Capital-based macroeconomics

The Austrian label usually denotes (1) subjectivism, as applied to both values and expectations; and (2) methodological individualism with its emphasis on the differences among individuals – differences that account for the give and take of the marketplace and for the very nature of the market process.

To base macroeconomics on capital theory – or, more precisely, to base it on a theory of the market process in the context of an intertemporal capital structure – is to maintain a strong link to the ideas of the Austrian School.

The distinction between sustainable and unsustainable patterns of resource allocation is, or should be, a major focus of macroeconomic theorizing. Systematic inconsistencies can cause the market process to turn against itself. If market signals – and especially interest rates – are "wrong," inconsistencies will develop. Movements of resources will be met by "countermovements,"

Though committed to the precepts of methodological individualism, the Austrian economists need not shy away from the issues of macroeconomics. Some features of the market process are macroeconomic in their scope. Production takes time and involves a sequence of stages of production; exchanges among different producers operating in different stages as well as sales at the final stage to consumers are facilitated by the use of a common medium of exchange. Time and money are the common denominators of macroeconomic theorizing. While the causes of macroeconomic phenomena can be traced to the actions of individual market participants, the consequences manifest themselves broadly as variations in macroeconomic

magnitudes. The most straightforward concretization of the macroeconomics of time and money is the intertemporal structure of capital – hence,

capital-based macroeconomics

Capital-based macroeconomics rejects the Keynes-inspired distinction between macroeconomics and the economics of growth. This unfortunate distinction, in fact, derives from the inadequate attention to the intertemporal capital structure. Conventional macroeconomics deals with economy-wide disequilibria while abstracting from issues involving a changing stock of capital; modern growth theory deals with a growing capital stock while abstracting from issues involving economy-wide disequilibria.

The elements of capital-based macroeconomics

Three elementary graphical devices serve as building blocks for an Austrianoriented, or capital-based, macroeconomics. Graphs representing (1) the market for loanable funds; (2) the production possibilities frontier; and (3) the intertemporal structure of production all have reputable histories. The first two are well known to all macroeconomists; the third is well known to many Austrian economists.

The explicit attention to intertemporal allocation of resources allows for a sharp distinction between sustainable and unsustainable growth. The underlying consistency (or inconsistency) between consumer preferences and production plans will determine whether the market process will play itself out or do itself in

The market for loanable funds

“Loanable funds” is a commonly used generic term to refer to both sides of the market that is brought into balance by movements of the interest rate broadly conceived. The supply of loanable funds, which represents the willingness to lend at different interest rates, and the demand for loanable funds, which represents the eagerness to borrow,

First, consumer lending is netted out on the supply side of this market. That is, each instance of consumer lending represents saving on the part of the lender and dissaving on the part of the borrower. Net lending, then, is saving in the macroeconomically relevant sense. It is the saving by all income earners made available to the business community to finance investment, to facilitate capital accumulation, to maintain and expand the economy’s capital structure.

Equity shares are included on the grounds of their strong family resemblance, macroeconomically speaking, to debt instruments. The distinction between debt and equity, which is vitally important in a theory of the structure of finance, is largely dispensable in our treatment of the structure of

capital. The supply of loanable funds, then, represents that part of total income not spent on consumer goods but put to work instead earning interest (or dividends).

“subsistence” – a term that is avoided here only because of the classical inclination to take the subsistence fund as fixed and to see it as a stock of consumption goods for sustaining the labor force during the production period

“loanable funds” may be better understood as “investable resources,” a term that emphasizes the purpose of the borrowing.

investment represents the demand for investable resources and saving represents the supply, whilst the rate of interest is the ‘price’ of investable resources at which the two are equated.”

the demand for loanable funds represents the borrowers’ intentions to participate in the economy’s production process. Investment in this context refers not to financial instruments but to plant and equipment, tools and machinery. More broadly, it refers to the means of production, which include goods in process as well as durable capital goods and human capital.

The market process that allocates resources intertemporally consists precisely of individuals taking advantage of profit opportunities in the form of interest-rate discrepancies implied by the existing pattern of input and output prices.

The market for loanable funds registers the expected rate of return net of the losses that this discoordination entails. For this reason, the loan rate of interest is not a “pure” rate.

the normal assumption will be: no change in the general level of business confidence (of expected loss from discoordination), except in circumstances where our analysis of the market process suggests that there is a basis for such a change.

Mainstream theorizing relies on two separate and conflicting constructions – one for the short run and one for the long run. In macroeconomics as well as in growth theory, “to save” simply means “not to consume.” Increased saving means decreased consumption.

Saving in capital-based macroeconomics means the accumulation of purchasing power to be exercised sometime in the future.

The production possibilities frontier

the fundamental trade-off between consumer goods and capital goods is presented in a PPF format.

PPF shows the trade-off between consumption (C) and investment (I).

Applying the PPF to a mixed economy requires us to make room for government spending (G) and taxes (T). In conventional macroeconomics, which is based on the Keynesian aggregates, total expenditures (E) in a mixed economy is written as the sum of three components: E C I G

Consumption is the stable component; investment is the unstable component; and government spending is the stabilizing component.

Investment in the simplest Keynesian construction is largely “autonomous” and government spending is a key policy variable. This conceptualization leads almost immediately to the conclusion that if unpredictable and disruptive changes in investment spending are countered by changes (equal in magnitude and opposite in direction) in government spending, then the mixed economy will enjoy a stability that a wholly private economy could not have achieved on its own.

In some cases, where the government spending is almost wholly unrelated to spending in the private sector (think of the construction of monuments or of conducting remote military operations), we may choose to employ a PPF that excludes this public-sector activity.

As applied to a wholly private economy or to the private sector of a mixed economy for which G T, the (net) PPF represents sustainable combinations of consumption and investment and implies a fully employed economy.

The intertemporal structure of production

One method of calculating total output is to subtract the value of the inputs from the value of the output for each stage to get the “value added” and then to sum these differences to get the total value of final output. Simply adding the outputs of the farmer, the miller, the baker, and the grocer would entail some double, triple, and quadruple counting.

The value of a half-finished good, for instance, is systematically discounted relative to the finished good – and for two reasons: (1) further inputs are yet to be added; and (2) the availability of the finished good lies some distance in the future.

The time dimension that makes an explicit appearance on the horizontal leg of the Hayekian triangle has a double interpretation. First, it can depict goods in process moving through time from the inception to the completion of the production process. Second, it can represent the separate stages of production, all of which exist in the present, each of which aims at consumption at different points in the future. This second interpretation allows for the most straightforward representation of the relationships of capital-based macroeconomics. The first interpretation comes into play during a transition from one configuration to another.

The macroeconomics of capital structure

The rate of interest – or rate of return on capital – could be depicted more explicitly by adopting an alternative construction. A point-input/pointoutput production process could be represented by a truncated Hayekian triangle, a trapezoid – with the shorter vertical side measuring input, the longer one measuring output. The trapezoid would depict a single input which would then mature with time into consumable output. Aging wine is the paradigm case. The rate of interest in this case, neglecting compounding, would be equal to the slope of a line that connects the value of the input to the value of the output.

The location of the economy on the PPF implies full employment, or, equivalently, the “natural” rate of unemployment. The mutual compatibility of the three elements implies that the market-clearing interest rate is the “natural” rate of interest.

But intertemporal allocation is not governed primarily by (actual or anticipated) changes in the price level. It is governed by changes in relative prices within the capital structure.

In Keynesian theory, the real-balance effect was the only prospect – and a dim prospect it was, in Keynes’s judgment – for the successful market solution to the problem of depression. In the absence of a viable real-cash-balance effect, the Keynesians had the argument won. There was no other effect in contention. If real balances didn’t push the economy towards full employment, the economy could settle into an unemployment equilibrium. And even with a real-balance effect the Keynesians could concede defeat but only as a matter of strict theory

In Austrian theory, the existence of the real-balance effect is not in dispute, and the strength of the real-balance effect is not at issue. But there is another effect that has a claim on our attention, namely, the capitalallocation effect. Capital-based macroeconomics is designed to show that quite independent of any movements in the general price level, the adjustments of relative prices within the capital structure can bring the intertemporal allocation of resources into line with intertemporal consumption preferences without idling labor or other resources.

The macroeconomics of secular growth

Secular growth occurs without having been provoked by policy or by technological advance or by a change in intertemporal preferences. Rather, the ongoing gross investment is sufficient for both capital maintenance and capital accumulation.

The interest rate allocates resources among the stages of production so as to change the size but not the intertemporal profile of the capital structure. As the economy grows, more resources are committed to the time-consuming production process, and more consumer goods emerge as output of that process. Over time and with technology and resource availability assumed constant, the increases in both consumption and saving implied by the outward expansion of the PPF are consistent with the conventionally conceived long-run consumption function.

Unlike the deflationary pressures associated with an increase in the demand for money (or a decrease in the supply of money), growth-induced deflation does not imply monetary disequilibrium.