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War and Transition Periods

War Cycles: 1914-1919, 1938-1945, 1949-1954

During peacetime periods, as we have seen, government receipts have moved closely with the business cycle, not because of systematic changes in the rates but because of variations in the tax base. Expenditures, on the other hand, have not shown such a regular performance. The result is a very sensitive fluctuation in the net surplus or deficit, with the surplus rising (or the deficit falling) during a business expansion, and the surplus falling (or the deficit rising) during a business contraction. In wartime, however, the situation is substantially different, and the effects carry over into postwar periods.

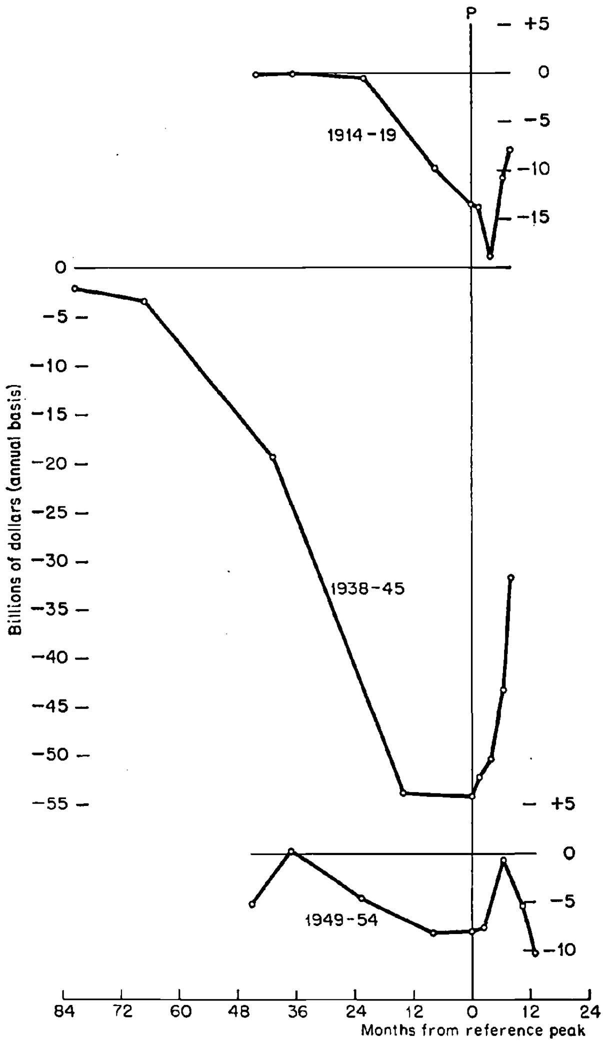
For one thing, wartime changes in tax rates have a more significant influence on receipts. For another, changes in government expenditures have a dominant influence on the business situation itself. Indeed, changes in expenditures mostly outweigh the changes in receipts, upsetting the usual relationships between the net surplus or deficit and business activity that characterize peacetime business cycles.

These points can be demonstrated by considering the behavior of receipts and expenditures during World Wars I and II and the Korean War. In all three cases, a business cycle expansion began before the United States became involved in hostilities. The initial-trough dates are August 1914, June 1938, and October 1949, respectively. Then came long and vigorous upswings in business activity, in prices, and in government expenditures and receipts. The business expansions terminated in August 1918, February 1945, and July 1953, respectively. Brief and mild contractions ensued as the economy reverted to a peacetime basis. The months of March 1919, October 1945, and August 1954, respectively, mark the ends of these contractions and the beginnings of new expansions. By dividing these cycle periods into nine stages after the manner used for the peacetime cycles, we can observe the effects brought about by war.

Surpluses and Deficits. Chart 22 shows the average monthly surpluses and deficits at the nine stages of the three cycles. The patterns are broadly similar, although the magnitudes are very different. We entered each war

CHART 22

Federal Surpluses and Deficits, Reference Cycle Patterns, Three War Cycles, 1914-1919, 1938-1945, 1949-1954



Source: Table A-5, Section A2 (averages on annual basis).

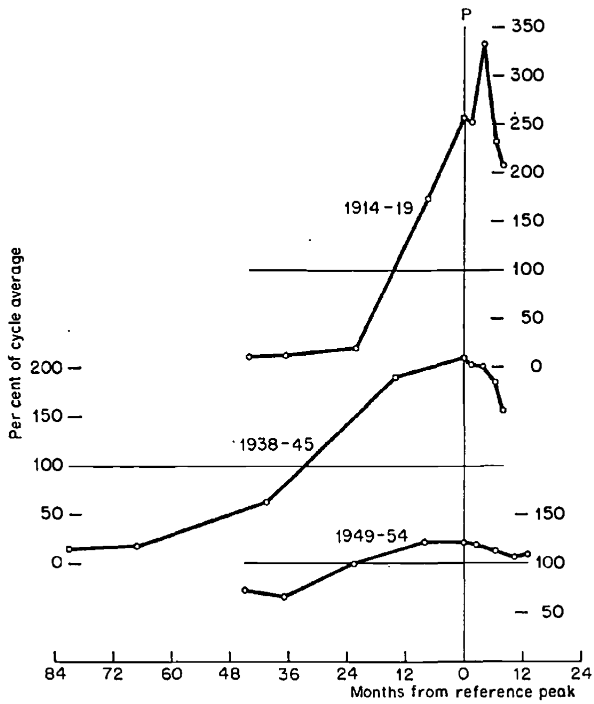
cycle with only the slight deficits that accompanied the recessions ending in 1914, 1938, and 1949. These deficits soon began to increase as defense expenditures rose. The deficits continued to mount throughout the period of hostilities and the accompanying business expansion, in sharp contrast to their typical peacetime pattern.

With the cessation of hostilities, we moved rapidly towards a balanced budget. In the business contraction following World War I, receipts continued to rise sharply while expenditures were declining. In the contraction following World War II, even though federal receipts declined, expenditures dropped much more sharply. In the 1953-1954 contraction, expenditures fell more rapidly than receipts for a time, but then the situation was reversed: revenues declined sharply, partly as a result of a tax cut, and expenditures leveled off.

Expenditures. Government expenditures rose during the expansion phase and declined during the contraction phase of each of the three war cycles (Chart 23). Government spending was the dominant factor in the business

CHART 23

Federal Expenditures, Reference Cycle Patterns, Three War Cycles, 1914-1919, 1938-1945, 1949-1954



Source: Appendix Table A-5, Section B.

situation. Since the peak of the cycle coincided fairly closely with the end of hostilities, this pattern is not surprising. However, government expenditures did not decline to prewar levels. When World War I started, our annual government expenditures amounted to about $700 million. In 1918, the peak year, our expenditures were more than $18 billion or twenty-four times as large. In the peacetime years that followed, expenditures hovered near the $3 billion level annually—four times the prewar figure. In the World War II cycle, expenditures rose from less than $10 billion annually to almost $100 billion during the peak year—more than ten times as high as in the prewar period. The postwar decline brought expenditures down to the $40 billion level by 1947—again, four times the prewar figure. Servicing the debt, maintaining an enlarged military establishment, benefits for veterans, a more active role in the economy, and aid to our allies as well as our former enemies placed government expenditures at this new high level.[1] The Korean War lifted government expenditures from an annual rate of around $40 billion to nearly $75 billion; the subsequent decline brought them down to $65 billion.

Revenues. The financing of wars requires increases in existing rates and the development of new sources of tax revenue. Failure to recognize promptly the tremendous cost of war and the slow education of the public to increased levies result in a gradual succession of revenue bills, each more exacting than the preceding bill, until taxes finally reach that level which Congress and the administration believe can and should be borne. The balance of the financing is achieved through borrowing. In the two world wars, levels of taxation began to rise before the country's actual participation in the wars. This was necessitated by the reduction of certain revenues (e.g. customs receipts) owing to the prior onset of war abroad and by the step-up in the preparedness program as participation became a likely possibility.

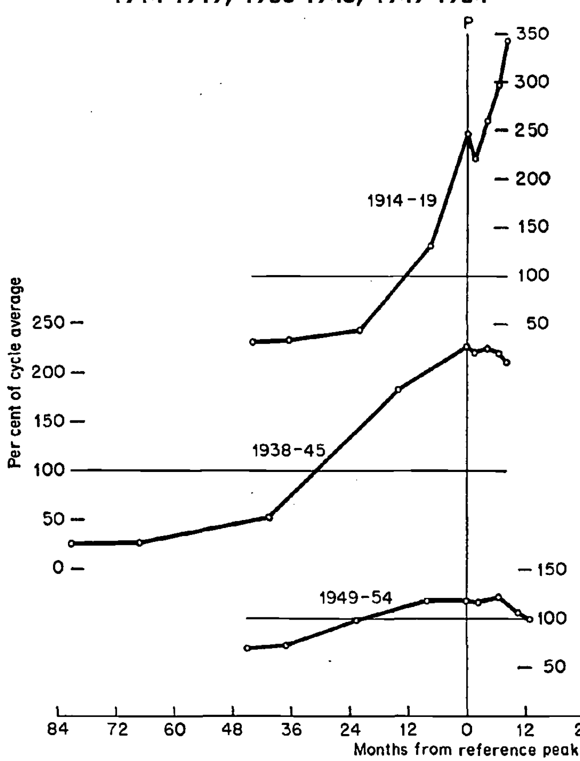
Thus, in order to offset the reduction of customs receipts that resulted from the European phase of World War I, an "Emergency Revenue" law was passed in October 1914. It increased tobacco and liquor taxes and imposed taxes on such diversified objects as toilet articles, chewing gum, telegraph and telephone messages, express and freight charges, bankers, brokers, and amusement places, and established stamp taxes on transactions. Although the United States was not yet at war, appropriations for the army and navy were sharply increased. More revenue was required, and the general structure of the tax system was revised by the Revenue Act of September 8, 1916. This act repealed the stamp taxes and the taxes on bankers, messages, and transportation provided for in the 1914 act. It

[1] See *A Century and a Half of Federal Expenditures* by M. Slade Kendrick, National Bureau of Economic Research, Occasional Paper 48, 1955, pp. 11-14.

raised individual and corporate income tax rates and liquor taxes, imposed a munitions manufacturers tax, and increased the tariff on sugar. Six months later (March 3, 1917) an excess profits tax was introduced and estate taxes were raised. Six months after the United States declared war on Germany, the War Revenue Act of 1917 was passed. This bill provided a very substantial revenue from excess profits, from greatly increased individual and corporate income taxes, from an increase in estate, liquor, and tobacco taxes, from a wide variety of miscellaneous internal taxes on such objects as admissions, automobiles, telephone and telegraph messages, rail transportation, jewelry, cosmetics and so on, and from a stamp tax on financial instruments. The Revenue Act of 1918, enacted three months after the Armistice (February 24, 1919), increased income, liquor, tobacco, auto, and other miscellaneous taxes, and reduced excess profits and estate taxes.

CHART 24

Federal Receipts, Reference Cycle Patterns, Three War Cycles, 1914-1919, 1938-1945, 1949-1954



Source: Table A-5, Section C.

During the Second World War, revenue bills, passed in June and October of 1940, September 1941, October 1942, June 1943, and June 1944, provided for successive increases in existing taxes and additional new taxes. At the close of the war (1945), individual income taxes were lowered, and excess profits and capital stock taxes were repealed. This did not affect receipts until the postwar cycle.

The two world war cycles revealed the remarkable capacity of our economy to increase tax revenues tenfold within a very brief time (Chart 24). In the contraction period, the pay-as-you-go basis for the payment of income taxes during World War II made the revenue system more responsive to declining activity than it had been during World War I.

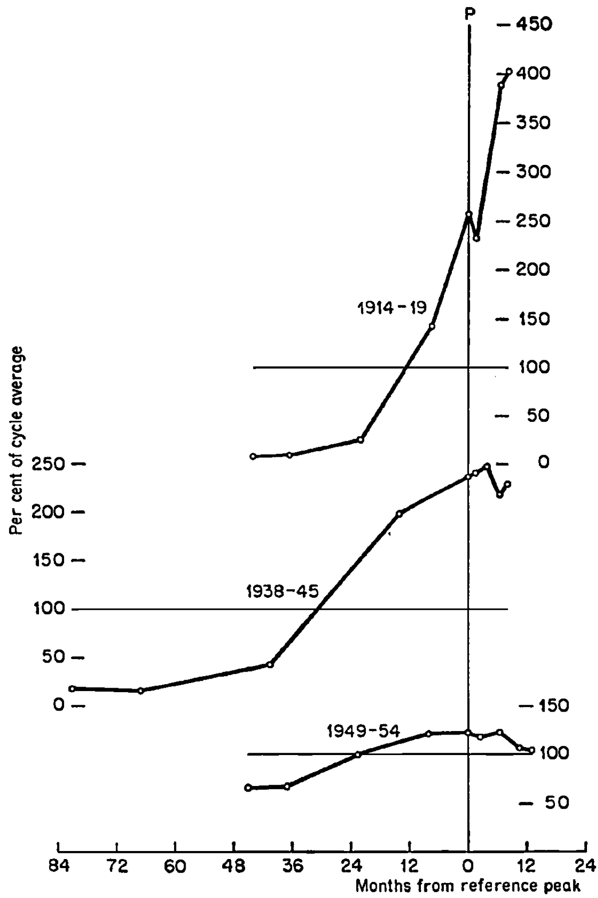
Shortly after the beginning of the Korean War, Congress enacted the Revenue Act of 1950. This bill increased individual income tax rates at all levels of income and increased corporate income tax rates. Several months later, Congress imposed a surtax on the excess profits of corporations. The following year, Congress again raised individual and corporate tax rates. Higher rates of taxation were imposed on cigarettes, gasoline, diesel fuel, and automobiles.

These rates were not changed until the recession of 1953-1954. As a countercyclical measure, individual income tax rates were reduced to the levels provided under the Revenue Act of 1950, the excess profits tax was allowed to expire December 31, 1953, and a number of excise tax rates were reduced.

Income Taxes. In the three war cycles, a striking similarity is displayed by the patterns for income tax receipts and those for miscellaneous internal revenues (compare Charts 25 and 26). The first war cycle was marked by the discovery that the income tax was extremely flexible and capable of yielding hitherto unheard of revenues. The yield increased fiftyfold between 1914 and 1919 in an almost continuous rise. The lag of income tax payments behind earnings and still further behind the wartime revenue acts is responsible for the increased revenues during the contraction period. In World War II, the rise in revenues during the expansion phase of the cycle was of almost the same spectacular dimensions as in World War I, despite the vastly higher dollar figures in the second war. The annual yield of the income tax rose from $75 million in 1914 to nearly $4 billion in 1919. In the World War II cycle, the tax yield rose from $2.5 billion in 1938 to $34.5 billion in 1945. Relatively, the rise in tax revenues during the Korean War was on a much smaller scale, as the chart shows. Nevertheless, they mounted from $27 billion in 1949 to $51 billion in 1953. The behavior of tax receipts in the contraction period indicates a progressive improvement in their timing during the three war cycles.

CHART 25

Income Tax Receipts, Reference Cycle Patterns, Three War Cycles, 1914-1919, 1938-1945, 1949-1954

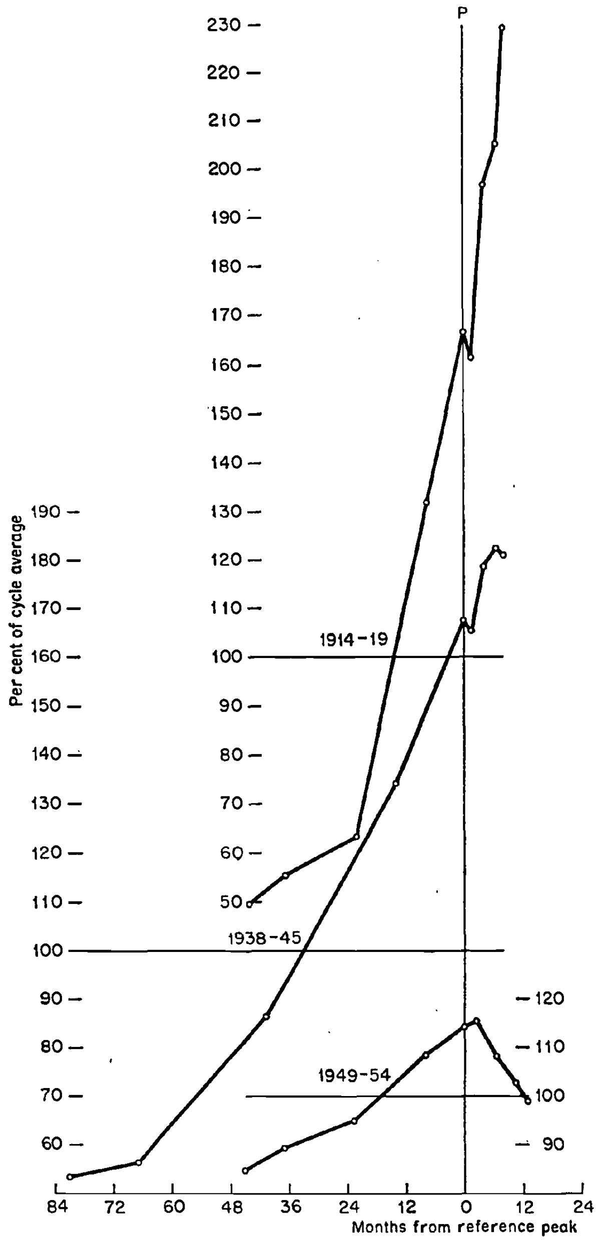


Source: Table A-5, Section F.

Miscellaneous Internal Revenues. In the World War I cycle, miscellaneous internal revenues reflected sharp and almost continuous increases in rates and in the variety of commodities and services taxed. Tax revenues increased nearly 400 per cent between 1914 and 1919 (Chart 26). Before our entry into the war, the rise to the cycle peak was at first relatively modest (25 per cent), then very sharp (more than 150 per cent). In the contraction period, revenues continued to mount, increasing from the cyclical peak by about 40 per cent. In World War II, the pattern was similar, with the total rise to the peak (215 per cent) approximately equal to that of World War I

CHART 26

Miscellaneous Internal Revenues, Reference Cycle Patterns, Three War Cycles, 1914-1919, 1938-1945, 1949-1954



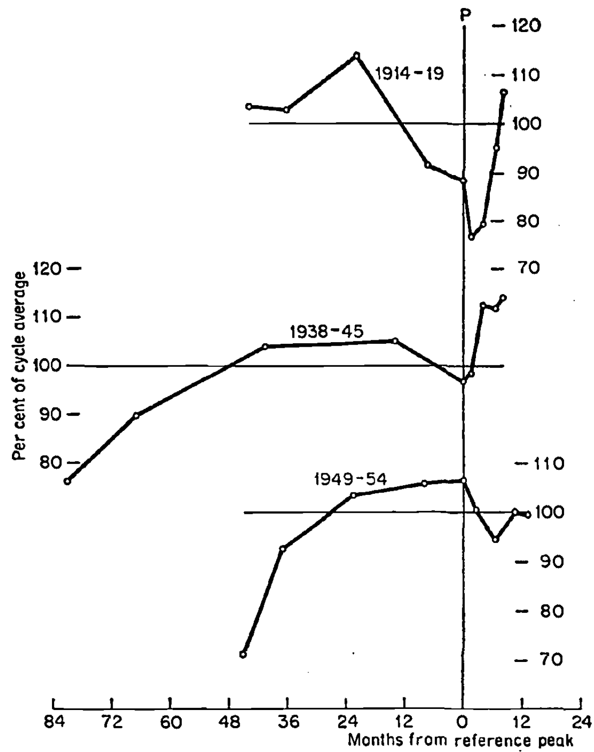
Source: Table A-5, Section E.

in relative terms. However, the rise during the contraction period was less than 10 per cent. During the Korean War expansion, miscellaneous revenues rose by only 35 per cent, and they declined during the subsequent contraction period. Thus, they maintained a closer conformity to the cycle than in most earlier peacetime cycles.

Customs Revenues. Customs revenues in the two world war cycles displayed fairly similar behavior, contrasting sharply with the peacetime pattern (Chart 27). In the first war, imports from the nations of continental Europe,

CHART 27

Customs Revenues, Reference Cycle Patterns, Three War Cycles, 1914-1919, 1938-1945, 1949-1954

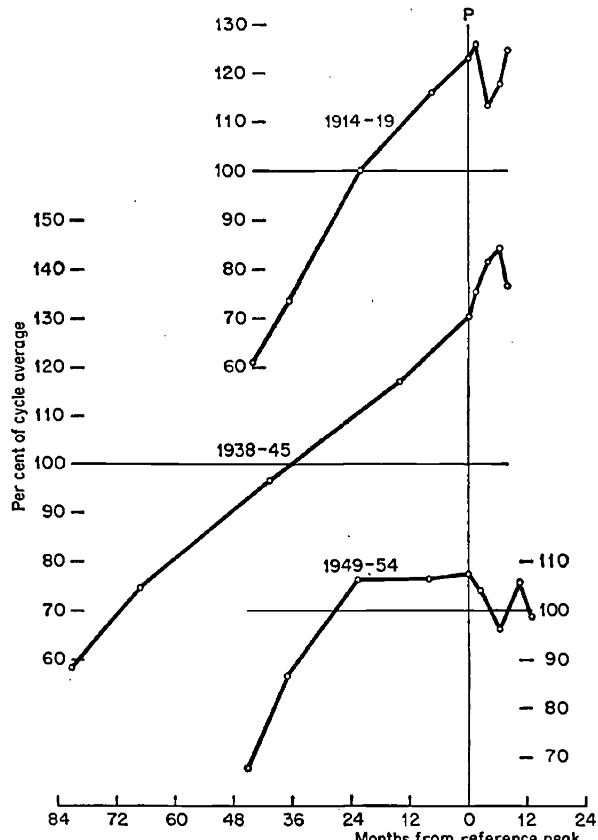


Source: Table A-5, Section D.

from which a large part of the dutiable imports came, declined sharply; consequently, customs receipts were substantially curtailed. The decline in imports was the result of the submarine blockade, the concentration of the productive efforts of our allies towards winning the war, and the virtual elimination of imports from the Central Powers, with whom we had conducted a substantial trade. But while the amount of revenues collected declined, total imports increased in volume. When hostilities ended, both our imports and customs revenues rose sharply. The same sort of pattern is observable during the World War II cycle, not only for the same reasons, but also because the Navy, War, Treasury, and Agriculture Departments, and the Reconstruction Finance Corporation had been granted authority to import, free of duty, war materials purchased abroad. Customs collections declined, therefore, even though imports continued to rise. In the Korean War cycle, the behavior of customs revenues took on some of the characteristics of the peacetime pattern and some of the wartime pattern. Revenues rose during the expansion and fell during the contraction, as in peacetime.

CHART 28

United States Imports, Reference Cycle Patterns, Three War Cycles, 1914-1919, 1938-1945, 1949-1954



Source: Table A-7.

But the retardation of the rise during the expansion and the upturn in the second half of the contraction resembled the wartime model. In all these respects, customs revenues closely followed the volume (value) of imports (Chart 28).

Postwar Cycles: 1919-1921 and 1945-1949

The tremendous war-induced growth in government receipts and expenditures cannot be reduced overnight. Contracts must be canceled, staffs reduced, and legislation repealed; all of which takes months, if not years. Indeed, as we have seen, prewar levels of expenditures or revenues have never been fully restored. Nevertheless, the transition from war to peace (or to "cold war") gradually becomes a less dominant factor; and other factors, such as the domestic business situation, become more important.

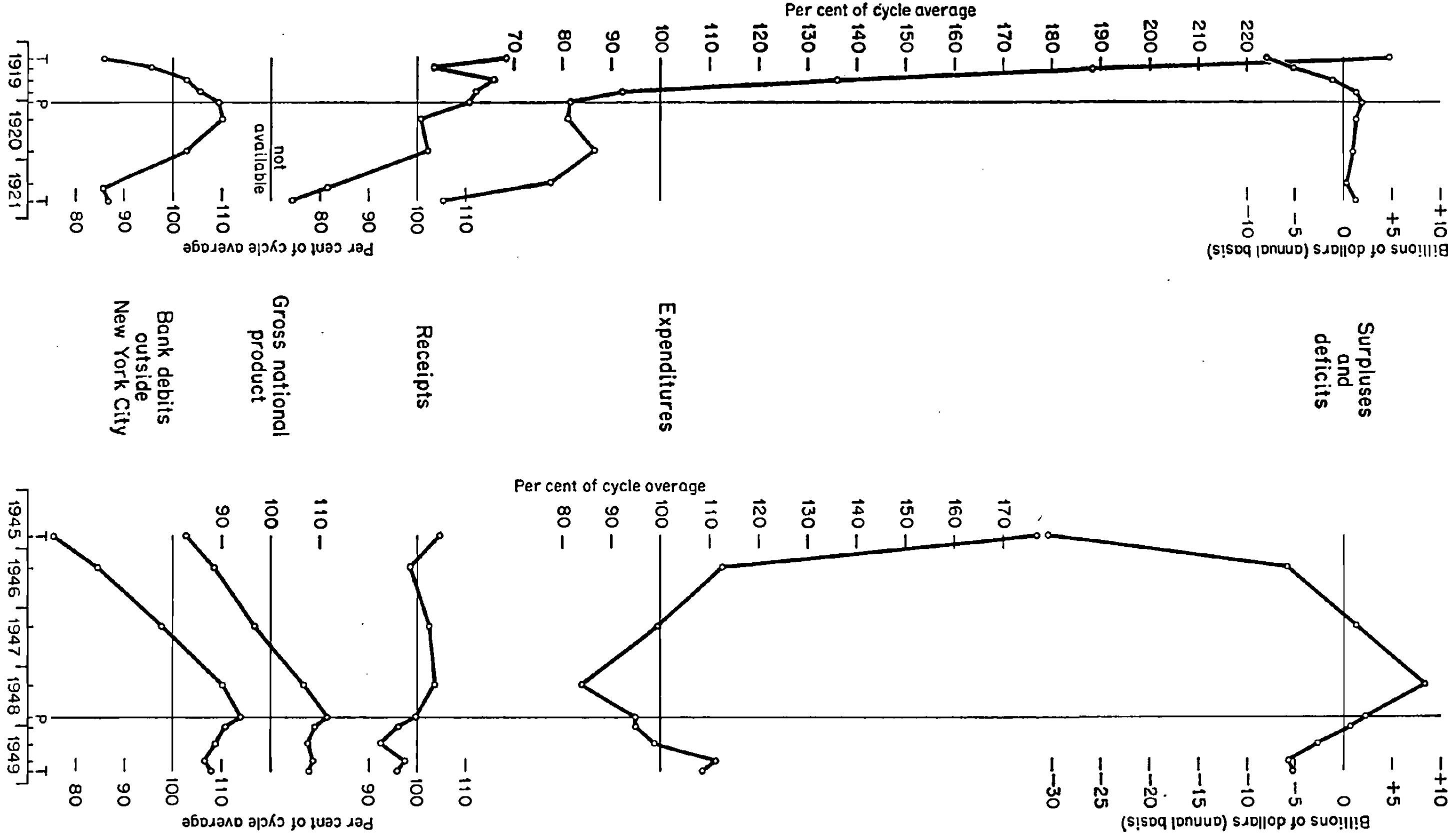
This process clearly took longer after World Wars I and II than after the Korean War. As we have seen, the cycle following the Korean War (1954-1958) closely resembled earlier peacetime cycles in so far as the broad patterns of receipts, expenditures, and surplus or deficit are concerned. The cycles following World Wars I and II, however, were more affected by the transition phenomena, particularly in their initial expansion phases. We deal separately, therefore, with the 1919-1921 and 1945-1949 cycles, recognizing that there are only degrees of difference between these and other peacetime cycles, especially in their contraction phases.

Surpluses and Deficits. The clear positive conformity of the surplus (or deficit) series to both of the postwar business cycles recalls the peacetime pattern (compare Chart 29 with Charts 8 and 20). The contrast with the wartime patterns, which were inverted (Chart 22), suggests that the influence of business activity quicky became a dominant factor after the wars. Yet, this interpretation would not be entirely valid, for the *source* of the positive conformity differed materially from that for the peacetime pattern, as we shall see. Furthermore, the amplitude of variation in the surplus in the two postwar cycles was far greater than were the peacetime averages. When the dollar figures are taken as a ratio to federal expenditures, the amplitude of the surplus-deficit series during the first postwar cycle was 160 per cent of expenditures; after World War II, it was 92 per cent. These amplitudes compare with the pre-World War I amplitude of 16 per cent of expenditures, the interwar amplitude of 15 per cent, and the 1954-1958 amplitude of 15 per cent.

Both postwar cycles show a rapid rise during the expansion period, with a surplus achieved in both instances midway during the expansion. But this position was gained not by a rise in revenues, as in most of the other peacetime cycles, but by a sharp decline in expenditures.

CHART 29

Federal Surpluses and Deficits, Expenditures, and Receipts, Gross National Product and Outside Bank Debits, Reference Cycle Patterns, Two Postwar Cycles, 1919-1921 and 1945-1949



Source: Surpluses and deficits (averages on annual basis), expenditures, and receipts from Table A-5, Sections A2, B, and C, respectively; gross national product, Table A-6; bank debits outside New York City, Table A-8, Section B.

During the 1920-1921 contraction, the surplus diminished; but it did not become a deficit as it did in the 1948-1949 contraction. Revenues declined sharply in the severe 1920-1921 recession, but so did expenditures. On the other hand, midway through the 1948-1949 recession, the farm support program and the tense international situation which led to the Marshall Plan and the need for maintaining a stronger military establishment brought us to a deficit position. Government expenditures increased while revenues declined slightly. The 1945-1949 cycle pattern thus displays throughout a much more clear-cut and pronounced conformity to a countercyclical surplus-deficit distribution than does the 1919-1921 pattern or, indeed, other cycles of the interwar period.

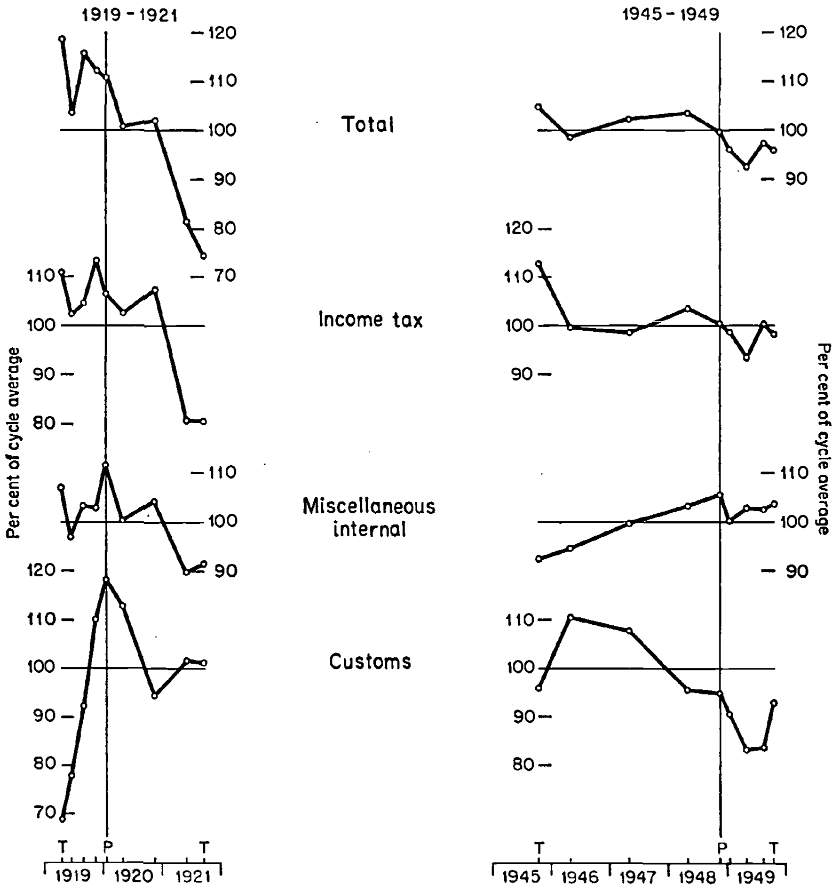
Expenditures. The contrast between the two postwar cycles and their peacetime counterparts shows up most prominently in government expenditures (Chart 29). Expenditures were cut to a third of the wartime level in the business expansion period after World War I, and were cut in half after World War II. The reduction continued through the contraction phase after World War I; but in the contraction phase of the post-World War II cycle, as noted above, expenditures were raised. It seems likely that the drastic curtailment of government expenditures throughout the 1919-1921 cycle contributed to the severity of the 1920-1921 recession. The more gradual tapering off of expenditures during the expansion phase of 1945-1948 and the rising expenditures during the recession of 1948-1949 undoubtedly served to cushion the shock of the postwar readjustment. The pattern of government expenditures after World War II, like that of the surplus and deficit, was more nearly in keeping with a managed countercyclical fiscal policy.

Revenues. Both postwar periods were marked by a lowering of tax rates. However, the reductions after World War II were more marked and immediate (July 1945, January 1946, and again in April 1948) than they were after World War I. In fact, the 1918 Revenue Act (passed February 24, 1919) increased rates—except for the repeal of the excess profits tax for 1919 and 1920—and no general reduction took place until the Revenue Act of 1921, which was not passed until November 1921, when the business revival was already under way.

Both postwar receipts cycles show general downward trends, but of different degree (Chart 30). After World War I, revenues declined 40 per cent; after World War II, the decline was 10 per cent. Since the differences developed mainly in the contraction phase, they were, no doubt, largely due to the far greater severity of the 1920-1921 business contraction compared to the 1948-1949 contraction. In both cycles, receipts conform positively in that the decline in the recession phase was steeper than the decline in the expansion phase. To that degree, the movements were consistent with the usual peacetime pattern. The great difference lies in the fact that the countercyclical movement of revenues was not as great as that of expenditures, especially during 1945-1949.

CHART 30

Selected Federal Receipts, Reference Cycle Patterns, Two Postwar Cycles, 1919-1921 and 1945-1949



Source: Table A-5, Sections C–F.

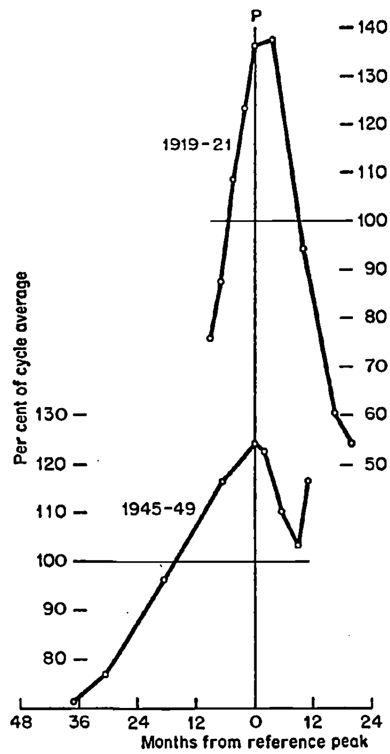
Income Tax Receipts. Income tax receipts declined during the postwar cycles, as the high wartime tax rates were lowered (Chart 30). The similarities and differences are like those for total receipts, since the income tax provided the bulk of the revenue in both cycles. Tax receipts conformed positively to the reference cycle in having faster rates of decline during the contraction than during the expansion period, but conformity was more pronounced after World War I than after World War II.

Miscellaneous Internal Revenues. The patterns of the postwar cycles are affected markedly by the reduction in tax rates and by the elimination of some of the wartime excise taxes (Chart 30). In the earlier cycle, miscellaneous internal revenues show a downward trend, whereas the trend after the second war was upward. Both cycles show positive conformity to the reference cycle, but in a rather irregular fashion.

Customs Revenues. The post-World War I cycle of customs revenues followed the peacetime pattern by conforming to the general business cycle and

CHART 31

United States Imports, Reference Cycle Patterns, Two Postwar Cycles, 1919-1921 and 1945-1949



Source: Table A-7.

to imports (Charts 30 and 31). The rise in customs receipts in the second half of the business contraction, while imports continued to fall rapidly, was apparently due to the increase in tariff rates in May 1921. In the post-World

War II cycle, imports conformed more faithfully to the business cycle than did customs receipts. The decline in the latter during much of the business expansion, while imports were steadily rising, is attributed chiefly to the reduction in rates of duty provided by the General Agreement on Trade and Tariffs (GATT), most of which became effective January 1, 1948.[2]

[2] Secretary, *Annual Report,* 1949, p. 117.