Graham Pyatt – some Personal Reflections

It is a great pleasure and honour for me to have the opportunity to say a few words about Graham this morning. Let me first thank Professor Bhattacharyya and the University of Sussex for hosting this event – a first for me- not sure I have ever previously attended a hybrid seminar.

Starting in the 1960s when we first met at the Cambridge Growth Project. I have known Graham as a friend and a colleague for almost 60 years. Since I cannot begin to summarise the diverse and rich set of experiences of that long period in a mere 20 minutes , let me instead merely try to put some of Graham's earlier influences and achievements into a context on which others can build.

Graham was born in Lancashire in 1936 into a family that owned a cotton milling business – making mainly the specialised loose cotton netting commonly used to wrap sides of meat. Fortunately for our profession, Graham chose not to join the family business but instead to undertake progressively more and more advanced study in Economics and Statistics first at Manchester and then at both Chicago and Nuffield College.

However, when he arrived as the most junior member of the Cambridge University Growth Project in 1959, Graham was still an Economist/Statistician: he was still learning his trade – not much applied work yet and nothing at all on the problems of developing economies. But once there, let us try to imagine the atmosphere to which the young Graham was exposed.

The Keynesian revolution was still creating significant debate. Three of its major disciples- Richard Kahn, Joan and Austin Robinson were still regular presences in the common room at Sidgwick Avenue where he worked. So were the two architects of the UK's first National Income Accounts - Richard Stone and James Meade. Jim Mirlees and John Hicks (who originated the phrase "social accounting") also showed up there occasionally. So, the young Graham would have encountered no less than four eventual winners of the Nobel prize. (Angus Deaton – a fifth Nobel laureate was a later arrival on that same scene).

But particularly significant was the intensive research activity going on there to advance the economic data systems, and planning models with which we all soon became familiar. The Growth Project's input output modelling was of course narrowly UK-based - being attuned to the UK's emerging adoption of national planning. Richard Stone, the father of the UN's System of National Accounts (launched only a few years earlier) became Graham's Phd supervisor. Stone himself had been supervised by another Cambridge don, Colin Clark – the author of *The Conditions of Economics Progress* (published in 1939) – and another influential figure in the early development of national accounts in for example India.

How could any intelligent, young 23-year-old economist/statistician fail to be influenced by these heady surroundings, activities and personnel? We know that he was - Graham regularly acknowledged especially Richard Stone and Colin Clark as major influences on his own work

But now my reflections jump forward a few years to try to explain Graham's shift in focus from his previously quite narrow work on data and modelling in a UK context (his

publications through 1970 were mainly on topics such as consumer theory, capital and output relationships etc.), to his longer-term research on the problems of developing economies. Serendipity played a big part in this switch. Specifically, in 1971 Graham was somewhat surprised by an invitation to join the ILO's first World Employment Program mission to Sri Lanka led by Dudley Seers – then at Sussex. Serendipity again played a part. The invitation probably originated from an ILO adviser of that time - Walter Galenson- with whom Graham had happened to write a paper – on labour market issues - during a brief stay in Berkeley in 1964. The global context of that period is also worth flagging here. Only in 1969 had the ILO, along with other UN agencies, begun to recognise that "development" could not just be about the growth of GDP but also had to embrace structural and social dimensions such as income distribution and basic needs. The ILO, as I remember it, was a pioneer among the international agencies in this regard. It chose in 1969 to focus on employment – hence its World Employment Program. But in doing so it was several years ahead of others in broadening the scope of development economics research. For example, it was seven years before the ideas for a *Basic Needs* approach really got started and five years before the major book on *Redistribution with Growth by Chenery, Ahluwalia and others*. The dollar a day marker of extreme poverty appeared for the first time only much later - in 1990!

However, the first Sri Lanka mission to pilot this new UN agenda was adjudged at the time to have been a limited success; unfortunately, its timing coincided with some early civil disturbances in Colombo that forced the Seers mission to idle away for some weeks in one of the city's hotels. But the main lesson that Graham brought back from the Seer's mission was that the ILO's and other similar work would never get very far until it was supported by a ***systematic quantitative framework*** able to embrace issues of employment and income distribution as well as the conventional macro numbers linked mainly to economic growth.

The next step he therefore deduced was to build that quantitative framework. But how? As a student of Richard Stone, Graham was aware that the 1968 update of the UN's SNA had already extended the scope of the national accounts by adding input-output accounts and balance sheets. So, the way forward was clear to him –what was needed was a further extension of that work to encompass some of the disaggregation (especially of households) that could support the quantitative analysis of the newer emerging development issues such as employment and income distribution. The result of this logic was a second Sri Lanka mission in 1973 this time led by Graham with a team from Warwick and Oxford Universities, and the eventual production of one of the very first comprehensive Social Accounting Matrices (SAMs) ***geared to development issues***.

Here it is! Jeff Round, myself and Bob Lindley who is also joining us remotely, were proud members of that team.

As we know that work has helped to spawn almost five decades of work built around numerous and ever more sophisticated SAM-based models some of which we will hear about later today.

This kicked off Graham's ventures into the arena of development research, but it quickly led to a much larger opportunity. Specifically, in 1973 the donor development agenda took a major step forward with Robert McNamara's landmark speech in Nairobi that is widely credited with launching the World Bank and other UN agencies into a far more serious attack on poverty and inequality with a particular focus on rural areas. Certainly, the years after 1973 saw a huge uptick and redirection of the World Bank's own activities but these, like the WEP needed a major adjustment of the Bank's data and analytical research work-away from a narrow focus on project evaluation, and towards a much greater focus on economy wide issues. The then Vice President Hollis Chenery established the Bank's new Development Research Centre (DRC) in 1974 specifically to respond to this need, and shortly thereafter Graham was appointed as a Senior Adviser there. He later described the mandate of the DRC as one of "designing *and implementing a research programme that responded to the challenge set out in Robert McNamara's 1973 Nairobi speech, especially that of reducing poverty in developing countries."*

The delivery record from the DRC in the following years in responding to its mandate is more familiar to some of you here than it is to me - I saw it only peripherally being at that time in an operational part of the Bank. But in brief we know that it included the construction of numerous additional country specific SAM-type models; the development of early computable general equilibrium models (CGEs); the associated transactions value approach (TVA – with Arne Drud and Wafik Grais); the embryonic general algebraic modelling system (GAMs – with Alex Meerhaus); a great deal of important early work on the measurement and categorisation of poverty and inequality; and some early innovations in the use of household surveys notably the influential LSMS (with Ramesh Chander and others) designed to throw light on the various dimensions of poverty.

For all of us who work in development economics, the mid-1970s was certainly a critically important stage in the broadening out of the relevant analytical work, the modelling, and the policies geared to poverty reduction and social objectives more generally. The DRC played a highly significant part in this evolution. Regrettably, as Graham himself stated in his obituary of his boss Jack Duloy, … "*neither Jack nor his beloved DRC was to survive the loss of his mentor's protection after McNamara's retirement in 1981. The newly installed Reagan administration had its own ideas as to what the World Bank should be about, - it arrived with a different conception of the role of a research group in an international organisation."*

However, as I see it the legacy of the DRC has been unambiguously secure. Not only did Graham's colleagues and the data and modelling foundations they had built prove useful in the controversial post-1980 era of Structural Adjustment. But more generally, that 1970s foundation was undoubtedly a source of much of the intellectual inspiration that the many others who worked with, for, and after Graham were able to build on and improve – a process that continues and that others here today will I think confirm in much greater detail later. Just one example that illustrates this is the fact that the World Bank, 40 years later still refers on its website to the LSMS as its "*Flagship Household Survey Program "*.

It would be over egging the cake to attribute all these important developments to Graham personally. However, he certainly had an active hand in most of them. In many of the areas of analytical work begun in the Bank at that time, Graham together with his boss Jack Duloy, was both an originator of ideas but perhaps equally important, a mentor for many others. But his own contributions were far from trivial. Even a quick glance at his CV shows an enormous volume of high quality and peer-reviewed papers on the topics just mentioned with his name on that emerged out from his ten years at the Bank.

But now allow me now to backtrack briefly in time. I referred earlier to Graham's recognition of his debt to Colin Clark. In his own paper in the 1984 volume by Gerald Meiers & Dudley Seers entitled *Pioneers in Development*), Graham refers explicitly to Clark's criticism of economics teaching (in the UK in the early post-War years) as being based too much "*upon speculation and theoretical reasonings rather than as a science based on the collection and analysis of the actual facts of the economic world".* When he left Cambridge in 1964 to become the Professor of Mathematical Economics at the new University of Warwick, Graham was able together with Dick Sargent – Warwick's founding Professor - to reflect that thinking by introducing a style of university teaching (quite new for the UK) that gave strong prominence to data gathering, econometrics and other quantitative methods, alongside the more traditional micro and macro theories. Warwick's sustained strong ranking in economics teaching and research both in the UK and globally owes much to those early underpinnings. Several of you attending today taught on or were successful students on the master's degree in quantitative development economics (QDE) that was inspired in its design by exactly the philosophy that had guided Graham's early ideas for undergraduate teaching at Warwick in the mid-1960s.

I have insufficient time to say much about his later years – I am sure that Rob Vos will say something about Graham's time at the ISS in the Hague from 1994. But another significant component of Graham's work from the 1970s has to be mentioned. This was his significant engagements with various ***consultancy assignments***. Academic economists who aspire to work on applied topics sometime struggle to find appropriate topics on which to test their ideas. Graham was fortunate in this respect because even before his posting to the Bank, he had established an active working partnership with Coopers and Lybrand – the large accountancy firm. This gave him access to some eye watering challenges in applied economics. Don Wilkes, an early head of Cooper's economic consultancy practice is happy to acknowledge the fundamentally important contribution that Graham made to building his firm's now large consultancy practice. This reality was recognised explicitly in 1986 when Coopers established a new Chair at the University of Warwick for Graham when he left the Bank in 1986.

Graham's first work for Coopers was on British Telecom's future pricing policy. Soon after that he oversaw the statistical modelling, that helped to bring Cooper's major project on the proposed Channel Tunnel – the UK's largest infrastructure project - to a successful conclusion. An even more challenging assignment followed - the construction of a model to assess the economic impact of a new town and petrochemical complex in Saudi Arabia. (a precursor I suppose of the giga Neom Project that the Crown Prince has now launched).

Graham argued for and helped to construct a computable general equilibrium model for that mid-1970s project: a technique that by then he was familiar with through his work in the Bank.

I was privileged to work with Graham while he was at Warwick and the Hague in his later years on several fascinating consultancy assignments. One of the most memorable was in the former Dutch colony of Suriname – a textbook case of economic distortions where we designed a proxy IMF programme. Another highly controversial assignment was that of mapping out an economic development strategy for Turkish Cyprus at a time when that country was something of an outcast from normal international relations. Graham needed significant technical and diplomatic skills to deal with these various demanding assignments and the complex political pressures that bore down on them. For the most part he came through those challenges with flying colours- as far as I am aware the potential political banana skins were always avoided.

Working and socialising with Graham as closely as I did at Warwick, in the Bank and later in retirement, I saw many examples of both his remarkable intellect and insights but also a little of his somewhat spiky and obstinate character that resulted in the occasional friction with some who encountered him. For my own part, I will always be grateful for the many chances that I had to work with him, for the sympathetic mentoring he always provided, for the generous hospitality that he always offered, and for the memories of the very stimulating conversations that were an ever-present feature of our meetings, and that persisted even into our older years – for example at the frequent lunches that we still hold in various hostelries around Warwick. Graham will be sadly missed on these occasions.

Alan Roe

October 30th, 2023