 2001, about 0.4 percent of all California exports. If the five nations were a single nation, they would be California's 27th-largest export destination, behind Indonesia and ahead of New Zealand.

The main goals of the FTA that have particular relevance for California include:

- Eliminating non-tariff barriers that might affect new U.S. technologies,
- Garnering support for the WTO goal of eliminating all export subsidies on agricultural products, and
- Fully reciprocal access for U.S. textile and apparel products.

SACU-U.S. Free Trade Agreement

In choosing the Southern African Customs Union (SACU) as the first partner for a sub-Saharan U.S. trade agreement, the United States will be focusing on its largest sub-Saharan African trade partner. However, the export numbers are tiny, especially for California. In 2001, California's exports to the five members of the SACU—Botswana, Lesotho, Namibia, South Africa, and Swaziland—totaled \$224 million, or about 0.02 percent of

California exports. South Africa received 95 percent of the California exports to SACU.

The proposed SACU agreement fulfills a goal set by Congress in the African Growth and Opportunity Act of 2000, a unilateral preferences act, in which Congress suggested negotiations for free trade with interested African partners. The main goals of the SACU agreement will be to strengthen bilateral commercial ties, reduce high tariffs and restrictive licensing measures, strengthen intellectual property protection, and increase opportunities for services exports.

Taiwan-U.S. Free Trade Agreement

The status of negotiations for a Taiwan-U.S. Free Trade Agreement is uncertain, though Taiwanese officials are very interested in such an agreement. Given the current efforts of the Bush administration towards developing bilateral relationships, it would be surprising if this agreement were not in place in the next several years.

As the negotiations are not yet under way, the administration's priorities have not yet been revealed. It is safe to assume, however, that the core ideas of the previously discussed agreements will play a role here.

California exports to Taiwan in 2001 were more than \$5.7 billion, or just over 5 percent of all California exports, placing Taiwan as the state's fourth-largest export destination.

Although the specific goals of an agreement have yet to be enunciated, the United States International Trade Commission has performed an analysis of a liberalizing agreement that forecasts an increase of U.S. exports to Taiwan of about 16 percent as a result of a free trade area. Significantly for California, much of the increase will come in the electronic equipment and other machinery and equipment sectors. Selected food sectors, including vegetables, fruits, and nuts are also projected to see significant increases.

Future APEC Liberalization

The Asia Pacific Economic Cooperation Forum remains an important arena for the promotion of a free trade agenda and general economic cooperation in the region. However, it seems little used by the member countries as a forum for the actual generation of trade liberalizing initiatives. The original goal of the forum was laid out in Bogor, Indonesia in 1994. At the time, the goal of "free and open trade and investment in the region" by 2010 for developed-country members and by 2020 for the developing-country members was announced. In the early years, feverish negotiations towards

the elimination of tariff and other barriers to trade on a sectoral basis took place. This approach, however, seems to have been dropped in recent years.

In particular, the focus has recently shifted towards the Shanghai Accord of October 2001, in which the leaders of member-states agreed to do many things, none of which include the elimination of formal barriers to trade in goods. The usefulness of APEC as a forum for enacting trade liberalization has recently waned.

The decline of APEC as a significant forum for trade liberalization is of great importance to California. In excess of two-thirds of all California exports are destined for

APEC member-states. Although the United States has already negotiated preferential access to some of these markets and is in the process of negotiating access to many others, there remain significant markets in this region with significant barriers to the importing of U.S. products; Korea and China are arguably the most important of these markets and both are characterized by significant barriers to California's major exports.

3.3. Other U.S. Trade Policies and Initiatives

Besides negotiating trade agreements, the Bush administration has a number of other trade goals that may affect California's economy. For example, it intends to advance Russia's accession to the World Trade Organization. California exports to Russia totaled \$167 million in 2001, or 0.2 percent of all California exports, so it is not anticipated that accession will have immediate large benefits. However, as Russia continues to stabilize its economy and grow, it may prove an important trading partner in the medium- to long-term.

The U.S. government also must respond to a WTO ruling against special U.S. tax laws that benefit exporters (the Foreign Sales Corporation/Extraterritorial Income Act case). Attempts to forge a compromise in Congress have so far not been successful, and doing so will be a major goal for the coming year. Without making U.S. laws WTO-compliant, the EU now has WTO permission to levy \$4 billion worth of retaliatory measures on U.S. exporters. The tax-law changes will have the greatest affect on large exporters: under one plan, these changes may also unfavorably affect foreign affiliates located in the United States. Retaliation could affect anyone, and past patterns indicate that retaliatory measures sometimes affect small exporters who have little to do with the actual dispute.

In March 2002, the Bush administration decided to place extra tariffs on a large number of steel items in an effort to protect the U.S. steel industry so it can become more competitive. The decision, known as a safeguard

action, came after the U.S. International Trade Commission ruled that increases in certain steel imports were a substantial cause of serious injury or represented a threat of serious injury to the domestic steel industry. The decision was widely viewed as going against the administration's stated goals of freer trade, though the administration defended the new tariffs as being fully WTO-compliant. It also appears to have unfavorably affected steel-using industries. The safeguards are meant to be temporary and are slated to last three years.

Although California is a steel producer, it is also a steel consumer. According to the U.S. input-output accounts, the major steel-importing industries include fabricated metal products, machinery, and transportation equipment, all of which are active in California. In the United States except for California in 2000, a bit more than eight workers were employed in the three using industries for every worker in the primary metal manufacturing industries, while a bit less than \$8 in profits and wages were earned in the three using industries for every dollar in the primary metal manufacturing industries (which include steel). In California, in contrast, there were more than 18 workers in the three using industries for every worker in the primary metals manufacturing industries, while the three using industries earned about \$18 in profits and wages for every dollar in profits and wages earned in the primary metal manufacturing industries. Given the state's industrial mix, whatever damage the steel safeguards have caused to consuming industries have probably been magnified in California compared to the rest of the United States.¹⁴

The Trade Act of 2002 (signed August 6) included a number of other trade priorities for the United States that may affect California. In particular, Congress wants to:

- Expand country participation in the Information Technology Agreement and enhance the agreement,
- Ensure worldwide favorable treatment for electronic commerce, and
- Decrease foreign barriers to U.S. agricultural products.

A final policy to watch is the evolution of trade adjustment assistance, a program to aid workers hurt by trade. The Trade Act of 2002 includes new provisions on "wage insurance."¹⁵ Under the trade act, workers over age 50 who

¹⁴ Data on employment, wages, and profits are from *Annual Survey of Manufactures—Geographic Area Statistics: 2000 [M00(AS)-3RV]*, U.S. Census Bureau, September 2002.

¹⁵ One of the first proposals for such assistance was made by Lori G. Kletzer, now at the University of California at Santa Cruz, and Robert E. Litan, director of Economic Studies at the Brookings Institution. See "A Prescription to Relieve Worker Anxiety," *International*

have lost their jobs due to trade will receive half of the difference between their old salary and the salary of a new job they take for two years. Such workers will also get subsidies for their health insurance for two years. The purpose is to provide incentives to return to work while mitigating losses due to trade.

4. Summary

California manufacturers sell a large share of their output abroad, especially manufacturers of technology and capital goods. California farmers depend on foreign sales, with between 15 and 20 percent of their production going abroad. More than the rest of the United States, California relies on Asia as an international business partner.

Recent evidence indicates that the major trade agreements of the 1990s—the North American Free Trade Agreement, the Uruguay Round Agreements, and the Information Technology Agreement—have given a strong boost to California exporters. Although it is difficult to gauge the results of future trade agreements, the United States is focusing on many of the areas in which California specializes, in particular technology goods, electronic commerce, and agriculture.

Key trends and events for California policymakers to consider in the future include:

- *Asian trade barriers.* Trade barriers with California's other leading trade partners—Mexico and Europe—are generally quite low. However, tariff and non-tariff barriers among major Asian trade partners remain quite high.
- *The Bush administration's negotiations on agricultural trade.* Should the administration achieve its goals, there may be a major lowering of both domestic subsidies and export subsidies in agriculture around the world, along with increased market access to agricultural goods.
- *Services exports.* California likely has an advantage in services exports, yet how to develop a program to promote this type of international exchange is far from clear. Nonetheless, services trade is likely to increase in the future.
- *High-technology trade and developments in electronic commerce.* The Bush administration is keying on these industries in its negotiations, and California has significant advantages in both.
- *China.* Though the country represents a promising market, especially in the long-term, many barriers will likely remain that are less than transparent in the near term. Pursuing enforcement of China's liberalization promises will prove a delicate balancing act, as China is sure to actively use dispute settlement mechanisms and other trade policy measures to pursue its own interests.

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