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Heller, Walter Perrin (1942–2001)

Walter Perrin Heller was a leading 20th-century economic theorist, and an early member of the University of California, San Diego, faculty (from 1974 to his death in 2001). He annually taught the UCSD graduate core microeconomic theory course on welfare economics.

Heller came from an academic family distinguished in the economics discipline: his father, Walter W. Heller, was Professor of Economics at the University of Minnesota and served as chairman of the President's Council of Economic Advisers in the Kennedy and Johnson US presidential administrations. Walter P. Heller's undergraduate education took place at Oberlin College and at the University of Minnesota, particularly under the guidance at Minnesota of Professor Leonid Hurwicz (1990 recipient of the US National Medal of Science). Heller's intellectual home was Stanford University. He received his Ph.D. there in 1970 with the dissertation advice of Nobel Prize winner Kenneth J. Arrow. For three decades he participated in the Stanford summer economic theory workshop at the Institute for Mathematical Studies in the Social Sciences (IMSSS) and its successor, the Stanford Institute for Theoretical Economics (SITE). Prior to joining the UCSD faculty, he was on the economics faculty of the University of Pennsylvania.

Heller served as an associate editor of the *Journal of Economic Theory* and on the executive committee of the American Economic Association. His research treated the stability of economic growth, microeconomic foundations of macroeconomics and of the demand for money, and resource allocation under conditions of market failure due to incompleteness or monopoly. In the late 1980s and the 1990s, the research focused on a fundamental issue in the theory of unemployment, namely, *coordination failure*, or the inability – even of complete markets in price equilibrium – successfully to match supply and demand, workers and employers. Kenneth Arrow remarked at Heller's memorial service at Stanford on 16 July 2001:

> Economic theory backed by serious mathematical reasoning was just beginning to be recognized when Walt started his graduate work … Walt was one of the leaders in using new ways – not merely for clarification – but for changing the way the economy was considered. He contributed to many aspects of [economic] theory … His long-standing project of studying the coordination failures of the economic system brought out, in an essentially novel way, the previously unclarified meaning of Keynesian insights. This work … is a vital continuing part of modern economic thought …

Stability of economic growth: A growth model over time in general competitive equilibrium (at each instant) may nevertheless be on an inter-temporally inefficient path (Hahn, 1966; 1968; Malinvaud, 1953). Further, an efficient path may be unstable (Samuelson and Solow, 1956). Heller (1971; 1975) demonstrated that inefficiency and instability depend on myopia; in the presence of complete inter-temporal capital markets (futures markets for capital), stability and efficiency of the growth path are established.

Demand for money: Heller was among the first to apply the full formal structure of an Arrow–Debreu model to the analysis of a monetary economy (1972; 1974; 1976 with R. Starr). The Baumol–Tobin money demand model with transaction costs (Tobin, 1956) is shown to be consistent with full general competitive equilibrium.

Foundations of macroeconomics: The Keynesian consumption function was long recognized anecdotally to be a result of capital market imperfection, but Heller and Starr (1979b) represents the first mathematical formalization of this notion. Unemployment equilibrium was long thought inconsistent with Walrasian general equilibrium pricing; Heller and Starr (1979a) demonstrate that expectations of uncleared markets may be self-fulfilling in equilibrium even at competitive equilibrium prices.

Coordination failure: When the formation of markets is itself a resource using activity, then some markets may not form or announce prices in equilibrium (1986; 1992; 1999) with resulting inefficiency and unemployed resources. In a model with a non-competitive (oligopoly or monopoly) sector, even with a full set of markets, there may be multiple Pareto ranked equilibria (1998).

Heller's work is elegantly written so that the underlying intuition is clear and is supported by mathematical structure. The Walter P. Heller Prize for excellence in research – instituted by Heller's colleagues – is awarded annually to a UCSD graduate student.

Ross M. Starr

See also

< xref = xyyyyyy > Arrow, Kenneth J.;
< xref = xyyyyyy > general equilibrium;
< xref = xyyyyyy > growth, models of;
< xref = xyyyyyy > Heller, Walter Wolfgang;
< xref = xyyyyyy > money and general equilibrium;
< xref = xyyyyyy > non-clearing markets in general equilibrium.

selected works

1971 Disequilibrium dynamics of competitive growth paths. *Review of Economic Studies* 38, 385–400.

1972 Transactions with set-up costs. *Journal of Economic Theory* 4, 465–78.

1974 The holding of money balances in general equilibrium. *Journal of Economic Theory* 7, 93–108.

1975 Tatonnement stability of infinite horizon models with saddle-point instability. *Econometrica* 43, 65–80.

1976 (With R. Starr.) Equilibrium with non-convex transactions costs: monetary and non-monetary economies. *Review of Economic Studies* 43, 195–215.

1979a (With R. Starr.) Unemployment equilibrium with myopic complete information. *Review of Economic Studies* 46, 339–59.

1979b (With R. Starr.) Capital market imperfection, the consumption function, and the effectiveness of fiscal policy. *Quarterly Journal of Economics* 93, 455–63.

1986 Coordination failure under complete markets with applications to effective demand. In *Essays in Honor of Kenneth J. Arrow. Volume 2, Equilibrium Analysis*, ed. W. Heller, R. Starr and D. Starrett. New York: Cambridge University Press.

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1998 (With A. Edlin and M. Epelbaum.) Is perfect price discrimination really efficient?: Welfare and existence in general equilibrium. *Econometrica* 66, 897–922.

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Malinvaud, E. 1953. Capital accumulation and efficient allocation of resources. *Econometrica* 21, 233–68.

Samuelson, P. and Solow, R. 1956. A complete capital model involving heterogeneous capital goods. *Quarterly Journal of Economics* 70, 537–62.

Tobin, J. 1956. The interest elasticity of the transactions demand for cash. *Review of Economics and Statistics* 38, 241–7.

Index terms

Index terms not found: