In any ranking of economists who were active between 1850 and 1950, Knut Wicksell would surely appear in the top ten. Wicksell's work contributed mightily to the creation of both the Austrian theory of the business cycle and the theory of public choice. Wicksell followed Eugon Böhm-Bawerk in treating production as a sequence of stages, where the production of consumer goods was supported by a hierarchical structure of capital goods. To this structure of production, Wicksell attached the idea of two distinct rates of interest, a natural rate and a loan rate. A divergence between the natural rate and the loan rate would induce a change in the structure of production. For instance, a fall in the natural rate of interest through a decline in time preference would lead to a more capital-intensive structure of production. In contrast, a rise in interest and time preference would lead to a less capital-intensive structure of production.

Wicksell's work on capital and money set the stage for the Austrian theory of the business cycle that subsequently was developed by Ludwig von Mises and Friedrich Hayek. In that theory, an expansion in bank credit drives the loan rate below the natural rate. The initial effect of the credit expansion is identical to a fall in time preference, and produces economic expansion led by capital goods. Since time preferences have not fallen, however, voluntary saving will be insufficient to sustain this lengthened structure of production. Hence, the credit-financed boom will subsequently bust.

In 1896, Wicksell published *Investigations in the Theory of Public*Finance. The core of this work emphasized consensus and unanimity in place of

majority rule as a standard of governance, and became the guiding framework for the theory of public choice and constitutional economics, particularly as illustrated by James Buchanan and Gordon Tullock's *Calculus of Consent*. In this work, Wicksell asked what kind of institutional framework for parliamentary governance would make it possible for people in their capacities as taxpayers reasonably to say that their tax monies were directed as they wished. Wicksell assumed that through proportional representation it would be possible to select a parliament that would serve reasonably well as a miniature model of the Swedish population. If this parliament were then bound by a rule of unanimity, its decisions would conform closely to unanimity within the underlying population.

Wicksell subsequently relaxed this principle of unanimity to a practical rule of approximate unanimity, which he illustrated by such notions as three-quarters and seven-eighths. Wicksell recognized that this shift to approximate unanimity involved the creation of a tradeoff. True unanimity would insure that people would not have to pay taxes for activities they were not willing to support. But it would also prove costly to any effort of trying truly to work out arrangements for collective support. Some modest movement away from unanimity might, Wicksell thought, be a reasonable compromise to expediency.

Richard E. Wagner George Mason University

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