Federal Keserve Bank of San Francisco



# Recovery in Washington

Washington State is enjoying today an economic recovery that few could have foreseen in the summer of 1971. Total employment has increased 6 percent over the past two years, and now approaches the peak levels of early 1969. The unemployment rate meanwhile has dropped sharply, from nearly 12 percent down to the present level of 7.5 percent-still well above the current 4.8-percent national rate, but indicative nonetheless of considerable improvement. Moreover, the expansion has been broad-based, encompassing all sectors of the regional economy.

The recovery can be best understood by focussing on developments in the several major industries which dominate the state's "export" sector—aerospace, aluminum, farming and forest products. These industries by themselves make up less than 15 percent of Washington's total employment, but their role is crucial because they account for the vast bulk of out-of-state sales. and thus generate a disproportionate share of the state's total income. At the same time, they are responsible for the major cyclical swings in the state's economy, because they are closely tied to national (and international) industries that are themselves susceptible to wide swings in demand.

Between 1965 and 1969, Washington enjoyed exceptional growth, far above the national trend and considerably better than Washington's own earlier performance. Personal income, the broadest regional measure of economic activity, rose 52 percent over that period, or onethird more than the national gain. The major key to this prosperity was the aerospace industry, which almost doubled its payrolls between 1965 and 1968 to some 109,300 workers—and in the process increased its share of the state's total employment from 5 to 8 percent.

# Problems in aerospace

The aerospace boom in Washington, unlike the situation elsewhere, was not attributable either to the Vietnam buildup or to the expanded space program. Rather, it stemmed from Boeing's resounding success in marketing its 707 and 727 commercial jet transports and developing the twin-engine 737 and the widebodied 747. With passenger traffic growing at 20 percent a year, the nation's airlines had gone on a spending spree, competing to outdo one another with new and expanded jet fleets. As a result, Boeing's commercial sales grew from one-third to twothirds of the company's total sales between 1964 and 1968. Not surprisingly, during this period Boeing itself engaged in the most

extensive expansion program in its entire history, laying out \$500 million of its own money for design and development, and spending about \$250 million on outsized facilities for building the outsized 747.

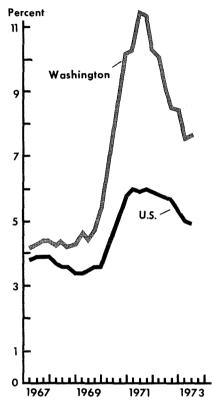
By increasing its involvement in the commercial field, Boeing had hoped to stabilize its economic base and reduce its dependence on defense work. But the commercial market proved to be even more volatile than the defense market. The annual rate of gain of airline traffic dropped from 20 to 8 percent by the end of the decade, while capacity continued to rise from 15 to 20 percent a year. Thus, the proportion of seats filled by paying passengers—the passenger-load factor-dropped to only 50 percent, and the airlines felt impelled to economize on staff and on equipment.

In 1968, Boeing's commercial market practically disappeared, as the airlines cancelled orders right and left. In the following year, military and space business began to taper off in the wake of budget cutbacks. Then, the final blow came with the cancellation of the SST program in March 1971. Between 1968 and 1971, Boeing dropped almost two-thirds of its workers in one of the most drastic cost-cutting campaigns in corporate history.

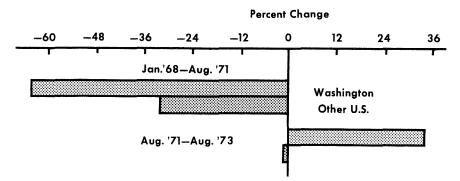
#### Problems in other industries

Conditions in the aluminum industry were equally serious. Aluminum, long known for its spectacular growth, had undergone a major nationwide expansion program during the 1965-69 period designed to raise capacity by one million tons. A large part of that new capacity was located in the Pacific Northwest, to take advantage of the huge supply of hydroelectric power offered by the Bonneville Power Administration; thus, new or expanded facilities soon came on stream at Bellingham, Longview and Wenatchee. Meanwhile, producers announced plans to expand capacity through 1973 at an annual rate of almost 7 percent.

The national industry thus was confronted with a serious problem of excess supplies in 1970, when shipments dropped by almost 7 percent in response to the slowdown of the national economy in general, and to the General Motors strike and the aerospace industry's woes in particular. Despite production cutbacks, aluminum output still rose 5 percent during 1970, leading to the buildup of 600,000 tons of producer inventories. This inventory buildup subsequently led to widespread price discounting,



Washington's jobless rate falls from very high recession level



Aerospace slump much worse in Washington than in rest of U.S., but state has now recovered at least part of earlier job loss

with market prices in late 1971 being quoted almost 20 percent below list prices. By that time too, the fall-off in orders from the aerospace industry had led to a production rate of only 80 percent of capacity in Washington's aluminum industry.

Several other cyclical industries underwent milder setbacks of their own during this period. In the forest-products industry, the prime mover was residential construction. In the spring of 1969, housing starts began to turn downward, and lumber wholesalers rushed to liquidate their excess inventories. As production declined, employment dropped 8 percent between 1968 and 1970. Pulp-and-paper producers (like aluminum producers) had overinvested in new capacity on the basis of a misreading of earlier sales gains, and in addition had spent heavily for environmental outlays. When demand slowed and prices declined in the face of rapidly rising expenses, several mills were forced to close, and industry employment dropped 10 percent over the 1969-71 period.

In 1969, the expansion of other industries was sufficient to keep total employment growing in the face of the aerospace decline. But during the 1970-71 period, when the aerospace cutbacks grew more severe and the recession extended to other "export" industries as well, employment stagnated or even declined in the important secondary industries, such as trade, services, transportation, finance and construction. As a result, the state lost over 80,000 jobs and total employment dropped to 1,268,000 at the recession low, while the jobless rate jumped from 4.5 percent at the peak to almost 12 percent at the worst of the recession.

# Recovery in agriculture

Gradually, however, the recovery forces took hold, beginning with the agricultural industry. The state's farmers had had their troubles while the rest of the economy was booming in the late 1960's, largely because of reduced acreages and lower prices for wheat, as well as weather-caused cutbacks in deciduous-fruit production. But between 1969 and 1971, agricultural receipts rose almost 15 percent on the basis of substantial wheat harvests, and this was only a curtain-raiser to the spectacular 1972 performance.

Washington's farmers received a record \$1 billion in gross receipts last year, for a 20-percent gain for the year. Wheat, the state's number-one crop, registered a 61-percent increase and accounted for almost one-half of the gain in dollar receipts. During this period, sales to Russia and China not only raised export volume but also gave a strong push to grain prices. Cattle and calves were the second largest source of farm income, on the basis of a modest gain in production and a sharp upsurge in prices. The apple crop also contributed heavily to the rise in receipts, with prices rising as a result of short supplies in other producing areas of the nation.

Washington's agricultural output this year has been adversely affected by unfavorable weather conditions in the eastern portion of the state, but higher prices could still conceivably push dollar receipts to a new record. The wheat harvest—affected first by a freeze and more recently by drought—is now expected to be only about 70 percent as large as last year's crop. But a worldwide scramble for U.S. supplies has pushed prices to nearly triple the year-ago figure.

Drought losses in the Soviet Union and China led to their original placement of orders for U.S. wheat, but they may continue to import huge quantities, because of changing consumption patterns in those countries as well as their improved political relationship with the U.S. The Soviets plan to increase the animal-protein content of the Russian diet by 25 percent as part of their current five-year plan, but in order to boost their livestock herds, they will have to rely increasingly on the world market for grain.

Washington's livestock producers have been confronted with rising costs and shortages of feed grains and hay, aggravated by the widespread drought. The total live weight of cattle slaughtered from January through July of this year was down 12 percent from the corresponding period of 1972. The nation's demand for beef has been extremely strong, however, due to the rise in incomes and the steady expansion of the hearty-eating young adult population, and prices received by Washington cattlemen, which rose sharply prior to the government-imposed freeze, are expected to continue upward now that price ceilings have been lifted.

Rising farm productivity and an increasing variety of crop production have helped bring about a doubling of Washington farm receipts over the past decade. Washington of course is prominent as a producer of wheat, apples, potatoes and pears, but it also supplies national markets for such high-value, intensive crops as asparagus, grapes and berries. Irrigation has been a key factor in this development, but the proportion of total irrigated cropland (15 percent) is still well below that for the rest of the Pacific Northwest. Further expansion in these crops may depend on increasing the present total of 1.2 million irrigated acres.

#### **Recovery in forest products**

The forest-products industry was the second of the state's major "export" industries to recover from the earlier recession. Despite the sluggish nature of the nationwide economic recovery, residential construction rose sharply, with housing starts soaring by 62 percent over the 1970-72 period. Pacific Northwest lumber mills increased production by 16 percent over the twoyear period, but the pressure of demand kept prices rising steadily except during the 90-day freeze of 1971. Indeed, production probably would have expanded further except for the distortions created by controls, since the profit-margin limitation provision of the Phase II program actually discouraged the large mills from producing at full capacity.

Over the same period, the pulpand-paper industry began to recover from its earlier problems of overcapacity and soft prices. During 1972, paper and paperboard consumption grew rapidly, so that the industry's operating rate approached full capacity by year-end. Supplies grew even tighter during the early part of 1973, resulting in a 13-percent boost in prices by August, at an annual rate. During the last several months, the lumber industry has begun to retreat from the feverish pace of 1972. Housing starts have dropped because of tighter mortgage markets, the satisfaction of earlier pent-up demands, and the rise in vacancy rates in at least the apartment sector of the market. The almost uninterrupted price upsurge experienced during the prior 21/2-year period undoubtedly also played a role in eventually curbing demand. During the first four months of the quasi-voluntary Phase III period alone (January-May), softwood lumber prices rose at an 85-percent annual rate, while plywood prices shot upward at a 153-percent rate.

Lumber and plywood prices have now declined in response to the weakening housing market, and they are likely to fall further in response to a projected drop in housing starts over the next year or so. The recent tight lumber market, however, suggests that the lack of availablity of timber could pose a constraint on homebuilding in the years to come. With current levels of forest management, demands and supplies of softwood sawtimber can be expected to balance in the

future only with rather substantial increases in prices of timber and forest products. The pressure will intensify if sizeable tracts of Federal and state forest lands are withdrawn from timber use for wilderness and scenic areas. The lumber supply problem lies principally in the area of timber availability; the industry generally has sufficient mill capacity to meet prospective demand, although efforts are being made to modernize facilities by installing equipment capable of conserving labor and raw materials.

A somewhat different situation exists in pulp and paper, where supplies could remain tight over the next several years because profits have not been sufficient to encourage significant investment in new capacity. In this industry, the huge capital outlays required to meet air- and waterpollution abatement standards are being met in part with funds that otherwise would have been spent on expansion of capacity. But the burden of meeting these standards is so high that the companies are turning to municipal-revenue bonds to reduce the cost of borrowing; about \$200 million has been earmarked for this type of financing by the region's paper and metal manufacturing industries.

## Recovery in aerospace

Following the upturn in Washington's farming and forest-products industries, the aerospace industry began to pull out of its prolonged tailspin. Employment in the industry gained 4 percent last year, and the slow but steady expansion has continued in 1973, although employment today—roughly 58,000—is only about half of the record high of five years ago.

The commercial-aircraft sector, the major cause of the severe downturn, similarly has provided most of the thrust for the upswing. In 1972, the nation's airlines recorded an impressive 12percent gain in passenger traffic and a marked improvement in their profits. In particular, the year's growth brought travel demand closer into balance with capacity, leading to a doubling of Boeing's commercial-aircraft orders. China's \$125 million purchase of ten 707s meanwhile provided an historic breakthrough in the foreign market.

Government orders also supported the upturn, as military prime contract awards rose 45 percent (although from a relatively low base) during the year. The list of projects was relatively long, and involved avionics work on the advanced B-1 bomber, continued work on the Minuteman missile, development of an Air Force short-takeoff-and-landing aircraft, and development of the Mariner spacecraft system.

The aerospace industry's order backlog, although well above the year-ago level, has begun to taper off in recent months, however, so that the likelihood of a major expansion in employment looks somewhat doubtful. The growth in domestic airline passenger traffic this year has been lower than expected, and most forecasts are being cut in half, to at best a 5- to 7-percent increase in traffic for all of 1973. The longrun future for the aerospace industry looks fairly strong, however, because of the 11-percent annual gain in domestic airline traffic anticipated over the next decade.

Converting airline-traffic projections to requirements for new aircraft, the Boeing Company forecasts a total world market of \$51 billion by 1980, which could mean \$22 billion in sales for the firm if it maintains its present 43percent share of the world total. Orders for the jumbo 747 have been improving, and Boeing may well meet its sales goal of 600 planes by 1980, especially in view of the work now underway to enhance the plane's flexibility. (The recently unveiled 747 SP is the seventh version of the basic 747 model.) The company also has a new plane on the drawing board, the 7X7, to replace the highly successful 727 when it is phased out later in the decade. However, forward planning is affected by the fact that preproduction costs of an entirely new commercial aircraft can approach \$600 million.

## Recovery in aluminum

The aluminum industry, finally, recorded a turnaround in its supply-demand situation during 1972. Producers were able to reopen most of the potlines closed earlier because of serious overproduction problems, and the industry's operating rate rose gradually over the course of the year. The deterioration in market prices halted during 1972, and the market then began to strengthen considerably. By April

of this year, supplies had become so tight that the selling price for ingot finally reached the published level of 25 cents per pound, ending more than three years of heavy discounting.

Demand conditions in the national industry have been extremely strong this year, and shipments could be up as much as 20 percent from 1972's level. Purchases from the government stockpile have helped to meet demand, but supplies have been very tight nonetheless. The price of ingot, which remained frozen at the 25-cent level until August 13, could reach as much as 28 cents by year-end.

The present national shortages are due in part to the regional industry's recent difficulties. Major facilities were shut down in mid-April because of hydropower shortages, and the problem has grown increasingly severe since then, resulting in the closure of 352,000 tons of annual capacity by mid-July. The problem arose when the Bonneville Power Administration was forced to cut back 50 percent of its interruptible power to industrial customers, as a consequence of the lowest stream flow into the Columbia River Basin in the last 30 years.

Even when this problem is overcome, the national supply of aluminum could remain tight for several years to come, since no new smelter capacity is scheduled to come on stream until 1976. This situation is attributable in part to the sharp expansion in capacity of the 1960s, which has now left its scars in the form of a huge long-term debt, increased still further by necessary spending for environmental purposes. But in addition, the industry's return on capital in recent years simply has not been sufficient to justify the building of new facilities.

When new aluminum facilities are built, they will probably not be located in Washington, because of the likelihood of continued power problems in this region. The Bonneville Power Administration, in cooperation with private and public utilities,

is engaged in a hydro-thermal power program designed to triple the Northwest's energy resources over the next two decades. But Bonneville's projections indicate that, even under the most favorable conditions. total power supplies will be inadequate to meet guaranteed load requirements during the next several years, while interruptible power supplies will be in deficit throughout the decade. Meanwhile, the expanding role of nuclear power in the region could raise power costs perhaps 25 percent over the next several years.

The unusual severity of Washington's 1969-71 recession reflected a bunching of individual recessions in several key industries, but it also reflected the overoptimism implicit in the expansion plans formulated during the previous boom. In the present recovery, producers apparently are not making the same mistakes, but rather are gearing capacity more closely to demand. This cautious and more balanced expansion in capacity should prevent a recurrence of the sharp cutbacks in employment and output characteristic of the 1969-71 period, in the event that national economic activity should weaken in 1974.