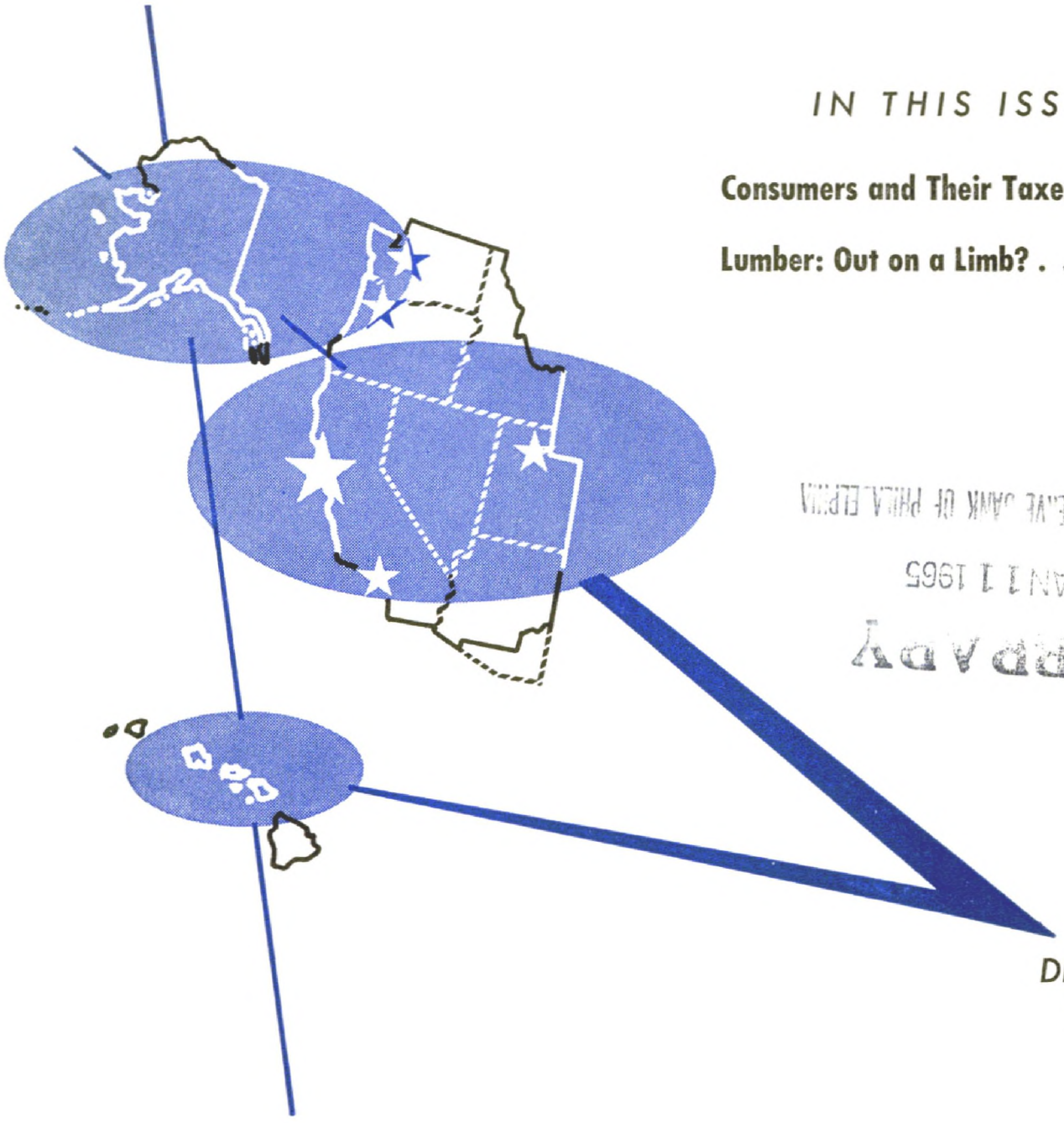
FEDERAL RESERVE BANK OF SAN FRANCISCO

MONTHLY REVIEW



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Consumers and Their Taxes

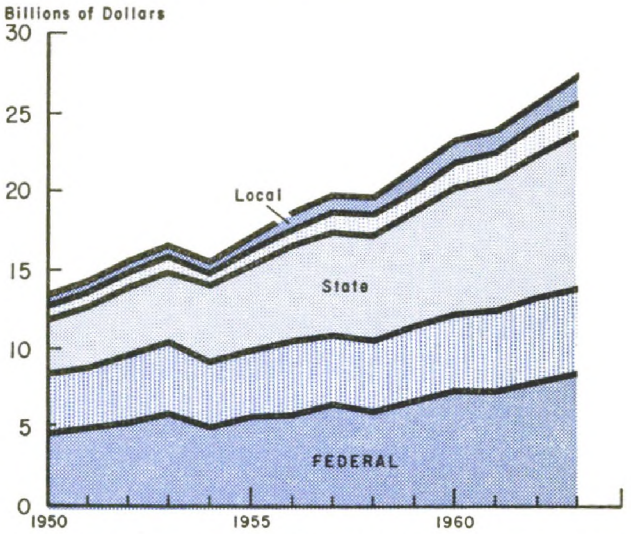
In every recent year, the Secretary of the Treasury has appeared before the House Ways and Means Committee to request the extension of the "Korean" excise taxes, and Congress—after more-or-less perfunctory debate—has agreed to grant one more year's extension. But Capitol Hill perhaps has seen the last of that particular ritual; for 1965, a completely new script may have to be written. In view of President Johnson's statement before the steelworkers' convention ("Next year we are going to cut excise taxes") and in view of Treasury Secretary Dillon's subsequent description of the levies that were ripe for reduction, the taxpayer may well look forward to some lowering of excise rate schedules in the forthcoming Congressional session.

If the Federal tax-collector has his way, reductions will be forthcoming on some but not all categories of "sin" taxes; on the other hand, revenues may continue to rise for some of the more notable levies of that type, such as those on liquor and tobacco. Moreover, in 37 of the 50 states, tax collectors will continue to rely on an increasing take from similar taxes to offset the rising costs of state and municipal finance. But whatever the fate of the proposed 1965 legislation, the current discussion serves to draw fresh attention to a type of levy that has been frequently denounced, yet greatly productive, since the birth of the Republic.

Direct vs. indirect

Federal excises and state sales taxes come under the heading of "indirect" consumption taxes, as opposed to the "direct" taxes levied on individual or corporate income. Consumption taxes are paid by the consumer in the price of the commodities that he purchases; they vary with consumer expenditures, in contrast to income taxes, which vary with receipts during a definite period of time.

Sales and excise tax revenues grow rapidly, especially at state level



Note: Screened areas represent liquor and cigarette tax revenues
Source: Department of Commerce

Although relatively less important now than, say, at the turn of the century, consumption taxes currently bring in one-fifth of combined federal-state-local governmental revenues and rank second in importance only to the personal income tax. In other countries consumption taxes have played an even more important role. And in other periods of history, their importance has been felt far outside the fiscal field—witness the commotion aroused when George III taxed tea and when George Washington taxed whiskey. (Yet, in the past century, the tax rate on distilled spirits has risen from $0.20 to $10.50 per gallon, without revolutionary consequences.)

At present, about two-fifths of the total Federal take from excise taxes comes from sumptuary (liquor-tobacco-gambling) taxes. Another two-fifths of the excise total comes from auto and gasoline taxes, including those earmarked for the Highway Trust Fund. The remaining one-fifth consists primarily of "luxury" taxes—on jewelry, furs, TV sets, telephone calls, air travel—which are the prime

targets for reduction in the proposed legislation.

The Federal Government has never made use of a general sales tax, although it has been strongly advocated during the Civil War, the Great Depression, World War II, and again in more recent years. State governments, on the other hand, became strongly attracted to this type of revenue-producer during the Great Depression — 25 states adopted such a tax during the 1933-35 period alone — so that it now ranks as the major single source of revenue in many jurisdictions. The states, of course, have also adopted the same panoply of specific excises that are levied at the Federal level, while a few municipalities have followed the states into the field of general sales taxation.

The Federal Government's perennial reliance on consumption and other indirect taxes, and the state governments' adoption of such taxes during the Depression, gave these levies a predominant position in the nation's tax structure even as late as World War II. The war, however, marked a turning point; the share of all indirect taxes in the nation's tax structure dropped from 71 to 31 percent between 1939 and 1943. During that period, the personal income tax was transformed into a mass tax with exemptions so low as to include the vast majority of households in the tax base, while corporate tax rates were raised to very high levels, especially after the imposition of an excess-profits tax.

Since the low point reached in World War II, indirect taxes have increased in relative importance. Congress lowered both income and excise tax rates after World War II, increased them again during the Korean War, and lowered them again after that conflict. But the states have consistently moved in the direction of heavier sales taxation, and that factor—along with the reduction in Federal income taxes in several recent years — has helped cause the shift in the relative importance of the two types of levies. From 31 percent in 1943, indirect taxes subsequently have risen to 35 percent of total tax revenues in 1951 and 43 percent in 1962—and probably to 44 percent in the current fiscal year. (The totals include primarily excise and sales taxes, but property taxes and several minor levies are also included.)

Rising rates, rising revenues

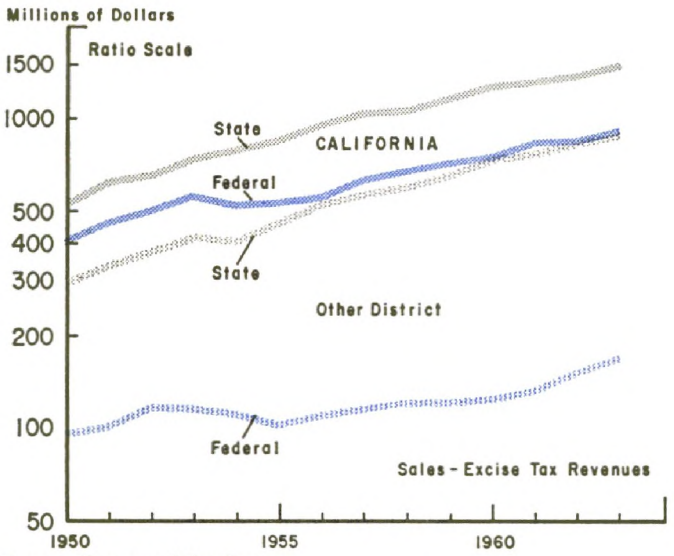
In dollar terms, indirect consumption taxes have increased consistently over the years. For one reason, the long-term trend in incomes and sales has been upward; for another, the long-term trend in tax rates has also risen, despite the occasional reductions in excise rates.

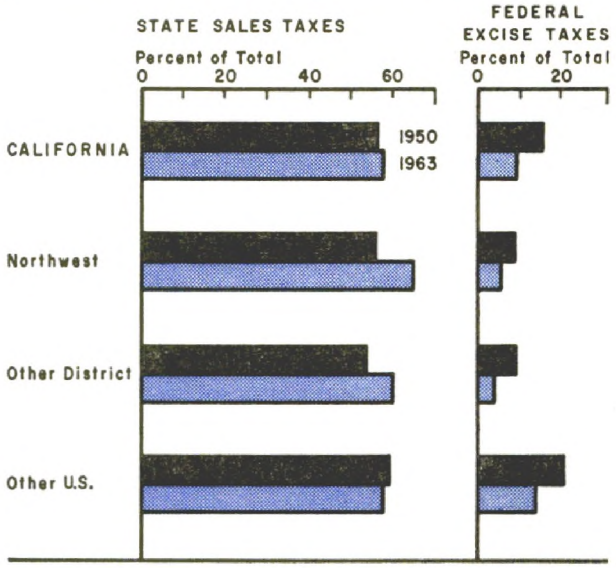
Sumptuary expenditures have long been a favorite target of the Federal tax collector; not only has the distilled-spirits rate increased from $0.20 to $10.50 per gallon over the past century, but the cigarette-tax rate has risen from $1.50 to $4.00 per thousand over the same period. But a similar trend has also been evident in non-sumptuary areas. The tax rate on passenger cars rose from 3 percent to 10 percent of manufacturer's sale price between 1917 and 1951, and the rate on telephone calls rose irregularly from 6 percent to 10 percent between 1941 and 1954.

At the state level, the uptrend in sales tax rates has been very strong, especially in the last several years. Rate increases took place in about one-half of the sales-tax states during the last decade; consequently, the median tax rate has now risen from 2 to 3 percent, and the top rate has reached 5 percent. Even so, resistance to rate increases is now increasingly evident; in 1964, only two out of nine state legislatures that considered rate increases acted favorably on such proposals.

Substantial revenue gains have been recorded in recent years on the strength of an expanding tax base as well as the rising level of tax rates. Thus, between 1959 and 1963,

Sales taxes used increasingly to meet revenue needs of Western state governments . . . excises account for relatively small share of Federal revenues





Source: Bureau of the Census

revenues from Federal excise taxes rose from $11.4 to $13.8 billion, while revenues from state sales taxes jumped from $8.5 to $11.8 billion. And, as already indicated, the share of such indirect consumption taxes in the total tax structure also rose.

Western states recorded significant gains in these categories in the same period. Between fiscal 1959 and fiscal 1963, California increased its contribution to Federal excise taxes from $712 to $908 million, and other District states increased their Federal excise-tax contribution from $122 to $168 million. Meanwhile, California increased its own sales-tax revenues from $1,150 to $1,479 million, and other District states increased their take from such taxes from $654 to $890 million.

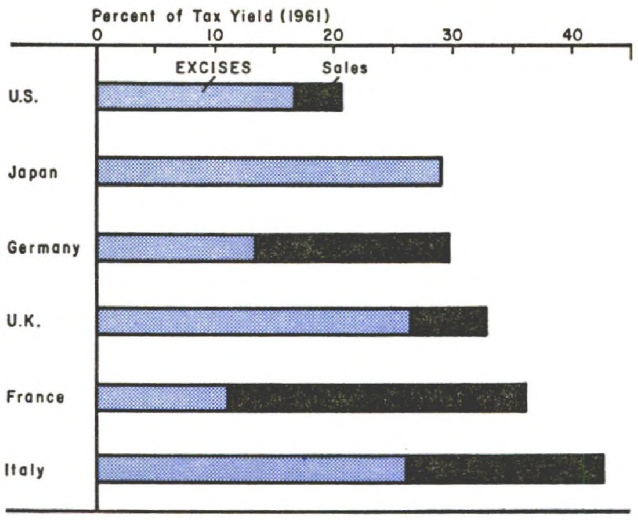
Federal rates naturally are uniform throughout the country, but individual states vary widely in the extent to which they rely on state sales taxes for revenue. The nine District states all impose selective sales taxes, but three (Oregon, Idaho, and Alaska) do not have a general sales tax. Those three states thus obtain less than one-third of their state revenues from sales taxes, whereas other District states rely much more heavily on that type of levy. Utah and California obtain substantially more than one-half—and Arizona, Nevada, Hawaii, and Washington obtain two-thirds or more—of their state revenues from that source.

Stimulus to growth?

But how much of a tax burden should the consumer shoulder in the form of excise and sales taxes? The question may seem unrealistic to harassed legislators, beset as they are by the need to find funds for a rapidly expanding package of public facilities and public services; to economists, however, especially those concerned with international comparisons of economic growth, the question has become quite important in recent years.

The data show that this country puts far less reliance on excise and sales taxes than do other industrial nations. In one recent year (1961), excises and sales accounted for only 21 percent of the U. S. tax yield, as opposed to 30 percent for West Germany, 33 percent for Great Britain, 36 percent for France, and 43 percent for Italy. These data have become involved in a major argument about economic growth; to wit, that a tax structure built

Consumption taxes play greater role in foreign tax systems than in U. S.



Source: Department of the Treasury

around indirect consumption taxes tends to stimulate economic growth — investment spending in particular. That argument could now be attacked, however, in view of the recent growth in the nation with the smallest burden on consumption and the slowdown in the nations with the heaviest such burdens. (Yet, on the other hand, the continuation of the upswing in this country during 1964 has been accompanied by a reduction in direct income taxes and a consequent increase in the relative burden of indirect consumption taxes.)

The debate over the optimum mix of indirect and direct taxes highlights the growing concern of legislators over the economic effects of tax legislation. That concern, demonstrated in the income-tax debates of the past two years as well as in the current discussion of excises, suggests that legislators are increasingly motivated by the desire to write tax bills that will expand the overall economy and not simply expand tax revenues. Unfortunately, the aggregate impact is difficult to assess, partly because of the sometimes differing effects of general sales and specific excise taxes, and partly because of the strong possibility that diverse state and Federal tax policies will generate opposite trends in revenues from sales and excise taxes. In this situation, then, it would be wise to analyze the general effects of consumption taxes before considering excise taxes specifically.

The regressive tax

First, consider the extent to which indirect consumption taxes distribute the tax burden among individuals—their equity effects. Judgments about the equity of alternative tax measures depend, after all, on whether they result in equal burdens being borne by taxpayers in generally similar circumstances and on whether they result in a socially acceptable pattern of differences in burden among taxpayers with different levels of income.

With indirect levies such as sales and excise taxes, the initial impact is felt by business enterprises; tax receipts are collected from businesses but the tax burdens are then expected to be shifted. They may be shifted forward to consumers through price adjustments for a firm's products, or they may be shifted backwards to individuals who derive their incomes from the firm by adjustments in their wages or other income. Generally, however, empirical studies of the tax burden are based on the assumption that consumers bear the burden of such taxes, with the burden distributed among individuals in relation to consumer expenditures on taxed items.

One such study, published by the Tax Foundation's George A. Bishop in the *National Tax Journal* (March 1961), suggests a strongly regressive nature for both sales and excise taxes, with such taxes taking a smaller proportion of income as incomes rise. On the basis of 1958 data, Bishop argues that consumption taxes account for 8.8 percent of total income for families in the under-$2,000 bracket, but that they account for only 6.6 percent of income for families in the $6-8,000 bracket and 3.9 percent of income for those making $15,000 or over. On the other hand, the burden of other taxes in those same in-

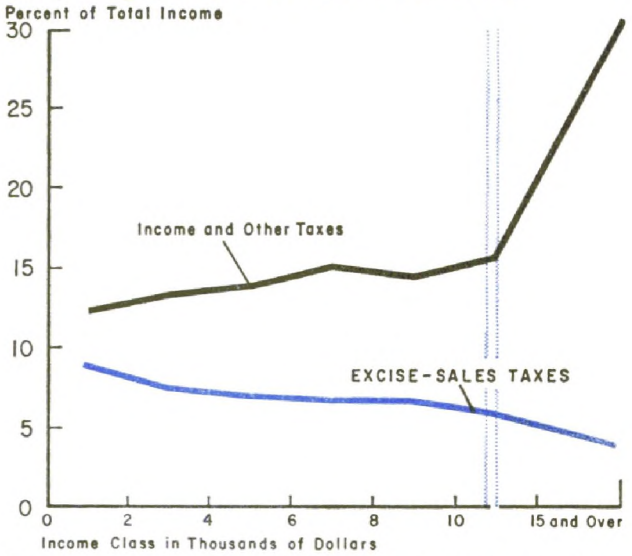
come categories is highly progressive—12.2 percent, 15.0 percent, and 30.5 percent, respectively.

Some observers would question whether the burden of consumption taxes can be estimated so precisely; others would go further and question whether such taxes are in fact regressive, in view of the existence of exemptions which reduce the burden on the pocketbooks of the poor. But when broad adjustments are made through exemptions, they are likely to operate imprecisely among particular taxpayers. For instance, the exemption of home-consumed food under a retail sales tax and the taxation of restaurant meals are designed to reduce the regressive nature of consumption taxes—but non-taxed food served at formal dinners in upper-income households may be classified as a luxury, whereas taxed food consumed by poor individuals in cheap restaurants must be considered a necessity. Thus, tax-base adjustments designed to lessen apparent average regressiveness may actually increase the degree of regressiveness for some groups of consumers.

Another criticism of these empirical studies suggests that they exaggerate regressiveness (especially in the lowest-income brackets), since they relate *current* consumption taxes to *current* income levels in determining effective tax rates. The lowest income classes, after all, generally tend to be dissavers, spending more on consumption than their current income; therefore, a tax burden allocated on this basis has a high effective rate with respect to the current year's income.

Consistent average dissaving in the lowest income classes may be partially explained on grounds that many persons remain only temporarily in these classes and that they thus consume and pay sales taxes on the basis of income obtained or to be obtained in other years. It could be argued, therefore, that the sales-tax burden should be measured by relating average expenditures and average income for each

Regressive consumption taxes
take large share of lower incomes



Source: George A. Bishop, "The Tax Burden by Income Class, 1958," *National Tax Journal*, March 1961

spending unit over a period of years — in which case the burden might turn out to be less regressive than indicated in the studies made to date.

Stabilization and growth

On balance, most observers would agree that the distribution of individual income-tax burdens can be measured with much more certainty than can the measurement of consumption-tax burdens. Yet, most observers would also agree—albeit with some reservations—that consumption taxes tend to be regressive in nature. Given this tendency, consumption taxes have certain implications for the policy goals of stabilization and growth.

First, there is the impact on the level of consumption. Compared with the personal income tax, the tax burden of consumption taxes is distributed more regressively, so that taxes paid by lower-income groups are reflected more largely in reduced consumption than are taxes paid by higher-income groups. For that reason, and also because consumption taxes favor saving more than consumption, the consumption impact of sales and excise taxes tends to be higher than the impact of income taxes.

What, then, is the significance for economic policy of this consumption-tax effect? Princeton Professor Richard A. Musgrave, writing in the House Ways and Means Committee's "Excise Tax Compendium," concludes, "The implication is bad (for full employment policy) if we think of high consumption as a condition needed to provide for an adequate level of aggregate demand. The implication is good (for growth policy) if we assume that the necessary level of demand will be forthcoming anyhow, and view reduced consumption as an opportunity to release resources for increased use in capital formation."

In addition, there is the impact on the level of investment. Compared with the corporate profits tax, consumption taxes may have widely different results, depending on whatever assumption is made concerning the short-run shiftability of the profits-tax burden. If the burden of that tax is not shifted, then the substitution of excise or sales for profits taxes clearly would raise the net relative to gross profits margins, and would thereby increase the internal flow of funds. Again, in Professor Musgrave's words, "As far as aggregate demand effects are concerned, this would improve matters to the extent that the gain in investment exceeded the loss in consumption —a result which is possible but by no means certain. As far as growth effects are concerned, substitution of capital formation for consumption would be a gain, but could hardly be sustained in the longer run without a supporting rise in consumer demand."

Check consumption, spur investment

On balance, as far as growth effects are concerned, indirect consumption taxes are generally assumed to be more favorable than direct taxes on income. Consumption taxes tend to influence private decisionmaking away from spending and toward saving, whereas income taxes fall on both spending and saving. Therefore, a switch from income to consumption taxes would tend to increase the propensity to save of households and business firms. But the general economic environment would determine whether increased saving would also produce increased investment and real growth. If, for example, a higher proportion of income were saved under conditions of less-than-full employment, without any concomitant stimulation of investment, then total spending and total income would tend to fall; the reduction in income thus could offset the increase in the saving rate, producing a smaller amount of absolute saving. On the other hand, the larger volume of savings would tend to produce lower levels of interest rates, and these would be beneficial to investment. The question, then, is whether investment spending would increase sufficiently to offset the initial decline in consumption spending.

Also on balance, as far as stabilization effects are concerned, consumption taxes are generally assumed to be less effective than income taxes. Corporation profits taxes and progressive personal income taxes both tend to produce a more-than-proportionate increase of revenues during booms and a more-than-proportionate decrease of revenues during recessions; they are thus excellent automatic stabilizers, automatically increasing the Federal budget's withdrawal of private purchasing power on the upswing and reducing the withdrawal of purchasing power on the downswing. (Of course, the relative stability of personal income during recessions is a more important stabilizing factor.) On the other hand, consumption taxes tend to be weaker automatic stabilizers, primarily because of the short-term stability of consumer spending patterns. But, of course, any overall prescription, which applies to consumption taxes in a general sense and to sales taxes in particular, may not be specific enough for the excises which are now the main subject of conversation among tax collectors and taxpayers.

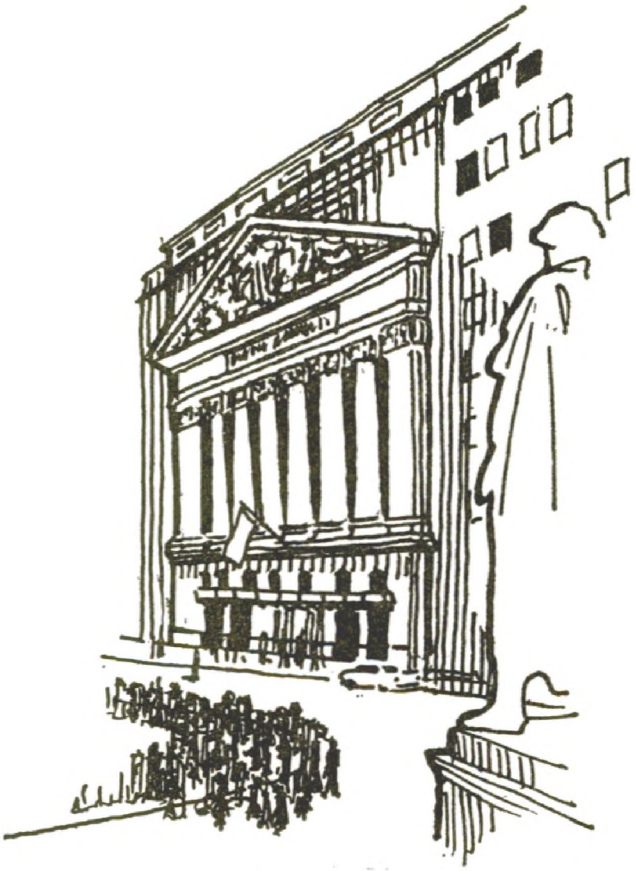
Reasons for reduction

What criteria should then be used to determine which Federal excises should be retained, reduced, or removed? The question is of some importance, since such taxes are scheduled to bring in $14.5 billion in the present fiscal year, and Treasury officials would prefer not to see a reduction of more than $4 billion in that total. But Congress has already received many answers to the question. The House Ways and Means Committee has conducted extended hearings on several different occasions—most recently this past summer, when a number of manufacturers, retailers, and interested citizens spun out 1,266 pages of testimony on the subject. These hearings were supplemented by discussions with 11 fiscal experts, who helped the committee deal with its thorny task of dismantling part (but not all) of the excise-tax structure.

In the context of a fiscal policy designed to stimulate economic activity through the expansion of consumption spending, the experts' broad advice to reduce consumption taxes (as summarized above) would appear to be applicable. But because of the great diversity of excise taxes and the need to set priorities for reduction, the experts also provided more specific criteria. In particular, Illinois' Professor John F. Due set up several priorities. In his view, priority for repeal should go to those excises which fall primarily on business costs, or which significantly distort consumption patterns without justification, or which create an inequitable pattern of burden distribution, or which create enforcement problems or provide negligible revenue.

Consider the application to business purchases. Excise taxes are designed to distribute the burden of taxation in relation to consumption spending, but this justification is lost if the taxes apply primarily to business purchases, such as office and business machines. When this situation occurs, the final distribution of tax burden will be haphazard, the selection of production techniques will be distorted, and the modernization of industry will tend to be retarded.

Next, consider the distortion of consumption patterns. In purchases of this type—fur coats, for example—consumers are encouraged to spend a relatively larger amount on untaxed goods, from which no tax revenue is obtained, and yet the consumer is worse off, in the sense that his pattern of preferences has been distorted by the differential tax impact on the prices of some goods in relation to the prices of other goods. "Sin" taxes on liquor and cigarettes may possibly be justified on grounds that consumption would be excessive in terms of national welfare if they were not taxed, but this argument cannot be advanced for most other excises. (Not incidentally, liquor and cigarette excises are excellent revenue producers, because of the inelastic demand for those products.)



Then again, consider the extent of inequity in the burden distribution. Some excises may affect commodities for which individual preferences vary widely, in which case the tax burden will vary substantially (and unjustifiably) on the basis of such preferences, while other excises may place an especially heavy burden on the lowest income groups. Household appliances are an example of this last category. These are not conclusive arguments against any specific tax in light of the progressive elements in the overall tax system, but they do create a problem insofar as regressiveness is considered undesirable.

Finally, consider the questions of enforcement and of negligible revenue. For one thing, administrative effort is diverted from more important tasks when the tax authorities operate taxes which yield only a few million dollars a year. For another thing, effective administration is difficult when the delineation of taxable and nontaxable commodities is unclear, or when a large number of firms conduct innumerable small transactions, especially when only some of those transactions are taxable. Cosmetic and toilet preparations are a prime example of this category. (On the other hand, some excise taxes have a regulatory purpose or are earmarked for special programs.)

Targets for reduction

In the light of these and other criteria, Professor Due proposes several obvious items for repeal, at a revenue loss of about $483 million. In particular, levies on business machines and lubricating oils primarily affect business costs; levies on costume jewelry and cosmetics are difficult to administer and probably regressive in nature; and those on matches and ballpoint pens involve only negligible revenue.

On the same basis, a strong case for repeal could be made for a group of excises which now yield about $634 million annually. Excises on household appliances and refrigerators tend to have a regressive effect; excises on issuance and transfer of securities, although hoary with tradition and regulatory in purpose, have long since outlived their usefulness; and levies on light bulbs, luggage, musical instruments, and sporting goods hamper socially useful activities, while levies on furs, playing cards, night clubs, horseracing, and bowling alleys are objectionable on other grounds, no matter how well they may hamper "sin." Also, according to Professor Due, a case for repeal could be made for excises on radios, TV sets, auto parts, and cameras—items which now yield about $550 million annually.

If all the taxes listed here were earmarked for repeal, Treasury revenues would fall by about $1.7 billion in the current fiscal year. But the tax structure would still include some very productive excises, such as those on gasoline (for the Highway Trust Fund), telephone calls, automobiles, and especially liquor and cigarettes. Will these taxes be retained while other excises are being wiped off the books? Here, a problem arises; as Treasury Secretary Dillon noted when he raised the question of excise cuts recently, the Administration may have less trouble in getting the proposed reductions through Congress than in resisting Congressional pressure to add to the list.

After the tax cut

Assuming, at any rate, that Congress legislates the $4-billion "maximum" reduction proposed by the Administration, how much stimulus to consumer spending could be expected from this action? Sales data in the aftermath of the 1954 and 1964 tax reductions may provide some clues on this point.

In 1954, immediately after excises on electrical appliances were reduced from 10 to 5 percent, manufacturing firms and mail order houses reduced prices on large appliances by an average of about 5 percent; thereupon, in the following year expenditures on appliances

increased about 16 percent, as compared with a 1-percent increase in 1954. (Of course, increased incomes as well as reduced taxes contributed substantially to this increase.) In 1964, a 6-percent gain in disposable income in the first three quarters of the year was paralleled by a more-than 6-percent gain in consumer spending—an increase which was substantial for all types of goods and services. In both tax-cut years, significant reductions in taxes were reflected in significant increases in consumer spending, although those tax reductions were primarily general income-tax reductions rather than specific cuts in excises.

Yet, even if 1964's happy expansionary experience with tax cuts is not repeated in the wake of any future cut in Federal excises, many analysts would still consider it worthwhile for the Federal government to de-emphasize consumption taxes, especially in view of the state governments' increasing reliance on such levies. After all, money must be found to pay for the functions traditionally performed by those governments — functions which are increasingly expensive because of growing population, increasing urbanization, migration from areas of relatively low public services to areas of higher levels, mounting automobile traffic, desires for improved education-health-hospital programs, and insistence on increased quantity and quality of government services in line with improved standards of living.

Various sources of increased revenue may become available to the states, including automatic and unconditional grants to state coffers out of Federal revenues. In addition, substantially increased collections may be sought through new tax enactments, higher tax rates, and improved tax administration. But much expert opinion favors allowing the states more leeway to increase their use of consumption taxes. This approach is typified by the Advisory Commission on Intergovernmental Relations, which contends that "The states are bound, not by federal law, but by tradition and circumstance, to rely heavily on property and consumption taxation and they cannot be expected to shift this reliance substantially in the foreseeable future."

Calvinism and two sisters

Accordingly, the nation's tax structure may continue to show an increasing shift toward indirect consumption taxes, even as Congress hacks away at the tangle of Federal excises, because of the states' ever-expanding utilization of sales taxes. (For example, a California Senate committee is now considering a proposal to increase consumption taxes by $311 million next year.) Yet, whatever the trend, controversies are bound to continue regarding the regressiveness of such taxes and their implications for full employment and economic growth.

In the midst of those controversies, few observers are likely to go so far in their denunciation of consumption taxes as that economist-turned-moralist, the late Henry Simons: "The only cogent defense of them rests on the Calvinist premise that poor consumers of the object in question are obviously damned for the next life and may properly be prepared now for their fate, by carrying what would otherwise be tax burdens of the elect." Most observers are more likely to agree with that moralist-turned-tax colector, William Gladstone, who insisted a century ago that direct income taxes and indirect consumption taxes should be viewed as equally attractive sisters, both of whom should be pursued — not too ardently, but rather with proper and appropriate grace.

Lumber: Out on a Limb?

THE WEST long has been the dominant lumber-producing region in the nation. Nowhere in the world is there concentrated on such a relatively small area of forest land such a rich reservoir of old-growth timber. Yet, despite its wealth in raw material and its strong production record, the Western lumber industry has faced a number of severe challenges over the last decade. Beset by strong and growing competition from other producers (foreign and domestic) and from other building materials (wood and non-wood), the industry has seen prices fall, employment decline, and hundreds of small mills go out of business. But current efforts to improve lumber's position—along with the trend toward greater integration with the pulp and paper and plywood industries—offer hope that the Western forest products complex will yet reach new heights of production and profit. (The lumber industry, the sector emphasized in the following discussion, is composed of those firms engaged in converting logs into rough and finished lumber.)

From Maine to Puget Sound

The birth of the Western lumber industry came on the heels of the Eastern industry's decline. Lumbering grew up with the country, naturally reaching its first peaks of activity in the populous colonies along the Atlantic Coast (particularly Maine) and then spreading inward as settlements moved back from the coastline. By 1870, the Lake States (with Michigan in the forefront) replaced the Northeast as the leading producing region.

Yet, by the turn of the century, Great Lakes lumbermen had almost depleted the stands in that region and had begun searching for new forest reserves. The Southern states constituted the next obvious target for development, but lumbermen also began to turn toward the vast frontiers of virgin timber in the Pacific Northwest. Of course, they had heard about big stands of timber that would cut 300,000 feet to the tree, but they had set them aside as bunkhouse myths. But one look was sufficient to dispel the myths, and soon the lumbering families whose names had become famous in Maine and in the Saginaw and on the upper Mississippi were establishing saw and planing mills on Puget Sound, in Gray's Harbor, and along the Columbia river.

The Census of 1910 impressively demonstrated the rising importance of both the South and the West. But while the South's relative position has since declined, the West has achieved a position of dominance. Twelfth District states, which accounted for 17 percent of a record national production of 45 billion board feet in 1910, raised their share to 55 percent of total production of 33 billion board feet in 1962. (The Western industry is a softwoods industry; in fact, District states accounted for over 68 percent of the nation's softwoods production in 1962.)

The relative positions of the major producing states shifted after the region's rise to prominence. In 1938, Oregon moved ahead of Washington to become the nation's leading producer; today, it accounts for nearly one-fourth of the industry's total output. California surpassed Washington during the 1940's to become the second highest producer, and it presently accounts for about 15 percent of national production. Washington's output has declined drastically over the past quarter-century, so that it now supplies only 11 percent of the national total. Idaho, meanwhile, has moved steadily up to fourth position, with about 5 percent of the total.

Timber and more timber

The District's dominant position, not only as a producer of lumber but as a producer of other forest products as well, is based on its great reservoir of virgin timber. Although the region embraces only 17 percent, or some

87,250 acres, of total U. S. commercial forest land, it holds 55 percent of the nation's total footage of sawtimber. The heaviest part of this stand is located in Oregon and Washington, which in themselves contain 35 percent of the nation's sawtimber—primarily in the Douglas fir region west of the Cascade Mountains and the ponderosa pine region east of the Cascades.

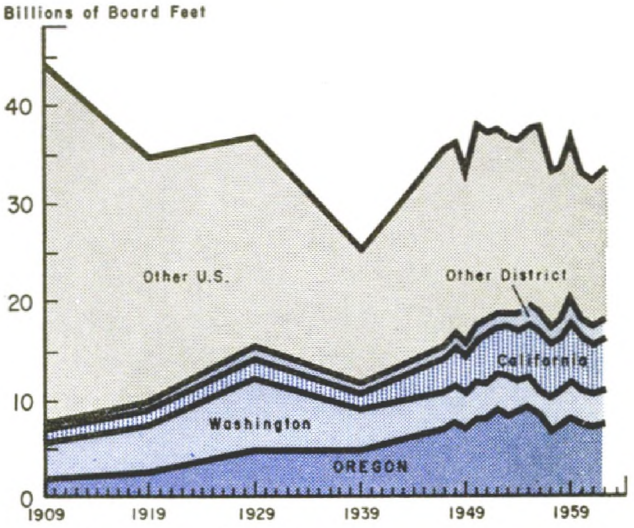
This heavy density of sawtimber is attributable to the concentration of old-growth timber in District states. The mammoth size of Western trees, in turn, helps the regional industry utilize larger sawmills and more modern equipment than are in operation elsewhere. In 1962, about 72 percent of Western production was supplied by 373 mills, each producing 15 million board feet or more. In the East, a similar percentage of output was supplied by 30,300 mills, each producing less than 5 million board feet annually.

On the other hand, a substantial part of the District's sawtimber is not immediately available for conversion into forest products because of forest management policies. Almost 60 percent of the forest area is owned and managed by the Federal Government, about 5 percent by state and local jurisdictions, and most of the remainder by commercial forest interests. Much of the publicly owned timberland is operated on a "sustained-yield" basis, in which the annual allowable harvest and sale of timber is limited to an amount roughly equivalent to the annual growth. Thus, a more or less even flow of timber is available for marketing from public lands each year.

Problems in Bunyan Land

On the basis of that resource foundation, Western lumbermen have amassed a substantial record of growth, but their record nonetheless has masked a number of problems that have arisen in the last decade. During the first fifty years of its history, the District lumber industry registered tremendous gains in production—gains which contrasted markedly with the one-fifth decline in national production during that period. But District production later began to taper off; in fact, despite the record level achieved in 1959, annual District output in the last half-decade has failed to exceed the 18-billion board feet average recorded in the preceding five-year period. This performance, and declining output elsewhere, depressed national output by 10 percent over the decade, to 34 billion board feet in 1963. (Lumber output and consumption both increased in 1964, but still remained below most earlier postwar peaks.)

West dominates lumber industry,
despite recent production decline

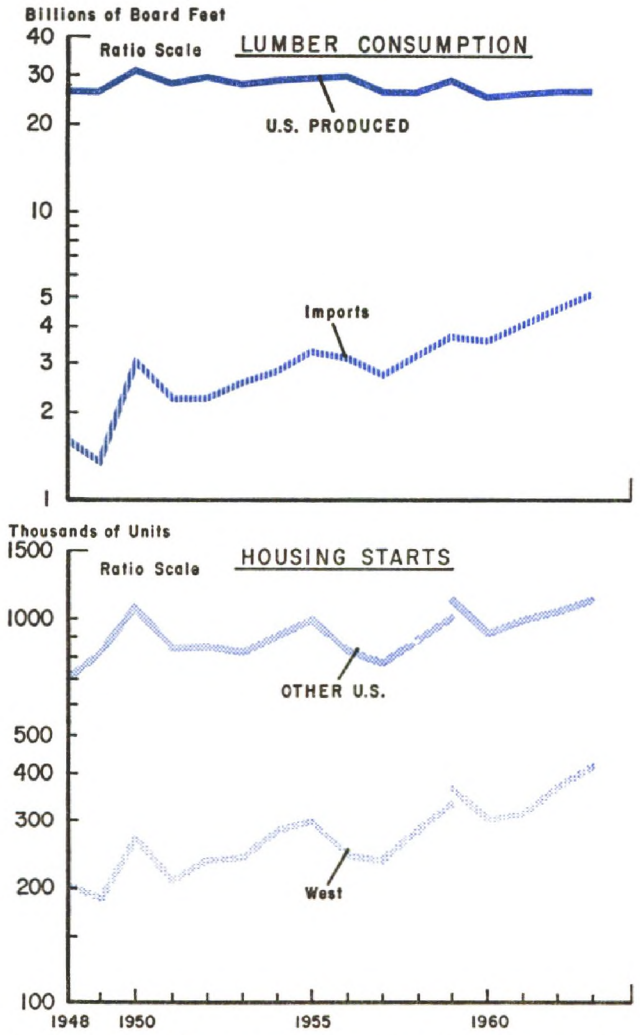


Source: Department of Commerce

This disappointing production record has reflected postwar developments in the residential construction field. Housing, after all, normally accounts for 40 percent of lumber consumption, while other construction accounts for almost as great a share of the total.

As construction rose in the early postwar period to meet the pent-up housing demand, the number of nonfarm starts rose to 1.4 million in 1950—50 percent above the peak rate attained in the 1920's—and lumber consumption rose correspondingly. But in 1963, when

U. S. lumber industry fails to gain from growth in housing demand



Source: National Lumbermen's Association; Department of Commerce (old series)

housing starts rose to a new peak of 1.6 million, lumber consumption remained below all its earlier postwar peaks.

Part of the explanation for this sluggishness lies in the changing character of the housing market. In particular, the quantity of lumber consumed at a given level of construction has been declining because of the increasing importance of multi-family dwelling units—which utilize only about one-third as much lumber per unit as single-family dwellings—and because of the increasing use of substitute materials for lumber. To aggravate the situation, the decline in consumption of domestically-produced lumber has been even more severe than the decline in total consumption because of the rising portion of the market supplied by foreign (mostly Canadian) producers. Over the last dozen years, imports have risen steadily from 5 to 16 percent of the market, and consumption of domestic lumber in 1963 consequently was 14 percent below the 1950 level and 10 percent less than in 1959. Prices meanwhile have reflected these downward pressures; in 1963, the wholesale price index for lumber stood 3 percent below its 1951 level and 6 percent below the 1959 figure.

New housing, new materials

The extensive displacement of lumber by substitute materials undoubtedly has become a crucial problem. Plywood, hardboard, particleboard, insulation board, and certain paper boards—along with non-wood products such as metals, plastics, and brick—compete with softwood in many of its important uses. The contrast between the trend in lumber production and the trend in these other sheet materials dramatically illustrates the changing product mix. While lumber production declined 9 percent between 1950 and 1963, softwood plywood shot up by an explosive 272 percent, hardboard by 157 percent, and insulating board by 23 percent.

Lumber has declined in the forest products mix despite an improvement in its price position relative to all of its major competitors except plywood. Substantial production increases and consequent downward price pressures have been evident in the plywood industry—and have contributed to plywood's inroads into lumber's traditional markets. This price situation, however, has been unique. Prices of construction materials generally have moved upward; such competing materials as structural steel, brick, Portland cement, building board, gypsum products, and metal sash all have risen relative to lumber.

Obviously, then, raw material prices alone

cannot fully explain lumber's displacement. Comparative costs of installation also have been an important consideration. Most notably, lumber has found it difficult to compete in view of the labor savings made possible by plywood, gypsum board, sheet rock, and other sheet materials for wall sheathing and subflooring.

Non-cost considerations have also played an important part in lumber's competitive problems. Other industries have tended to develop stronger programs in the fields of research, development, trade promotion, and marketing. For one reason, lumber is far less concentrated than any other major industry —its twenty largest firms account for a smaller share of total shipments than the top four in each of the other major industrial categories —and thus it encounters difficulties in marshaling resources for developmental and promotional work.

For the same reason, lumber enterprises are commonly in no position to maintain large-scale research facilities. About half of the research undertaken today in lumber and lumber products is financed by a handful of large firms, and most of the remainder is spent by associations and the Federal Government. Firms engaged in producing plywood, pulp and paper, and various building boards have a much stronger record in research and development and in trade promotion, largely because of the very large size of a number of corporations in those competing fields.

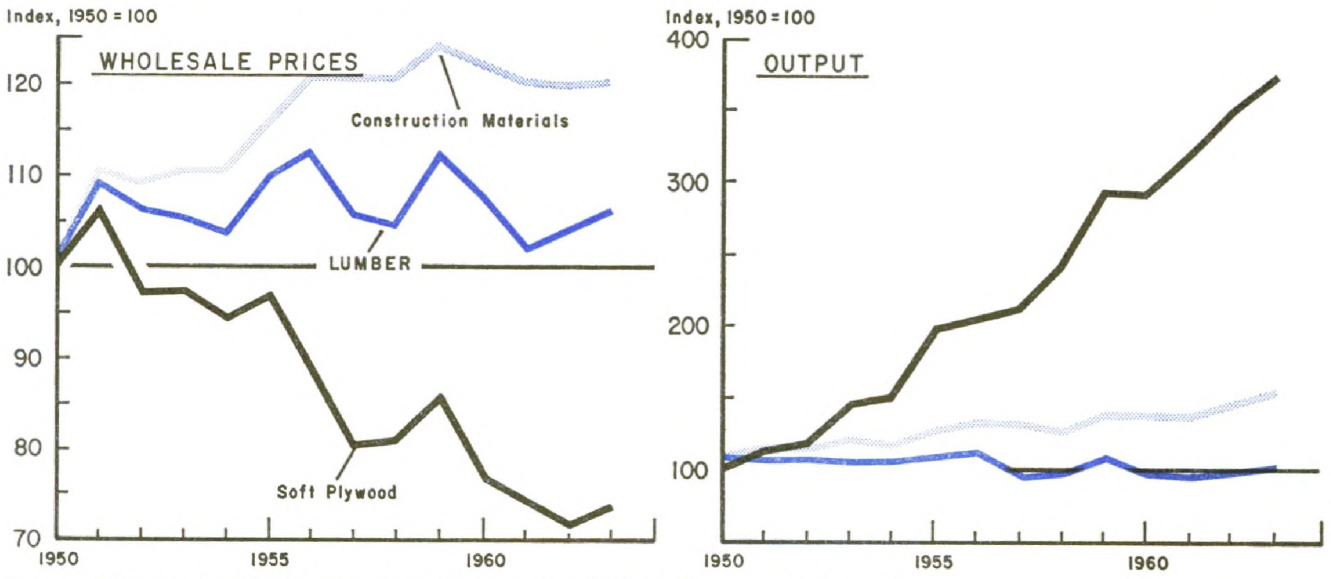
Canada rules the waves

Rising imports pose perhaps an even greater problem for the industry today. Lumber imports expanded five-fold between 1947 and 1963, and now account for almost 16 percent of the U. S. market. Canada has accounted for more than 95 percent of total imports over the past decade; the remainder, almost entirely pine, has come from Mexico and South America.

In recent years, this country has taken at least three-fourths of Canada's lumber exports. Since 1959, in fact, Canada has sold more south of the border than in its own home market. Most of these shipments have been common construction grades of spruce, Douglas fir, and hemlock from the coastal and in-

Lumber usage lags despite improvement in price position

relative to most competing materials . . . plywood usage zooms as price declines



Sources: Department of Labor; Department of Commerce; National Lumbermen's Association

terior regions of British Columbia, which in effect are northern extensions of producing regions lying in the United States. For the most part, British Columbia producers are as favorably located with respect to U. S. markets as are their competitors in the Pacific Northwest.

One segment of the Canadian trade has grown extremely rapidly—waterborne shipments from British Columbia to the Atlantic Coast. These imports compete directly with water shipments from West Coast mills. A decade ago, about three-quarters of this trade originated in Washington, Oregon, and California, and about one-quarter in British Columbia; by 1963, these proportions were almost reversed. This significant turnabout can be traced to several cost disadvantages faced by District mills: first, substantially higher costs of loading and water transport; second, higher stumpage prices as a result of a complex timber-supply situation existing here; and third, a marketing disadvantage resulting from the devaluation of the Canadian dollar.

Jones Act and devaluation

A major cost differential has developed on waterborne cargo shipments. Under provisions of the Merchant Marine Act of 1920 —the Jones Act—intercoastal shipments of U. S. lumber must move in American flag vessels. Canadian lumber, on the other hand, may be shipped to this country in foreign-flag vessels—and, since 1957, charter rates paid by Canadians have been some $5.50 to $12.00 lower per thousand board feet than the conference rate established by domestic carriers. Moreover, loading charges for lumber at Pacific Northwest ports have recently run about $3.00 per thousand board feet higher than at British Columbia ports.

Domestic mills have also been hampered by the considerable premium which they must pay for public sawtimber. The supply of available public sawtimber in this country is less than half that in British Columbia; in addition, this supply is inelastic in that it is limited basically to the allowable cut and thus fails to respond to higher offered prices. Demand for public sawtimber meanwhile has risen rapidly, partly as a result of diminished private supplies and partly as a result of non-lumber utilization by other forest industries. Not surprisingly, then, domestic mills pay an average of $23 per thousand board feet of stumpage, while mills in British Columbia pay only one-third this amount.

The devaluation of the Canadian dollar has also stimulated lumber shipments into this country. The Canadian exchange rate, which declined from $1.04 to $0.95 between 1959 and early 1962, was eventually pegged at $0.925 in May 1962. This devaluation has meant a substantial drop in the price of Canadian lumber—a reduction of about $7 per thousand board feet of lumber, in terms of American dollars.

Declining industry?

In sum, the housing market has shifted and domestic lumber has been increasingly displaced by competitive materials and Canadian imports. Consequently, the lumber industry's position in the Western economy has suffered a substantial decline. Between 1929 and 1947, for example, value added by sawmills and planing mills more than doubled in dollar terms, but the industry's share of total manufacturing value added still declined from 17 to 12 percent. Then, in the postwar period, the industry's position declined even more; in 1962, lumber accounted for only 3 percent of value added in manufacturing.

A similar decline has occurred in terms of employment. Between 1929 and 1962, the number of production workers in Western sawmills and planing mills dropped steadily from 129,000 to 68,000, thereby reducing the industry's contribution to total manufacturing employment from 25 to 6 percent.

The seriousness of the problem has varied from state to state. Front-running Oregon, for instance, has been able to cushion the decline by virtue of the diversification of its forest economy. Oregon ranks first in the nation not only in lumber but also in logs, plywood, and particleboard; about two-thirds of the nation's plywood and more than one-fourth of its hardboard emanate from this state. It stands high and is still climbing in the output of pulp and paper, poles and piling, fiberboard, and an imposing array of other forest products. The rapid expansion of other forest industries thus has been a tremendous boon to Oregon, to some extent offsetting the decline in her lumber industry. Between 1929 and 1962, Oregon's forest-products industries as a group increased their share of all manufacturing value added from 52 to 56 percent and increased their share of total employment from 55 to 58 percent, despite lumber's decline.

Washington's lumber industry meanwhile has suffered a more substantial decline. In 1929, the industry occupied about the same position in that state's economy as it did in Oregon, accounting for roughly half of all manufacturing value added and employment. By 1962, its share had receded to only 5 percent of value added and 10 percent of employment. Washington's plywood and pulp and paper industries grew in relative importance between 1929 and 1947, but each has since experienced a relative (although not absolute) decline. As a result, the contribution of all forest products industries to total value added in manufacturing dropped from 40 percent in 1947 to 20 percent in 1962.

The lumber decline has been felt in other District states also. In fourth-ranking Idaho, where lumbering ranks second only to agriculture and where lumber's share of total manufacturing value added still exceeds 30 percent, the impact has been widely felt. But in third-ranking California, where all forest products account only for 4 percent of manufacturing value added, the impact—while substantial—has been less widespread.

The Western industry's adaptation to increasingly competitive market conditions has been marked by the elimination of smaller units and the increasing importance of larger, more efficient units. Between 1939 and 1947, the number of Western sawmills jumped from 450 to 4,961, as small operators responded to higher prices resulting from the postwar housing demand for lumber and the removal of wartime price controls. But most of the newcomers failed to survive the postwar period.

Between 1947 and 1962, the total number of mills declined by more than one-half, to 2,214. Most of the drop-outs were small mills producing less than 3 million board feet annually. In contrast, the number of mills with over 10 million board feet capacity actually increased, so that their share of the region's output rose from 66 to 81 percent. This drastic redistribution of production from small to larger, more modern, and more efficient mills reduced considerably the labor required for equivalent outputs of lumber, and it thus contributed substantially to the severity of the decline in mill employment compared with production.

Another part of the forest

Looking towards the future, most observers anticipate an expansion in lumber production as well as in other forest products to meet the needs of a larger and more affluent population.[1] One recent study—that of Guthrie and Armstrong — places national production in 1975 between 41 and 47 billion board feet, with Western production accounting for 28 billion board feet, or 40 percent more than in 1960.

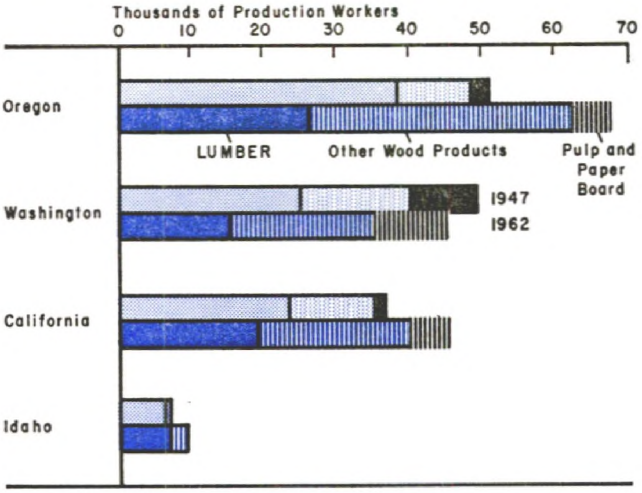
[1] John A. Guthrie and George R. Armstrong, *Western Forest Industry, An Economic Outlook* (Baltimore: Johns Hopkins Press, 1961).
Stanford Research Institute, *America's Demand for Wood, 1925-1975* (Washington: Weyerhaeuser Timber Company, 1954).
U. S. Forest Service, *Timber Resources for America's Future* (Washington: U. S. Department of Agriculture, Forest Research Report, No. 14, 1958).

Industry experts expect that expanding timber demand will result in increased stumpage prices, in higher lumber prices, and in continued substitution of competing materials. Lumber's competitive position can be protected to some extent, however, through expansion and revamping of existing facilities, expenditures for research and development, and massive advertising and field promotion. For example, lumber sizes and grades could be tailored to the requirements of the industrialized house, made from factory machined and fitted parts.

The possibilities of increasing the sale of Northwest paper and paperboard in the Western market are particularly promising, since this region (especially California) is deficient in its paper and board requirements and relies heavily on foreign imports. In one recent study, the West's consumption of paper and paperboard was projected to rise 85 percent between 1961 and 1975.[1] Prospects for pulp are somewhat less ebullient but still favorable. Western sales of pulp are made primarily to nonintegrated paper mills and converters in the Northeast and Lake States, with smaller amounts going to the Southern States and California. The Pacific Northwest pulp mills are at a competitive disadvantage compared with Canadian and Southern mills, because of higher transportation costs to the principal centers of consumption. The prospects for increasing exports are considered favorable, however, particularly to such countries as Japan, Korea, and Australia.

Plywood, the forest industry which has shown the most spectacular recent growth—a five-fold gain since 1950—may not be able to sustain such a rapid pace in future years. Among other reasons, plywood's favorable price situation may not long continue, in view of upward pressures on the costs of peeler logs, labor, and equipment. On balance, however, plywood's future looks quite bright.

Decline in lumber mill jobs offset by gains in other forest industries



Source: Department of Commerce

The key to growth?

If the projected growth of these other forest industries is realized, lumber could face a tight supply squeeze. There need be no conflict, however, if the trend toward integration of lumber, pulp and paper, and plywood operations continues. "Integrated utilization," the use of a common log supply for producing two or more separate products, is part of the sweeping adjustment which the Western forest industries are undergoing to obtain economies in timber usage. In these operations, the plywood mills utilize high-grade Douglas-fir peelers, the sawmills obtain the bulk of the better-grade logs, and pulp and paper mills utilize hemlock and other species, the smaller stems, and the residues from plywood and lumber mill operations.

The successful lumber mills of the future are likely to be characterized not only by integrated operations but also by better quality control, extensive use of chemical impregnation for preservation, and increased processing and finishing operations. In this way, the efficient elements in the Western lumber industry promise to maintain a healthy position in the nation's overall economy.

[1] John A. Guthrie and William Julo, *Some Economic Aspects of the Pulp and Paper Industry*. (Washington: Northwest Pulp and Paper Association, 1963).

Western Digest

Banking Developments

Total bank credit at Twelfth District weekly reporting member banks increased by $426 million in November—far more than enough to offset October's credit contraction of $198 million. . . . November's loan increase of $285 million, which offset an October decline, was considerably short of the expansion in the comparable period of 1963. The business sector showed a less active demand for bank credit than in the year-ago period, but the major reason for the year-to-year loan decline was the relative lack of District bank participation in the mortgage market this November. However, banks channelled a substantial amount of funds to brokers and dealers for financing U. S. Government securities during the month. . . . District banks recorded a small net loss in demand deposits adjusted, but registered a gain in U. S. Government deposits during the month. These banks recorded a net decline of $74 million in total time and savings accounts, primarily because of large Christmas Club payouts. An increase of $78 million in negotiable time certificates of deposit helped to limit the impact of these payouts.

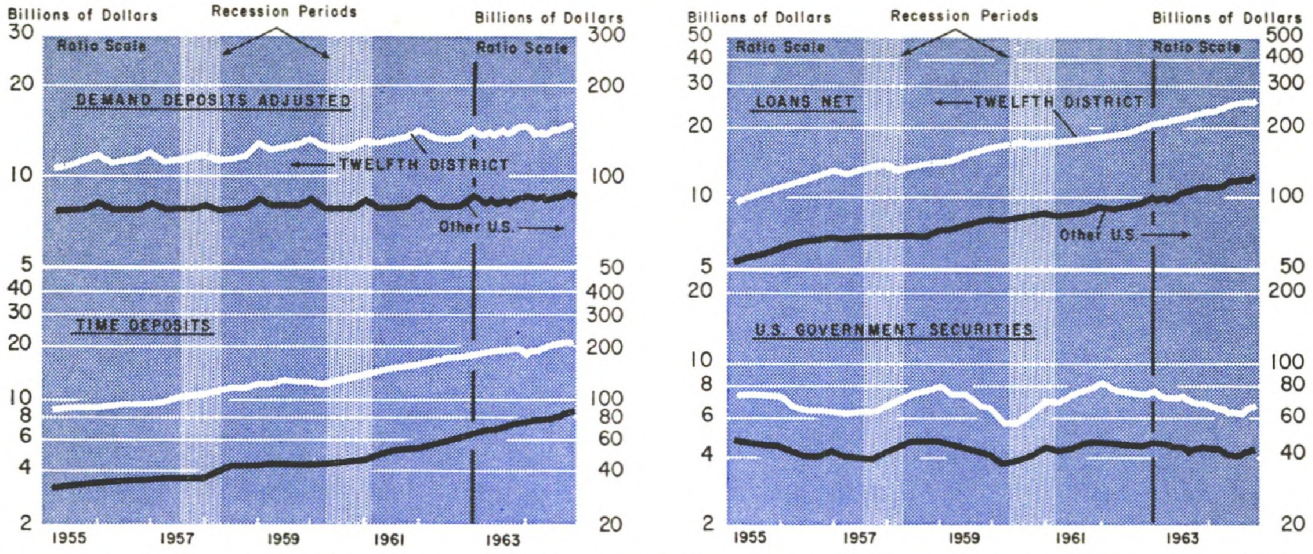
Production and Trade

Western steel production reached a yearly high during late November and, although receding somewhat in early December, still remained about 25 percent above year-ago levels. National steel production did even a little better, in relation to the year-ago pace. . . . Lumber orders slipped a little in late November but still remained considerably above year-ago levels. Price quotations were about equal to those quoted in the pre-strike period of several months ago. . . . In the four weeks ended November 28, District department-store sales were 14 percent higher than in the comparable period of 1963. Sales volume nationally ran about 15 percent above the year-ago pace.

Employment and Unemployment

Nonfarm employment in November increased 0.6 percent in California and 0.5 percent in Washington. The national gain for the month was 0.7 percent. November's unemployment rates were 6.6 percent for California, 5.7 percent for Washington, and 5.0 percent for the nation as a whole. . . . Recently released data on defense prime contract awards cast new light on employment cutbacks at District defense-manufacturing firms. In January-September 1964, these firms recorded an 8.1-percent year-to-year decline in employment, as compared with a 5.5-percent cutback elsewhere in the nation; meanwhile, contract awards dropped more than 25 percent in the District (to $4.7 billion) but increased by 2 percent elsewhere.

Condition Items of All Member Banks — Twelfth District and Other U. S.



Source: Federal Reserve Bank of San Francisco. (End-of-quarter data shown through 1962, and end-of-month data thereafter; data not adjusted for seasonal variation.)

BANKING AND CREDIT STATISTICS AND BUSINESS INDEXES—TWELFTH DISTRICT[1]

(Indexes: 1957-1959 = 100. Dollar amounts in millions of dollars)

Year and Month	Condition items of all member banks[2] Seasonally Adjusted				Bank debits Index 31 cities[5,6]	Bank rates on short-term business loans[7,8]	Total nonagri-cultural employ-ment	Dep't. store sales (value)[6]	Industrial production (physical volume)[6]		
	Loans and discounts[3]	U.S. Gov't. securities	Demand deposits adjusted[4]	Total time deposits					Lumber	Refined[8] Petroleum	Steel[8]
1951	7,751	6,370	9,512	6,713	57	3.66	80	68	99	87	97
1952	8,703	6,468	10,052	7,498	59	3.95	84	73	101	90	92
1953	9,090	6,577	10,129	7,978	69	4.14	86	74	102	95	105
1954	9,264	7,833	10,194	8,680	71	4.09	85	74	101	92	85
1955	10,827	7,162	11,408	9,130	80	4.10	90	82	107	96	102
1956	12,295	6,295	11,580	9,413	88	4.50	95	91	104	100	109
1957	12,845	6,468	11,351	10,572	94	4.97	98	93	93	103	114
1958	13,441	7,870	12,460	12,099	96	4.88	98	98	98	96	94
1959	15,908	6,495	12,811	12,465	109	5.36	104	109	109	101	92
1960	16,628	6,764	12,486	13,047	117	5.62	106	110	98	104	102
1961	17,839	8,002	13,676	15,146	125	5.46	108	115	95	108	111
1962	20,344	7,336	13,836	17,144	141	5.50	113	123	98	111	100
1963	22,915	6,651	14,179	18,942	157	...	117	129	102	112	117
1963											
November	22,673	6,730	14,272	18,923	170	...	118	130	106	110	110
December	22,915	6,651	14,179	18,942	167	5.47	118	136	111	110	107
1964											
January	23,256	6,575	14,332	19,342	163	...	119	135	115	111	110
February	23,544	6,832	14,222	19,520	168	...	119	137	114	115	117
March	23,763	6,893	14,287	19,685	166	5.47	119	133	114	113	149
April	23,953	6,559	14,243	19,773	170	...	119	134	101	111	143*p*
May	24,102	6,541	14,170	19,813	167	...	119	139	106	112	142*p*
June	24,394	6,489	14,347	19,876	167	5.46	119	137	105	114	131*p*
July	24,836	6,215	14,369	20,152	166	...	119	141	111	115	121*p*
August	24,865	6,170	14,362	20,195	175	...	120	143	107	118	121*p*
September	25,251	6,507	14,674	20,452	167	5.51	120	137	121	121	129*p*
October	25,140	6,473	14,573	20,602	173	...	120*p*	139	...	...	132*p*
November	25,335*p*	6,667*p*	14,552*p*	20,789*p*	178	...	...	...	...	...	...

[1] Adjusted for seasonal variation, except where indicated. Except for banking and credit and department store statistics, all indexes are based upon data from outside sources, as follows: lumber, National Lumber Manufacturers' Association, West Coast Lumberman's Association, and Western Pine Association; petroleum, U.S. Bureau of Mines; steel, U.S. Department of Commerce and American Iron and Steel Institute; nonagricultural employment, U.S. Bureau of Labor Statistics and cooperating state agencies. [2] Figures as of last Wednesday in year or month. [3] Total loans, less valuation reserves, and adjusted to exclude interbank loans. [4] Total demand deposits less U.S. Government deposits and interbank deposits, and less cash items in process of collections. [5] Debits to demand deposits of individuals, partnerships, and corporations and states and political subdivisions. Debits to total deposits except interbank prior 1942. [6] Daily average. [7] Average rates on loans made in five major cities, weighted by loan size category. [8] Not adjusted for seasonal variation. *p*—Preliminary. *r*—Revised.