

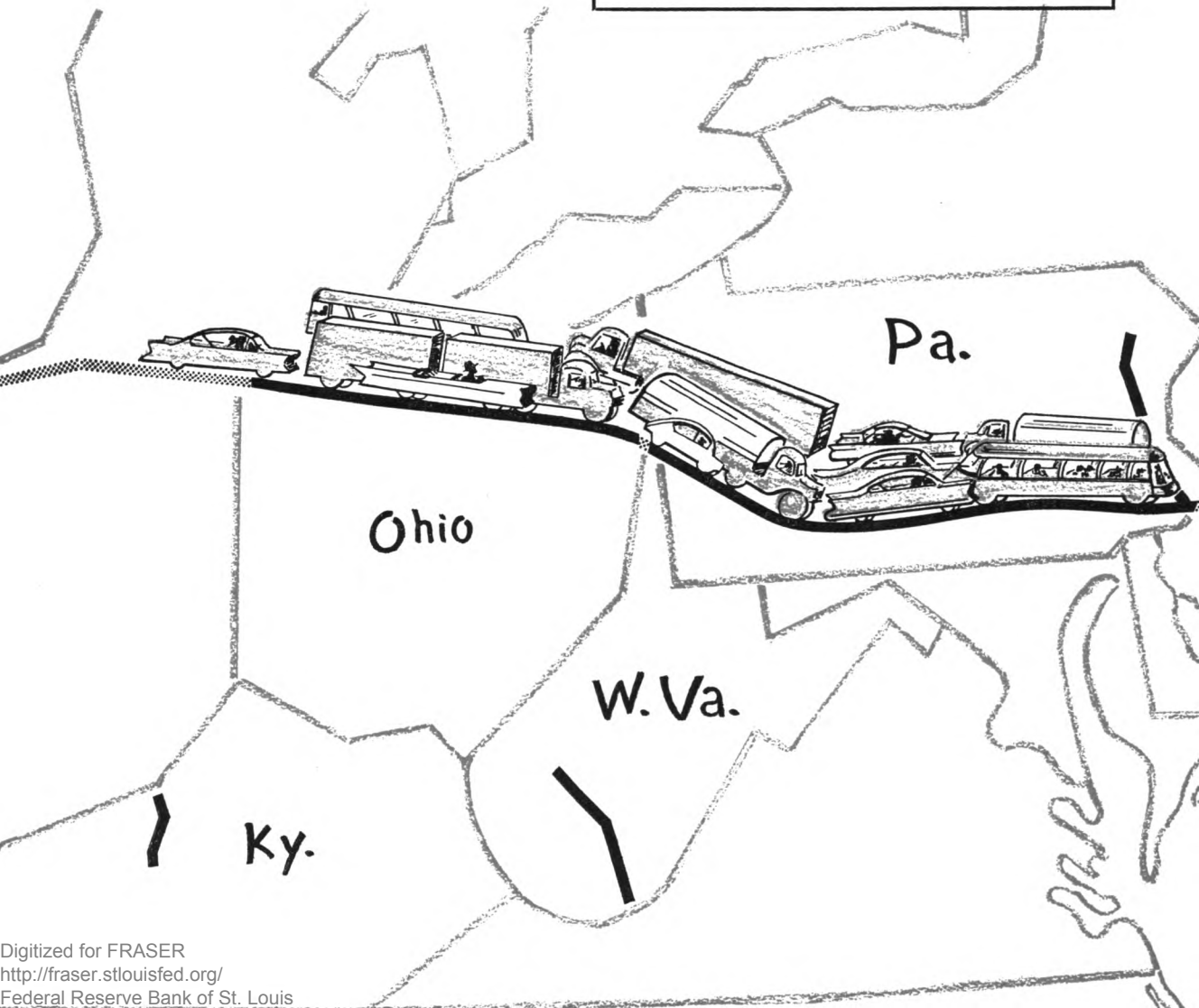
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# Fortunes of Four Turnpikes

*(Financial Status of the Pennsylvania, Ohio,  
West Virginia and Kentucky Turnpikes)*

**F**OR THE YEAR 1959, traffic and toll revenues reached record levels for the Pennsylvania, Ohio, West Virginia, and Kentucky Turnpikes. These four are selected for discussion below as they are located in states which fall wholly or partially within the Fourth Federal Reserve District.

The growth in vehicular traffic and the consequent increase in toll revenues in 1959 resulted in increases in the net operating revenues of each of these four toll roads, ranging from an 11 percent increase in the case of the West Virginia Turnpike to 24 percent in the case of the Kentucky Turnpike, the most recently completed of the four express highways.

As a result of the growth in net operating revenues, there was general improvement in the interest coverage on the outstanding bonds of the various turnpikes. The ratio of net operating revenues to annual interest charges increased on the bonds outstanding of the Ohio, Kentucky, and West Virginia Turnpikes, as well as the bonds of the Pennsylvania Turnpike issued under the 1948 Trust Indenture.<sup>(1)</sup> The improvement in these ratios, as well as the growth in traffic and toll revenues, is shown in the accompanying charts, and is treated in more detail as each Turnpike is discussed individually.

The ratio of net operating revenues to annual interest charges on a turnpike's bonds outstanding is widely used as a measure of a turnpike's current financial position. A ratio of one shows that a turnpike's net operating

revenues are just sufficient to cover annual interest charges. A ratio of more than one indicates that net operating revenues over and above annual interest charges are available for fulfilling the sinking fund requirements set forth in the trust indenture covering the turnpike's bonds.

In 1959, three of the four Turnpikes under consideration, namely, the Ohio, Pennsylvania, and Kentucky Turnpikes, had ratios of net operating revenues to annual interest charges in excess of one. As a result, these Turnpikes were able to augment their sinking fund balances, and, in addition, the Pennsylvania Turnpike was able to carry out an extensive program of debt retirement.

In the case of the Pennsylvania, Ohio, and West Virginia Turnpikes, authority to issue revenue bonds and to construct and operate the above Turnpikes was granted to independent turnpike commissions by acts of the respective state legislatures. The Kentucky Turnpike, on the other hand, is under the direction of the State Highway Department which has the authority to issue revenue bonds and to construct and operate turnpike projects.

## The Pennsylvania Turnpike System

The Pennsylvania Turnpike System includes a number of projects financed under two separate trust indentures. Under the Trust Indenture of 1948, the Pennsylvania Turnpike Commission issued \$211,500,000 of revenue bonds to finance construction of the original Turnpike, the Philadelphia Extension and the Western Extension. (See Table 2.) Together these projects, which were com-

(1) The revenues from the Pennsylvania Turnpike bonds issued under the 1948 Indenture were used to finance that portion of the Pennsylvania Turnpike which is referred to as the Existing System.

pleted by the end of 1951, form the Existing System of the Pennsylvania Turnpike. The projects cover a distance of 327 miles, beginning at the Ohio State Line and terminating just west of the city of Philadelphia.

As shown in the accompanying chart, the ratio of net operating revenues to annual interest charges on bonds outstanding under the 1948 Indenture has been increasing rapidly since the fiscal year ended May 31, 1953, with net operating revenues covering annual interest charges by more than five times in the fiscal year 1959.

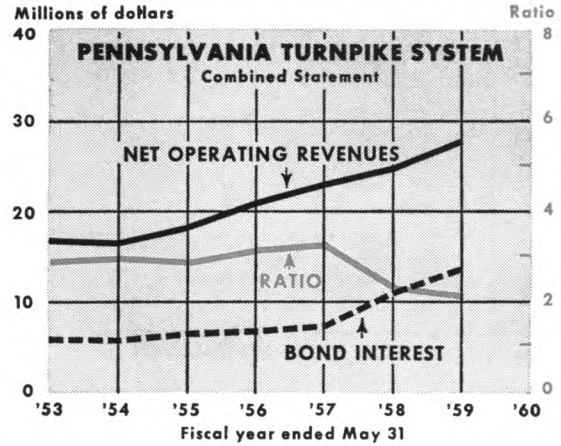
From the end of fiscal year 1953 through fiscal year 1959, the Turnpike Commission retired more than \$72,000,000 of the bonds issued under the 1948 Trust Indenture. In addition, the Commission expects to retire all of the 1948 bonds by 1967, twenty-one years ahead of schedule.

Data on the operations of the 1948 Indenture projects in fiscal year 1960 show that for the ten months ended March 31, net revenues covered annual interest charges 6.7 times, while more than \$24,000,000 of the \$130,652,000 of 1948 bonds outstanding on May 31, 1959, were retired during the same ten-month period.

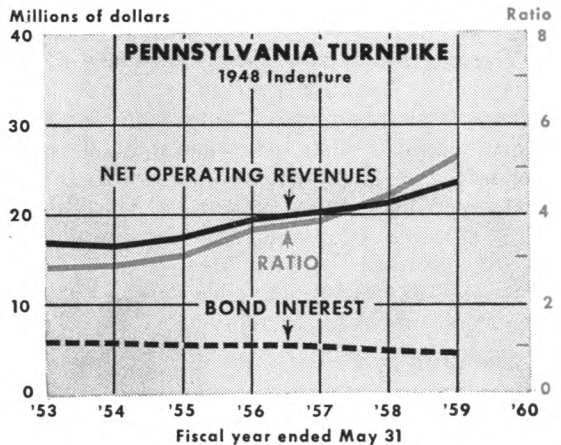
Several factors account for the very favorable current financial condition of the 1948 Indenture projects. These include: the relatively low cost of constructing and financing the Existing System as compared with later projects; the strategic location of the Existing System (connecting as it does with express highways on the East and West); the heavy volume of east-west traffic and the substantial growth in such traffic; and finally the absence of good alternative non-toll highways.

*1952 Indenture Projects.* The more recent extensions of the Pennsylvania Turnpike, namely, the Delaware River Extension, the Delaware River Bridge Project, and the Northeast Extension, were financed by bonds issued under the Pennsylvania Turnpike Commission's 1952 Trust Indenture.

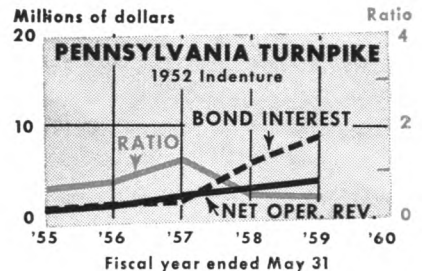
For the Pennsylvania Turnpike System as a whole, the ratio of net operating revenues to bond interest charges declined between 1957 and 1959.



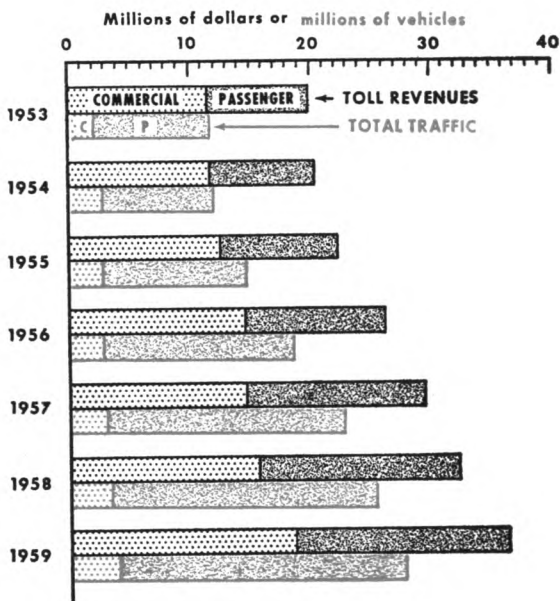
The ratio of net operating revenues to bond interest charges on 1948 Indenture projects continued to increase rapidly in the past two years . . .



. . . but net operating revenues failed to cover bond interest charges on 1952 Indenture projects.



## PENNSYLVANIA TURNPIKE



To cover the costs of the two projects which joined the Existing System with the New Jersey Turnpike, the Commission in 1952 issued \$65,000,000 of turnpike revenue bonds.<sup>(2)</sup> By May 1956, the Delaware River Extension and the Delaware River Bridge Project were completed and the link established between the New Jersey and Pennsylvania Turnpikes. A year later, the two extensions were paying their way.

The third and largest of the 1952 Indenture projects, the Northeast Extension, consists of 110 miles of turnpike running north from Philadelphia to Scranton, Pennsylvania. The project was financed from the proceeds of \$233,000,000 of turnpike revenue bonds issued in 1954.<sup>(3)</sup>

Since the opening of the entire 110 miles in November 1957, net operating revenues of the Northeast Extension have not been sufficient to cover interest costs on the \$233,000,000 of bonds issued to finance the

project. As a result, the ratio of net operating revenues to interest charges on 1952 Indenture bonds issued to finance those extensions actually open for traffic dropped from 1.39 in fiscal 1957 to .47 in the fiscal year 1959.<sup>(4)</sup> Similarly, for the entire Pennsylvania Turnpike System, the ratio of net operating revenues to interest charges on bonds issued to finance the extensions open for traffic declined from 3.22 in fiscal 1957 to 2.06 in the fiscal year 1959.

Thus far, the Turnpike Commission has been paying a very large portion of the annual interest due on its 1952 bonds from the construction funds of the 1952 Trust Indenture. As of May 31, 1959, the construction funds of the 1952 Trust Indenture totaled almost \$48 million. After deducting \$8 million for foreseeable future expenditures, a balance of almost \$40 million remained to cover any additional construction expenditures as well as future deficiencies between net operating revenues and annual interest charges on 1952 Indenture Bonds.

Upon the retirement of the 1948 Indenture bonds, net operating revenues from the Existing System will become available for the payment of interest and retirement of the 1952 Indenture bonds.

At such future time when all of the Turnpike Commission's financial obligations have been fulfilled, the Pennsylvania Turnpike System will become a toll-free part of the state highway system.

### The Ohio Turnpike

The Ohio Turnpike joins the Pennsylvania Turnpike at its eastern terminus and the Indiana Turnpike at its western extremity. In 1952, the Ohio Turnpike Commission issued \$326,000,000 of bonds to finance the superhighway project.<sup>(5)</sup> Construction began a year later, with the entire Turnpike opened

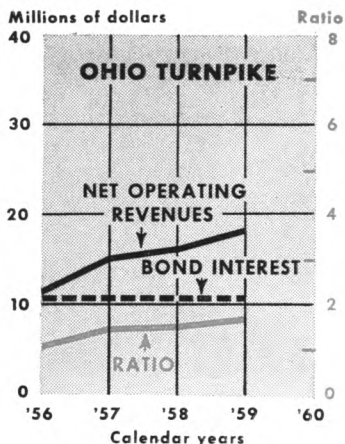
(4) In this report, the financial positions of the 1952 Indenture projects and of the Pennsylvania Turnpike System as a whole are measured by comparing net operating revenues to bond interest charges on those sections of the turnpike actually in operation.

(5) \$326,000,000 of term 3½s, dated June 1, 1952, due June 1, 1992.

(2) \$15,000,000 of 2½s, dated September 1, 1952, due June 1, 1970, and \$50,000,000 of term 3s, dated September 1, 1952, due June 1, 1982.

(3) \$233,000,000 of term 3.10s, dated April 1, 1954, due June 1, 1993.

The ratio of net operating revenues to bond interest charges has increased steadily from 1.06 in 1956 to 1.71 in 1959.



for traffic by October 1955.

From its opening, net operating revenues of the Ohio Turnpike have covered interest charges on the Turnpike Commission's bonds outstanding. Since 1956, the first full year of the Turnpike's operation, the ratio of the road's net operating revenues to annual interest charges on bonds outstanding has increased from 1.06 to 1.71 in 1959, as shown in the accompanying chart.

During the same period, the Commission began to build up its various sinking fund balances in order to fulfill the requirements of the 1952 Trust Indenture. In both 1958 and 1959 the Turnpike Commission deposited the required one year's interest (\$10,595,000) in the bond interest account. It also deposited the amounts recommended by the Turnpike's consulting engineers in the reserve maintenance fund. In addition, by the end of 1959 funds amounting to \$9,432,396 (slightly less than one-half of the specified maximum of two year's interest) had been transferred to the reserve account.

After it has met the prior commitments of its sinking fund, the Turnpike Commission can begin transferring revenues into the redemption account for use in purchasing or calling bonds.

As in the case of the Pennsylvania Turnpike, the Ohio Turnpike will become a part of the State's system of highways when all of the Turnpike's bond and interest obligations have been met.

### West Virginia Turnpike

In contrast to the Ohio and Pennsylvania Turnpikes, the West Virginia Turnpike does not have access to other express highways. The Turnpike extends from Charleston on the north to a junction near Princeton, close to the southern border of the state.

To finance construction of the Turnpike, the West Virginia Turnpike Commission in 1952 and 1954 issued two series of turnpike revenue bonds in the amount of \$96,000,000 and \$37,000,000, respectively.<sup>(6)</sup> Construction began late in 1952, with the entire Turnpike opened for traffic by November 1954.

Since its completion, net operating revenues have not been sufficient to cover annual interest charges on the \$133,000,000 of Turnpike bonds outstanding. Through June 1, 1956, interest on the Turnpike's bonds outstanding was paid from the construction fund interest account. Since that time, the funds for paying annual interest costs have had to come from (1) net operating revenues and (2) funds accumulated in the sinking fund

<sup>(6)</sup> \$96,000,000 of term 3½s, dated March 1, 1952, due December 1, 1989, and \$37,000,000 of term 4¼s, dated March 1, 1952, due December 1, 1989.

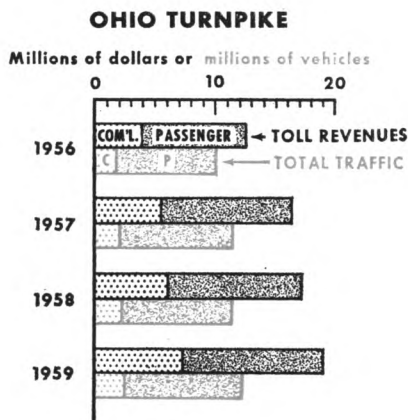


Table 1: **COMPARATIVE TURNPIKE DATA**

	Pennsylvania			Ohio	W. Virginia	Kentucky
	1948 Indenture Projects	1952 Indenture Projects	Total			
Year Completed .....	1940-51	1954-57	1940-57	1955	1954	1956
Length (in miles).....	327.2	143.7	470.9	241.4	87.6	40.0
Est. Cost (thous. of dollars)....	\$240,750 <sup>(a)</sup>	\$298,000	\$538,750	\$326,000	\$133,000	\$38,500
Est. Cost per Mile (thous. of dollars)....	\$ 736	\$ 2,074 <sup>(b)</sup>	\$ 1,144	\$ 1,350	\$ 1,518	\$ 963
Net Operating Revenues (thous. of dollars).....						
1953 .....	\$ 16,905	—	\$ 16,905	—	—	—
1954 .....	16,537	—	16,537	—	—	—
1955 .....	17,519	\$ 630	18,149	—	\$ 2,450	—
1956 .....	19,653	1,326	20,980	\$ 11,239	2,798	—
1957 .....	20,390	2,658	23,047	15,098	3,009	\$ 884
1958 .....	21,268	3,517	24,785	16,092	2,873	1,106
1959 .....	23,705	4,204	27,909	18,148	3,188	1,374
Interest on Bonds Outstanding (thous. of dollars)						
1953 .....	\$ 5,891	—	\$ 5,891	—	—	—
1954 .....	5,707	—	5,707	—	—	—
1955 .....	5,522	\$ 813 <sup>(c)</sup>	6,335	—	\$ 5,126	—
1956 .....	5,320	1,500	6,820	\$ 10,595	5,126	—
1957 .....	5,234	1,913	7,147	10,595	5,126	\$ 1,212 <sup>(d)</sup>
1958 .....	4,829	6,126	10,955	10,595	5,126	1,309
1959 .....	4,442	9,136	13,578	10,595	5,126 <sup>(e)</sup>	1,309
Times Net Operating Revenues Covered Interest Charges						
1953 .....	2.87	—	2.87	—	—	—
1954 .....	2.90	—	2.90	—	—	—
1955 .....	3.17	.77	2.86	—	.48	—
1956 .....	3.69	.88	3.08	1.06	.55	—
1957 .....	3.90	1.39	3.22	1.42	.59	.73
1958 .....	4.40	.57	2.26	1.52	.56	.84
1959 .....	5.34	.46	2.06	1.71	.62	1.05
Toll Revenues (thous. of dollars)						
1953 .....	—	—	\$ 19,976	—	—	—
1954 .....	—	—	20,324	—	—	—
1955 .....	—	—	22,338	—	\$ 2,791	—
1956 .....	—	—	26,223	\$ 12,582	3,146	—
1957 .....	—	—	29,525	16,381	3,406	\$ 996 <sup>(f)</sup>
1958 .....	—	—	32,498	17,265	3,385	1,314
1959 .....	—	—	36,556	19,017	3,699	1,579
Total Traffic (thous. of vehicles)						
1953 .....	—	—	11,305	—	—	—
1954 .....	—	—	11,690	—	—	—
1955 .....	—	—	14,409	—	1,856	—
1956 .....	—	—	18,271	9,981	1,885	—
1957 .....	—	—	22,697	11,265	1,918	2,965 <sup>(f)</sup>
1958 .....	—	—	25,358	11,227	1,819	3,808
1959 .....	—	—	27,821	12,061	1,923	4,440

Note. The fiscal year ends May 31 in Pennsylvania, June 31 in Kentucky, and December 31 in Ohio and West Virginia.

(a) Includes a \$29,250,000 grant from the U. S. Government.

(b) Costs per mile include costs of constructing Delaware River Bridge.

Costs per mile exclusive of the bridge amount to \$1,984,600.

(c) Interest for fiscal year computed from date of extension's opening.

(d) Interest computed as of the opening date, August 1, 1956.

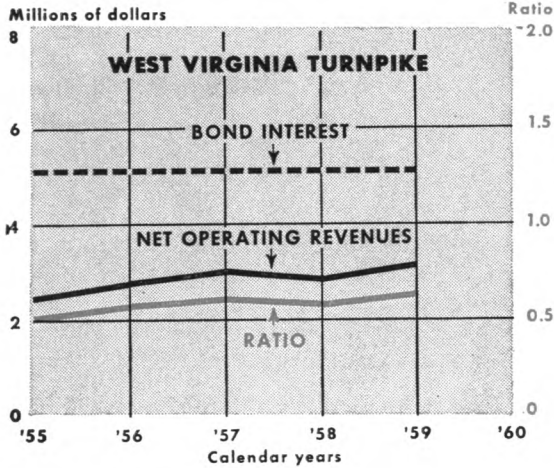
(e) As of December 31, 1959, \$66,441 of additional interest had accrued on the unpaid June and December 1959 coupons.

(f) Estimated figure for 11 months.

Sources: U. S. Department of Commerce and U. S. Bureau of Public Roads, 1957 Highway Statistics.

Annual and semi-annual reports of the Pennsylvania, Ohio, West Virginia and Kentucky Turnpikes.

*Net operating revenues have not covered bond interest charges since the Turnpike's opening.*



reserve account in the Turnpike's first year and a half of operation.

In 1957, the funds from these two sources were sufficient to permit the West Virginia Turnpike Commission to make interest payments on schedule. In the next year, however, the reserve account had been exhausted, and the Commission was obliged to defer the June 1958 interest payment until October and the December 1958 payment until August of the following year. In 1959, the Commission was unable to meet either of its two scheduled interest payments. As a result, the Commission, as of December 31, 1959, owed \$5,126,250 in annual interest charges as well as \$66,441 of additional interest which had accrued on the unpaid June and December 1959 coupons.

Although the discrepancy between net operating revenues and annual interest charges has narrowed since 1955, net operating revenues continue to fall short of covering annual interest charges. As shown in the accompanying chart, the ratio of net operating revenues to annual interest charges has

risen from .48 in 1955 to .62 in 1959.<sup>(7)</sup>

In spite of the fact that net operating revenues showed an annual gain of 11 percent in 1959, the increase was not large enough to produce a substantial improvement in the current financial position of the West Virginia Turnpike. A significant improvement in the Turnpike's financial condition probably depends upon the construction of much-needed access highways. The proposed U.S. Route 21, extending from the vicinity of Canton, Ohio, to Charlotte, North Carolina, could make the West Virginia Turnpike an important link in the connection of the Great Lakes and manufacturing areas in the North with the agricultural regions in the South.

In the immediate future, any increase in the Turnpike's net operating revenues is likely to come mainly from the steady growth in commercial traffic and an increase in vacation traffic. Long-run improvements in the economic condition of the areas served by the West Virginia Turnpike could also be expected to exert a favorable influence on the Turnpike's financial condition.

### Kentucky Turnpike

The Kentucky Turnpike, which runs from Louisville to Elizabethtown, a distance of about 40 miles, forms the center portion of a proposed chain of superhighways extending from Chicago through Indiana, Kentucky, Tennessee, Georgia, and Florida, to Miami.

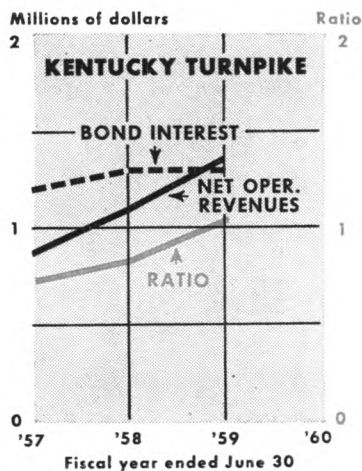
Proceeds for the construction of the initial turnpike, which was opened to traffic on August 1, 1956, came from \$38,500,000 of turnpike revenue bonds issued in 1954.<sup>(8)</sup>

Since the Turnpike's opening in 1956, the ratio of net operating revenues to interest charges on the Turnpike's bonds outstanding increased from .73 in the fiscal year ended

(7) The scales of the West Virginia and Kentucky Turnpike ratio charts are not the same. In addition, these scales differ from the scale used in both the Pennsylvania and Ohio Turnpike ratio charts.

(8) \$38,500,000 of term 3.4s, dated July 1, 1954, due July 1, 1994.

Net operating revenues exceeded bond interest charges for the first time in the fiscal year 1959.



June 30, 1957<sup>(9)</sup> to 1.05 in fiscal 1959. Interest payments through July 1957 were made from the interest account in the construction fund. In fiscal 1958, net operating revenues were more than adequate to cover the January 1958 interest payment; and by the close of the fiscal year 1959, net operating revenues had increased sufficiently to cover annual interest charges on the Turnpike's bonds outstanding.

The over-all improvement in this ratio is shown in an accompanying chart. Data for the seven months ended January 31, 1960, show that net operating revenues covered interest charges 1.56 times.

With the aid of loans advanced from the State Road Fund to cover the Kentucky Turnpike's current expenses in the fiscal

<sup>(9)</sup> Interest charges in fiscal 1957 are computed from August 1, 1956, the date of the Turnpike's opening.

Table 2: BOND ISSUES OF THE FOUR TURNPIKES

	Date of Bond Issues	Par Value (thous. of dollars)	Term in Years	Coupon Rate	Annual Interest Charges (thous. of dollars)	Term or Serial
<b>Pennsylvania Turnpike:</b>						
Original Turnpike . . . . .	1938-43	\$ 42,000	30	3.75	\$ 1,575	T
Original Turnpike . . . . .	1946	46,000 <sup>(a)</sup>	30	2.50	1,150	T
Original Turnpike . . . . .	1948	47,000 <sup>(b)</sup>	20	2.25	1,058	S
Philadelphia Extension . . . . .	1948	87,000	40	3.25	2,828	T
Western Extension . . . . .	1949	77,500	39	2.90	2,248	T
Delaware River Extension . . . . .	1952	50,000	30	3.00	1,500	T
Delaware River Bridge Project . . . . .	1952	15,000	30	2.75	413	T
Northeast Extension . . . . .	1954	233,000	39	3.10	7,223	T
Ohio Turnpike . . . . .	1952	326,000	40	3.25	10,595	T
West Virginia Turnpike . . . . .	1952	96,000	37	3.75	3,600	T
	1952 <sup>(c)</sup>	37,000	37	4.125	1,526	T
Kentucky Turnpike . . . . .	1954	38,500	40	3.40	1,309	T

<sup>(a)</sup> \$42,300,000 used to refund previous bond issues.

<sup>(b)</sup> \$45,086,000 used to refund 1946 bond issue.

<sup>(c)</sup> Bonds are dated 1952 but were issued in 1954.

Source: U. S. Department of Commerce and U. S. Bureau of Public Roads, *Highway Statistics, Summary to 1955*.



years 1958 and 1959, the Department of Highways has made substantial progress in building up the various accounts which comprise the Turnpike's sinking fund. In the fiscal year 1959, the bond interest account was filled to its maximum of six month's interest, or \$654,500. In addition, the reserve account at the end of the fiscal year 1959 was filled to its maximum of one year's interest, or \$1,309,000.

In the future, any excess of net operating revenues over annual interest charges can be applied to meeting the requirements of the redemption account and the reserve maintenance fund. Upon fulfillment of the above sinking fund requirements, the Department will be free to repay the advances of the State Road Fund. In the future, when all of its financial commitments have been met, this Turnpike, too, will become toll-free.

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### NOTES ON FEDERAL RESERVE PUBLICATIONS

Among the articles recently published in the monthly business reviews of other Federal Reserve banks are:

“Price of the Canadian Dollar”, Federal Reserve Bank of Boston, June 1960.

“Bank Reactions to Securities Losses”, Federal Reserve Bank of Kansas City, June 1960.

“Terms of Home Mortgage Loans”, Federal Reserve Bank of Chicago, June 1960.

“The Roles of FNMA and FHLBS in the Mortgage Market”, Federal Reserve Bank of San Francisco, May 1960.

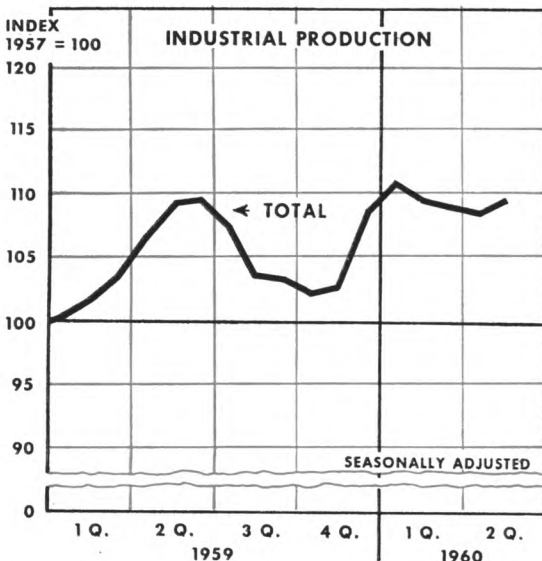
*(Copies may be obtained without charge by writing to the Federal Reserve bank named in each case.)*

# Zigzags in the Rate of Industrial Production

IT IS NOTHING NEW for the Index of Industrial Production to register frequent changes of direction within a relatively short span of months. Seldom, however, has this measure of business activity shown so many short-term changes of direction within a given phase of the business cycle—expansion or contraction—as has occurred between the spring of 1959 and the spring of 1960. The zigzags of the past twelve months have all been within the general matrix of what is generally considered to be an expansion phase of the business cycle; the term “sub-cycle” has come into increasing use to identify such a pattern of events.

A brief review and interpretation of this recent course of the production index is of-

*The forward movement of industrial production was interrupted by the steel strike of 1959 and a "lull" in early 1960.*



ferred below. Use is made of a new feature of the recently revised Index of Industrial Production, i.e., the division of the total index into broad “market groupings” which respond in different ways to changes in the general industrial scene. These groupings are as follows: consumer goods (including automotive products, home goods, apparel and consumer staples); equipment (both business equipment and defense equipment); and materials (durable and nondurable).

Beginning with the spring of '59, the story naturally divides itself into sub-periods (suggestive of, but not necessarily the same as, “sub-cycles”) which can be identified as follows: (a) the downs and ups of the second half of 1959, which reflected the steel strike and the post-strike surge, culminating in the unusually high level of activity in January 1960; (b) a reaction or “lull” which may be measured from January to March or April, 1960; (c) a renewal of the forward movement which appeared to be under way in April and May, and which so far (at the time of writing) has been confirmed statistically only by the rise exhibited in the scoring of the Index for May. These developments will now be discussed and illustrated in turn.

## Downs and Ups in '59

From mid-1959 to the end of the same year the output of equipment and the output of consumer goods showed very little change, except for a dip in November, as shown by an accompanying chart. In contrast to these trends, the output of materials dropped sharply in June, July, and August before leveling off in September and October and finally gaining momentum in the last two months of the year following the settlement

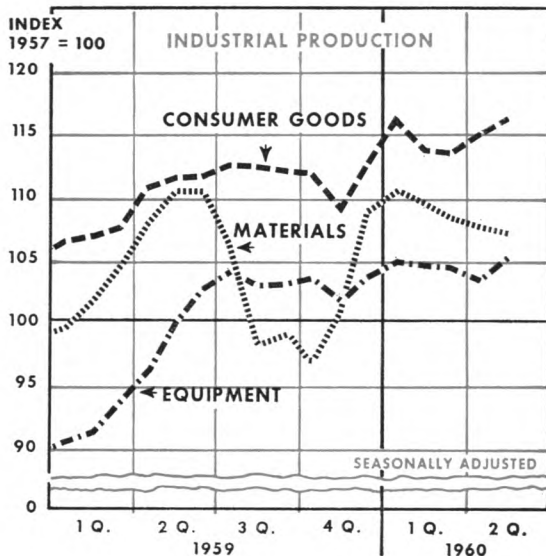
of the steel strike. Most of this decline can be attributed to a virtually complete stoppage of the production of ferrous metals.

The fact that the output of equipment and of consumer goods remained at comparatively high levels for the duration of the steel strike is an indication that operations were maintained at the expense of a considerable liquidation of what must originally have been a rather large inventory of purchased materials. Supporting evidence of a substantial pre-strike inventory accumulation is afforded by data showing that the quarterly advances in manufacturers inventories on a seasonally adjusted basis amounted to about \$1.3 billion during the first three months of 1959 and \$1.7 billion during the second three-month period.

By the same line of reasoning, the November dip in the output level of consumer goods and of equipment (at the same time that materials output was on the rise) indicates that shortages of materials inventories finally precipitated a slowdown in at least some consumer goods and equipment industries. That such was the case is well documented by the announcements of numerous steel consumers in late October and early November last year that operations were to be curtailed. The automobile and related parts industries, for example, were particularly hard hit by steel shortages and automobile manufacturers were forced to cut auto assemblies 50 percent between October and November, on a seasonally adjusted basis. As a consequence of the steel shortages emanating from the nearly complete stoppage of all steel mill activity for practically four months and the thread-like effects of these shortages on other industries that are dependent upon steel users as an outlet for their products, the Index of Industrial Production dropped to 102 and 103, respectively, in October and November. The low point of this development was about 8 percent below the pre-strike high rate of 110 in June of last year.

Following the resumption of steel mill operations in November, industrial output rebounded sharply as steel mills and steel users,

*All three major market groups shared in the early '60 decline in industrial production. Materials-producing industries, however, were the only group failing to return to advanced levels by May.*



especially the auto industry, which was in the midst of a model changeover, attempted to fill their backlogs of new orders. By December the production rates of the consumer goods, materials, and equipment industries were either at or just slightly below the pre-strike high rates set six months earlier and inventories were being accumulated at an exceedingly rapid pace, a phenomenon which continued to serve as a stimulant to further advances in production rates to new highs in January.

### The Reaction in Early '60

The boost given to industrial output by increases in factory-held stocks amounting to \$800 million and \$900 million respectively during December and January, was of short duration. Successive reductions in the rates of inventory accumulation from \$900 million in January to \$600 million in February and \$400 million in March indicate that the intensity of the short-run impetus given to industrial output by the rebuilding of strike-depleted inventories had declined markedly

in the first quarter. The consequence of this was a downward adjustment of production schedules from the very high operative rates in January by practically every sector of industry.<sup>(1)</sup>

Each of the major market groupings, as shown in the line chart, turned down in February and two of the components, equipment and materials, which together constitute approximately 70 percent of total industrial production, continued to work lower in March. The third major component, consumer goods, which accounts for the remaining 30 percent, leveled during the March period.

The one area of industrial activity that stands out among all others when changes in output between January and March are compared is the durable materials group of industries, which is represented by the bar of largest area shown in the accompanying bar chart. Note that the thickness of the bars represents the relative importance of an industrial sector in the total mix of all industrial activity, while the length of the bars represents changes in production levels.

In terms of relative change, the output of durable materials declined only about 3 percent between January and March, but when the weight that this industry carries in the total index is taken into consideration, the importance of that 3 percent drop is greatly enhanced. In fact, the decline in this industry sector between January and March accounts for approximately two-fifths of the total decline in industrial production during that same period and about 70 percent of the drop in the output of all materials.

The shrinkage in the output of durable materials was centered about the cutback in steel production. The latter was precipitated, in part, by a lower level of output in the

automobile industry. But another important factor in the steel cutback was the now apparent tendency of major steel consumers, such as the auto industry, to gear production more closely to sales, thereby reducing the volume of inventories carried at any one point in time.

Among the industries in the market grouping referred to as consumer goods, those that experienced the greatest downward revision in production schedules between January and March were the automotive products and the home goods industries. The principal cause of the reduction in the output of automotive products was a sharp drop in new auto production from the very high January rate that was maintained by manufacturers as they attempted to supply their dealers with a working inventory of new model cars. Appliances, other than television sets and radios, and furniture and rugs were the major areas of weakness in the home goods sector. Inventories of such appliances as freezers and automatic washers and dryers were reported to have accumulated in the hands of distributors early in the year, causing manufacturers to cut output by nearly one-fifth in the January-March period.

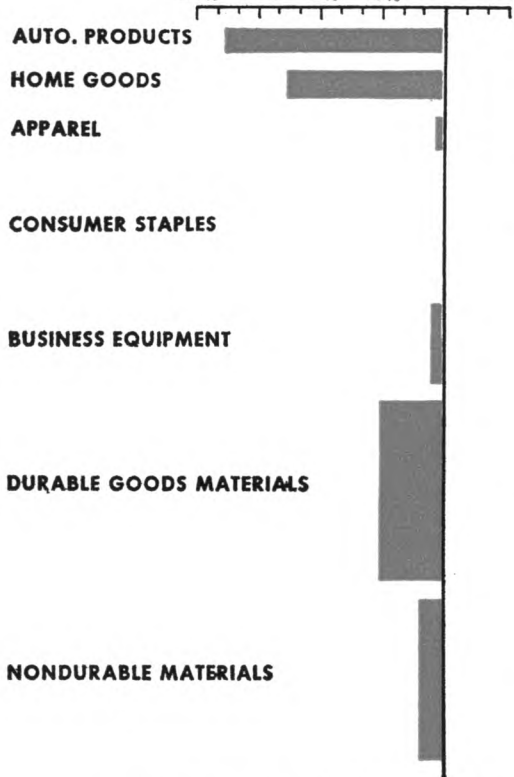
The one area of industrial activity in the consumer goods grouping of industries that is conspicuous for absence of change over the short interval from January to March of this year is the staples group, which is composed of manufactures of such items as processed foods, drugs, and consumer fuels, and which accounts for about 60 percent of the total output of the entire consumer goods industry group, or more than the automotive and home goods industries combined. The fact that there is no bar for this group of industries in the chart indicates that this is one area that was relatively untouched by the over-all decline in industrial activity. Actually there was a substantial drop in output in February, but the return to the high January rate of output in March was sufficient to offset the previous month's decline and was a major factor contributing to the stabilization of total consumer goods output.

(1) Despite the significant declines in industrial output which occurred in two of the three months comprising the first quarter of 1960, the account of business for that period is still a good one, for the total outturn of industry in the first quarter exceeded the January-March level of a year ago by 8 percent and the fourth quarter of 1959 by 5 percent. Further support of the strength of the first-quarter account of business activity is afforded by figures showing that the output levels of the automotive products, staples, and business equipment industries were all at record highs.

## CHANGES IN OUTPUT BY MARKET GROUPS . . .

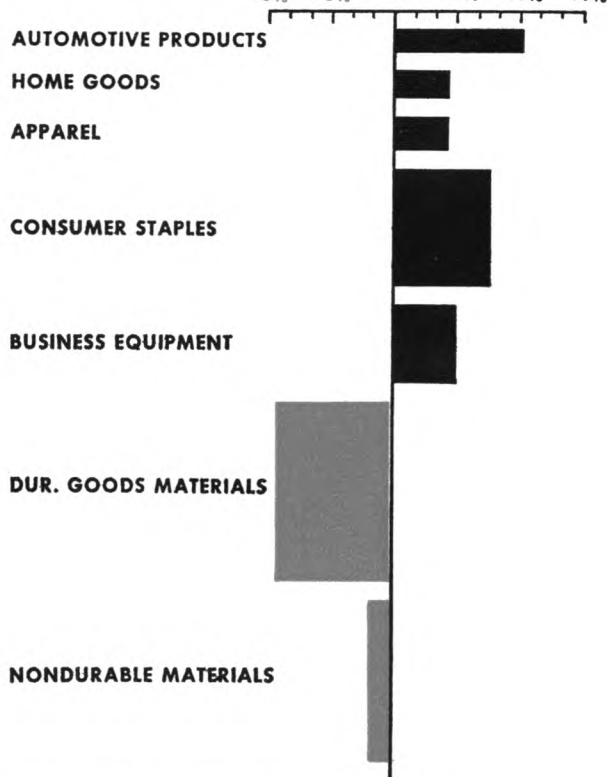
. . . IN EARLY '60

Percent change, Jan. '60 to Mar. '60  
-12% -9% -6% -3% 0 +3%



. . . SINCE MID-'59

Percent change, June '59 to May '60  
-6% -3% 0 +3% +6% +9%



NOTE: The length of a bar represents the percentage change in output (plus or minus) between the designated dates. Thickness of the bars shows the relative importance of the respective groups in the Index of Industrial Production.

Industries in the market grouping entitled "business equipment" underwent a reduction in production schedules in February, but in March the only sectors continuing to show weaknesses were the freight and passenger equipment and the farm equipment industries. Of the declines in those two industries the drop in farm equipment production rates to the lowest March level of output in thirteen years of record was by far the more severe. Both the commercial and the industrial equipment industries, which together account for more than two-thirds of the volume of all equipment produced, were actually operating at higher rates of output in March than in February. But the declines registered

by the freight and passenger equipment and the farm equipment sectors during the month were more than sufficient to offset the gains scored in the commercial and industrial equipment areas.

### Production on the Rise

Sparked by the March turnaround in the manufacture of consumer staples, and an upturn in the production of automotive products, home goods, and apparel in April, the Index of Industrial Production tended to level in the latter month and then turned upward in May as the important equipment industry joined the parade of consumer goods

industries undergoing upward adjustments in their operating rates. These upward adjustments were sufficient to push the May levels of output for the automotive products, home goods, apparel, and business equipment groups of industries significantly above the pre-strike rates of June 1959, as shown in the final chart. For some industry groups, namely consumer staples and apparel, (and possibly also for the equipment group), the advances were large enough to push output rates to new all-time highs.

Projected rises in plant and equipment expenditures for the second and third quarters have apparently stimulated the return to record rates of output in May by the equipment industry. Business outlays for new plant and equipment are expected to reach an annual seasonally adjusted rate of \$37.0 billion in the second quarter of this year and \$37.5 billion in the third quarter. For the year as a whole, capital outlays planned by the nation's businessmen are expected to reach \$36.9 billion, which indicates that the fourth-quarter rate of spending might be the highest of the year, and suggests that there could be some additional strengthening of output in the equipment industry during coming months.

The output of consumer staples, which has been a major element of strength in the overall improvement in the total business picture, shattered the previous record rate set in April and continued to establish new records in May. The processed foods, drugs, newspapers and books, and consumer fuels industries all participated in the upturn.

Improved production rates in the apparel and home goods and automotive industries also contributed to the continuing May advance in total consumer goods output. A substantial improvement in retail sales to a record \$18.9 billion in April (although such a rate was not maintained in May) was apparently the stimulant that set off increased rates of production in these industries, following three rather dull months that were heavily influenced by adverse weather conditions. But the rate of outturn in the auto-

motive and home goods industries, although substantially greater in May than in April, still remained below earlier peaks.

Both durable and nondurable materials manufactures continued to exert a downward pull on the aggregate of business activity during April and May. Steel producers dropped output schedules from 89 percent of capacity at the end of March to 62 percent of capacity in early June, while sizable cutbacks in production in the nondurable materials grouping were recorded by the crude oil and natural gas industries. The output of coal also declined.

Although the drop in operating rates of the steel industry between January and May was quite sharp for the nation, the cutback was even more severe in the Fourth District. Steel ingot production in the District dropped from 97 percent of capacity in January to 57 percent of capacity in the first week in June, compared with a cutback from 96 percent to 62 percent of capacity for the nation as a whole. The Youngstown steel producing area, which includes Canton and Warren, accounted for more than a proportionate share of the slowdown in the District as steel ingot output at area mills dropped to 40 percent of capacity for the first week in June, the lowest for that week of any steel-producing area in the nation.

Some further reductions in the outturn of steel may occur before steel production finally turns upward. Usually steel ingot output drops in July prior to the changeover in the auto industry and then picks up as automobile manufacturers begin production of new model cars for delivery to showrooms sometime in the fourth quarter. Observers close to the steel industry feel that manufacturers will start buying steel in volume for their 1961 model cars in late July and early August.

Accordingly, when activity in the steel industry does turn up, then, providing that the other elements of strength described above are maintained, the general forward movement of industrial production would be unmistakable.

# Around the Fourth District

## SAVINGS DEPOSITS OF INDIVIDUALS

(Outstanding at commercial banks, end of May 1960)

	% change from year ago
Columbus	+14%
Toledo	+10
Erie	+ 6
Pittsburgh	+ 5
Cincinnati	+ 4
Canton	+ 4
Lexington	+ 3
Akron	+ 2
Cleveland	0
Youngstown	- 1
Dayton	- 1
Wheeling	- 9
FOURTH DISTRICT TOTAL	+ 3

\* \* \*

Seasonally adjusted Fourth District *department store sales* in May were off 3 percent from April, when volume had shown a marked spurt, and were 2 percent below the year-ago month. However, *instalment sales*, representing 18 percent of May sales volume, were up 14 percent from the year-ago month.

\* \* \*

Fourth District *department store inventories* at the end of May were 2 percent below the previous month but 7 percent above a year earlier.

\* \* \*

Total *deposits* at Fourth District country banks in May were practically unchanged from both the January position and from year-earlier volume as a rise in time deposits counterbalanced a decline in demand deposits.

\* \* \*

Weekly statements of 26 Fourth District member banks indicate that *reserves* with the Federal Reserve bank declined \$133 million in the last two weeks of June, following a \$143-million rise during the preceding two-week period.

\* \* \*

*Bank debits* to demand deposit accounts in May were nearly 7 percent above the year-ago level at 33 Fourth District centers.

\* \* \*

From the beginning of the year to the end of May, cumulative *building permits* for educational facilities in Cleveland showed a sharp increase from a year earlier and accounted for nearly \$15 of every \$100 in the building permit total.

*(The above items are based on various series of District or local data, which are assembled by this bank and distributed upon request in the form of mimeographed releases.)*



FOURTH FEDERAL RESERVE DISTRICT