THE AMERICAN ECONOMY IN THE INTERWAR PERIOD

THE DECADE OF THE TWENTIES

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Discussion of a span of past history is one of the best methods for testing what economic analysis can and cannot do and for shedding light both on the common ground and on the differences of opinion between us. In order to serve these purposes, I am going to ask two questions with reference to the economic history of the United States in the twenties of this century: Do we agree as to the facts? How far can we agree as to interpretation? In the third part of my paper it will be convenient to sum up separately about the causation of the "world crisis" 1929–32.

I

The statistical contours of the economic process are given by a number of time series that are familiar to everyone. Debits outside of New York City are perhaps the most important *single* index of the pulse of economic life. But most of us will, I think, agree that we cannot make much headway without considering the following "fundamental" series: total output; employment; price level; interest (commercial paper rate, bond yield, customers' line of credit rate, Federal Reserve bank rates); deposits (minus interbank deposits); income, wages (rates and pay roll, both monetary and real), and profits (dividends); consumption and investment expenditure; and that, for a variety of purposes, we also need series on: stock and bond prices; brokers, business and consumers' loans; issues; government income generating expenditure; net foreign balance (gold movements, foreign lending); LCL (or department store sales); residential and other building (separately); individual and group prices. This is by no means all, of course, but I submit that this list includes the bulk of the statistical information which most of us will require for purposes of diagnosis and which is analogous to the information a doctor assembles in the course of his investigation when we go to him for a check-up. I further submit, first, that a large amount of difference of opinion exists between us concerning the value and statistical merits and demerits of those items as well as concerning the relative merits of different series for the same item; the very meaning being controversial in the case of total output.

Second, I submit that these differences of opinion do not, in general, cause corresponding differences of opinion as regards the processes these series are intended to measure. For instance, we all agree substantially on the general features of the actual movements of commodity prices at wholesale no matter what our opinion is about the degree of excellence of the particular commodity-price index used.

And, third, I submit that, so far as I can see, there are only two major exceptions to this statement. First, we disagree as to whether or not the bulk of time deposits was, *during the twenties*, "the same thing" as demand deposits so that we should be nearer the true facts of the monetary process if we work with demand plus time deposits than if we exclude the latter and connect them with "saving." Myself, I hold the former opinion. Second, we disagree as to the amount of savings. This, however is largely a matter of definition which should be settled according to the purpose in hand. If this purpose is to ascertain whether household receipts that are costs to firms were or were not "withheld" from the stream of expenditure, then it seems to me to be proper to exclude from the estimate of savings, realized but unspent capital gains; and to consider sums spent (however financed) on the acquisition of homes simply as part of household expenditure for this is what they actually are. To say that these sums were saved and that this saving was "offset" by "investment" in the homes seems to me to be needlessly circuitous at best, and suggestive of erroneous theories at worst. If, then, we define household expenditure on the lines suggested by these comments, it is the undeniable fact that, during the twenties, households habitually overspent their current receipts from firms[1] or that the algebraic sum of household savings was negative throughout, the deficit being covered by borrowing and by drawing upon speculative gains. This fact must be seen in connection with the other fact that income-generating expenditure by public bodies was positive and nonnegligible throughout, except in 1929.

Time series never tell the whole tale and must be supplemented by a detailed historical account of what actually happened in the economic organism. The economic history of the twenties has been written by very many authors. Since it is difficult to write history without implying some theory about causal relations between the phenomena reported, we shall not be surprised to find that much of that work is vitiated by preconceived notions of the authors. But I submit, first, that the essential facts have nevertheless been stated with adequate accuracy and, second, that we substantially agree about them. They are indeed familiar to all of us. For instance, we know all of us about the essential features of the various downturns and upturns and their different impacts upon different industries and parts of the country; the actual

[1] In the case of noncorporate business these receipts have been put equal to Professor Kuznets' figures for "entrepreneurial withdrawals." The rest of the net income of noncorporate business has been allocated to business savings.

behavior of the Federal Reserve System and of all banks; the booms in residential building, in utilities, in state and municipal public works; the developments in the new industries and in the "old new industries," especially the automobile industry and its satellites; the ups and downs in the agrarian sector and in foreign investment and trade; and so on.

II

The highest ambition an economist can entertain who believes in the scientific character of economics would be fulfilled as soon as he succeeded in constructing a simple model displaying all the essential features of the economic process by means of a reasonably small number of equations connecting a reasonably small number of variables. Work on this line is laying the foundations of the economics of the future and should command the highest respect of all of us. A few immediately valuable results it has produced already. In this paper I shall not, however, avail myself of any opportunities offered by this type of research[2] because, with the same frankness with which I have expressed my high opinion of its future, I must confess to a feeling that at present the premature and irresponsible application to diagnosis, prognosis, or recommendation, of what of necessity are as yet provisional and flimsy constructions can produce nothing but error and can only result in discrediting this pioneer work.

Nor shall I avail myself of any of the theories that attempt to explain economic processes in terms of monetary mechanics; that is, theories which attribute a dominant role in the economic process to such items as interest rates, deposits ("supply of money"), and the like. Take, e.g., the almost ludicrously exaggerated opinions many economists held in the twenties concerning the power of open-market operations over business situations. We then entered upon a period of reaction against the opposite views that had prevailed before and some will even today expect from a paper on that period nothing but a discussion of the play of monetary quantities. But I hope and believe that we are growing out of this and I expect, with more confidence than I should have felt ten years ago, assent to the proposition that analysis of the economic phenomena of any given period must proceed from the economic facts that produce them and not from the monetary aggregates that result from them.

Beyond this, I have only one general principle to posit. No decade in the history of politics, religion, technology, painting, poetry and what not ever contains its own explanation. In order to understand the religious events from 1520 to 1530, or the political events from 1790 to 1800, or the developments in painting from 1900 to 1910, you must

[2] The most important opportunity of this kind is afforded, I think, by the theory of inventory cycles; see, e.g., the remarkable work done by L. Metzler.

survey a period of much wider span. Not to do so is the hallmark of dilettantism. Evidently the same applies to economic history. The quickest way to give effect to this principle is to take our clew from the felicitous phrase, "the Economic Revolution of the Twenties." Only we must interpret it in the same sense in which Sir John Clapham maintained that an earlier economic revolution occurred, not in the last decades of the eighteenth century but in the first decades of the nineteenth. This is true if it means that *effects* did not fully manifest themselves—especially in the cotton textile and machinery industries—until the twenties and thirties of the nineteenth century. It would not be true to locate the *sources* of these effects in those two decades: the decisive industrial events did occur in the last quarter of the eighteenth. Similarly, everyone knows that towards the end of the ninteenth century and in the first decade of the twentieth a number of industrial events occurred that were bound to change the world's economic structure fundamentally but, partly owing to the "first" World War, did not take full effect until the twenties. To mention but one instance, it was not until then that the technological changes in agriculture that had occurred from the nineties on disclosed their power to dislodge eventually the majority of farmers in all industrialized countries. The response of the business organism to the impact of changes of this type adequately explains the general features of that period in the United States. For other countries, England in particular, this explanation must be supplemented by appeal to additional factors specific to their individual historical patterns.

History, if we would but listen, would teach us all the essentials about those processes. Response to the consequences of industrial revolutions has never meant undiluted depression. If we had time, it would be possible to show how and why it also produces spells of prosperity. But it always meant a depressive undertone, a tendency for prices, profits, and interest rates to fall, for output (real incomes) and, owing to the incident dislocations, unemployment to rise, and so on through a familiar list. And it meant precisely these things in the twenties: history—compare, for instance, the seventies and eighties of the nineteenth century—substantially repeated itself, even the booms in residential building and in public works duly putting in appearance as they had done in similar conditions before. In Europe, particularly unfavorable conditions, *fiscal policy among other things*, accentuated the depressive tendency. In the United States, particularly favorable conditions, *fiscal policy among other things*, accentuated—as they had in the eighties—the spells of prosperity, so much so that people lost sight of that tendency—though it was visible enough below a surface dominated by the speculative craze; and indulged in talk about prosperity plateaus—

though we may sense suppressed uneasiness in the applause that invariably greeted stabilization programs. Nevertheless, the economists who wrote the report of the President's Conference on Unemployment were not so wrong as it might seem when they declared (1929!): "Our situation is fortunate . . . we have a boundless field before us." They only forgot that the road into this boundless field leads through a succession of valleys.

Of all the points that should be made, two only can be mentioned. First, throughout the twenties, as always, prosperity as well as recession was essentially "spotty." That is to say, for no year is it possible to render a lifelike picture only by means of national totals or averages. Conditions always differed in different industrial and geographical sectors, and it is an essential feature of the process that they did. If, in a given year, one industry makes 100 millions and another loses 100 millions, these two figures do not add up to zero or, to put it less paradoxically, the course of subsequent events generated by this situation is not the same as that which would follow if both had made zero profits. This is one of the reasons why theories that work with aggregates only are so misleading and why they bid fair to achieve what institutionalist arguments have failed to achieve; namely, to convert all of us to institutionalism. The few general features by which I tried to characterize what I have called the depressive tendency of the twenties must be understood in this sense: they impinged upon different sectors of the economy in entirely different ways; no diagnosis of what actually happened can be derived from them alone.

Second, it is not only lack of time which motivates my silence on Federal Reserve policy. In a detailed picture it would have its place, of course. But I do not think that, speaking broadly, it made much difference one way or another. Federal Reserve policy is not entitled to such praise as we may feel disposed to bestow on maintaining the "Coolidge prosperity"; on the other hand, it seems to me plainly absurd to blame it for "not having prevented the depression." The Board was in no position to do either and its policy turns out, on analysis, to have been but little affected by the theories forged in glorification or criticism of its policy. The wider questions whether more resolute inflation or else more resolute deflation would have been indicated call for completely different answers according to the scheme of values of the man who asks them. The various "rigidities" in the system, real and alleged, seem to me to have been of minor causal importance in the economic processes of the twenties. Before going on, I shall briefly present a set of supplementary facts that will indicate the lines on which a fuller analysis would proceed.

1. *The Monetary Process.* Total demand plus time deposits (including

those in savings banks) minus government deposits plus currency in circulation which amounted to 20.3 billions in 1914 and to 38.5 billions in 1920 rose to 54.5 in 1929 (about 141 per cent of the 1920 figure). Note that the so-called "deflation" in 1921 produced, for the yearly figure, a fall of only 0.36 billion. Total income payments to individuals rose from 68.5 billion in 1920 to 82.4 billion in 1929, or by about 20 per cent. Bank debts of corporations fell throughout (especially in 1924), though the reduction was mostly well below the increase in other items of "outside funds." Nineteen twenty-nine shows the familiar phenomenon of substitution of stock to long-term debt particularly clearly. The long interest rate was on the downgrade and so was, *properly interpreted*, the tendency of short rates, though this tendency was obscured by the abnormal events of 1927–29 which also pushed up rates on customers' loans. Cash balances of nonfinancial corporations, 1926–29, were fairly stable at about 7 billions, with a moderate tendency to rise. All this must be seen in connection with the behavior of consumers' credit and the habit of households to spend part of their speculative gains, especially on homes. The picture is perfectly clear: if a loose monetary rein and liberal spending were all that is needed to insure prosperity, we should indeed have had a "prosperity plateau." But large-scale business certainly used the monetary ease in order to consolidate its financial structure and to gain independence from banks. The suggestive increases in 1922, 1924, 1927 in the investment item of banks outside of New York City should be particularly noticed as indicative of an important structural change in banks' assets.

2. *Prices and production.* After the downward revision of prices in 1920–22, which was relatively uniform (41 per cent for finished products, 45 for raw materials, 48 for farm products), the falling tendency remains perceptible under a fluctuating surface, but there can be as little doubt that it was not what it would have been under a stricter monetary management as that it could have been counteracted by additional government income-generating expenditure. Stricter management would have dampened prosperities, though in terms of dollar indices much more than in terms of real indices, and mitigated the subsequent depression. Deficit spending would have accentuated prosperities, though in terms of dollar indices much more than in terms of real indices, and might have avoided the depression. The latter proposition, of course, does not mean more than that inflation may turn *any* situation into one that will display the usual features of prosperity and does not, in itself, constitute any argument for it. But the opposite argument is much too complex to be presented in the available space. All I want to draw attention to is, first, that a period which everyone will associate with prosperity rather than depression did run its course on a price

level that was falling in the above sense, though in the short-run *waves* of prosperity prices turned up each time; and that, so far as these short-run cycles are concerned, prices played, statistically, a distinctly secondary role: things recovered in 1921, when prices were still falling; the downturn of 1920 set in when they were still rising.

Output of manufacturing industry, 1920–29, increased by about 50 per cent; man-hours per unit may have fallen by as much as 40 per cent (Fabricant); the corresponding figures for 1899–1907 (to avoid the crisis figure of 1908) were 61 and (about) 15. We have the picture of rapid though not unheard-of development in the output figure and one that may have been unparalleled in industrial efficiency. Friends and foes of the policies of the thirties should agree that it was these developments that raised the hopes associated with those policies above the level of chimeras. Also, most features of the period under discussion—movements of dollar figures in particular—find their chief explanation in them.

3. *Profits and Wages*. The tendency of profit rates to fall, obscured as it is by the events of 1928 and 1929, requires substantiation although it should not surprise anyone familiar with the statistics of the period. Impressions to the contrary result from the habit to concentrate attention only on corporations reporting profits or even, in some cases, on samples that contain the peak successes. The decisive fact stands out in any analysis of the obviously prosperous interval 1924–26, when the earnings ratios ran roughly between 2 and 3 per cent (1.98 for 1926) and "a considerable share of the total gross corporate business was done at a loss" (W. L. Crum).

The income distribution of the period displays the familiar invariants, both as to shares going to "factors" and as to the relations between income brackets. What appears to be a tendency for the relative share in national income going to the top 1 per cent of income receivers to increase seems to be accounted for by capital gains.

During the twenties the United States economic system taken as a whole absorbed, at rising monetary and real wage rates, substantially more labor than was displaced by technological improvement—in fact almost, though not quite, the simultaneous increase in the job-seeking population. In the over-all picture, that rise looks smaller than it really was owing to the sharpness of the rebound from the downward revision in 1921 that occurred in 1922–23. Detailed analysis of national as well as sectional movements lends more support to theories that aver than to theories that deny the existence of an inverse relation, other things being equal, between money wage rates and employment, though it is no doubt possible to make too much of the historical association of the prompt recovery in 1922 with the prompt fall in money wage rates and of other facts that point in the same direction and tally well with the opposite experience of the thirties. "Mere facts" are never decisive per se. But neither should we neglect them. Any theory to the effect that the unemployment of the twenties had anything to do with any excessive propensity to save is in any case patently wrong.

III

One of the most common indictments leveled at economists is their alleged inability to offer a satisfactory explanation of the world crisis of 1929–32. I submit that this indictment is without foundation. We cannot—any more than can any physician or anyone else who deals with organic processes—prove the adequacy of our explanation numerically, but we can point to facts which will plausibly account for everything that happened. In order to do so, it will be convenient to distinguish between facts that explain why there should have been a "depression" and facts that turned this "depression" into "disaster." Both the validity and the practical usefulness of this distinction will presently become evident.

When we behold the face of a man in early middle age, we are to some extent able to form an idea of how he will look in old age. Performing an analogous operation on the pattern of the twenties, we have no difficulty in realizing that certain traits in it, merely by accentuating themselves as they were bound to do, would gradually turn it into a pattern answering to our idea of a depression, particularly if we attach proper weights to some of the features of the "Coolidge prosperity" that were obviously destined to fade out for the time being, such as the booms in residential building and in utilities. That is to say, the prevailing tendencies, such as the tendency of prices and profits to sag—quite normal phenomena for periods of the character indicated—had only to go further in order to submerge, temporarily and in some cases definitively, increasing *sectors* of the economy—the most defenseless of all being the agrarian sector—and to develop *sectional* difficulties or breakdowns from which downward "vicious spirals," attended by widespread unemployment, were increasingly likely to start. And this is the fundamental fact about both the depression (1929–32) and the subsequent recovery, although it would take elaborate analysis to display the full strength of this argument. It explains in this case exactly what it explains in all previous historical instances of the same kind. It does not explain, however, any more than it does in these previous instances, any "disaster" but only the supernormal sensitivity of the economic system to adverse occurrences and to the weaknesses in the institutional setup of the country.

I submit that, given what we have just described as depressive tendency and supernormal sensitivity, the following facts constitute adequate explanation of the "disaster" in the United States though the list would, at least in part, look different for other countries. In thus invoking individual historical facts that are in a sense accidental we do not more confess failure of our analytic apparatus than does the physician who in his diagnosis takes account of facts that are in the same sense accidental or extraneous to the organism of his patient such as, for instance, drinking or the effects of a motor accident.

The first fact is the speculative mania of 1927–29. In itself, of course, stock and land speculation is a "natural" and even "necessary" concomitant of every business prosperity. But those wild excesses and the attendant financial practices were clearly abnormal; they can be explained only by a specifically American mass psychology and could not have been foretold from anything within the range of statistical fact or reason. They were bound to issue in catastrophe and, once this catastrophe had occurred, in distortion of the course of subsequent events particularly owing to the annihilation of that part of consumers' demand that had been financed from capital gains—and, in many cases, unrealized ones.

The second fact was the weakness of the United States banking system. There was, of course, no reason why, by 1929, a small number of giant banks, as impregnable to the impact of depression as were the English "Big Five," should not have evolved from the nebula of inefficient pigmies and why, incidentally, extensive branch banking should not have provided much better banking facilities for the public than actually existed in that year. It seems safe to say that without the obstacles set up by an irrational attitude of the public mind this would have been the case. Now I do not see how it could be denied that it was the—avoidable—three bank epidemics that occurred during the years of the crisis which broke the morale of the public, spread paralysis through all sectors of the business organism, turned retreat into rout and thus were the most important reasons, speaking quantitatively, for the prevailing distress and unemployment which would not have been half as bad without them, and for the prevalence of a feeling that the world had come to an end.

Third in importance was the mortgage situation, both urban and rural. Again I maintain that its most serious features were entirely due to reckless borrowing and lending; that is to say, to avoidable deviations from normal business practice. Two points should be particularly noticed. First, direct effects upon business and banks were serious enough; but still more serious were the psychological effects upon the community, for nothing is so apt to get on a man's nerves as will a threat to the roof over his head. The explanatory value for the crisis of this element is ten times as great as that of the most elegant difference equation. Second, it is not always recognized that it was *only* the mortgage situation that made the plight of the farmers so serious. On the unencumbered farm, people will, of course, live less comfortably when prices break than when prices rise, but they are able to weather any economic storm without permanent injury.

These items do not, of course, exhaust the list. But I refrain from lengthening it because I wish to focus attention on what seem to me the cardinal points, and because the importance of some of the additional disturbers—such as the state of foreign trade and foreign investment which was fundamental, for instance, to England's difficulties—is smaller than it may look at first sight in the case of the United States.

I beg to add in concluding, first, that, however great the gulf between "stagnationists" and "antistagnationists" may be, they must largely agree in the analysis of any given situation. I am not a stagnationist—at least not in the sense that I believe in a future of permanent stagnation irrespective of political sabotage—but if I were, I should not have had to paint a greatly different picture of the conditions in the twenties. Second, that the difficulty of making practical recommendations—ex post—as to "what should have been done about it" at any point of time consists entirely in the fact that, unlike doctors, we hopelessly differ in aims, preferences, valuations. So soon as people sincerely tell us what it is they really want, we can tell them—and not more than the above analysis, rudimentary though it is, is needed for it—what should have been done at any moment in the past or, for that matter, what should be done now.