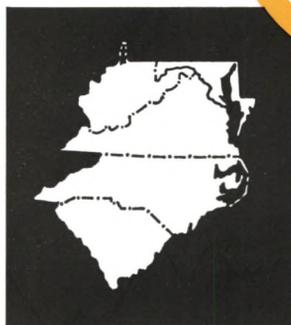


FEDERAL RESERVE BANK OF RICHMOND

MONTHLY REVIEW

The Changing Role of Gold
Fifth District Ports—Maryland
The Fifth District Farmer
District Economic Growth



JUNE 1968



THE CHANGING ROLE OF GOLD Gold has been much in the news in recent months. Newspapers around the world have carried such headlines as "Gold Price Rise Urged"; "French Attack Paper Gold Plan"; "Two-Price Gold Market Established." These headlines reflect the most recent developments in the turbulent history of gold, developments which may well foreshadow fundamental changes in the role of gold in the international monetary system. This article reviews briefly the history of gold as a monetary metal, discusses the present role of gold in the international monetary system, and describes the changes that appear to be taking place in that system. ● Gold has played an important role in man's affairs since the dawn of history. It has acted as a store of value, a medium of exchange, and as a symbol of beauty and worth since ancient times. Gold coins are said to have existed at least as early as 3000 B.C., but gold did not become the dominant monetary metal until fairly recently. At various times and in various cultures a large number of other commodities (e.g., cattle, tobacco, corn) as well as such metals as iron, lead, tin, and copper were used as money. Money in the form of non-metallic commodities was usually found in primitive societies, however, and as economic and financial systems became more sophisticated there was a tendency to move from these commodities to metallic money, and of the metals, gold and silver became the most popular. ● For centuries silver was a more important monetary metal than gold, perhaps because the supply of gold was too limited to permit it to serve the monetary function adequately. At any rate, silver was the predominant metal in ancient Greece and Rome and the British pound was originally a pound of silver. Many countries were on a silver standard at one time or another and some countries adopted bimetallic standards, with two metals, usually gold and silver, serving as standard money. The United States was on a bimetallic standard from 1792 until it was forced onto an inconvertible paper standard during the Civil War. ● Great Britain, in a series of actions between 1816 and 1821, became the first country to adopt the modern gold standard but most major countries did not adopt this standard until after 1870. Thus, the commonly-held view that the gold standard is the only legitimate standard and that its history runs back to ancient times is erroneous. Indeed, the full-fledged international gold standard enjoyed a relatively brief reign in the period between 1875 and the outbreak of World War I. All of the belligerents in that war except the United States went off the gold standard. Most of them returned to some form of gold standard after the war but abandoned it again in the 1930's. After World War II the non-Communist countries of the world established the present gold exchange standard centered around the International Monetary Fund. This system will be described later.

The Gold Standard Under the traditional gold standard that existed in the decades prior to World War I, a nation defined its basic monetary unit in terms of a certain quantity of gold, provided free coinage of gold for its citizens, and maintained convertibility of other kinds of money into gold coin. A free market in gold existed,

and citizens were free to import or to export gold.

According to the theory upon which the gold standard was based, marvelous things followed the adoption of this standard by the major countries of the world. For one thing, definition of currencies in the common denominator of gold immediately established the value of each currency in terms of every other currency on the standard. And since each government agreed to buy or to sell gold at the official price, the market exchange rate for any two currencies could not diverge very much from the official par value for any length of time. Advocates of the gold standard looked upon this stability of exchange rates as one of the chief virtues of the system because they believed exchange rate stability encouraged trade between nations.

Another virtue attributed to the gold standard was the adjustment mechanism which was supposed to ensure equilibrium in a country's international accounts. When a country began to run a deficit, the value of its currency in the exchange markets declined. When the market rate fell below the official rate by more than the cost of shipping gold, the deficit country lost gold to surplus countries. This reduced bank reserves and the money supply in the deficit country, and raised interest rates and depressed prices and incomes in that country. Just the opposite occurred in a surplus country. Moreover, in many instances the deficit country would initiate a restrictive monetary policy and the surplus country would follow an expansionary policy.

These policies served to reinforce the effects of gold flows on the economies of the deficit and surplus countries. In the deficit country the decline in prices and incomes encouraged exports and discouraged imports, while higher interest rates caused an inflow of capital from the surplus countries. In the surplus countries, prices and incomes rose, encouraging imports and discouraging exports, while lower interest rates encouraged an outflow of capital. Thus, the disequilibrium was eliminated by changes in both trade and capital accounts.

The protection of the nation's monetary reserve was the primary objective of monetary policy under the gold standard. Deficit countries were subjected to an iron discipline which required them to deflate their economies until balance of payments equilibrium was restored. Surplus countries, on the other hand, sometimes adopted expansionary policies, even at the cost of some inflation. The demise of the gold

standard resulted primarily, perhaps, from the reluctance on the part of policy-makers to permit economic policy to be dominated by balance of payments considerations.

The IMF and the Gold Exchange Standard The breakdown of the gold standard in the 1930's was followed by a period of chaos in international economic relationships, with economic warfare the order of the day. As depressions swept the countries of the world, each country tried to better its own position at the expense of its neighbors. Tariffs were raised, direct import and exchange controls adopted, and many countries engaged in competitive devaluation. The most notable result of these activities was a disastrous reduction in world trade. Consequently, during World War II, world leaders began planning an international monetary order based on cooperation among nations to replace the economic anarchy of the 1930's. Out of this came the Bretton Woods Conference and the present international monetary system centered around the International Monetary Fund.

The new system was designed to achieve the stable exchange rates of the gold standard while avoiding the harsh discipline of the gold standard. Exchange rate stability was achieved by providing that member countries of the IMF establish par values for their currencies expressed in terms of gold or the U. S. dollar, with each country agreeing to maintain the market value of its currency for spot transactions within a range of 1% above or below the par value. A member may satisfy this requirement by agreeing to buy or to sell gold at prices within limits established by the Fund. An attempt was made to avoid the harsher features of the gold standard by authorizing the Fund to provide medium-term credit to countries experiencing temporary balance of payments deficits, and by adopting the adjustable-peg principle with respect to exchange rates.

Each member of the Fund was required to pay 25% of its Fund quota in gold or U. S. dollars, with the remaining 75% payable in the country's own currency. The Fund makes loans to members by selling them needed foreign currencies in exchange for their own currencies, and a member's borrowing facilities are determined by its quota. Fund holdings of a member's currency may not exceed 200% of the member's quota, so the Fund may extend credit in an amount equal to 125% of the quota, although

it is possible for the 200% limitation to be waived. Not all of this drawing right is available immediately and without question, however. What is known as a member's gold tranche position is normally determined by the difference between the member's quota and Fund holdings of its currency. This amount is available almost automatically and without question, but drawings beyond that amount may be subjected to various restrictions. For this reason, most countries consider their gold tranche position at the Fund as a part of their international reserves.

The extension of intermediate-term credit by the IMF is designed to help countries experiencing temporary balance of payments difficulties, but for countries with persistent surpluses or deficits, the Articles of Agreement provide for the possibility of changes in official exchange rates. Any member country may change the value of its currency in either direction, but changes greater than 10% require prior consent of the Fund. This feature of the system has not worked out as the founders of the system had hoped. The tendency to look upon devaluation as a sign of weakness and a breach of faith persists. This is particularly true for the larger countries, and recent experience indicates that it is difficult or impossible to devalue one of the key currencies without endangering the entire system.

The Role of Gold Under present arrangements, gold is the basic international reserve, the ultimate

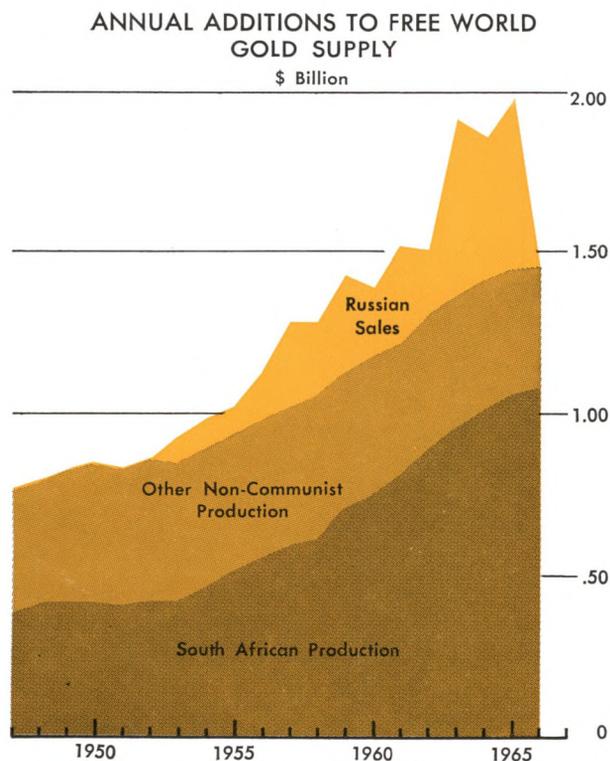
means of settling claims between nations, just as it was under the gold standard. But as the system evolved in the postwar period the dollar, and to a lesser extent the pound, acquired the role of reserve currencies. At the time the present system was being established, the economies of most of the countries of Western Europe lay devastated from the war and their international reserves were virtually nonexistent. Only the United States had the enormous economic strength to assist these countries to restore their war-shattered economies, and only in the United States could the Europeans acquire the goods they needed.

Thus, the dollar became a much-sought-after currency. The small deficits that began to appear in the United States balance of payments in the early 1950's were welcomed both here and abroad. Beginning in 1958, however, the U. S. balance of payments deficit became a serious problem, and in the following 10 years the United States lost almost \$11 billion in gold to foreign countries. At the same time, the dollar reserves of foreign countries rose sharply, particularly in the period since 1959. For all member countries of the IMF, gold and foreign exchange reserves rose by \$13.4 billion between the end of 1959 and the end of 1967. Of this total, gold reserves increased only \$1.6 billion, while foreign currency reserves (mainly dollars) rose by \$11.8 billion.

Thus, a large part of the additions to reserves in the last 8 years were in the form of dollar holdings of foreign governments and these increases resulted largely from the U. S. balance of payments deficit. This method of adding to reserves was acceptable as long as foreign governments were eager to acquire dollars, but most of the world's major countries now have all the dollars they want. But gold production in recent years has been barely sufficient to supply the needs of industry, the arts, and private speculators, so that little new production has gone into monetary reserves.

If new gold output goes into private uses and the U. S. deficit is eliminated, how are the nations of the world to add to their reserves? This question assumes, of course, that additions to reserves are desirable, a point on which there is by no means unanimous agreement. Some believe that the greatest need is for a more efficient adjustment process to eliminate deficits. But there is a widespread belief that regular additions to reserves are desirable and many believe it is better to have increases in reserves determined by some policy-making group than by the balance of payments deficit of a particular country.

These considerations, together with the recent gold



Source: International Financial Statistics, IMF.

crisis, led to two important steps affecting the future of gold in the world's monetary system. The first of these was the creation of a two-market system for gold; the other was an important step toward the establishment of a new international monetary reserve, the Special Drawing Rights.

With regard to the first, it should be remembered that the United States is under no obligation to engage in transactions involving gold with any private individual or institution at any price. For many years our government has agreed to buy and to sell gold in transactions with foreign *official agencies*; i.e., central banks and treasuries. Under the Articles of Agreement of the IMF, this is deemed to satisfy our obligations with respect to exchange rate stability. Nevertheless, private markets for gold exist in a number of countries, the largest and best known being the London market. And from late 1961 until last March 17 the price of gold in the London market was stabilized by a group of central banks operating what was called a gold pool. As a result of speculative activity in the London gold market in 1960, the Federal Reserve System and the central banks of seven Western European countries entered into an informal arrangement whereby each agreed to supply gold for the purpose of stabilizing its price in the London market.

The Washington Agreement of March 17 dissolved the gold pool and separated official gold transactions from operations in private markets. The United States and the six other active members of the now-defunct gold pool (France withdrew in 1967) agreed to maintain the official price of gold at \$35 per ounce. From that date on, they agreed, officially held gold should be used only to effect transfers among monetary authorities and, therefore, these governments no longer would supply gold to private markets. Moreover, they declared, in view of the prospective establishment of the facility for Special Drawing Rights, they no longer felt it necessary to buy gold from the market. They agreed that their governments would not sell gold to any monetary authority to replace gold sold in the private market. A number of other central banks have indicated their support for the new system.

Strict adherence to these policies would mean that the market price of gold would be determined entirely by private supply and demand, and it could rise above or fall below the official \$35 price. Official monetary gold stocks would no longer be depleted by sales to the private market, but they also would no longer be increased by purchases in the private market. This latter point underscores the importance of the step toward creation of the Special Draw-

ing Rights taken at Stockholm on March 30.

Much has been written and said about Special Drawing Rights in recent months, and space does not permit a discussion of all aspects of this new reserve asset. Perhaps the most interesting feature of SDR's is that they would be created by entries in the books of the IMF and allocated to member countries in proportion to their quotas. Otherwise, they would perform the function of a reserve asset in much the same manner as that function is now performed by gold. A country in deficit might need dollars to support its currency in the foreign exchange market, and it would be able to acquire them by selling SDR's to another country, perhaps one with a balance of payments surplus. Thus, SDR's would be held by and transferred among monetary authorities. They would not circulate in private markets.

The establishment of a facility to create Special Drawing Rights would represent the most fundamental reform in the international monetary system since the Bretton Woods Agreement in 1944. But there are important hurdles to be overcome before the new facility can be inaugurated. The success of the two-market system for gold and future prospects of the SDR's both depend to a considerable degree upon improvement in the U. S. balance of payments.

Success of the two-market gold arrangement depends heavily upon the cooperation of foreign monetary authorities, and their cooperation could be influenced by their estimates of our ability to achieve equilibrium. Moreover, one of the conditions for activation of the SDR's is the achievement of a better equilibrium in the balance of payments of member states.

When the new reserve asset comes into being, its impact on the monetary system will depend upon how soon SDR's are activated and the rate at which they are created. Activation is unlikely to occur before late 1969, and it might be much later than that. Moreover, SDR's probably will be created at a slow rate, at least in the early years, and it may be many years before they constitute a major portion of total international reserves. So the creation of SDR's does not imply the immediate demonetization of gold. As a matter of fact, SDR's are designed to supplement, not to replace, existing reserve assets. Nevertheless, as time goes on and as SDR's become an increasingly larger part of total reserves, the importance of gold is likely to diminish. It is unlikely that the precious metal will ever again occupy the dominant position in the monetary system that it enjoyed in the late nineteenth and early twentieth centuries.

Aubrey N. Snellings



MARYLAND PORTS • Tidewater Maryland has excellent facilities for waterborne commerce. There are numerous inlets and harbors in the Chesapeake Bay which afford protection from storms. Two entries into the Bay, one through the Chesapeake and Delaware Canal and the other between the Virginia capes, make the Atlantic Ocean easily accessible. • Baltimore, the Nation's third largest seaport in total waterborne commerce and fourth largest in volume of foreign commerce, exchanges goods with 291 world ports forming a trade link with every continent. In 1966 the port handled 5.5% of all imports and exports moving in and out of the United States, comprising 23.3 million long tons of cargo valued at more than \$1.5 billion. The principal commodities involved in foreign commerce were metallic ores, petroleum and petroleum products, and coal and coke. • Located on the Patapsco River 150 miles from the sea, Baltimore lies farthest inland of the North Atlantic ports. This location makes it advantageous for shippers to use the port for cargoes headed for the Mid-west. Rail, truck, and air facilities are readily available to transfer goods to their final destinations. • An average of 5,300 vessels arrive at the Baltimore port yearly. Even the very largest ships can utilize 12 anchorages, 92 piers, and 169 berths on the 45-mile waterfront. The port has a reputation for fast and efficient handling of cargoes, and offers almost every kind of service, from shipbuilding and repairs to fumigation of cargoes. • Tidewater Maryland boasts two deep-water ports in addition to Baltimore. Seafood packing industries in the vicinity of the recently modernized Cambridge port receive fish from Iceland, Venezuela, and the Canary Islands. Cambridge also receives furs from the United Kingdom and West German electrical machinery. These imports in 1966 were valued at more than \$5 million. • From its location in lower Chesapeake Bay, the port of Crisfield imports Honduran bananas and dyeing and tanning materials from South Africa. A project is now in the planning stage to establish an 80-acre industrial park on the Crisfield waterfront. Channels will be dredged to allow oceangoing vessels to enter the area. The presence of these facilities should attract companies which will take advantage of the deep-water location. • Many other ports are located along the Maryland coastline which cater to pleasure craft and to boats engaged in the oyster industry. The largest of these ports is Annapolis, the capital of the State. • In order to insure the continued growth of the State's commercial ports, the Maryland Port Authority, which was established in 1956, has as its objective "the protection, promotion, and development of Maryland's greatest single economic asset, the ports of the Chesapeake Bay."

A
Census
Profile...
THE
FIFTH
DISTRICT
FARMER



The 1964 Census of Agriculture provides the data on which to draw a fairly up-to-date profile of the average Fifth District farmer. Let's take a look, then, at what the average farmer and his farming operations were like in 1964 in view of these latest census facts.

Farmer Characteristics Census tallies found that the number of farmers in the District in 1964 totaled 340,068—22% fewer than in 1959. As has been the case since 1945, the number of nonwhite operators declined at a much faster rate than the number of white operators. The average farmer was 52.2 years old compared with 51.2 years in 1959. Roughly one-fifth were 65 years of age or older, while only one-tenth were under 35. Their formal education was rather limited. Only 19% had formal training through high school, with 11% having only a high school education and a mere 8% having completed one or more years of college. This low educational level provides cause for concern in view of the rapidity of technological changes and the growing complexity of the farm-management decisions which confront farmers.

Some 46% of all farmers worked off their farm during 1964, and 72% of these or one-third of all operators worked 100 days or more. The proportion working off their farm 100 or more days was somewhat greater than in 1959. Of the total days worked off the farm in 1964, 97% were at non-farm jobs.

Many members of farm families as well as the operators had income from off-farm sources. In 1964, the income of District farmers and their families from sources other than the farm operated totaled \$992.6 million. This sum was in addition to the \$2,254.4 million total value of farm products sold. Of this \$992.6 million in farm family income, 69% came from wages and salaries; 11% from non-farm businesses or professions; 10% from Social Security, pensions, veteran and welfare payments; and 10% from rent from farm and nonfarm property, interest, dividends, etc. Of all farm households reporting this additional income, 45% reported earnings of \$3,000 or more while 25% received \$5,000 or more.

Tenure patterns of farmers continued to shift between 1959 and 1964. The proportion of full owners actually remained at 57%, the same as five years earlier. The downward trend in tenants and the upward trend in part owners which have been going on for around 20 years continued, however, with the upturn in part owners almost offsetting the downturn in tenants. Part owners—those who rent

SELECTED MEASURES OF FIFTH DISTRICT AGRICULTURE

Item	1964	% change from 1959
Farms, number	340,068	- 21.9
Average size of farm, acres	126.3	+ 15.3
Cropland harvested, acres	10,969,470	- 12.8
Value of land and buildings:		
Average per farm, dollars	26,549	+ 55.7
Average per acre, dollars	210.23	+ 35.0
	% of total	
	1959	1964
Full owners	57.2	56.8
Part owners	18.1	22.1
All tenants	24.3	20.6
Farm operator characteristics:		
Working off their farms 100 days or more	31.4	32.9
Under 35 years of age	11.3	9.8
65 years old and over	18.9	19.4
Reporting 1 to 4 years of high school as highest grade completed	—	31.7
Reporting 1 year or more of college as highest grade completed	—	7.7
Income from sources other than the farm operated— % farm operator households reporting with income:		
Under \$1,000	—	27.0
\$1,000 to \$2,999	—	27.8
\$3,000 or more	—	45.2
Value of farm products sold— % of all farms represented by farms reporting:		
Under \$2,500	58.8	53.5
\$2,500 to \$9,999	31.7	29.8
\$10,000 or more	9.4	16.7
% of total dollar value represented by farms reporting:		
Under \$2,500	11.7	6.2
\$2,500 to \$9,999	37.1	24.2
\$10,000 or more	50.8	69.1
Farms by size of farm, proportion:		
Under 50 acres	45.7	42.0
50 to 99 acres	23.0	23.0
100 to 259 acres	22.9	24.5
260 to 499 acres	5.6	6.8
500 acres or more	2.8	3.7
Farm equipment and facilities, % of farms reporting:		
Automobiles	69.7	76.8
Motortrucks	45.6	57.4
Tractors	55.3	62.9
Grain and bean combines	9.4	10.1
Home freezer	46.2	65.9
Telephone	42.8	59.7
Television set	—	86.8

Source: U. S. Bureau of the Census.

land in addition to that which they own—comprised 22% of the total in 1964 compared with 18% in 1959. On the other hand, 21% of all farmers were classified as tenants in 1964 as against 24% in the preceding period. That part ownership of farms is increasing can be explained by the fact that many farmers, especially younger ones, prefer to rent land to make an economical farm unit rather than to buy high priced farmland. By so doing, they can use their available capital to purchase farm machinery and equipment and other production goods.

Farm Size and Value

There were 126 acres in the average District farm in 1964, an increase of 17 acres over 1959. Total land in farms declined much less during the five-year period than the number of farms reflecting the increase in farm size. Most of the decline in farm numbers occurred among the smaller farms. Farms of less than 100 acres decreased 26%, while those between 100 and 499 acres fell 14%. Farms ranging in size from 500 to 999 acres rose 3%, and those of 1,000 or more acres increased 8%. The number of farms in these latter two groups remained comparatively small, however.

Value of farmland and buildings continued to increase throughout the District and in 1964 averaged \$210 per acre, 35% greater than in 1959. With both the average size of farm and the value per acre rising, the value of land and

buildings per farm rose even more. By 1964, the average farm was valued at \$26,549, a gain of 56% over the 1959 value. Among District states, the value of the average farm in 1964 ranged from a low of \$13,882 in West Virginia to a high of \$64,999 in Maryland.

Farm Equipment and Facilities With the growing scarcity and high cost of labor, the proportion of farmers investing in farm machinery and equipment has continued to grow. Some 63% of all farmers owned tractors in 1964, for example, compared with 55% five years earlier. Trucks were owned by 57% as against only 46% in 1959. Though small by comparison, the proportions who had grain and bean combines, corn pickers, crop driers, and/or pickup balers were also greater than in 1959.

Farmers generally were enjoying a higher level of living in 1964. Those owning automobiles comprised 77% of the total as against 70% in the preceding period. Two-thirds had a home freezer in comparison with only 46% five years earlier, and three-fifths of all farm homes had a telephone compared with just 43% in 1959. In addition, 87% of all farm families in 1964 owned a television set. Though the 1964 census did not ask how many farm homes had electricity and running water, when these questions were last asked in 1954, better than nine-tenths had electricity and nearly one-half were equipped with running water.

Higher-Income Farms Increasing Using the value of farm products sold as a basis, the census groups farms into two major categories—commercial and noncommercial farms. Generally, all farms with a value of sales totaling \$2,500 or more are classified as commercial. Farms with a value of sales of \$50 to \$2,499 are also classed as commercial if the operator is under 65 years of age and does not work off the farm 100 or more days during the year. The remaining farms with sales valued at from \$50 to \$2,499 are classified as noncommercial. These non-commercial farms are further categorized into part-time farms, provided the farmer works off his farm 100 or more days and is under 65 years of age, and part-retirement farms if the farmer is 65 years old or older. The census changed the definition of the part-time farmer between 1959 and 1964, and this definition change decreased the number of farms which would have been classed as part-time farms and increased the number of commercial farms. Because of this, all farms with a value of farm products sold totaling under \$2,500 must be grouped together for comparative purposes.

With these criteria in mind, it is worthy of note

that the number of District farms with farm-product sales amounting to less than \$2,500 declined 29% between 1959 and 1964. Even so, 54% of all farms were in this classification in 1964, but their total sales made up only 6% of the value of all farm products sold. Farms with a value of sales ranging from \$2,500 to \$9,999 decreased 27% during this same five-year period. Thirty per cent of all farms still fell in this category in 1964, however, and they contributed just 24% to the value of all farm-product sales. Farms having gross sales of \$10,000 or more increased both in number and as a proportion of all farms. The gain in number was a healthy 38%. As a proportion of the total, they rose from 9% to 17%. And their contribution to the value of farm products sold from all farms increased from 51% to 69%.

A more detailed look at the farms with sales of \$10,000 or more in 1964 is rather revealing. Those farms having gross sales ranging from \$10,000 to \$19,999 increased 24% between 1959 and 1964 and in 1964 made up 10% of all farms. Farms with farm-product sales falling in the \$20,000 to \$39,999 category gained 52% in number and comprised 5% of the total. The number of farms grossing \$40,000 or more jumped a whopping 95%. Still only 2% of all farms fell in this classification in 1964.

Summary As the foregoing indicates, many changes are occurring down on the farm. Yet there is room for still further change in the years ahead. Many farms are too small to be operated efficiently. Modern machinery and equipment cannot be used effectively on these farms, volume of output is small, and unit costs of production are high and rising. That 54% of the District's farmers gross less than \$2,500 per year from the sale of farm commodities is further evidence that more change is needed. Only 44% of this group, or 23% of all farmers, are part-time farmers—that is, receive additional income from off-farm work—while 27% of this low-income group, or 15% of all operators, are part-retirement farmers. Of the remaining low-income farmers, many would no doubt find it to their advantage to join the ranks of the part-time farmer. Still others may find more adequate income from nonfarm employment entirely. For those who continue in farming on a full-time basis, an expansion of their farming operations seems imperative. For some, this will mean the need to buy or rent more farmland; for others, it will necessitate the purchase of more machinery and equipment; and for still others, it will mean the need for more credit. Whatever the case, all will find it more profitable to devote more study to their farm-management decisions.

Sada L. Clarke

The Fifth District

ECONOMIC GROWTH

Chart I PERSONAL INCOME

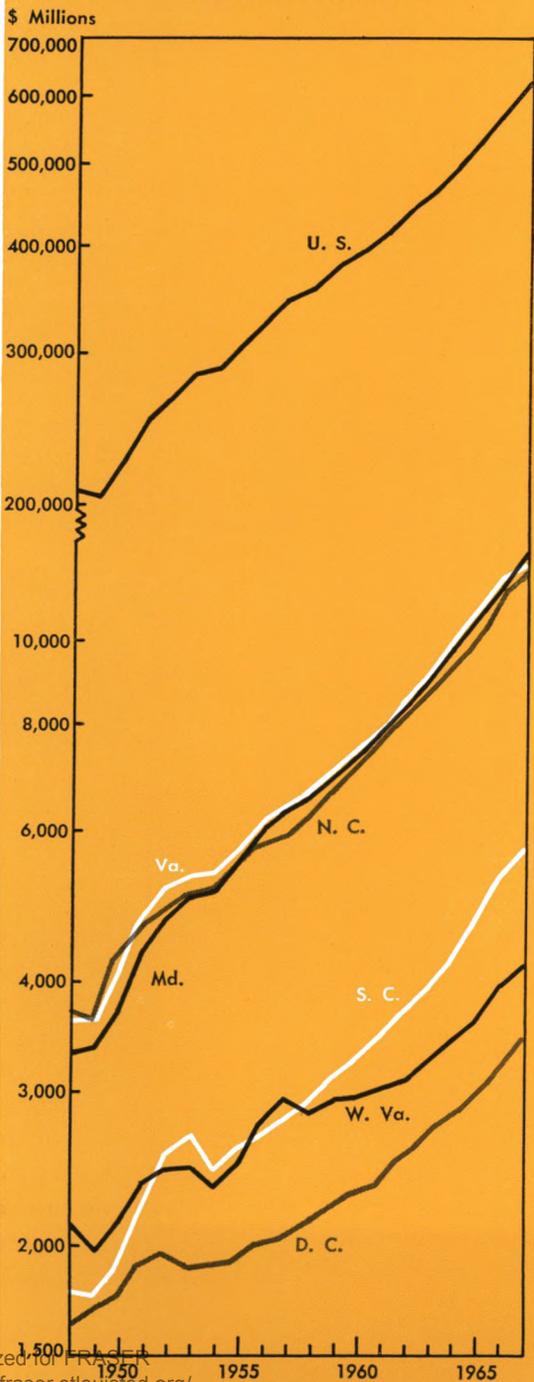
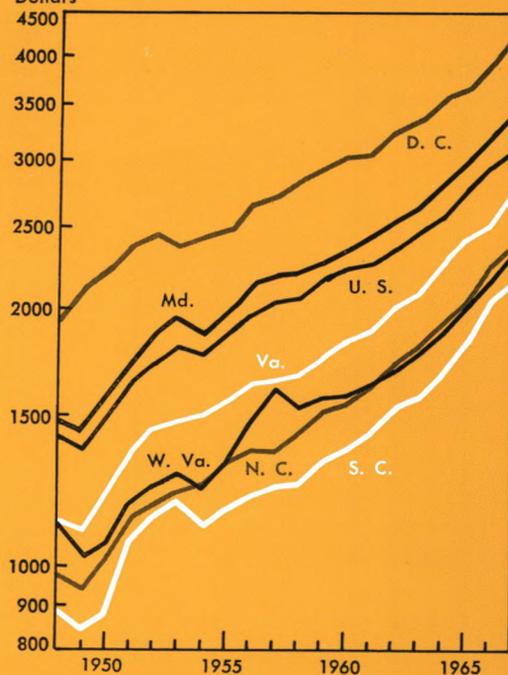


Chart II PER CAPITA PERSONAL INCOME



Source: U. S. Department of Commerce.

Total and per capita personal income for the five District states, D. C., and the U. S. for the twenty-year period, 1948-1967, are shown in Charts I and II, respectively. Both charts are designed to emphasize comparative rates of growth, and are based upon recently published Department of Commerce data. Accordingly, they are set up on semi-log scales on which lines with equal slopes represent equal rates of growth.

The personal income concept is a valuable one in assessing the economic progress of states. It is the sum of the income received by individual persons from all sources, including welfare payments, before income taxes and other direct taxes are removed. On a per capita basis for a state it is a rough measure of average individual prosperity for the population of the state. For the U. S. as a whole, total personal income over the last twenty years has averaged about 79% of gross national product, with very minor variations. There is no thoroughly reliable measure for gross state product, and even though the U. S. relationship does not necessarily hold for states, the personal income concept might be regarded as the best available alternative measure of state economic activity.

Table 1 shows personal income data for the Fifth District states, D. C., and the U. S. in some detail, along with state rankings and rates of growth. In terms of total personal income, Maryland, Virginia, and South Carolina advanced in relative position over the 1948-67 period while D. C., West Virginia, and

Table 1

PERSONAL INCOME

	Total						Per Capita					
	1948		1967		Average Annual Growth 48-67		1948		1967		Average Annual Growth 48-67	
	\$ million	Rank	\$ million	Rank	%	Rank	Dollars	Rank	Dollars	Rank	%	Rank
Maryland	3,331	19	12,644	14	6.9	5	1,467	20	3,434	12	4.3	15
District of Columbia	1,644	33	3,453	36	3.8	47	1,957	1	4,268	1	4.0	25
Virginia	3,624	16	12,592	15	6.4	9	1,130	38	2,776	30	4.6	5
West Virginia	2,126	29	4,210	34	3.5	48	1,120	39	2,341	47	3.8	37
North Carolina	3,732	15	12,049	16	6.0	15	973	43	2,396	44	4.6	4
South Carolina	1,779	32	5,631	30	5.9	17	891	46	2,167	48	4.5	7
United States	208,878		620,568		5.6		1,430		3,137		4.0	

Source: U. S. Department of Commerce.

Note: 1967 ranks and ranks of growth are based on 50 states plus D. C. 1948 ranks exclude Alaska and Hawaii.

North Carolina declined in rank. The growth of total personal income was higher in four of the states than in the U. S., with only D. C. and West Virginia growing at slower paces. The four states leading Maryland in total personal income growth were, in order, Nevada, Florida, Arizona, and California.

Chart I indicates for example that growth was somewhat more uniform in Virginia, North Carolina, and Maryland over the total period than in South Carolina or West Virginia. All the District states and the U. S. have shown steadier growth since about 1958 than in the earlier years. However, prior to that time, the unsteady growth paths were more pronounced in South Carolina and West Virginia than in the other states. The increased diversification of industry in these two states, as well as the growth of manufacturing in later years is partially responsible for the smoother growth paths and the somewhat closer resemblance of their growth to that of the U. S.

The per capita figures in Table 1 indicate that only Maryland and D. C. exceeded the U. S. average

in either 1948 or 1967 among District states. Top rank over the period was retained by D. C. Maryland advanced in relative position as did Virginia; however, Virginia remained below the U. S. average by \$361 in 1967. The Carolinas and West Virginia declined in rank over the period. States with lower per capita personal incomes than South Carolina in 1967 were Alabama, Arkansas, and Mississippi.

Some of those states having among the lowest per capita incomes have experienced rates of growth among the highest. All the District states experienced higher per capita growth rates than the U. S. except West Virginia and D. C., the latter being about equal to the U. S. Those states having higher rates than North Carolina over the twenty-year period were, in order, Georgia, Tennessee, and Alabama. Chart II shows that since about 1957 all District states except West Virginia exhibited rates of per capita income growth not significantly different from that of the U. S. Prior to that date more erratic growth patterns were evident, as was the case with total personal income. *William H. Wallace*