DeLisle Worrell: Reviewing economic research in Barbados and the Caribbean

Address by Dr DeLisle Worrell, Governor of the Central Bank of Barbados, to the Central Bank of Barbados' Research Review Seminar, Bridgetown, 26 July 2010.

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This seminar had its origins as a development tool for economists in the Central Bank of Barbados' Research Department, many years ago, when I was Director of the Department. We came up with the idea of a forum to be held each year when all our economists would share their research, at whatever stage it had reached, so that we could help each other with ideas and suggestions, and benefit as well from the comments of the wider community of economists in Barbados and the Caribbean. The idea worked spectacularly well, and the seminar quickly grew into a leading incubator for academic research in the Eastern Caribbean. Over the years, we have built up a loyal following of attendees, whose research has benefitted from their participation in the seminar. The seminar has maintained its character as a catalyst in the professional development of Central Bank economists, while at the same time facilitating research and debate on Caribbean economic performance and policy among the wider community of economists.

The Research Department of the Central Bank has sustained an enviable record of research and publication, much of it reflected in some form in the presentations made at the annual review seminar. For many years we published these working papers once a year in a volume of collected papers, for the convenience of our colleagues. Nowadays they are published online, in electronic form. The breadth and depth of its research and published work, much of it in regional and international journals, is a foundation on which the Central Bank's reputation for authoritative economic opinion is formed. The insights gained have enabled the Bank to make persuasive arguments for its policy recommendations, and to defend its views in discussions with the IMF, World Bank and other international bodies. There can be no doubt that this has helped us to implement better policies, over the years.

Building on the foundation of this proud record of achievement, the Central Bank's policy research and publication are on the cusp of fundamental change, occasioned by remarkable innovations in the professional environment of economics, finance and accounting, as well as new challenges facing the discipline of economics itself. The changes in the professional environment include:

– The evolution of the internet, now the principal research tool of economists;

– Electronic publication, which has become the main channel of discussion, debate and sharing of information among economists, finance professionals, policy makers, international institutions, and the local and international business community;

– The proliferation of working papers, which have replaced published articles as the essential vehicle for the cross fertilisation of ideas; and

– The limitless possibilities for cooperation and collaboration among economists, finance professionals and policy makers, using the internet.

The new challenges are:

– The collapse of what has been referred to as the "traditional paradigm" of economics; and

– The need for research which gives practical, implementable answers to the questions businesses and governments have to address.

A few words about the way the internet and electronic publication have fundamentally altered the way we work. Many of you will remember my old office on the 7th floor of the Central Bank building, when I was Deputy Governor of the Bank. Entire walls were lined from floor to ceiling with books, journals, articles and other reference materials, including big box files of handwritten notes on books and papers I'd read, and research materials on projects that I'd worked on. I invite you to visit my office today; the walls are hung with artwork, and the office is entirely free of bookshelves; there are at most half a dozen books on my desk, including the dictionary, and not a single journal. Just before I left Central Bank for the IMF in 1998, whenever I was too busy to get to the library, the library came to me, in the form of piles of incoming journals, tied together with a routing slip on the top copy. When I got to the IMF, I found at my disposal perhaps the most powerful economics library in the world, the Bank-Fund Library. I used its services extensively, but in the 10 years that I worked for the IMF, I can recall actually visiting the library only once. I still use hard copies more often than not, but they are copies that I print myself, read and then send for recycling.

The Internet has also dethroned the peer-reviewed journal, now that everyone can put their own ideas up on the worldwide web for anyone to access. The implications of this really struck home to me when I began to realise that, outside of the Caribbean, I had become better known as an economist through my working papers issued by the IMF, than as a result of any formally published paper of mine. Although universities, central banks and other institutions still insist on formal publication in a peer-reviewed journal, or by a respected publisher, as the criterion for advancement in the discipline, in practice nowadays papers are invariably read and cited as working papers issued for comment, not as the published work, which typically appears with a considerable lag, if at all.

The Internet has fundamentally changed *how* we work; the collapse of the accepted theories of economic behaviour will fundamentally alter *what we work on*, in ways that we have only just begun to discern. In my recent address to the BES, I spoke of my growing disillusion with the direction in which economic theory and practice have gone in the last three decades or more, with an orthodoxy, which seemed bent on rushing down a path to irrelevance. Thankfully, within the last decade there have been signs of intelligent life in the economics profession, with the emergence of the online journal *Real World Economics*, the burgeoning of research on happiness, and the hypothesis that the economy evolves according to universal laws of evolution – laws which are also seen in operation in biology. The challenge for us in the Caribbean is to find ways to use these new ideas to guide the design of our research. We have made a start in this direction, with a project on price formation about which I will say a few words later.

A second challenge relating to the content of our work is to design projects which can provide answers to the questions policy makers need to address. Too much of the analysis we do is of no practical use for decision making. If the exchange rate in Carjackistan depreciates, we start trying to estimate demand and supply for foreign exchange, when we know full well the reason for the depreciation is capital flight, because people no longer trust the Carjack government. We do a review of the economy of Outer Slobbovia, a country to which tourists are flocking in droves, and find that prices are rising fast because of the excess demand for hotels and services. We calculate the real effective exchange rate, which is appreciating, and conclude that Outer Slobbovia is not competitive, no matter that it is stealing market share from all its competitors. This kind of misperception problem is related to the previously mentioned mistaken paradigm. Because our framework for thinking about the problem is wrong, we ask the wrong questions, set up the wrong thought experiment, assemble irrelevant data, and come to meaningless conclusions.

All, however, is not lost. We have already begun work that may herald a paradigm shift. Last Friday, at the Accra Beach, the Caribbean Centre for Money and Finance, assisted by the Caribbean Technical Assistance Centre, convened a conference on a Caribbean regional project on price formation, a project which is led by Professor Roland Craigwell of the UWI, who is an associate of the CCMF. The novel feature of the project is that it measures observed behaviour of prices of specific items over time, reporting on how frequently prices change, whether they go down as well as up, and what are the magnitudes of change for different items. This contrasts with the orthodox approach to price, which seeks to determine a demand and a supply, and to find a point of equilibrium.

We need to take eclectic approaches to empirical work, acknowledging that economic theory can lead us in the wrong direction, and economic measurement and testing is at best a makeshift process. In our universities we teach aspiring economists to ask whether research has theoretical foundations; rather, they should be asking themselves whether the research makes sense, and follows sound principles of logic. The reality is that economics knows of no overarching theories that stand up to all tests, and we must therefore admit to a variety of small theories, to be understood, not as the laws of the Medes and Persians, but as clues to aid us in the search for deeper insight into the way the economy works.

We must also admit that our statistics and our tests are very fragile. We make statements like "the economy grew by 5 percent" with the same assurance as the statement that "DeLisle Worrell is 5'5" tall". Those are *not* comparable statements of fact. My height can be established with certainty; the GDP of the country is an educated, informed guesstimate. The machinery simply does not exist to survey every company and individual who produce a good or service for sale, compute the total value of all those goods and services, deduct the value of all the materials and goods they bought, the electricity and input services they used, and adjust all those calculations for the changes in prices of all inputs and outputs. So we have to approximate.

Our econometric tests are laden with assumptions that we often seem to forget. The most basic is that the future will be like the past, an assumption which we know to be more and more unwarranted, the further out we go. To give just one illustration: it is not reasonable to make inferences about the international economic crisis of 2008 from research on the stock market crash of 1929. In 2008 the world featured a network of shared information and finance, with instantaneous links right around the globe, and billions of ordinary people were involved directly in financial transactions, from small individual depositors and mortgagees to giant financial conglomerates. In 1929 only a handful of people in industrial nations were involved with financial institutions in any way, and the average worker who found himself on the breadline would have had no notion whatsoever of the cause of his sudden unemployment. We live in a completely different world, and it is hard to understand why we would expect modern economies to behave as the economies of the early 20th century did. The moral of this story is that, although empirical tests are fundamental to good economic practice, we must be conscious of the assumptions we make, and qualify our inferences accordingly.

Because our methods and data are so lacking in robustness, economists need to approach their work like good detectives, digging deep behind the numbers for explanations and clues. We need to practise forensic economics, disaggregating totals to search out the components, and incorporating local knowledge of each economic activity, especially the insights of the real people who are out there buying and selling goods and services. The Central Bank is well equipped to do such analysis, using the impressive archive of monthly, quarterly and annual data that we have collected over 35 years or more.

I believe we are on the cusp of the emergence of a new paradigm in economics. We are not yet clear what the new paradigm will look like. The most intriguing suggestion I have come across is the notion that the economy evolves according to the same laws that govern biological evolution. There are other notions abroad, such as the replacement of the evasive economic concept of "welfare" with "happiness" as the objective of economic transactions. In spite of the uncertainty about the future path of our discipline, there are some indications of how we need to improve economic practice, and we have already taken first steps in the right direction.

Many years ago Muriel Saunders and I did a detailed study of the provision of government services, and the budgetary cost of providing services. Sadly, it is the only study of its kind that I know of in the Caribbean. Updates and similar studies are urgently needed; they are of practical importance, and can serve to inform priorities in the allocation of government expenditure, especially important in these difficult times. We have rich troves of data on household and company credit, including maturities and interest rates, broken down by activity; detailed information on the ownership of deposits; information on the holders of government paper; information on tax yields, import breakdowns, agricultural yields, etc, etc. We should mine this data for practical insights about how our economy works.

We need to address the data with a variety of parametric techniques, ranging from charts and tables to econometric modelling, and covering the whole gamut of tools and approaches. We should avoid over-emphasis on technique, and we must devote more resources to structural models of the economy, such as the Central Bank still employs for forecasting, and less to simplistic models which reduce complex economies to a handful of equations.

We need to be flexible in our approaches, and to develop a greater humility in our analysis. We must stop saying that this or that theory has been “proven”, or this or that policy has “worked”. In the physical sciences, where they actually have methodologies that can prove things, they acknowledge that the proof is valid only until evidence that contradicts it emerges; proofs in the physical sciences are not forever. In economics, where we have no tools to prove anything, we are too fond of ex cathedra pronouncements. We must stop saying that the world is what our theory tells us, and learn to see things as they really are.

There is exciting new research in economics which draws on the knowledge and insights of other disciplines, including finance, psychology, ethics, law, cognitive sciences, and others. Hopefully we will also see a resurgence of interest in philosophy and epistemology. We should all seek to broaden our own research into areas such as these in search of useful insights and guidance for policy. In the case of the Central Bank, I hope this will be reflected in increasing contributions to this seminar from members of all departments of the bank, not only the Research Department, and in joint research that crosses disciplinary boundaries.

These are exciting times for economics, and for economists and central bankers. We have a chance to contribute to the changes in approach to research and analysis for policy, we have a rich store of data from which to draw insight, and relevant analytic expertise is increasingly spread across the bank, and in disciplines outside of economics. Let us maintain our focus on policy, and let us draw on the knowledge and expertise of our colleagues throughout the bank, and in related disciplines, to help in the search for deeper insight into our evolving economies.