BY ROBERT J. BARRO

# MUNDELL: THE MAN WHO LAID THE GROUNDWORK FOR THE EURO


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**PRESCIENT:** Thirty years before the euro was born, Mundell compared the benefits of a common currency with those of flexible rates

This year's winner of the Nobel prize in economics, Professor Robert A. Mundell of Columbia University, pretty much invented international macroeconomics with his outpouring of research in the early 1960s. The work took place primarily at the International Monetary Fund and the economics department of the University of Chicago. Aside from the research, an important legacy of Mundell's Chicago period was the production of much of the next generation of influential economists in international macroeconomics. His students included Rudi Dornbusch of the Massachusetts Institute of Technology (whose menial tasks in the late 1960s included the preparation of the bibliography for the book *International Economics);* Jacob A. Frenkel, governor of the Bank of Israel; and Michael Mussa of the IMF.

Mundell's principal work is collected in *International Economics,* published in 1968 and out of print for years. (My recollection is that Mundell had a dispute with the publisher and retrieved the publishing rights years ago, but no reprinting of this major book has yet occurred.) The research provided a framework for analyzing macroeconomic outcomes under fixed or flexible exchange rates.

In the fixed-rate case, monetary policy was constrained by international forces. As is now well-known, any attempt by the monetary authority to follow an independent policy would create balance-of-payments problems and eventual changes in the exchange rate. In contrast, monetary policy could be freely chosen under a flexible-rate system.

**ENCOURAGING MENTOR.** Mundell's models allowed an important role for fiscal policy, but his treatment was entirely Keynesian-increasing deficit spending raises the aggregate demand for goods in the economy. Moreover, increases in government spending and cuts in taxes had pretty much the same effect on the economy. It was only later that he began to emphasize the supply-side, incentive effects from tax rates. Whatever the merits of supply-side economics and Reaganomics-and I would say there are many-these ideas had nothing to do with the work that resulted in a Nobel prize.

Mundell's 1968 book also contained an important study that provided the basic analytical framework for the euro. He focused on optimum currency areas where national economies could be integrated into a single money system. This work compared the net benefits of a common currency-which could be considered an extreme form of a fixed exchange rate-with those of flexible rates. He analyzed the desirable size of an economic zone within which transactions would use a single form of money. His analysis came 30 years before the euro and helped provide the theoretical basis for it.

The main benefit from a flexible exchange rate was its allowance for an independent monetary policy. This benefit was significant when regions were hit by different economic shocks and when labor could not move readily across regions. The principal gain from a common currency was that it facilitated transactions and made price calculations easier. After all, money, like language, would not be useful if everyone used his or her own personal type. The trade-off between these two forces determined the optimal size of a currency zone and, hence, the number of zones that ought to exist in the world.

Modern analyses recognize that independent monetary policies under flexible rates also entail a lack of external discipline and may lead to high and volatile inflation. In contrast, the fixing of the exchange rate can commit a country to the inflation rate of the anchor country. This works well if the anchor currency-such as the U. S. dollar or, in Mundell's vision, gold-behaves properly.

An important caveat is that simply announcing that a currency is fixed is not enough to ensure that a country will follow policies to keep it fixed. The devaluations of several countries in the 1990s illustrated the point. To be successful, a fixed-rate setup has to represent a firm commitment, such as Argentina's currency board and common-currency setups, including the em-o.

I first met Mundell in the late 1960s when he gave a seminar at Harvard University, where I was a PhD student. We discussed my research on extreme inflation, and he encouraged me to pursue the work and submit a paper to the *Journal of Political Economy,* which he was then editing at Chicago. His guidance was valuable to me because inflation and money were unpopular research topics at Harvard then. Fortunately, I followed his advice, and my article in the *JPE* in 1970 became my first published work. (Milton Friedman was the referee.) Naturally, I think Mundell's acceptance of my paper for publication is further testimony of his keen intellect.

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