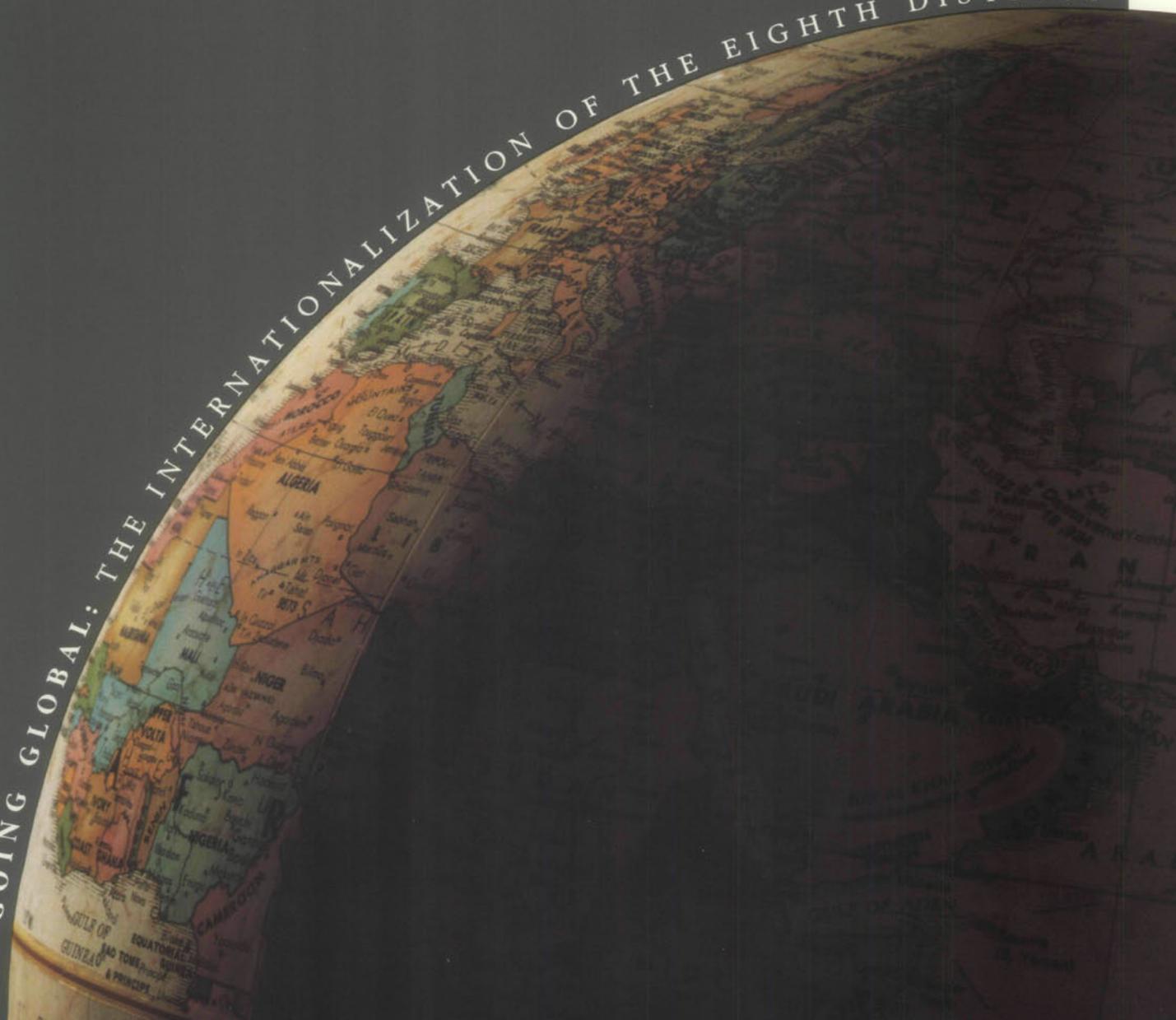


GOING GLOBAL: THE INTERNATIONALIZATION OF THE EIGHTH DISTRICT

A globe is shown from a low angle, curving across the page. The globe is lit from the left, showing the African continent. The text 'GOING GLOBAL: THE INTERNATIONALIZATION OF THE EIGHTH DISTRICT' is written in white, serif, all-caps font, following the curve of the globe's horizon. The globe's surface is a detailed map with various colors for different countries and regions. Labels for 'ALGERIA', 'MALI', 'NIGER', and 'NIGERIA' are clearly visible. Other labels include 'CHAD', 'EGYPT', 'LIBYA', 'SUDAN', 'ETHIOPIA', 'KENYA', 'TANZANIA', 'ZAMBIA', 'BOTSWANA', 'NAMIBIA', 'SOUTH AFRICA', 'MOZAMBIQUE', 'MALAWI', 'ZIMBABWE', 'INDONESIA', 'AUSTRALIA', 'NEW ZEALAND', 'JAPAN', 'KOREA', 'CHINA', 'INDIA', 'PACIFIC ISLANDS', 'SOUTH AMERICA', 'CENTRAL AMERICA', 'CARIBBEAN ISLANDS', 'EUROPE', and 'AFRICA'. The globe is set against a dark, gradient background that transitions from black at the top to a dark brown at the bottom.

President's Message

The economic well-being of the Eighth Federal Reserve District is affected to an ever-increasing degree by the production, consumption and investment decisions of people living outside U.S. borders. Some people refer to this internationalization of goods, services and investments as "going global."

As each day passes, it becomes more and more difficult to tell where the goods and services we use routinely are produced. When we eat, wear clothes or watch television, we're very likely doing business with a foreign firm. A recent estimate showed that more than 70 percent of the total manufacturing cost of an IBM personal computer—a high-profile American product—was for components manufactured overseas.

At the same time, our domestic firms—including many in the Eighth District—are exporting their goods and services for purchase by foreign consumers. McDonnell Douglas' aircraft, for example, are sold throughout the world, and both Federal Express and UPS provide shipping services around the globe. Thus, the jobs and incomes of many District residents rely on purchases by foreign consumers.

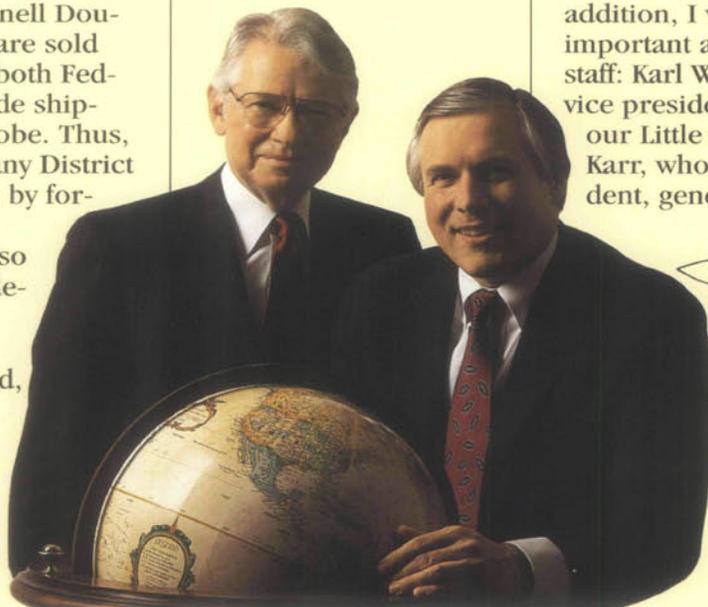
District jobs are also affected by the investment decisions of foreign firms. Laclede Steel Company, for example, is Canadian-owned, while Purina Mills and Peabody Coal are British-owned. All three firms are headquartered in the St. Louis area, Peabody just across the street from our

Bank. In Kentucky, Toyota provides jobs for more than 3,400 people. And, in Memphis, a Finnish company — Leaf, Inc.— employs 550 in the manufacture of candy, bubble-gum and baseball cards.

Some people view the increasing flows of international trade and investment with suspicion. Others will tell you that growing world trade is the single most important reason for the prosperity we enjoy today. Who's right? The essay that follows will attempt to sort out these issues and provide some insight into the extent as well as the desirability of "going global."

Before we begin, however, I would like to extend my warmest thanks to several retiring directors, whose hard work and commitment have helped guide us through the past several years: H. L. Hembree and Roger W. Schipke, St. Louis; David Armbruster and Wayne Hartsfield, Little Rock; and Raymond M. Burse and Irving W. Bailey, II, Louisville. In addition, I would like to welcome two important additions to our official staff: Karl W. Ashman, who was named vice president and branch manager of our Little Rock Branch, and Mary H. Karr, who joined us as vice president, general counsel and secretary.

H. Edwin Trusheim (left), chairman of the board, and Thomas C. Melzer, president and chief executive officer



Thomas C. Melzer

Thomas C. Melzer
President and Chief
Executive Officer

As American As a Baby Ruth

Most of us are aware of the growing links between the U.S. economy and the rest of the world. Nonetheless, we have numerous blind spots when it comes to the extent of these linkages and, more importantly, how these linkages affect our well-being.

Even presidential candidates suffer from these blind spots. During the last campaign, Michael Dukakis, speaking at the Moog Automotive parts plant in St. Louis, extolled the virtues of American manufacturing know-how in an industry dominated by foreign competition. Unfortunately for Dukakis, Moog had been owned since 1978 by an Italian conglomerate. George Bush, meanwhile, cloaked himself in the symbolism of the American flag, a product more likely to be made in Hong Kong or Taiwan than Anytown, U.S.A. Clearly, it is becoming difficult to define what's "American" in a world marked by disappearing economic borders.

The fact is, globalization is more widespread and more complicated than the trade deficits with Japan and the foreign purchases of American real estate we hear so much about. The Reebok athletic shoes so many Americans sport, for example, are produced by a British company in South Korea, then exported to the United States. Many of the Japanese cars driven by Americans are made in the United States by American workers, and many of those same automobiles are exported to other countries, some of them back to Japan.

Products and services we encounter daily are produced by foreign firms: the One-A-Day vitamin we take in the morning, the Bic pen we write with, the episode of "Monty Python" we watch on a Sony television, the Hamilton Beach blender we



Q
Which of the following companies or products are foreign-owned?

- A. Alka-Seltzer
- B. Saks Fifth Avenue
- C. Kool cigarettes
- D. Milk Duds
- E. Shell Oil
- F. Butterfinger candy bar

A
All of the above.
The first three are British-owned, while the latter three are owned by Finnish, Dutch and Swiss companies, respectively.

mix milkshakes in, the Baby Ruth candy bar we grab in the check-out line—even the Mack truck that passes us on the interstate. Few of us stop to consider the country of origin of these products or the contribution we're making to "globalization" when we purchase them.

Businesses throughout the world have a greater variety of goods and services to choose from because of increased global linkages. The cost of doing business overseas has declined dramatically over the last 40 years with the tremendous advances in transportation and communications. In 1950, a 10-minute phone call from the United States to Great Britain cost almost \$210; that phone call today costs less than \$10. Companies throughout the world now use Citicorp's financial products and AT&T's communications services. Trade in services, foreign direct investment and foreign portfolio investment have increased rapidly over the last decade, especially in the United States. The economic liberalization of Eastern Europe and its integration with Western Europe is already providing opportunities for U.S. firms to expand their customer bases and investors to diversify their portfolios.

Who gains and who loses from this increased globalization? With few exceptions, analysts agree that the benefits of opening borders to foreign trade and investment flows far outweigh the costs. Merchandise and service exports are important components of the U.S. gross national product (GNP). The U.S. Commerce Department estimates that merchandise and business service exports together made up almost 10 percent of GNP in 1989; merchandise exports contributed more than a third of the nation's growth in real GNP. In addition, many U.S.





businesses rely on imported materials in making products for both the domestic and international markets.

Competition with foreign firms for a piece of the domestic market forces U.S. firms to eliminate inefficiency and waste, thus driving down industry costs. Domestic businesses also benefit from the exchanges of technology and management expertise made possible by foreign direct investment. U.S. workers tend to gain when U.S. companies expand operations to export or when foreign firms decide to set up shop in this country. Consumers benefit the most, as they enjoy more variety, lower prices and higher incomes than they would in a world with no international trade and investment.



Many state leaders are now convinced of the benefits of foreign investment and exports. According to the National Governors' Association, governors from 41 states and territories made trips to 34 countries in 1989. These visits, which generally included a delegation of state government and business officials, were designed to increase exports and attract investment.

Economics can explain much of the increased globalization of world markets. In the rest of this report, we will explain why globalization happens, then concentrate on the emerging patterns of trade and foreign investment in the nation and the Eighth Federal Reserve District.

Why Do Countries Trade?

Countries—or, more precisely, the consumers, firms and governments in these countries—benefit by engaging in international trade. They benefit primarily by being able to purchase some goods abroad at lower prices than if they were produced domestically.

There is no simple explanation for international trade. Rather, there are numerous explanations that have varying degrees of applicability. First, countries may have different amounts of productive resources. Productive resources, or inputs, include natural resources such as land and minerals; capital, such as machinery and buildings; skilled and unskilled labor; and management. The production of each good requires a different amount of these inputs. Producing wheat, for example, requires a lot of land, some people and some machinery, among other things. Manufacturing textiles,



Q

What country imports the most U.S. agricultural goods?

- A. Soviet Union
- B. Mexico
- C. South Korea
- D. Japan

A

Japan. In fiscal year 1990, U.S. agricultural exports to Japan totaled \$8.1 billion. Exports to the Soviet Union, our second-largest agricultural export market, totaled nearly \$4 billion.

on the other hand, requires a lot more labor than other inputs. Second, firms may be able to reduce their cost per unit of output by producing large amounts of a certain good. These are powerful incentives to trade. Let's take a look at them more closely.

A simple example, which assumes similar demand patterns across countries, can illustrate how resource differences encourage trade. Assume that the world consists of two countries, the United States and Mexico, and that each country has two resources from which to draw: its people (or labor) and its capital. Assume that each country can produce only two goods, airplanes and cloth. In this hypothetical world, the United States has relatively more capital per worker than Mexico and is, thus, "capital-abundant." Mexico, on the other hand, has a higher ratio of workers to capital than the United States and is, therefore, "labor-abundant."

In addition to their relative abundance, one must examine the way in which these resources are used to produce the good. Airplane production, in contrast to cloth production, requires a relatively larger percentage of capital than labor. Thus, airplanes are capital-intensive goods. Conversely, cloth is a labor-intensive good.

A country will tend to export goods that use its abundant resource intensively and import goods that use its scarce resource intensively. Why? Because a resource that is relatively abundant in a country will likely also be cheaper in that country than it is elsewhere. Thus, goods produced using this relatively cheap input can be sold for a cheaper price. Because the United States is capital-abundant, it should export airplanes and import cloth. Indeed, this is what we see happening in the real world.

Both countries gain because they are importing a good at a lower price than they could produce it for domestically. At the same time, the resources that are not needed for the production of the imported good are available to produce other goods, some of which can be exported.

Though countries overall tend to benefit from trade, some groups can be harmed by trade. As a result, trade policy is almost always controversial. Return to our U.S.-Mexico example for a moment. When the United States and Mexico trade, the relatively lower price of Mexican textiles will cause U.S. consumers to substitute Mexican for U.S. textiles. U.S. textile producers will face falling prices, and some will go out of business. Obviously, some U.S. textile producers and workers are hurt when the U.S. imports Mexican cloth; U.S. consumers, on the other hand, benefit by being able to purchase relatively cheap cloth. Meanwhile, the benefits to Mexican producers will exceed the losses of their consumers. In general, however, research has shown that the benefits gained by consumers *worldwide* will outweigh the losses of producers.

What our discussion so far means is that we can predict trade



TRUE OR FALSE

About half of the jobs dependent on manufactured exports are performed by non-manufacturing workers.

A

True. The banker who arranges for export financing, the warehouse worker who stores products before distribution, and the shipper who transports products overseas are examples of other workers whose jobs depend on manufactured exports.



patterns based on our knowledge of a country's resources. Since the services of a country's productive inputs are embodied in its exports, international trade may be viewed as the exchange of the services of the country's abundant input for the services of its scarce inputs. In our example, the United States exports the services of its relatively abundant input, capital, and imports the services of its relatively scarce input, labor. In addition to capital, the United States has a relatively abundant supply of agricultural land and skilled labor (scientists, etc.). This suggests that the U.S. would export goods that use these inputs intensively, and indeed it does.

Another reason that countries trade is because of economies of scale. Economies of scale—the decline in per unit production costs as output increases—can exist for several reasons. One reason involves the learning curve. The more fighter jets McDonnell Douglas builds, the better its workers get at putting the parts together. The more they specialize in making jets, the more productive they become and the cheaper it is to build jets. Thus, by restricting production to a limited range of goods, a country can produce each of these goods on a larger scale and at lower per-unit costs than if it tried to produce everything itself.

Once again, an example can be used to illustrate. Assume the United States and Japan each needs 10 airplanes and 10 large ships. Further assume that a plant must build at least 15 boats or planes before its per unit production costs decline substantially. Each country could build its own airplanes and ships, at a relatively high cost of production per unit, or it could specialize and trade. If the U.S. were to specialize in building airplanes, it could build the 20 needed for both countries and achieve economies of scale. Likewise, Japan could specialize in building ships and build all 20 boats. The U.S. would export 10 planes to Japan and Japan would export 10 ships to the United States. By each country specializing and thereby achieving economies of scale, each country is able to purchase planes and boats at a lower cost.

Why Is There Foreign Investment?

Both U.S. investment abroad and foreign investment in the United States are motivated by a desire to increase profits, reduce risk or finance trade deficits (or, more accurately, current account deficits). Greater profit is the fundamental reason. The investor chooses one asset over another because it has a higher risk-adjusted rate of return, a behavior that causes resources to be used in their most productive alternatives. When the chosen asset is foreign, then foreign investment is said to occur. All other things the same, when the return on an investment in a foreign country is higher than the potential return on domestic investments, firms will invest in the foreign country and the stockholders they represent gain from the transaction.

In our trade example, the two countries exported the "services" of their abundant production. The United States exported its capital services and Mexico exported its labor services. Sometimes it is possible to simply export the input, rather than turn the input into a tradeable good.

Foreign investment can be viewed as a substitute for the international trade of goods and services. Rather than exporting its cars to the United States, a Japanese car manufacturer could build a plant in the United States and build the cars here. Thus, foreign investment has substituted for trade. Not all foreign investment, however, takes the form of a firm purchasing or building a plant in a foreign country (called foreign direct investment). Foreign investment also occurs when a firm or household purchases foreign government bonds or foreign stocks, or makes a deposit in a foreign bank (called foreign portfolio investment).



Q

What percentage of U.S. commercial real estate is owned by foreigners?

A

According to the National Association of Realtors, only 1.7 percent of nonfarm, nonresidential property is owned by foreign individuals or corporations.

The rate of return on investments can be higher in one country than in others for several reasons. One is input costs: labor and energy, for example, vary across countries. Similarly, a reduction in tax rates in a country would increase the rate of return on projects in that country. Investors may also find it more profitable to produce goods or services in a foreign country because of lower transportation costs. Or, to avoid stiff import restrictions in a country, they might build a factory in that protected country. Finally, the rate of return on a project is affected by a country's political and military stability. Investors are less likely to invest in countries where political regimes change often or war is a threat than in stable countries.

The last example suggests that risk influences foreign investment decisions. Indeed, the purchase of foreign assets is often motivated by a desire to avert risk. The judicious spreading of one's portfolio of assets over a wider range of assets, some of which may be foreign, can accomplish this objective.

Finally, foreign investment allows countries to run trade deficits or surpluses with other countries. In recent years, for example, the United States has run trade deficits in excess of \$100 billion. These deficits reflect the fact that U.S. purchases of goods and services exceeded U.S. production. To finance its trade deficits, the United States has to borrow from abroad. This borrowing occurs primarily via the sale of U.S. financial assets to foreigners. Thus, U.S. trade deficits are associated with net foreign investment into the United States, while U.S. trade surpluses are associated with net foreign investment into foreign countries.



Symbol	Price	Change	Symbol	Price	Change
5.12	3		viLoin	11.76	
9.40	101		LgslLt 113693	11.0	103 1/2 +2
8.84	87		LgslLt 113614	11.4	101 1/4
11.6	105 3/4 +	1/8	LgslLt 113619	10.9	101 3/4 + 3/8
10.4	103	- 3/8	Loral 7/410	cv 101	- 1/2
8.45	100 1/2 +	1/8	Lorild 6/893	7.18	95 3/4 + 1/8
9.35	100 1/4 -	1/8	LouGs 7/202	8.16	91 7/8
11.1	94 3/4 -	1/8	vjLykes 7/294f	6 1/2 -	1/2
105	11.2	9 1/2 - 3/4	vjLykes 11500f	6 3/4 +	3/4
11.8	100 1/4 - 3/4		MACOM 9/406	cv 77	+ 3/8
2	cv 68 1/2 + 2		MGMUA 125693f	48	+ 1 7/8
9.64	92		MGMUA 13596f	34 1/4 -	3/8
12.6	63 1/2 - 2 1/2		MfrH 8/604	10.7	75 3/4 + 3/8
92	13.2	96 1/2 - 1 1/2	Manvl 12592	12.0	100 - 1 3/8
7	19.7	66 - 2 3/4	MarO 8.5506	9.71	87 1/2 + 2 1/4
5	23.6	50 3/4 - 1	MarO 9/294	9.44	100 5/8 - 1/8
74	13.7	70 - 2 3/4	MarO 93499	9.70	100 1/2 - 1 1/4
5517	23.5	46 1/2 - 3 1/2	Masco 5/412	7.72	68 + 1 1/4
199	17.9	58 - 1	McDnl zr94	79 1/8	
9	14.3	92 3/4 - 1/2	McDnl 93417	9.37	104 + 1 1/2
9	13.3	95 3/4 + 1/4	McDnl 93499	9.51	102 1/2
9	12.2	98 3/4 - 1/4	McDnl 93419	9.55	102
74	11.9	78 1/4 - 1/4	Mead 63412	cv 80	+ 3
8.09	97 1/4 - 31-32		Meln 8.6509	10.4	83 + 1 1/2
5f	8.09	94 1/4 + 1/4	MierLy zr06	30 3/4 + 1/8	
97f	cv 5 1/4 + 1/4		MesaCap 12596	18.8	63 3/4 + 5/8
6f	cv 5 3/8 + 5/8		MesaCap 10/299	19.5	69 1/4 + 1/4
7	10.7	78 3/4 - 3/8	MichB 73411	8.86	87 3/4 - 1/8
10.7	76 + 1/8		MichB 8/615	8.97	70 1/2 + 1 3/8
10.4	80 + 1		MidPlk 11.3593	17.9	63 3/8
16 1/2 + 1 1/4			PAIT 6/633f	20 1/2	
5.27	83				
8.37	100				
9.22	93 3/4 + 1 3/8				

Money Market:

AALMoneyMkt	6.82	1 1/4
AARP	14.2	3/4
AMA Treas Prt	7.26	1/8
AMA Prime Prt	7.69	1/8
AMEV Fd	15.4	1/8
ASO Prime	13 3/4	1/8
ASO USTr	15.4	1/8
ActiveAssetGovt	11 1/2	1/8
ActiveAssetMny	11 1/2	1/8
AlexBrownCash	16	1/8
AlexBrownTr	105044	1
AigerMM	10504C	1
AlliantCapRes	93494	9.1
AlliantGovtRes	as dc6511	9.48
AlliaMnyRes	10 1/4	1/8
AlturaPrOB	10.1	1/8
AlturaUSGvOb	9.39	3/4
AmAdMM	7.74	1/8
AmerCapMsrsv	7.74	1/8
AmEXDaily	7.74	1/8
AmExpGov	7.74	1/8
AmExpMM	7.74	1/8
AmNat	7.74	1/8
AmPerCsh	13694	1
AmerPerrUS	956	8.87
ArchFdMM CLA	10034	6.8
ATAF St Lq	10034	6.8
AutCsh	8.03	25 1/2 + 3/8
AutGvt	cv 64	+ 1 1/2
AutGvCs	cv 96 1/4	+ 1 1/2
BabsonMoneyMkt	cv 109	- 1 3/4
BayshireCshRsv	cv 81 1/2 + 1 1/2	
BayshireUSTr	9.74	99 + 1 1/2
BedfrdGvt	12.3	101 3/4 + 1 1/2
BedfrdMM	9.91	99 3/4 - 1/4
Bel ATMM	9.91	99 3/4 - 1/4
BenhGvAg	8.95	97 1/8 - 7/8
BinchGov	84	69 - 1
BostnCoCash	cv 81 1/4 - 7/8	
BostnCoGovt	cv 84	- 1
	11.3	67 1/2 + 2 1/2
	13.3	79 + 1
	10.3	69 + 1 1/2

Trade and Investment Trends in the U.S. and Eighth District

International business activity has become increasingly important to the Eighth Federal Reserve District, as it has to the nation. International markets provide a substantial portion of the demand for manufactured goods and agricultural commodities produced in the District, and a number of industrial sectors important to the District economy have significant foreign capital invested in them.

Who are the District's trading partners? Although such information may seem fundamental, the available evidence is scarce and, in some cases, not very useful. No consistent data on imports are kept, while data on exports suffer from other problems. A relatively new series indicates the state from which merchandise exports began their export journey. While this could be the state where the export was produced, it could also reflect the location of the wholesaler or the port from which the good was shipped. States like Louisiana, for example, are credited with disproportionately high exports because of their international port facilities.

A large portion, more than one fifth, of exports that were shipped from the District in 1989 were destined for Canada. While the Canada-U.S. Free Trade Agreement of 1989 has eliminated many trade barriers, making trade between the two nations even easier, the recent slowdown of the Canadian economy will likely slow the growth of exports to our northern neighbor. The likelihood of continued Japanese economic growth, however, will ensure District exporters of an

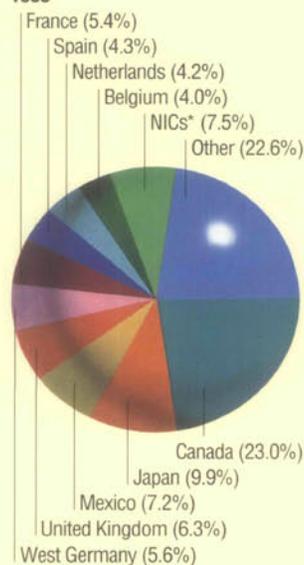
expanding market. Almost 10 percent of District exports were shipped to Japan in 1989.

Many District exporters have strong trade relationships with European customers: exports to Europe accounted for almost one-third of total District exports in 1989. Thus, it is likely that the anticipated acceleration of the European Community's economy after the 1992 integration will aid many District exporters, particularly if no further trade restrictions are enacted.

The internationalization of our economy is reflected in capital flows, as well as trade flows. Although recent purchases of Rockefeller Center, MCA, and Columbia Pictures by Japanese investors have been well-publicized, Japan is only the third-largest foreign direct investor in the United States, as indicated by employment at foreign affiliates (see chart on next page). In the Eighth District, Japan ranks fourth behind Canada, the United Kingdom and the Netherlands. (A foreign affiliate refers to any firm that is at least 10 percent owned by a foreign party.)

The perception that Japan is the leading foreign investor may have developed because many of its investments are highly visible, like the \$6.6 billion purchase of MCA by Matsushita, or large, like the Toyota and Nissan factories in Kentucky and Tennessee. Moreover, most Japanese investment has taken place only since the mid-1980s, at the same time the United States was experiencing large trade deficits with Japan. In contrast, firms affiliated with Canadian and European owners have

Where Do Eighth District Exports Go? 1989



Canada is the leading export destination for both the District and the United States.

*Newly Industrialized Countries: Singapore, Hong Kong, Taiwan, Korea.

operated quietly for decades in this country.

Overall growth in foreign direct investment has been rapid since the late 1970s, as reflected in the number of U.S. workers employed at foreign affiliates (see chart on opposite page). Of course, many of the jobs in foreign affiliates are not new jobs. In recent years, foreign acquisitions of U.S. firms accounted for about 80 percent of all foreign

direct investment. Thus, in many cases, the nationality of the owners has changed, but not the jobs themselves.

Growth in foreign direct investment has been rapid in the District as well. This can largely be attributed to the District's expanding manufacturing facilities. As we will see, manufacturing is not only the primary focus of foreign investment in this country, it also dominates our exports.

Manufacturing

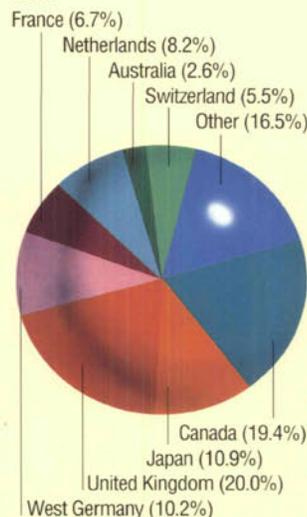
Exports

Exports of manufactured products have played an important and growing role in the U.S. economy. In 1986, manufactured exports totaled almost \$160 billion, more than three times as much as in 1963, after adjusting for inflation.

Not all regions have enjoyed the rapid growth of manufactured exports found at the national level, however. Export activity has shifted away from the so-called Rust Belt in recent decades, mirroring the general shift of manufacturing activity. The Pacific states, including Alaska and Hawaii, have experienced the largest increases in export activity. Manufactured exports in the Eighth District, as represented by the states of Arkansas, Kentucky, Missouri and Tennessee, have grown slightly faster than the national average. The District in 1986 accounted for 6.4 percent of U.S. exports, its best performance since 1963.

Real manufactured exports expanded rapidly between 1976 and 1980 in both the nation and the District. From 1980 through 1986, however, these exports declined slowly in the nation and grew only weakly in the District. This slowdown may partially reflect the rising exchange value of the dollar, which tends to increase the price of U.S. exports in foreign markets. Sluggish economic growth abroad and rising levels of trade barriers also hindered export growth. No

Who Are the Biggest Foreign Employers in the United States? 1988



More Americans work for British- and Canadian-affiliated firms in this country than they do for Japanese-affiliated firms.

consistent state or regional export data are available after 1986; at the national level, manufactured exports have grown rapidly, increasing at double-digit rates in 1987, 1988 and 1989. Assuming the District share of U.S. exports has been stable or has continued to rise, District manufactured exports have likely also expanded.

Despite this growth—to more than \$10 billion in 1986—exports accounted for a slightly smaller share of the District's economic activity (6 percent) than they did at the national level (7 percent). Missouri, with 7.3 percent, was the only District state in which exports as a percentage of shipments exceeded the national average.

Transportation equipment was the leading export industry in both the District and the nation in 1986. This sector, however, was far more important to the District, as exports of transportation equipment accounted for more than a third of all District exports that year. The lion's share of these exports came from Missouri, whose exports of motor vehicle and aircraft-related products have grown rapidly since 1976, contributing heavily to the state's and the District's faster-than-national export growth. Missouri exported almost 13 percent of its transportation equipment shipments in 1986. Exports of transportation equipment from Kentucky and Tennessee, including trucks and motor vehicle parts, were

also substantial.

Chemicals and allied products made up the second-largest District export industry in 1986, accounting for 17 percent of the total. While chemical exports from all four states were considerable, more than half of the total came from Tennessee. More than 40 Tennessee firms export chemicals and allied products, and they export a wide variety of products, including pharmaceutical, industrial, organic and agricultural chemicals.

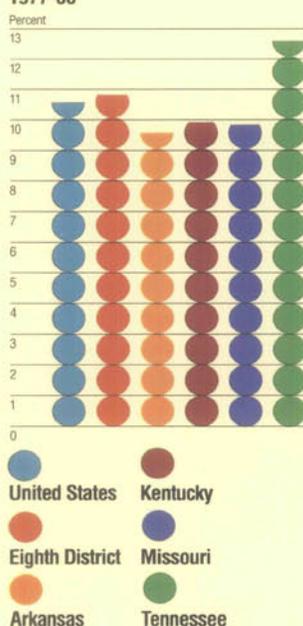
Reflecting the District's sizable agricultural sector, exports from the food and kindred products industry are relatively larger than at the national level. Poultry products from Arkansas and liquor from Kentucky are among the primary processed food products being exported.

On the other hand, exports from the nonelectrical machinery sector, which includes many major capital goods, accounted for a substantially smaller proportion of District exports than in the nation. Nonelectrical machinery production plays a smaller role in the region's manufacturing sector and is less export-oriented than at the U.S. level. None of the products that dominate U.S. nonelectrical machinery exports, such as computers and construction equipment, are produced extensively in the region.

Overall, exports not only provide a substantial number of jobs, but a substantial number of "good jobs," with relatively high incomes for workers. Reflecting its abundance of skilled labor, the United States tends to export goods that require skilled labor. Thus, wages, which often are related to skill, tend to be higher in U.S. industries that are export-oriented. Such an association is also present in District states. Some of the highest wage rates are earned in the District's transportation equipment and chemicals industries, the two most export-oriented industries.

How Fast Is Employment at Foreign Affiliates Growing?

1977-88



U.S. employment at foreign-affiliated firms expanded at more than a 10 percent annual rate between 1977 and 1988. The Eighth District's growth was even stronger, thanks to Tennessee.

Foreign Investment

The manufacturing sector has long been a favored target of foreign investors. Ownership of domestic manufacturing firms, in addition to providing greater access to affluent U.S. markets, allows foreign owners to circumvent tariffs or quotas imposed on manufactured products, including motor vehicles, textiles and apparel and raw steel. To some extent, the concentration of foreign investment in manufacturing may also reflect the technical expertise of some of the larger investors, especially Japan and Germany.

In the Eighth District, almost 60 percent of employees at firms classified as foreign affiliates in 1988 worked in manufacturing plants. Nationally, manufacturing accounted for a smaller segment, employing 48 percent of workers in foreign affiliates. Although manufacturing remains the largest single sector among foreign affiliates, its growth is not what it used to be: in 1977, manufacturing's share of employment in foreign affiliates was roughly 10 percentage points higher, both regionally and nationally.

Nevertheless, the growth of foreign-affiliated manufacturing has still been impressive. The real book value of foreign affiliates' property, plant and equipment in the District more than doubled between 1977 and 1988, rising to \$11.3 billion. Nationally, the rise has been even greater, more than tripling during the same period.

Employment at foreign affiliates rose commensurately: District manufacturing employment in such firms rose from about 51,000 in 1977 to 130,000 in 1988, an 8.9 percent annual growth rate (see chart on next page). This growth occurred at the same time total manufacturing employment in the District had stalled.

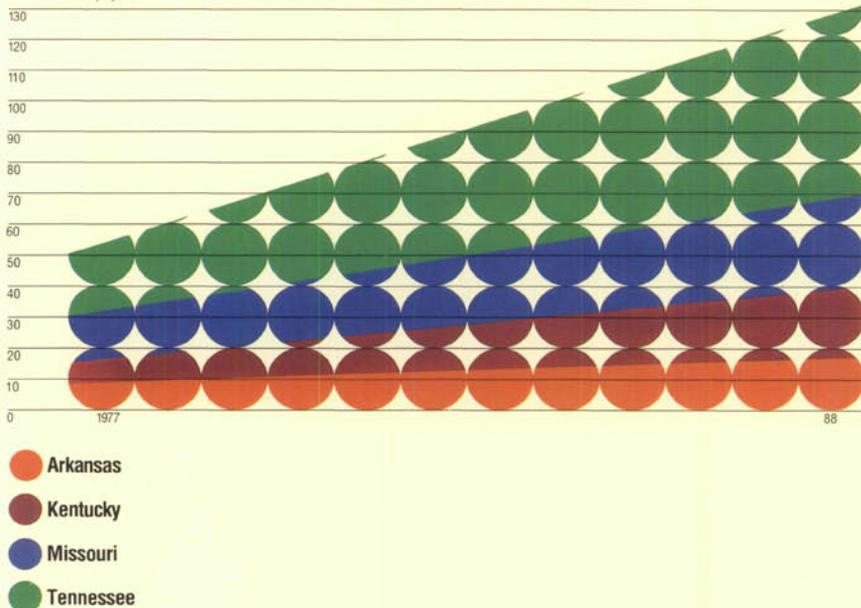
Of the four District states on which this report focuses, **Arkansas** has seen the least growth in employment at foreign-affiliated manufactur-

Q
Which manufacturing industry is the largest exporter?

A
Transportation equipment (automobile, airplanes, etc.) accounted for more than one-fifth of manufactured exports in the U.S. in 1986 and more than one-third in the District.

How Many Jobs Have Foreign Manufacturers Contributed to the District Economy?

Thousands of Employees



Employment at foreign-affiliated manufacturers in each state rose substantially from 1977 to 1988. Tennessee's gain of 39,100 such jobs accounted for half of the District's total increase.

ers. Though the reasons for Arkansas' slower growth are unclear, its industrial structure may have contributed. Traditionally, Arkansas' manufacturing sector has been concentrated in food processing and metals production, two sectors in which foreign direct investment has risen more slowly. Motor vehicle production, which has been the recipient of a good portion of new foreign investment, is relatively unimportant in Arkansas. Unlike the other three District states, Arkansas has no major vehicle assembly plants. Nonetheless, manufacturing employment in foreign affiliates was fairly high in Arkansas throughout the 1980s, accounting for 16,000 jobs in 1988. These jobs represented 7.1 percent of total state manufacturing employment, 3 points more than in 1977. The state's largest foreign-affiliated sector is machinery; this sector includes Fort Smith's Rheem Air Conditioning factory, which employs almost 2,000 workers.

Kentucky's dependence on foreign-affiliated manufacturing has increased dramatically since the late 1970s. Employment in foreign affiliates accounted for just 2.5 percent of the state's manufacturing workers in 1977; by 1988, this figure rose to

8.9 percent, reflecting the addition of 17,500 workers. The state's largest foreign-affiliated employers — Armco Steel Company in Ashland and Toyota's vehicle assembly plant in Scott County — both employ roughly 3,500 workers and are affiliated with Japanese owners. In November 1990, Toyota announced plans to invest \$800 million to expand its Scott County operations. The expansion will double capacity to more than 400,000 vehicles a year and provide 1,500 new jobs. In addition, the new operations will increase demand for the products of Toyota's suppliers. Scores of factories producing primary and fabricated metal products, motor vehicle parts and other automotive-related inputs have located in the region since the Toyota plant—and the Nissan plant in Tennessee—opened in the mid-1980s. Many motor vehicle suppliers are owned, totally or in part, by foreign firms, with the Japanese most heavily represented.

Missouri's manufacturing sector employs more than 400,000 workers, but only a small proportion work at foreign affiliates. In 1988, 6.6 percent of manufacturing workers in Missouri were employed in foreign affiliates. The United Kingdom is the home of the state's two largest foreign-affiliated manufacturing firms: Purina Mills, Inc., located in St. Louis, was acquired by British Petroleum in 1986, while Fasco Company, which produces small motors, has its largest Missouri operations in Springfield. Each firm employs roughly 3,000 workers. Since 1977, Missouri has trailed the nation in manufacturing job growth in foreign affiliates.

The amount of foreign direct investment in **Tennessee** is enormous. In 1989, foreigners invested almost \$1.4 billion in new and expanded plants in Tennessee, more than 40 percent of the total investment in the state that year. The number of Tennessee workers at foreign-affiliated manufacturing firms is more than double that of any other District state. In the 1977-88 period, manufacturing employment at foreign-affiliated firms rose by almost 40,000, or at a 9.9 annual rate. New plants producing motor vehicles or related

Q
Since the late 1970s, which foreign nation has had the most rapid employment growth at its affiliates in the United States?

A
Japan. Its investment in motor vehicle-related manufacturing has been particularly strong.

goods account for a major source of this growth. Nissan's motor vehicle plant in Smyrna, which employs approximately 4,000 workers, is currently expanding. By 1992, Nissan

will be able to build 450,000 vehicles a year in Tennessee, twice as many as today. The second-largest foreign affiliate, Bridgestone, makes tires in Nashville.

Agriculture

Exports

As with manufacturers, agricultural producers rely on exports for a substantial portion of their income. Determining how much of an agricultural commodity an individual state exports, however, is difficult. Soybeans grown in one state may wind up in an elevator in another state before being exported. Since soybeans grown in Arkansas are indistinguishable from soybeans grown in Missouri, it is difficult to figure how much was grown in each state when a boatload of beans leaves port. This story is the same for other agricultural commodities. The U.S. Department of Agriculture, however, provides a rough estimate of agricultural exports by state based on the assumption that, for each commodity, a state contributes the same export share as its share of production.

During fiscal year 1989, District states (Arkansas, Kentucky, Missouri and Tennessee) exported more than \$3.6 billion worth of agricultural products, accounting for more than 9 percent of the nation's agricultural exports. District states accounted for almost half of the nation's rice exports and just under one-third of tobacco exports. District states were also responsible for about one-tenth of the nation's exports of soybeans, cotton, poultry, and animal and meat products. In dollar value, soybeans and wheat top the list of agricultural products exported in the Eighth District.

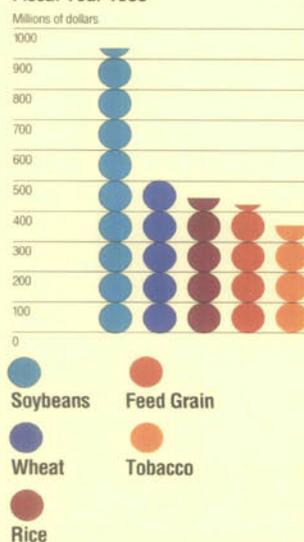
Between 1981 and 1989, both U.S. and District agricultural exports fluctuated widely. Before then, agricultural exports had been growing rapidly, with several factors helping to fuel this growth: the

increased dependence of centrally planned economies on imports; the growth in import demand from middle-income countries, especially in Latin America; increases in the demand for high-quality food brought on by the new wealth of OPEC countries; and a declining value of the U.S. dollar. When some of these trends reversed themselves, U.S. and District agricultural exports declined sharply from their 1981 levels, before bottoming out in the mid-1980s. Their subsequent recovery, in part, was the result of a once-again growing world economy, a falling trade value of the dollar, a more market-oriented U.S. federal farm program and the use of agricultural export subsidies.

Foreign Ownership

Foreign investment in agriculture, though growing, is not as important as is foreign investment in manufacturing. By the end of 1989, foreign interests reported owning 12.9 million acres of U.S. agricultural land, up 56 percent from 1979. Despite this large percentage increase, foreign interests own just 1 percent of U.S. agricultural land, compared with four-tenths of one percent in 1979. Nearly half of the foreign-owned land is forest land, while other principal uses include pasture and cropland. Corporations own about 81 percent of this land. Interests from seven countries jointly account for most of the foreign-owned acreage in the United States (see map on next page). The Japanese own slightly more than 2

What Are the Area's Top Agricultural Exports?
Fiscal Year 1989



In dollar value, soybeans far exceed other agricultural products exported from the Eighth District.

percent of all foreign-held acreage. If you subtract the holdings by U.S. corporations with foreign interests from the 12.9 million acres, only about 3 million acres of U.S. farmland are essentially 100 percent foreign-owned.

Foreigners own a smaller proportion of agricultural land in the Eighth District than they do in the nation. In 1989, the percent of District agricultural land owned by foreigners stood at four-tenths of one

percent, up just slightly from 1979. Of the foreign-owned agricultural land in the United States, District states contained 9 percent in 1979; today that number is down to 4 percent. Foreigners own more land in Arkansas—more than 182,000 acres in 1989—than they do in any other District state. Even so, this accounts for less than 1 percent of Arkansas' agricultural land.

The Largest Holders of Foreign-Owned Acreage in the United States



Services

While trade in services has been around as long as trade in goods, it has only been in the past two decades that its level and pervasiveness have been significant. The services sector generally includes wholesale and retail trade, finance and insurance, banking, real estate, other consumer and business services, transportation, communications and public utilities. According to the Department of Commerce, the U.S. registered a surplus in business services trade in 1989, exporting \$104.6 billion while importing \$76.9 billion in such services. Service exports are only one-fourth the size of merchandise exports, but their rate of growth has

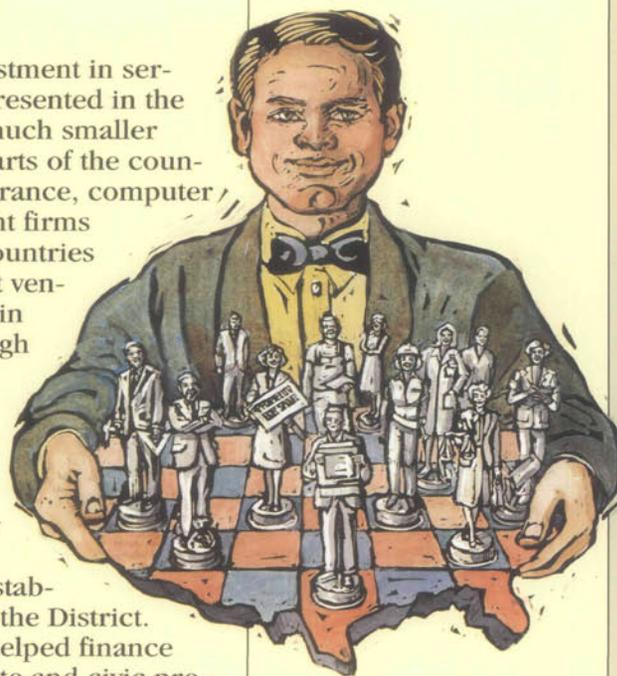
been much stronger in recent years. For example, travel receipts, a significant portion of service exports, rose 64 percent from 1984 to 1988, while merchandise exports grew 45 percent.

The significance of trade in services can also be gauged by its major role in the latest round of GATT trade talks. Proposals to govern multilateral trade in banking, insurance, telecommunications, aviation and other services topped the agenda at these talks. Rules governing international trade in services are especially important to the United States because of the growing size of its service sector in both output and employment shares.

Trade and investment in services, while of growing importance to

the United States, do not play a big role in the Eighth District. International banking services and tourism, two of the largest sources of service exports, are generally confined either to the coastal states or, in the Midwest, to Chicago. In the fourth quarter of 1989, for example, foreign assets made up just 0.1 percent of the total assets of banks in the Eighth District; 10.9 percent of the New York district's and 4.4 percent of the San Francisco district's bank assets are foreign. Nevertheless, nearly every category of service exports is represented, reflecting the increasing diversity of the District's economy. Federal Express, and United Parcel Service (UPS) are major examples of District-based international services firms. Southwestern Bell's recent acquisition of a stake in the Mexican telephone system is an example of both trade in services and foreign investment.

Foreign direct investment in services is also well-represented in the District, albeit on a much smaller scale than in other parts of the country. Engineering, insurance, computer consulting, and freight firms from many foreign countries have established joint ventures or subsidiaries in District states. Although state laws prohibit foreign banks from buying local banks or setting up full-service, deposit-taking banks in many places, a number of foreign banks have established loan offices in the District. Foreign banks have helped finance several large corporate and civic projects, including the expansion of the Cervantes Convention Center in St. Louis. While a state-by-state tally is not available for the number of U.S. workers employed by foreign affiliates in the service sectors, it is fair to assume that, while growing, the District's share of the national total is small.



How are Services Traded?

Conceptually, it is easier to understand trade in goods than it is trade in services. A service is an activity that usually requires both the producer and the consumer to be in the same place at the same time, as they are with a haircut or a restaurant meal. But this is not always the case.

Most business services—accounting, management consulting, legal services, economic forecasting, statistical analysis, engineering, design and so on—are in the form of information; thus, it is not necessary for producers and consumers to be in the same place. Modern communications, data processing and transportation advances have reduced the costs of acquiring services from distant locations and have promoted the centralization of business services. These technical advances have promoted specialization. Both Japanese and U.S. car makers, for example, commission Italian industrial artists to design their new sports models. French clothing designers determine to a large extent the styles currently popular in New York, Tokyo and London, as well as in Paris. And Lloyds of London provides custom insurance services that no other firms in the world provide.

Consumer services are another matter. Taking classes at a foreign university is an example of trade in services, as is attending a concert in New York conducted by an Austrian composer. These consumer services require international travel, as do most consumer services—tourism, education and entertainment.

Is it really "trade" if either the consumer or producer travels to another country to perform or receive the service? Yes. Services purchased abroad result in an expenditure of foreign exchange, just like the import of goods, and income derived from services delivered abroad results in foreign exchange earnings, just like the export of goods.

Should We Buy American?

Some people may feel that it's wrong or unpatriotic to purchase foreign goods, because doing so may cause American workers to lose their jobs. But there's another way to think about trade, a way most economists prefer. Whenever we purchase lower-cost imported goods, we are freeing up domestic resources for more productive uses. This means new jobs and, for the nation as a whole, higher real incomes. Thus, in terms of economics, trade and foreign investment are not bad. If, however, a consumer gains satisfaction from buying an American-made product, and the value of this satisfaction outweighs the cost savings of buying an import, then the consumer is rational in buying the domestic good. It is up to individual consumers to decide.

Making the choice between domestic and foreign goods, however, is only going to get harder. As the economies of the world become more linked, and production continues to shift to areas of least cost, a

wider variety of goods of foreign origin will be on the shelves. In addition, foreign inputs for those goods that we tend to view as American-made will likely rise. A number of recent developments point to increased globalization in the 1990s: the phasing-in of free-trade agreements between the United States and its largest trading partner, Canada; a potential North American free-trade agreement among the United States, Canada and Mexico; the integration of the European Community scheduled for year-end 1992; the expansion of Eastern Europe to trade and investment with the West; and the multilateral trade agreements being negotiated in the current round of GATT talks. These developments, although not without costs, are best viewed as opportunities for expanded purchases and sales. Trade and foreign investment, when conducted in a free and undistorted economic environment, provide "win-win" opportunities for all countries.



Statement of Condition

(thousands of dollars)

	December 31, 1990	December 31, 1989
ASSETS		
Gold certificate account	\$ 346,000	\$ 370,000
Special Drawing Rights certificate account.....	307,000	291,000
Coin	35,550	29,979
Loans to depository institutions.....	27,837	52,525
Securities:		
Federal agency obligations	183,879	200,880
U.S. government securities	6,816,617	6,981,979
Total securities.....	\$7,000,496	\$7,182,859
Cash items in process of collection	279,991	386,646
Bank premises (net)	27,856	22,878
Other assets	1,027,092	1,030,018
Interdistrict settlement account.....	182,779	0
TOTAL ASSETS	\$9,234,601	\$9,365,905
LIABILITIES		
Federal Reserve notes	\$7,507,195	\$7,419,660
Deposits:		
Depository institutions	1,409,917	1,200,594
Due to other Federal Reserve		
Foreign	4,050	4,200
Other	906	31,352
Total deposits.....	\$1,414,873	\$1,236,146
Deferred availability cash items.....	105,039	359,979
Other liabilities	80,374	86,948
Interdistrict settlement account.....	0	140,008
TOTAL LIABILITIES	\$9,107,481	\$9,242,741
CAPITAL ACCOUNTS		
Capital paid in.....	\$ 63,560	\$ 61,582
Surplus	63,560	61,582
TOTAL CAPITAL ACCOUNTS	\$ 127,120	\$ 123,164
TOTAL LIABILITIES AND CAPITAL ACCOUNTS	\$9,234,601	\$9,365,905

Income and Expenses

(thousands of dollars)

	December 31, 1990	December 31, 1989
CURRENT INCOME		
Interest on loans to depository institutions.....	\$ 5,553	\$ 7,013
Interest on government securities	586,282	606,577
Earnings on foreign currency.....	70,467	29,049
Revenue from priced services	30,802	31,105
All other income	438	495
Total current income	\$693,542	\$674,239
CURRENT EXPENSES		
Current operating expenses	\$ 64,916	\$ 63,698
Less expenses reimbursed	(8,149)	(7,052)
Current net operating expenses.....	\$ 56,767	\$ 56,646
Cost of earnings credits.....	5,491	6,109
Current net expenses	62,258	62,755
CURRENT NET INCOME.....	\$631,284	\$611,484
PROFIT AND LOSS		
Additions to current net income		
Profit on sales of government securities (net).....	\$ 1,823	\$ 429
Profit on foreign exchange transactions (net).....	57,764	35,613
All other additions	6	5
Total additions	\$ 59,593	\$ 36,047
Deductions from current net income		
Loss on foreign exchange transactions (net).....	\$ 0	\$ 0
All other deductions.....	10	1
Total deductions	\$ 10	\$ 1
Net additions or deductions	\$ 59,583	\$ 36,046
Cost of unreimbursed Treasury service	(4,675)	(2,369)
Assessment by Board of Governors		
Expenditures.....	\$ (2,834)	\$ (2,480)
Federal Reserve currency costs.....	(5,924)	(5,957)
NET INCOME AVAILABLE FOR DISTRIBUTION	\$677,433	\$636,724
DISTRIBUTION OF NET INCOME		
Dividends paid.....	\$ (3,772)	\$ (3,612)
Payments to the U.S. Treasury (interest on Federal Reserve notes)...	(671,683)	(629,990)
Transferred to surplus	1,978	3,122
Surplus, January 1	61,582	58,460
Surplus, December 31	\$ 63,560	\$ 61,582

NOTE: Detail figures may not balance to total due to rounding.

Operating Statistics

Operations	Number of Pieces Handled		Dollar Amount (thousands)	
	1990	1989	1990	1989
Services to Depository Institutions				
Cash Services:				
Currency Received and Counted.....	690,265,000	606,572,000	7,965,000	6,766,000
Coin Received and Counted	333,988,000	819,010,000	21,877	65,775
Check Services:				
U.S. Government Checks.....	32,568,000	33,105,000	28,500,000	29,233,000
Postal Money Orders	161,877,000	147,335,000	16,485,000	14,284,000
All Other.....	590,568,000	602,927,000	389,112,000	385,086,000
ACH Services:				
Commercial.....	64,819,000	52,600,000	317,008,300	288,272,600
U. S. Government.....	24,490,000	21,180,000	19,385,100	16,202,500
Collection Services:				
U.S. Government Coupons				
Paid.....	39,250	45,500	20,500	20,400
All Other.....	141,995	187,657	324,400	417,700
Wire Transfer of Funds:	3,093,950	2,899,969	3,708,876,000	3,597,000,000
Loans to Depository Institutions: ..	1,132	2,218	1,636,000	3,989,000
Services to U.S. Treasury				
Transfer of Government				
Securities:	140,798	132,829	210,535,000	207,695,000
Food Stamps Redeemed:	186,717,000	163,937,000	895,900	841,400

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