
32 Austrian business cycle theory

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Whereas theories of the business cycle currently in vogue are mathematical models of economic aggregates which, in the tradition of positive economics, seek merely to predict quantitatively (that is, mimic) cyclical phenomena (Lucas, 1981, p. 219), Austrian business cycle theory (hereafter referred to as ABCT) is an altogether different kind of theory. Derived using the method Ludwig von Mises dubbed praxeology, it is the logical consequence of the axiom of human action in conjunction with its corollaries of time preference, interest, the vertical structure of production and capital complementarity, and the nature of the institution of central banking. Praxeology dispenses with mathematical tools, restricts aggregation to within individual stages of production and refrains from proffering predictions of either timing or magnitude. Austrians perceive economic theory as a means of understanding (*verstehen*) rather than as a tool for prediction.

This method breaks every taboo of the regnant positivist orthodoxy. The most salient implication of the theory itself, that business cycles do not arise from mere policy error, but rather from the very institution of fractional reserve central banking, attacks one of the central icons of the mixed economy policy-making establishment. Unsurprisingly, mainstream economists and policy makers have viewed ABCT with scorn when they have not simply ignored it. Nevertheless, the perceived shortcomings of mainstream economics during the last two decades have led increasing numbers of economists to reconsider the praxeological approach and its offshoot, ABCT.

Developed by Ludwig von Mises (1912, pp. 396–404) and refined by F.A. Hayek (1928, 1931, 1939), ABCT is unique in including real capital goods among its elements in a manner which does not assume away their essential heterogeneity. Austrian treatment of capital goods owes much to Böhm-Bawerk's structure of production analysis and the notion of capital complementarity (Lachmann, 1956, pp. 3, 117–18). The theory demonstrates the connection between this structure of capital and monetary policy by way of Wickseil's natural rate of interest theory and Mises's integration of money into general economic theory.

Outline of the theory

Under modern central banking with fractional reserves, new money is created when the central bank makes loans. Sometimes these are made directly to

banks, although usually they are not. In any event, those loan proceeds come to be deposited in the banking system and, because those proceeds are liabilities of the central bank, they constitute bank reserves. As reserves, they can be loaned out by the banks. To induce borrowers to seek these new funds, banks will reduce interest rates from what their levels would have been in the absence of this credit expansion (the natural rate of interest). Because lower interest rates will increase the present discounted value the most for those investment projects the benefits of which will be realized in the most remote future (in Austrian terminology, they raise the relative prices of higher order goods to those of lower order goods and reduce the profit margins between the stages of production), they encourage resources to be reallocated so as to make greater provision for a more distant future and less for the more proximate future.

Money creation can never be neutral because some people must receive the new money before others. Those who receive the new money first have resources redistributed to them at the expense of those who receive that money last (after it has been used to bid prices up). In the case under discussion, those who receive the new money first are those who want to invest in capital goods which will not yield consumer goods until the most distant future. Thus the structure of capital will diverge from what it would have been in the absence of the credit expansion. As Austrians would put it, the structure of production has been lengthened.

Higher order capital goods industries will experience a boom as a result. At the same time, the resources which are supporting this boom are being drawn away from the consumer goods industries. Thus consumers will have to curtail satisfaction of their immediate needs (although, in a growing economy, this curtailment would be relative rather than absolute) in a phenomenon known as forced saving (Hayek, 1939, pp. 183-95). Only a continued expansion of credit to firms investing in higher order goods can sustain this boom.

Typically, however, the credit expansion will have to be slowed down, if not halted completely, because it will generate substantial price inflation. Not long after the credit creation ceases, so will the boom. As the new money spent on the higher order capital goods gets paid to productive factors as incomes and spent on consumer goods, forced saving will come to an end. It will become clear that the consumers wanted to provide for a less distant future than entrepreneurs did. Reflecting those desires, interest rates will rise. This will restore profitability to consumer goods industries and, thus, increase the opportunity costs of investing in higher order goods. This enables producers of consumer goods as well as the lower order capital goods to bid labor, raw materials and non-specific capital goods away from the higher order capital goods industries. Investments which appeared profitable in an easy money, low interest rate

environment are now revealed to be malinvestments, as the complementary capital goods necessary for their successful completion are no longer available. These malinvestments must now be completed at a lower than expected profit (or even a loss), liquidated, or in the most extreme case abandoned. Available capital must be redeployed to satisfy more proximate needs.

In a world of perfectly homogeneous capital goods, this adjustment might occur without a hitch. However, we do not live in such a world and our understanding of business cycles will not be furthered by assuming such a world. On the contrary, capital goods are heterogeneous, of various degrees of specificity, and must often be used in certain well-defined configurations. As a result, the adjustment process needed to restore the capital structure to a state of compatibility with consumers' desires will inevitably entail temporary reductions of output (that is, a recession or depression, depending on its severity and duration). Immobility of labor and wages which are slow to adjust will bring about unemployment in this situation as well.

To elaborate, many of the capital goods whose production was financed by credit creation in the boom are highly specialized. They are all but useless in any function except that for which they were originally intended. Other capital goods are not so specialized. They can be shifted at fairly low cost to other uses and, once credit expansion abates, they will be transferred to the lower stages of production. This process will take time. During this time, production in the higher stages is severely curtailed because of the unavailability of those complementary capital goods which have been diverted to the lower stages of production. While there is some increase in output at the lower stages of production, it is unlikely to make up for the decline of the higher stages because such a large portion of the capital goods originally devoted to those higher stages is specific and can neither be used in those higher stages nor redeployed at the lower stages. This is the paradoxical situation of which Hayek speaks, in which the shortage of capital makes capital unsaleable (1931, p. 94). It results in a shortage of capital looking very much like a surplus of capital (Buchanan and Wagner, 1977, p. 68).

I emphasize capital complementarity as a distinctive feature of ABCT because it has been practically ignored by other theories of business cycles. Modern economists treat capital as an amorphous putty which will always be as productive as was expected (through the assumption of a fixed capital-output ratio) when the investment in it was made. This, in turn, is based on the older tradition of J.B. Clark and Frank Knight, which saw capital as a permanent fund of wealth which synchronizes production and consumption (Skousen, 1990, pp. 28-33, 68-70). In these models, capital cannot be wasted. As a result, their proponents find capital of no relevance to business cycles.

In a nutshell, ABCT sees the creation of credit under a fractional reserve system misleading entrepreneurs into using capital wastefully, generating a

boom. The cessation of the credit creation reveals the extent of the waste and initiates a process of correcting the errors committed in the boom. This process constitutes the recession. ABCT, then, explains the generation of the boom and the inevitability of the turning-point.

Empirical applications

The method of praxeology does not find empirical data appropriate to prove or disprove the theories derived from it. As praxeological theories are nothing more than the logical implications deduced from the human action axiom, supporting axioms and institutional data, proof (or disproof) can only be obtained from the truth (or untruth) of the axioms and the correctness (or error) in the deductive reasoning used (Mises, 1962, p. 71).

Economic theory is intended to permit us to interpret the facts of history. Examinations of the historical record can be used to determine the range of applicability of praxeological theories in doing so. Even a cursory reading of that history shows the applicability of ABCT to be wide. ABCT provides a cogent explanation of certain characteristics of business cycles which are regularly observed. It explains why recessions invariably follow deceleration of money supply growth, why higher order good industries experience larger fluctuations in their prices and output both in the boom and in the recession, and why predictions that we are in a new era in which the business cycle has been vanquished will be wrong as long as our banking institutions remain as they are.

Particular cyclical episodes which have been interpreted in the light of this theory include the USA in the 1850s (Bateman, 1983, pp. 68-120), Germany in the 1920s (Bresciani-Turroni, 1937; Bateman, 1983, pp. 121-72), the Great Depression (Rothbard, 1963; Robbins, 1934; Phillips, McManus and Nelson, 1937) and the USA in the 1960s and 1970s (Wainhouse, 1984; Bateman, 1983, pp. 173-229). A detailed account of the behavior of relative prices in the first four decades of the twentieth century in the USA which ABCT explains was provided by Mills (1946).

Critiques and rebuttals

The objections most commonly raised by mainstream economists against Austrian business cycle theory regard issues of existence, initial conditions, proportionality, inevitability, learning, policy and universality. In this section, each set of objections will be described, along with some Austrian rebuttals.

Existence

The cycles to which ABCT pertains consist of booms and recessions which are caused by a single set of factors. Recent statistical tests have been interpreted to deny the very existence of cycles of this type, and to claim instead

that business fluctuations are merely a random walk (Tullock, 1988, p. 74). New Classical theories of the cycle (that is, equilibrium business cycle theory and real business cycle theory) also attribute business fluctuations to a series of random shocks (monetary-fiscal shocks for equilibrium cycle theory (Lucas, 1975, p. 1114) and 'shocks to preferences, technologies/opportunities, or resources and endowments' for real cycle theory (Plosser, 1989, p. 57)).

Austrians reject the empirical objection because they deem the type of tests used incapable of saying anything about causality. Statistical tests are irrelevant, as only theory can enable us to recognize cycles (Salerno, 1989, p. 142). Austrians also find New Classical theories irrelevant because those theories do not seek to derive implications of known facts, but rather strive to create 'a fully articulated artificial economy which behaves through time so as to imitate closely the time series behavior of actual economies' (Lucas, 1981, p. 219). Their type of theory assumes cycles of the Austrian type do not exist.

Initial conditions

It has often been alleged that ABCT cannot explain unemployment because it starts by assuming full employment. Actually, the opposite would be closer to the truth, since any unemployment already assumed in deriving ABCT could not be explained by it. In any event, Hayek showed that, even from a state of less than full employment, credit creation would still generate a boom-bust cycle (1931, pp. 96-9; 1939, pp. 3-70).

It should be noted here that it is not full employment per se which is necessary, but merely scarcity (Lachmann, 1956, p. 113). The failure of some critics to recognize this primordial fact led them to criticize the theory's contention that there was a necessary trade-off between higher order and lower order goods (Evans, 1969, p. 333; Hansen, 1951, p. 387). Some of this confusion was due to a failure to see that increases in production of both higher and lower order goods over time was not inconsistent with a trade-off at a single point in time.

Proportionality

Some authors were skeptical that the levels of forced saving and interest rate movements normally observed over the course of typical cycles were sufficiently high to generate the fluctuations in output and employment of the magnitudes usually found during actual business cycles (Haberler, 1937, p. 56; Kaldor, 1942, pp. 153, 175; Lucas, 1981). This was true particularly of the Great Depression. Three points can be made regarding this. In the first place, it is possible that our measures of interest rate changes, for example, are too low. The correct comparison is not between interest rates at the beginning of the credit expansion and interest rates at the end of the credit

expansion (which is readily available), but between interest rates at the end of the credit expansion and what interest rates *would have been* in the absence of that credit expansion (a counterfactual which is unavailable). Secondly, an event of relatively small magnitude can lead to consequences of much larger import (for example, the shooting of the Archduke Franz Ferdinand and the First World War). Finally, ABCT only explains why there will be an upper turning-point. The severity of the subsequent recession will depend on many factors other than the severity of the boom.

Inevitability

It is a commonplace of modern economics of almost all varieties that skilful policy making can permit an economy to enjoy an inflationary boom yet escape the bust which Austrians regard as inevitable (Tullock, 1989, p. 149). This would seem an easy proposition to prove, since a single example would suffice. The evidence of an inflationary boom not followed by a recession has yet to be presented, however.

Indeed, while the recession can be postponed for a while by accelerating the pace of credit expansion, it cannot be held off forever. In the post-First World War German hyperinflation, for instance, unemployment started to increase in the summer of 1923, while the rate of money creation continued to accelerate through November of that year (Bateman, 1983, pp. 130, 137).

Learning

The rational expectations school has argued that entrepreneurs should never be fooled more than once into mistaking falling interest rates due to credit creation for falling rates due to more voluntary saving. Thus they could not generate cycles in the manner described by ABCT more than once. Austrians find this argument wanting, on at least three grounds. In the first place, entrepreneurs do not possess rational expectations in the sense of 'perfect familiarity with economic theory and a careful scrutiny of current monetary and credit phenomena [which alone] could save a man from being deceived and lured into malinvestments' (Mises, 1943, p. 252). In the second place, the distortions caused by credit expansion would create temporary profit opportunities to which entrepreneurs would respond as suggested by ABCT. The more astute of those entrepreneurs, however, would be able to unload their investments on the less astute shortly before they were exposed as malinvestments (O'Driscoll, 1977, pp. 166-8). Furthermore, malinvestment implies plans which are inconsistent on an economy-wide basis. This is possible even if there are no inconsistencies within individual firms (Garri-

son, 1989, p. 9).

Policy

A prime implication of ABCT is that inflationary credit expansion causes the cycle. It has been argued that, while this may be correct, the emphasis of the boom's inflationary origins would lead to counterproductive policies in the slump, where the immediate problem was deflation (Robbins, 1971, p. 154). While not urging deliberate deflation, Austrians point out that new credit creation intended to halt a recession is what would be counterproductive. ABCT stands alone in noting that the recession, however painful, is actually the recovery phase of the cycle, in which entrepreneurial errors are exposed and corrected (Rothbard, 1963, pp. 20–21). Attempts to prevent it from running its course simply create new malinvestments and sow the seeds of another cycle.

Universality

The claim of ABCT to be the only valid explanation of cycles has been criticized even by authors who do consider it a valid explanation of some cycles (Schumpeter, 1939, pp. 296, 303; Lachmann, 1956, p. 113). The claim is based largely on a narrow definition of a cycle. By defining slumps not caused by the same factors which caused the preceding booms as fluctuations rather than part of the cycle, Austrians are able to maintain this claim (Rothbard, 1963, pp. 12–14, 28). This contention might be more convincing if its proponents pointed out historical examples of fluctuations which were not cycles.

See also:

Chapter 31: Capital theory; Chapter 68: The Hayek–Keynes macro debate; Chapter 62: Political business cycles; Chapter 63: The Great Depression

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