

Barnett's Remarkable Career Path from Rocket Scientist to Renowned Economist Covered in Podcast

KU's own Dr. William A. Barnett, the Oswald Distinguished Professor of Macroeconomics, is renowned for his work over many decades on the use of Divisia monetary measures and their relevance for monetary policy. But not everyone may be familiar with the fascinating path his career took long before he came to be recognized around the world as the leading advocate for the increased use of monetary aggregation and index-number theory in economic analysis. A recent interview with economist David Beckworth, as part of the prestigious *Macroeconomic Musings* podcast series (<https://soundcloud.com/macro-musings>), outlines that path and provides additional context for Dr. Barnett's efforts in establishing the international Society for Economic Measurement (SEM), as well his important work as Director at the Center for Financial Stability (CFS) in New York City, Director of the Institute for Nonlinear Dynamical Inference in Moscow, and Editor of the Cambridge University Press journal, *Macroeconomic Dynamics*.

Trained originally at MIT as an engineer, Dr. Barnett in the 1960s was working at North American Aviation's Rocketdyne Division on the development of rocket engines for the Apollo program during the glory days of the space program. He explains in the interview that the US government at that time was pouring enormous resources into NASA and the race to send astronauts to the moon, without awareness of the fact that the Soviets had quietly concluded that the "race" was not cost efficient relative to the scientific and technological breakthroughs and benefits it was producing -- and were instead funding less expensive non-manned ventures into space.

As a result, NASA contracts for research and development were extraordinarily generous in that era. Rocketdyne allowed its engineers, as a benefit, to acquire educational leave credits, which subsequently enabled Dr. Barnett to acquire additional degrees in both economics and statistics.

Rocketdyne wanted to open a pure research division to explore ambitious objectives for the future of the space program and wanted PhD level statisticians, mathematicians, engineers, and scientists for that planned new division, he explained in the podcast. The intent was for Dr. Barnett to return to that new division after acquiring his PhD.

"But as the Vietnam War funding grew and funding for NASA declined, Rocketdyne's research division ended up being abandoned," he added.

By the time he got his doctoral degree, the US had already been to the moon and momentum and enthusiasm for the space program had begun to wane, he added. But while working on his PhD degree at Carnegie Mellon, he received an offer to join the elite Special Studies Section at the Federal Reserve Board as a research economist. That offer allowed him to work full time for a year on completion of his dissertation, after which he decided to stay at the Board for an additional seven years. Much of his dissertation research dealt with consumer demand function modeling, which has close ties with aggregation and index-number theory, accounting for his early expertise in those areas.

“I soon began to notice that macroeconomists dealing with demand for money at that time were basically just using a single linear equation, which seemed to be a very primitive approach,” he said. After a commission at Stanford had concluded that Federal Reserve monetary aggregates were too narrow and should incorporate assets from a broader array of financial institutions, Dr. Barnett was asked to get involved on behalf of the Fed – but was specifically instructed at that time not to challenge the resulting clustering of components, once officially selected.

The podcast then provides an overview of Dr. Barnett’s efforts, also outlined extensively in his award-winning 2012 book, *Getting it Wrong: How Faulty Monetary Statistics Undermine the Fed, the Financial System, and the Economy* (MIT Press), to convince the nation’s central bank to abandon its widespread use of simple-sum aggregate measures of the money supply in favor of the more sophisticated (Divisia) aggregates – and how the Federal Reserve’s failure to adhere to that advice likely was a major contributing factor behind the Great Recession.

In that book, he argues that the growing complexity of financial instruments made traditional simple-sum monetary aggregation formulas obsolete. The lack of public availability of best-practice data prevented households, firms, and the public sector from correctly assessing the accelerating systemic risk. Deregulation and the resulting increasing financial innovations should have been paralleled by availability of correspondingly increasing amounts of high quality data from the Federal Reserve. Instead the decreasing availability of relevant financial market data from the Fed and the low quality of much of those data during a period of rapid financial innovation in private markets created a perfect storm, effectively triggering the global financial crisis – a consequence of what the economics profession more broadly calls “the Barnett critique.”

“The Great Moderation had produced an exaggerated degree of confidence in the capabilities of the world’s central banks,” Dr. Barnett told Beckworth. “There was even some belief that the central banks had gotten so good at monetary policy, that the economics profession should stop doing research in countercyclical policy and should only concentrate on long-term growth.”

“Alan Greenspan was a fantastic salesman. So there was this exceptional degree of confidence in the central bank, especially from Wall Street, that led firms to believe they could take excessive risks and that Greenspan would somehow have their backs. But their excessive levels of confidence and risk taking were unfortunately not justified.”

In response to a question from Beckworth about the extent to which central banks around the world are now beginning to rely on Divisia aggregates, Dr. Barnett explained that the current situation was a mixed bag. He noted that the Bank of England was completely open about their official use of the Divisia measures; while many other central banks, such as the European Central Bank, quietly use them internally; and still others do not use them at all. This is despite the fact that Divisia monetary aggregates are available for over 40 countries throughout the world from academic and private sources and are advocated by the International Monetary Fund.

“This is a more interesting issue, that gets into mechanism design, an element of economic theory, interested in how to best design institutions to be incentive-compatible,” he said. “Optimally designing a central bank so that it would be incentive-compatible and do what is ultimately in the public interest is an enormously difficult mechanism-design problem.”

The interview then highlights the challenging work Dr. Barnett has undertaken at the CFS, after the Federal Reserve discontinued providing its broad aggregates, M3 and M4. The CFS laboriously had to acquire component data, previously available from the Fed, before launching its program specifically designed to oversee and develop national and international databases rigorously founded in economic aggregation theory.

Barnett said this challenge was closely related to a policy recommendation he made in his book – that a special bureau of financial statistics be created within the Fed (similar to entities that exist in other agencies, including the Labor and Commerce Departments), which would have some level of autonomy and be able to employ experts in index number and aggregation theory.

Bringing his remarkable career full circle from his days as a rocket scientist, it is not surprising then that when Dr. Barnett founded SEM in 2013, he determined that its long-run objective should be to meet the data standards established for the physical sciences, notwithstanding the fact that economics as a social science is subject to certain inherent limitations.

In recognition of his many decades of contributions to the field, the World Economics Association has organized an online open access conference in his honor (<http://monetarypolicy2018.weaconferences.net/>), that will be held from January 15 through February 15 of 2018: “Monetary Policy after the Global Crisis: How Important are Economic (Divisia) Monetary Aggregates for Economic Policy?” Another conference in his honor was held at the Bank of England on May 23-24, 2017.

Under Dr. Barnett’s leadership, SEM has announced that its fifth annual conference will be held at Xiamen University on China’s Xiamen Island, June 8-10, 2018, following the society’s prior conferences held at the University of Chicago, the OECD in Paris, Aristotle University in Greece, and MIT. The society’s 2019 conference will be held in Frankfurt, Germany with the European Central Bank as a cosponsor. Beginning in 2019, Nobel Laureate James Heckman will be succeeding Dr. Barnett as SEM President. The membership of the society now is approaching 1000 economists and is continuing to grow rapidly throughout the world.

Finally, a great deal of additional history about Dr. Barnett’s extraordinary life and career is available in an oral interview conducted by Apostolos Serletis at the U. of Calgary in Canada, and subsequently published on the CFS website. (http://centerforfinancialstability.org/research/Barnett_Interview.pdf)