

Martin Ravallion

19 March 1952 – 24 December 2022

Introduction – Frank Cowell¹

To mark Martin Ravallion's contribution to economics and, in particular, to the field covered by the *Journal of Economic Inequality*, we invited ten colleagues and friends to write an appreciation of the way in which he and his work touched their lives. All of them² – François Bourguignon, Cait Brown, Shaohua Chen, Gaurav Datt, Chico Ferreira, Emanuela Galasso, Stephen Jenkins, Pete Lanjouw, Misha Lokshin and Claudio Zoli – accepted without hesitation. From them emerged a picture of someone who was a clever and driven researcher, an insightful colleague and a warm friend. Here are the thoughts, personal and professional, of the ten contributors.

And, as a brief addition, here is my own thought. When the editorship of the *Journal* fell vacant, Martin urged me to take it on. This was typical of Martin's style of friendly management and problem solving. I will always be grateful for his encouragement.

François Bourguignon

Martin's departure is a huge loss for the community of researchers in the economics of poverty and development. A tireless, prolific, inventive and rigorous scholar, he has been a pillar of the discipline over the last 30 years. He leaves behind him an impressive number of papers and books, including his *Economics of Poverty* textbook. He also leaves key concepts and basic analytical tools like the Pro-Poorness of Growth, Growth Incidence Curves, or Weakly Relative Poverty, which will remain unequivocally attached to his name. There practically is no area in the field of poverty and development where he did not push the frontiers of knowledge and policy evaluation. His illness and early demise deprive us of further innovations and of a critical overall sight on this crucial part of economics.

¹ I am grateful to Maria Björnsdotter Dahlin, Koen Decancq and Philippe Van Kerm for advice and assistance.

² Affiliations are as follows: Bourguignon, Paris School of Economics; Brown, University of Manchester; Chen, Xiamen University; Datt, Monash University; Ferreira, London School of Economics; Galasso, World Bank; Jenkins, London School of Economics; Lanjouw, Vrije Universiteit Amsterdam; Lokshin, World Bank; Zoli, Università di Verona.

What makes Martin's contribution both original and particularly relevant for policy making is its deep anchoring into practicality. The long time Martin spent in the World Bank is probably responsible for his research to have been so close to policy, including the monitoring and the sheer measurement of poverty. It is also the reason why his work has been so influential in the world. Within an international development institution whose goal is the eradication of poverty, tools that permit monitoring progress on global poverty were essential. Much of the debate of the last 20 years on the poverty goal of the Millennium, and then Sustainable Development Goals owes much to initiatives taken by Martin in the 1990s, in particular the construction of the PovcalNet database. In creating this repository-cum-statistical treatment of income data from practically all household surveys in developing countries, Martin proved he was not only an outstanding researcher in the field of poverty but also an invaluable social entrepreneur.

One may contribute to progress through one's own research, but also through bringing younger colleagues to the level of excellency at which they themselves will contribute to further progress of the discipline. Martin has been exceptionally successful on both fronts. From the unit he ran for many years within DEC-RG, the Development Research Group of the World Bank, a new generation of researchers came out who perpetuate his work by pushing the frontiers still further.

Martin was also a manager. He proved it when in command of the whole DEC-RG department in the Bank. This has been a time where our relationship was more professional than academic. I was running the whole DEC vice-presidency, but he oversaw its largest and most dynamic part. Some initially doubted his capacity as a manager because they felt he was too much of a researcher. The experience proved them wrong. As in so many other occasions, Martin proved up to the task, taking good care of his people and tightly monitoring their research programme, while actively promoting their research outcome as well as good economics in general with the rest of the Bank. I believe we made a good team together, not only because we had so much in common in our approach to development economics and, in particular, the importance to be given to equity or inequality issues, but also because we were in agreement on more general principles, which we believed should guide the Bank's action. I shall never know whether this was reciprocal, but, for me, these two years we spent together at the head of DEC have been a real source of satisfaction.

Martin, the researcher, the team leader, the entrepreneur, the manager and then the professor after leaving the Bank to go to Georgetown University. I had tried my best to attract him to the Paris

School of Economics. He was very much tempted. It could have worked without the rigidity of the French administration. Instead, we were only able to offer him teaching a 4-week course each year. He and Dominique van de Walle have thus been visiting Paris every year in early spring. They also spent a few summers in the South of France. These were fantastic opportunities to get together, to talk about our respective research work, and to rebuild the world while testing restaurants and tasting wines, common passions in which Martin was as knowledgeable and expert as in so many other areas.

Martin was a great man and leaves a deep emptiness behind him. Memories of precious moments together, and the legacy of all his work will fill some of it, but that feeling of emptiness may take a long time to disappear, if it ever does.

Caitlin Brown

Martin's research covered a huge and varied range of issues over the course of his career, and it would be impossible to summarise all his work here. Rather, I shall focus on one area of deep interest to Martin: understanding the role informational constraints play in effective anti-poverty policy. In other words, how can we best identify households or individuals in need when there is incomplete information on their welfare status? Household-level data in lower-income countries, most commonly in the form of household surveys, have improved dramatically over recent decades, and Martin was a huge proponent of these efforts. Nevertheless, accurate and timely data on household welfare at a large scale is often unavailable. With budget constraints that typically preclude universal coverage, policymakers are often left with less-than-optimal tools to target the poor.

One such method is proxy-means testing (PMT), which essentially calculates a score for each household based on easily observable characteristics which are correlated with household welfare; for example, household size and demographic composition, characteristics of the household's dwelling, and basic household assets. Regression is used to calibrate the weights for each item, and households are then ranked based on their score with, presumably, poorer households having lower scores. Together with Dominique van de Walle, we studied the performance of PMT for a number of sub-Saharan African countries (Brown et al. 2018). While we found that PMT does a good job of filtering out the non-poor, it does much less well at correctly identifying the poor,

particularly at the end of the household consumption distribution. When compared to simpler categorical-type targeting methods or even a universal transfer (holding the budget constant), it was not obvious that PMT dominates when the goal is poverty reduction.

Identifying poor households in a poor-country setting is one challenge, and identifying poor individuals is a greater one: standard data sources on welfare are almost always at the household-level, making it difficult to estimate individual-level welfare. And indeed, a large and growing literature shows that individual welfare status is not necessarily the same as that of the household (for example, certain types of individuals, such as widows and children, have been shown to have inferior outcomes within households). So, even if it is possible to figure out which households are poor, intra-household inequality may mean that not all individuals with low welfare live in these households. In a follow-up paper, our aim was to determine how to best target nutritionally deprived individuals using large, representative datasets (Brown et al. 2019). Our first thought was using household-level characteristics, such as household wealth or consumption: wealthier households should be more able to afford the necessary inputs (such as food) for adequate nutrition. Instead, we found that most undernourished women and children do not live in the poorest households; rather, they are spread across the wealth (and consumption) distribution, such that the joint probability of being both undernourished and poor is extremely low. Part of this is a result of intra-household inequality in nutritional outcomes, though common health risks that affect all households within an area seem also to matter.

This goal of understanding the role of household characteristics in health outcomes was a focus of one of the last projects Martin worked on: developing an operational index of housing conditions that is indicative of a household's ability to protect children's health in developing countries (Brown et al. 2023). This paper, like many of his others, originated from a pressing policy concern: in this case, how well could the world's poorest protect themselves from the effects of COVID-19? Following, for example, government or WHO recommendations regarding the virus requires certain housing attributes, which most households in the poorest countries were found to be lacking.

Martin's drive for generating knowledge spilled over into his role as a teacher and mentor: many of his former Ph.D. students, myself included, became his co-authors on papers that cover a huge range of topics, and not solely in the field of development. If you had an interesting idea that you

were enthusiastic about, Martin was often on board to help develop it. He worked at a fierce pace, which meant you were usually scrambling to keep up with him but learning an incredible amount at the same time. He loved meeting with students at all levels, taking the time to discuss their questions and ideas, his responses often interspersed with his own experiences on the issue. It seems more than safe to say that many of us who were fortunate enough to work alongside Martin would not be the economists we are today without his guidance, insights, and above all, his passion for understanding poverty.

Shaohua Chen

I worked with Martin from my first day at the World Bank. A working relationship spanning 30 years allowed me to observe and understand him closely. We witnessed how he redefined the method of measuring and comparing poverty across time and place, figured out how to evaluate the impacts of anti-poverty policies, and made a great contribution to reducing global poverty.

Shortly after I joined the World Bank, I discovered that a certain statistical problem could have different mathematical expressions. I was so excited I ran to Martin to discuss my findings. He listened carefully to my derivation process and asked: "What does this have to do with World Bank's operations? What potential significance does it have for the actual theory and practice? Of course, this can show your solid mathematical skills." I remember these words to this day, and often use them to guide my students. In Martin's view, doing research, especially research on poverty and anti-poverty policies, was not just for the purpose of publication. Excellent research can not only be published in major academic journals and get many citations – it can have a profound impact on relevant policies and benefit millions of people.

In the early 1990s, when the World Bank Southwest China poverty alleviation project started, Martin and I undertook the poverty monitoring and evaluation of the project, which gave us the opportunity to visit one of China's poorest areas dozens of times and to have discussions with numerous poor households. Martin gave many lectures in China on key issues in poverty measurement/monitoring and policy evaluation. Audiences include academia, policy makers, and anti-poverty front-line staff. The lectures spanned Beijing to remote provinces and all the way to poor counties. Surprisingly, Martin could describe complex theoretical issues with simple

language and examples. Martin patiently answered many specific questions encountered by grassroots staff and corrected some misinterpretations.

Once in a poor county in Guizhou, Martin talked with the person in charge of the local household survey next to him during a meal. Martin asked, “How do you calculate the number of people living in poverty in your county?” The man replied: we use ‘Martin's method’. Martin told him, “I am Martin – of Martin's method.” The man was stunned and could not believe it. Mr. Martin, who visited poor households with us and was approachable, was the inventor of Martin’s method and a world-renowned economist!

Once we spent nearly five hours walking to an extremely poor village and talking to many farmer households. The people there were as poor as the poorest people in the world. On the way back, Martin told me that researchers who sit in the office to estimate poverty rates and evaluate the effect of poverty alleviation should go to these places to really understand what poverty means, how the poverty reduction programmes are implemented at local and whether the poor like the programmes. There are real individuals and families behind the poverty numbers we calculated; if the research we do can have positive impact on the country’s anti-poverty policy and effectively improve the lives of the local poor, that is the purpose of our research.

Pingping Wang, head of the National Bureau of Statistics Household Survey and China Rural Poverty Monitoring Report at the time, said “Martin greatly influenced the formation of China's anti-poverty policy and played a fundamental leading role in promoting poverty monitoring in China. "Martin’s method" provides an economic basis for determining and improving China's poverty standards; it has made great contributions to China's efforts on poverty alleviation.”

Martin also had a significant influence on World Bank researchers, especially young scholars. Whether in private discussions or in seminars, his questions and advice were always incisive: pointing out the innovations and deficiencies in the research and introducing relevant articles and recent discoveries. This sharpness stems from his profound foundation in economics and particularly Welfare economics. During the past three decades, I observed that Martin spent all his available time reading journal articles and research reports. He always had a typed article handy when we were doing work in the field. When traveling in poor areas, one often encounters traffic jams or flight delays. At such times, Martin would take out manuscripts to work on. He always

used any length of time to read and write. I would often joke that we could not read as fast as Martin could write.

Since the World Development Report in 1990, Martin had been focusing on how to accurately set the international poverty line and how to effectively address the difference in welfare caused by the purchasing power parity of each country. It was Martin's idea to build an online global poverty monitoring system which combined the methods, data and results, and could calculate detailed poverty measures and changes in poverty for researchers, policy makers, and the general public. Thus, PovcalNet was created in 2001, in response to increased demand for international poverty estimates, especially after the Millennium Development Goals were established. In the past, many people complained that the World Bank's poverty calculation was a black box. Some complained that the Bank overestimated poverty to seek more donor funding, while others said the Bank underestimated poverty to show progress in poverty reduction. With PovcalNet, we made the Bank's poverty data and methodology transparent, so people can duplicate and monitor the Bank's results, and better understand the method and the limitations of the underlying data. PovcalNet is a good example, showing how Martin refined the Bank's most important statistics and how open research and open data increased the World Bank's credibility.

We had a long list of research plans. These include how to solve the problem of lack of high-income groups in household surveys; the long-term impact of public resource allocation on vulnerable people; the impact of social protection policies such as Dibao and pension in urban and rural China on economic inequality; and so on. Some in this list we have been preparing for years, some are underway, and some are just beginning. Martin's passing is a great loss to the poverty and development research community. The best way to remember Martin is to learn from his thorough academic attitude, deep sympathy for the poor, linking theory with data and practice, prompting evidence as the basis of policy making.

Martin will always live on in our hearts, and in the work we do. May his influence live on.

Gaurav Datt

My association with Martin goes back to 1985 when I arrived at the Australian National University (ANU) to pursue a PhD in Economics. There at the Research School of Pacific and Asian Studies, Martin – who had joined ANU just about a year ago following his PhD in 1981 from the London

School of Economics and short stints at Nuffield College and Queen Elizabeth House in Oxford – became part of my supervisory team. I recall Martin was working at that time on his *Markets and Famines* (1987). I had only a fleeting sense at that time of the significance of the book, which a review by Jean Drèze (1989) described as “a tour de force—without question the most important piece of work on the subject since Amartya Sen's pioneering contribution.” Noting her help with this study “in so many ways since it began”, Martin dedicated the book to Dominique van de Walle, his life-long partner and a constant beacon of strength through Martin’s personal and intellectual journey.

Martin left ANU in 1988 to take up a research economist position at the World Bank while I was still finishing my PhD. I ended up joining Martin at the Bank in March 1989, starting what would turn out to be a long-term association.

At that time Lyn Squire was leading a team-on the 1990 World Development Report (WDR) on Poverty. The core poverty estimates in the WDR, based on Ravallion et al. (1991), became the genesis of global poverty monitoring by the World Bank, a role that Martin took on from then on. This early work came to provide the foundation for the articulation of the United Nation’s Millennium Development Goal 1 and later the Sustainable Development Goal 1.1 on eliminating extreme poverty; the targets for these goals were specified in terms of the international poverty lines (of a dollar-a-day and later \$1.25, \$1.90 and most recently \$2.15-a-day) that were directly based on the global poverty work pioneered and led by Martin at the World Bank. If today monitoring progress on this goal has come to be recognized as the mandate of the World Bank, the person who made this possible more than anyone else was Martin Ravallion. Although there were precursors, such as Ahluwalia et al. (1979), as Tony Atkinson (2017) observed: “there have been major developments, notably as a result of the research carried out in the past 25 years at the World Bank by Martin Ravallion and colleagues, where the output of this research is embodied in the PovcalNet database on which today’s estimates are based”.

Martin’s influential 1994 paper with Bidani introduced the cost-of-basic-needs (CBN) method of setting poverty lines. This, the Martin method,” became standard for Bank poverty assessment reports and was adopted widely by many countries for establishing their own national poverty lines.

In the early 1990s Martin and I embarked on the India poverty project, the centrepiece of which was putting together an unprecedented consistent time series on poverty at the state and national levels from the early 1950s when national household surveys were initiated in the country to the early 1990s. This research on India led to a series of joint papers in the late 1990s and early 2000s and the work on poverty in India continued to be the mainstay of my later collaboration with Martin. We extended our earlier analysis to inquire into India's poverty reduction experience following the rapid growth since the economic reforms of the 1990s – see Datt et al. (2020).

Martin's work covered the spectrum from the local to the global. It spanned all continents, though the two most populous countries, China and India, were a special focus with numerous papers on both. Martin's research methods ranged the full gamut from measurement tools, programming algorithms, econometric analysis, impact evaluation using observational and experimental data, and historical and philosophical analysis. For Martin, the research question at hand took precedence over the research method, and he was critical of the elevation of one particular research methodology as the gold standard, as illustrated by his essay on "randomistas" (Ravallion 2020b).

Above all, Martin was a development economist *par excellence*. A recent tribute describes him as "an exceptional poverty economist". Martin would have likely quibbled with that. Unless poverty and economics were viewed as in the opening quote from Max Hartwell on Martin's website on the *Economics of Poverty* that "Economics is, in essence, the study of poverty." Martin's life's work in many ways can be seen as an incessant demonstration of this aphorism.

Francisco Ferreira

Unsurprisingly, given the magnitude of his contribution to Economics and, more specifically, to the analysis of distributional issues in development, a number of fora have published tributes to Martin Ravallion since his untimely death on Christmas Eve 2022, at age 70. Having written a more formal obituary for Martin (Ferreira 2023), where I attempted to describe both the breadth and the importance of his research, I will take this opportunity to reflect more personally on the influence he had on me as my boss and colleague at the World Bank, where each of us spent nearly a quarter century.

Martin gave me the opportunity to combine scholarly research with a career at the World Bank when he hired me into the research department (DECRG) in 2002. He was taking a risk: I was an

applied theorist with a very modest publication record, teaching at a Brazilian university after an early stint as a young economist moving through various non-research units at the World Bank. I was not at all an obvious candidate for what was already a competitive research hub in development economics. That he believed I deserved that chance is something I remain grateful for.

He gave me another big break by allowing – indeed encouraging – me to take a year’s leave from the unit to serve as a co-Director of the World Bank’s 2006 World Development Report, on Equity and Development. This I did at the invitation of another contributor to this tribute, François Bourguignon, who was then the Bank’s Chief Economist. Martin had been a key author of the 1990 World Development on Poverty, which remains, in my view, the most influential of the entire series, and where he had introduced his world-famous ‘dollar-a-day’ poverty line.

Under Bourguignon’s leadership, and thanks also to my co-Director, Michael Walton, the WDR 2006 attempted to bring the issue of inequality to the core of thinking about the development process. Although this may not seem novel or original now, it was seen as a radical departure by many both within and outside the Bank. A prominent economist who was asked to comment on an early version of the report warned us at the time that we were about to make fools out of ourselves. I think that things turned out better than this person feared, perhaps, and to a large extent because of, Martin’s unwavering support, both intellectual and political. Despite not being a formal member of the team, Martin acted as a frequent de-facto advisor to the report, as generous with his time as he was wise in his counsel. (After we were done, he changed the name of the unit he headed within the Research Group from “Poverty” to “Poverty and Inequality”.)

If I had to choose a single word to summarise Martin’s approach to everything he did – and one could choose many superlatives – it would be ‘rigour’, which he deployed in spades, both conceptually and empirically. Others have emphasized how relevant his research was in practice, and how connected to the Bank’s operations. All of that was true, but never at the expense of honest, unwaveringly clear thinking and complete integrity with the data. Working under him, I took this for granted and it was years before I realized that it was not always as pervasive as one might have liked – either within or outside the Bank.

His rigour and intellectual honesty taught me something else about doing research at the Bank. It is true that Martin’s view was that our research had to be relevant to the Bank’s work, as others

have written. But he also taught many of us that relevance did not mean it had to serve the interests of our managers or immediate clients – either within the institution or in the governments we worked with. Martin once told me that the ‘clients’ we truly served were the world’s poorest people, and that evidence-based analysis, rather than support for any particular pet policy or intellectual fad, was in their best interest. I was fortunate to be Martin’s co-author on a couple of papers, and I was frequently impressed by his amazing work ethic and productivity. But that uncompromising intellectual honesty was the most important lesson I learned from him. It is not always the easiest path, but it is one that many of us who worked with him strive to follow.

Emanuela Galasso

A relentless advocate of the interlinkage between poverty measurement and policy action. For Martin, measurement of poverty and inequality was not only essential for a deep understanding of economic development, but also a key tool to guide public action. His seminal and pathbreaking research put poverty at the centre of policy debates, with a normative approach to poverty measurement grounded in social welfare theory. He was in a constant quest to understand how market forces, economic growth, and policy reforms interact to affect poverty and income distribution.

A well-rounded scholar. Martin’s deep insights drew on his broad and incessant readings, which extended well beyond economics. His brilliant mind, deep knowledge of the literature, and a remarkable observation of reality allowed him to focus on a broad range of questions, from global ones (such as assessing progress towards world poverty reduction) to micro ones (such as focusing on the distributional impact of social policies). In his *Economics of Poverty*, he took a deep dive in the history of economic thought around the concept of poverty, and beautifully documented how anti-poverty policies are a combination of protection against shocks and promotion from poverty, linking present debates on the trade-offs between the two policies with past moral and philosophical discourses on the role of social policies in improving the welfare of the poor.

A researcher with a balanced and rigorous approach. Martin promoted the use of careful empirical work to provide a balanced view of different and potentially conflicting sides of policy debates. His work was always balanced and scholarly, never ideological. In his work, theory-informed measures were operationalized and rigorously used to shed light on ongoing debates and improve

our collective understanding of economic development. Any claim on poverty reduction success or failure, on distributional trends, and on the impact of policies, had to be taken to the data, clarifying the assumptions behind the approach and the measures used to justify any statement.

A poverty economist constantly focusing on the welfare of the poor. When the literature seemed to have settled on economic growth as a main driver for poverty reduction, suggesting limited room for policy action, he opened a new angle to the debate. While acknowledging the stylized fact that the poor benefit from growth in mean income, he also used careful microdata analysis to show that the same rate of growth in mean income might have different implications of the welfare of the poor, depending on many factors (such as the sectoral composition of growth) or initial conditions (such as the level of inequality). Another example of his pathbreaking contribution to assessing progress against poverty is his recent effort to move beyond the counting approach, and focus instead on the consumption floor of the poorest. His empirical estimates showing that the level of consumption of the poorest had hardly changed over time, in contrast with significant progress when measured by poverty incidence, opened the door not only to a broader way of monitoring social progress, but also to a new research agenda on interventions needed to lift the floor for the poorest. A final example is exemplified by his work on targeting anti-poverty programmes. Mindful of the potential usefulness of targeting as a tool to reach the poor (a topic to which he greatly contributed), he pushed back on the excessive focus towards targeting the poor (and excluding the presumed non-poor), especially in low-income countries that face more limited administrative capacity (thus more likely to incur in errors when identifying the poor) and higher costs of implementing targeting efforts.

A careful listener in touch with reality and in dialogue with the data. Martin was a respectful listener and an acute observer. He would communicate equally well with academics and international institutions as well as – when doing fieldwork – with the poor, programme beneficiaries and local policymakers seeking for his advice. Martin's understanding of the local policy impact came from the bottom up, developing hypotheses based on observations of the local context he studied, and testing them through a careful analysis of the data at hand. His seminal work on famines in Bangladesh came from an extended stay in the country with his wife and intellectual soulmate Dominique van de Walle. His grasp of the implementation details and of the role of local information and incentives in the targeting of social programmes, such as Trabajar

and Jefes in Argentina, the Dibao programme in China, or the MNREGA programme in India, were opportunities to revise his analysis and open to new avenues for inquiry. The insights from his work cut through ideological views. He was able to pick essential cues from anecdotes and move progressively to generalized claims via the rigorous scrutiny of economic thinking and data-driven analysis.

A powerful communicator. Martin's superb ability to engage came from his natural talent to express his messages in simple yet powerful words, a reflection of the clarity of his thought. He was always ready to engage in public debates, not only through his research, but also using blogs, op-eds, lectures, and in-country dialogues with policy makers. He always made a conscious effort to make his working papers and notes readily accessible to a wide audience. His public lectures, generally culminating in a few key lessons or implications for policy or future research, were often received with standing ovations. And his lecture notes and teaching materials associated with his *Economics of Poverty* are publicly available online, offering an invaluable key resource on the topic for students, researchers, and practitioners.

Martin's untimely passing is an incredible loss not only to those of us who had the privilege to know him and work with him, but to the development community at large. He was generous and kind, intellectual and deep, a role model for his passionate and tireless devotion to enhance the welfare of the poor. The legacy of his foundational work will continue to shape development economics and policymaking for many years to come.

Stephen Jenkins

All-income-distribution analysts know that Martin Ravallion was a Giant amongst us. He made so many contributions combining originality, rigour, and significance, right across the field, spanning conceptual thinking, empirical work, through to policy impact. Martin will be hugely missed.

In this tribute, I emphasize a less-discussed feature of Martin's impact – his influence on future generations of policy analysts and income distribution researchers, i.e., students. My case study evidence is based on the full-year module for master's students on 'Welfare Analysis and Measurement' (WAM) that I teach at the LSE, jointly with Berkay Özcan. A couple of weeks after Martin's untimely death, one of the many thoughts that struck me was that we had finished the previous term referring to his work and in the new term about to start he would feature again. On

the WAM reading list, Martin features much more than most and his name is definitely one that students recognise. Let me take you through some of Martin's research that our course relies on. This indicates its range and significance.

Early on, we introduce the 'toolbox' – how to describe and summarise distributions using 'powerful pictures' and indices. One of the charts is Pen's Parade (the quantile function). Ravallion and Chen's (2003) Growth Incidence Curve (GIC) evocatively shows the proportionate growth rate in income at each position in the income Parade, straightforwardly displaying whether income growth is pro-poor or pro-rich. It is a simple but powerful and widely used approach. Ravallion and Chen (2003) also neatly show how the cross-time change in the Watts poverty index corresponds to the area under the GIC up to the headcount ratio corresponding to a common poverty line (mean income growth among the poor).

WAM also looks at data quality from multiple perspectives, including systematic under-coverage of the bottom and top income ranges. Martin made important contributions to the latter topic (Korinek, Mistiaen, and Ravallion 2006, 2007) demonstrating how better survey-based inequality estimates can be derived using a reweighting approach if you have auxiliary information about how incomes vary by group. In their application to US Current Population Survey data, Martin and colleagues exploit differences across US states and show that their approach increases mean income and inequality.

Global poverty is the topic for which Martin is best known and naturally his work dominates WAM's coverage. Martin's landmark paper with Shaohua Chen (Chen and Ravallion 2010) takes centre-stage for obvious reasons. It reviews the earlier pioneering World Bank work by him and his team, takes careful account of changing from the then old 1993 purchasing power parities to the new 2005 set, and provides an extensive set of new substantive results, with multiple poverty indices and poverty lines. As the title put it, '[t]he developing world is poorer than we thought, but no less successful in the fight against poverty'. The progress made by China contrasts with the lack of progress for Sub-Saharan Africa. Underpinning this work lies World Bank data infrastructures that Martin played a leading role in developing. PovcalNet has been immensely important for monitoring inequality and progress in low- and middle-income countries and is the foundation of the World Bank's new Poverty and Inequality Platform (PIP).

The global poverty topic is one where our students also learn about Martin's commitment and passion for his work. Martin thought carefully about issues and, once he had formed his views, argued for what he believed in and quite forthrightly. Look at his critical comments on the Dykstra et al. (2014) blog post for a specific example.

This does not mean that Martin could not change his mind. WAM looks at Martin's work on weakly-relative poverty lines in which he carefully considered the relative merits of absolute poverty lines (used extensively by low- and middle-income countries, and the World Bank) and relative poverty lines (used extensively in high-income countries besides the USA). See Martin's early work with Shaohua Chen (2011) and later work on the World Bank's Societal Poverty Line introduced following the Atkinson (2017) report, e.g., Ravallion and Chen (2019) and Ravallion (2020a).

When WAM turns to longitudinal perspectives on income distribution, Martin's work features again. Jalan and Ravallion's (1998, 2000) research provides an innovative way to summarise chronic versus transitory poverty based on comparisons of a household's longitudinally-averaged income with the poverty line. Compared with the measures of persistent poverty that now dominate in Europe, based on counting the number of times a household is poor over a fixed period, the Jalan-Ravallion approach is just as transparent and straightforward for policymakers (and students!) to understand and apply, and also has the advantage of being generalisable from headcount to generalised poverty gap indices.

WAM's discussion of composite indices is strongly informed by Martin's research. His 2012a article on 'mash-up indices' provides a strong but accessible critique as well as an evocative title encapsulating what he thought about such indices. His targets included multidimensional poverty indices and the Human Development Index (HDI) in old and new forms. On the HDI, see also Martin's 2011 comments on Klugman et al. (2011) and the more extensive analysis in his 2012b 'troubling tradeoffs' article (another great title summarising his message in only two words).

In other courses we pick up on other aspects of Martin's work including, e.g., his measured critique of randomized control trials in development research (Ravallion 2020b). There is so much of Martin's work that we could learn from that I have not cited here.

Many generations of students have benefited and will benefit hugely from Martin's work in so many ways. Martin cared a lot about reducing poverty. Helping others to learn about the nature of the problem and what might be done about it will be one of his enduring legacies.

Peter Lanjouw

In early 1992, during my very first week in the World Bank's Young Professionals programme, I contacted Martin and we agreed to meet for lunch. At that time, he was already a hero of mine; during my graduate studies at the LSE, I had read his *Markets and Famines* (1987) and found myself deeply impressed by the detail and care of the analysis presented. Martin's paper on the impact of measurement error and uncertainty on poverty measurement (Ravallion 1988) had fed directly into my own thesis, exploring the evolution of poverty and inequality in the north Indian village of Palanpur between the 1950s and early 1980s. His work on the World Bank's 1990 World Development Report, developing an approach to the estimation of global poverty, had also made waves and many of his other papers had been closely read.

It was thus with excitement and not a little trepidation that I met Martin for the first time in the World Bank's cafeteria. My anxiety turned to delight when I discovered that he had been a referee on my first published paper (Lanjouw and Stern 1991). This paper explored different approaches to defining and measuring poverty in the context of a small, agricultural village and Martin had liked the analysis enough to agree to meet me for lunch. I discovered that Martin himself had been influenced by Hartmann and Boyce (1983), describing life and wellbeing in a Bangladesh village during the 1970s; Martin understood and valued the importance of looking carefully at data and getting the story right at the granular level. From this very first conversation, I caught a glimpse of Martin's fierce commitment to the topic of poverty and the role of poverty analysis.

Our lunch meeting served as my passport to join Martin in the Bank's research department, where I spent the next 20-odd years, first as a junior colleague and, later, with Martin as my manager. It was during these years, amongst the most rewarding of my professional life, that I was graced with the opportunity to observe and learn from such a prodigiously gifted and productive researcher as Martin. With an unwavering motivation to improve the circumstances of the world's most deprived and vulnerable people and the ability to employ the full arsenal of economic tools and methods, he was both formidable and inspiring. His papers were insightful and important – astonishing in

number and covering a dazzlingly wide range of topics. A landmark was his 2016 book, *The Economics of Poverty*. We had wide-ranging conversations, collaborated on several papers, and travelled together to quite a few countries. The traffic of ideas and understanding was very much in one direction – but, even so, on a few occasions I was able to offer an insight that was new to Martin. This was not because he rebuffed alternative perspectives – it just was not very often that there were ideas he had not yet considered.

Martin was gruff, not at all a schmoozer, but underneath was a warm, generous person who was scrupulously fair, engaging evenly and transparently with whomever he spoke. As a result, Martin's teams in the research department were invariably tight and fiercely loyal to him. Martin was also driven, a quality that proved invaluable as he – seemingly single-handedly – shaped the Bank into the resolutely poverty-focused institution it is today. Building on the impact of the 1990 WDR, Martin had worked tirelessly to introduce a poverty orientation into all corners of the World Bank's work. Data collection and analysis was prioritized – Martin believed that the best approach was to involve researchers also in the design and fielding of surveys, not just in downstream data analysis. Poverty Assessments were mandated for all partner countries, employing methods for monitoring poverty that were largely developed by Martin himself, and clearly articulating strategies aimed at fighting poverty. Martin was willing to wade into often-polarized debates around the role of growth in economic development, emphasizing throughout the need for a strong pro-poor orientation and rejecting complacency about trickle-down processes. While his tone could be sharp, and he was not quick to back down, Martin's intellectual integrity and the power of his arguments meant that his views frequently prevailed. Martin leaves a legacy, in the shape of the World Bank and a body of scholarly research, that is truly monumental.

During our twenty years of professional association Martin and I also became friends. Social interactions were not daily occurrences, largely because of Martin's prodigious work ethic, but we had an easy, comfortable, rapport and I was thrilled to discover, and then gleefully poke, Martin's sly sense of humour. Martin was also a steadfast and sensitive support following the death of my wife Jenny, doing his utmost to help me however he could. It is often said that a person's life is profoundly shaped by just a small handful of individuals encountered along the way. Martin was and remains a towering influence in my life and, I am confident, in the lives of a great many others.

Michael Lokshin

I met Martin while in graduate school, and he influenced my professional career for over 25 years. In the late 1990s, Martin hired me to work on then newly available panel data from Russia Longitudinal Monitoring Survey. One of the areas Martin was interested in studying with this data was how subjective economic welfare assessments could inform development policies. The work that started as a small-scale investigative project evolved into a multi-year research programme that impacted anti-poverty programmes in many countries.

What are the determinants of people's perceptions of their economic welfare, and how subjective economic welfare can be used in the design of economic policies? Does lack of power in society come hand-in-hand with poverty, or is it determined differently? What factors determine the support for government policies, and how do the prospects of welfare mobility influence demand for redistribution? Could panel data help to address biases in answers to subjective-qualitative surveys? Several papers published in the early 2000s focused on these questions and made substantial contributions to the literature on subjective economic welfare.

My interaction with Martin over these years was defining for my career as an economist and influenced me on many levels. Martin mastered the art of scientific problem definition, with a gift of turning seemingly trivial questions into deep, policy-relevant research problems. He would drop by my office and start scribbling equations on the pieces of paper on my desk, exposing me to his ideas. Often, I could not keep up, but his enthusiasm was so contagious and his intellectual depth so illuminating that it always made me eager to learn and improve alongside him. Observing Martin's thought process was invaluable for my understanding of economics and general science, I learned enormously from him, and I miss these moments the most. Martin served as a role model for many of his colleagues, and while we knew that matching his abilities was nearly impossible, we always strived to make progress and measure our own professional success against his.

With the years, Martin's insights became even more nuanced and creative. He could integrate concept from diverse fields, turning them into impactful research. He would bring arguments from economic history to the analysis of the impact of COVID, proposed to create a new market to regulate migration flows, and explained why richer countries spend relatively more on social protection than poorer countries.

Throughout his career, Martin successfully combined increasingly demanding managerial roles in the World Bank with his passion for economic research. Martin's productivity was legendary; in some years, his publications would significantly affect the averages of the World Bank research department with 70+ researchers. But Martin never compromised the quality of his work, regardless of the number of papers he produced. Every paper was revised dozens of times, with every sentence and every number discussed and verified. When papers were returned from journals with the revise and resubmit or rejection verdict, Martin always made revisions that would go much further than what the referees were asking for; for him, every iteration with a journal meant an opportunity to improve and enrich the paper.

Martin was a great supporter and promoter of openness, transparency, and objectivity in economic research. He insisted that the ultimate clients of the research department at the World Bank were the world's poor and that it is the duty and obligation of development economists to generate knowledge that has a meaningful impact on their lives. Journal publications were never a goal in themselves, but a means to disseminate high-quality scientific results. On many occasions, Martin defended the rights of researchers to publish their work despite the intense political pressures. His unquestionable professional integrity and universally regarded scientific reputation helped him to win all of these battles.

Martin's scientific interests were not limited to poverty research; he had a wide-ranging curiosity and was receptive to novel ideas. People working with him sought his advice on a variety of subjects. Martin would organize surveys and research experiments and engage with governments of developing countries in the design of large-scale social protection programmes. Martin even led and supported the development of software tools for statistical data analysis and data collection which continue to be used by researchers worldwide.

Martin's approach to economic research, his discipline and work ethic, his very thorough and careful work with data, and his relentless pursuit of scientific truth profoundly impacted those who worked alongside with. Martin was an inspiring teacher and a mentor whose honesty and judgment were highly valued. He inspired several generations of development economists in the World Bank and later as a professor at Georgetown University. His untimely passing is an enormous loss for the profession and a tragedy for his friends, colleagues, and students. Martin left us an exceptional

body of work and intellectual legacy that will endure the test of time and continue to shape the field of economic development for many years to come.

Claudio Zoli

I started to follow Martin's research from his path-breaking contributions on poverty evaluations in the 1990s. At that time, as a Ph.D. student, I was inspired by his work on poverty comparisons. At first, being mostly interested in inequality and poverty measurement, I was paying more attention to the theoretical components of his research, but after some time I found myself going back to read Martin's work once more. The focus then moved from the methodological contributions to the sections on "putting theory into practice" and to his recommendations. I found fascinating the ability of Martin to communicate the interest for the research in a rigorous and direct way that was making easy to appreciate the connections between empirical and theoretical issues with the aim of combining them to provide directions for public policies.

Fortunately, after some years, in 2013 I had the opportunity to meet Martin and work with him as secretary of ECINEQ when he was serving first as president-elect and then as president of the association. At that time, I was particularly interested in his contribution to the debate on whether world poverty should be assessed in relative or in absolute terms. These two extreme views are particularly relevant when comparing inequality among countries that experience different growth rates, but this is even more so when we consider poverty evaluations in countries at different stages of development. Martin's work was drawing attention not only to the relevant concept of absolute poverty but also to the fact that poverty in developing countries has become more relative, with the view that both concepts should be taken into account when designing policies aiming at alleviating poverty. Even if economic growth has led for some countries to a reduction in absolute poverty, the emergence of relative comparisons and related norms within these countries is calling also for relative poverty concerns. In the years of collaboration with Martin for the development of the ECINEQ society I have appreciated directly his determination and energy for putting forward the concern for antipoverty policies and for the communication of the research on poverty and inequality analysis.

Martin is a role model for researchers in economics not only for his many influential academic contributions and relevant policy achievements but for his ability to identify the essence of

important economic and social problems, investigate them rigorously by combining theory and empirics, and put forward in the policy agenda the concern for tackling these problems.

References

Ahluwalia, M. S., Carter, N. G. and Chenery, H. B. (1979). 'Growth and poverty in developing countries', *Journal of Development Economics*, 6 (3), 299-341

Atkinson, A. B. (2017). *Monitoring Global Poverty*, Washington DC: The World Bank.

Brown, C., Ravallion, M. and van de Walle, D. (2018). A Poor Means Test? On Econometric Targeting in Africa. *Journal of Development Economics*, 134, 109-124.

Brown, C., Ravallion, M. and van de Walle, D. (2019). Most of Africa's Nutritionally-Deprived Women and Children are Not Found in Poor Households. *Review of Economics and Statistics*, 101(4), 631-644.

Brown, C., Ravallion, M. and van de Walle, D. (2023). 'Child Health and the Housing Environment', *World Development*, forthcoming.

Chen, S. and Ravallion, M. (2010). 'The developing world is poorer than we thought, but no less successful in the fight against poverty', *Quarterly Journal of Economics*, 125 (4), 1577–1625.

Datt, G., Ravallion, M. and Murgai, R. (2020). 'Poverty and Growth in India over Six Decades', *American Journal of Agricultural Economics*, 102 (1), 4-27

Drèze, J. (1989) 'Review of *Markets and Famine* by Martin Ravallion'. *Journal of Economic Literature*, 27 (1), 130-131.

Dykstra, S., Kenny, C., and Sandefur, J. (2014). 'Global absolute poverty fell by almost half on Tuesday', blog post. Washington DC: Center for Global Development.

Ferreira, F. H. G. (2023) 'Martin Ravallion (1952–2022): In Memoriam', *Review of Income and Wealth*, 69 (1), 262-264.

Hartmann, B. and Boyce, J. K. (1983). *A Quiet Violence: view from a Bangladesh village*, Zed Press, London.

- Klugman, J., Rodríguez, F., Choi, H.-J. (2011). 'The HDI 2010: new controversies, old critiques', *Journal of Economic Inequality*, 9 (2), 249–288.
- Korinek, A., Mistiaen, J. A., and Ravallion, M. (2006). 'Survey nonresponse and the distribution of income', *Journal of Economic Inequality*, 4 (1), 33–55.
- Korinek, A., Mistiaen, J. A., and Ravallion, M. (2007). 'An econometric method of correcting for unit nonresponse bias in surveys', *Journal of Econometrics*, 136 (1), 213–235.
- Jalan, J. and Ravallion, M. (1998). 'Transient poverty in postreform rural China', *Journal of Comparative Economics*, 26: 338–357.
- Jalan, J. and Ravallion, M. (2000). 'Is transient poverty different? Evidence for rural China', *Journal of Development Studies*, 36 (6), 82–99.
- Lanjouw, P. and Stern, N. (1991). 'Poverty in Palanpur', *World Bank Economic Review*, 5 (1), 23-55.
- Ravallion, M. (1987). *Markets and Famines*, Clarendon Press, Oxford.
- Ravallion, M. (1988). 'Expected Poverty under Risk-Induced Welfare Variability', *Economic Journal*, 1988, vol. 98, issue 393, 1171-82.
- Ravallion, M. (2011). 'The human development index: a response to Klugman, Rodriguez and Choi', *Journal of Economic Inequality*, 9 (3), 475–478.
- Ravallion, M. (2012a). 'Mashup indices of development', *World Bank Economic Observer*, 27 (1), 1–32.
- Ravallion, M. (2012b). 'Troubling tradeoffs in the Human Development Index', *Journal of Development Economics*, 99 (2), 201–209.
- Ravallion, M. (2016). *The Economics of Poverty: History, Measurement, and Policy*, Oxford University Press, Oxford.
- Ravallion, M. (2020a). 'On measuring global poverty', *Annual Review of Economics*, 12, 167–188.

Ravallion, M. (2020b). 'Should the randomistas (continue to) rule?' In: F. Bédécarrats, I. Guérin, and F. Roubaud, *Randomized Control Trials in the Field of Development: A Critical Perspective*. Oxford: Oxford University Press.

Ravallion, M. and Bidani, B. (1994). 'How Robust Is a Poverty Profile?' *The World Bank Economic Review*, 8 (1), 75–102.

Ravallion, M. and Chen, S. (2003). 'Measuring pro-poor growth', *Economics Letters*, 78 (1), 93–99.

Ravallion, M. and Chen, S. (2011). 'Weakly relative poverty', *Review of Economics and Statistics*, 93 (4): 1251–1261.

Ravallion, M. and Chen, S. (2019). 'Global poverty measurement when relative income matters', *Journal of Public Economics*, 177, 104046.

Ravallion, M., Datt, G., van de Walle, D. and Chan, E. (1991). 'Quantifying the magnitude and severity of absolute poverty in the developing world in the mid-1980s', *Policy Research Working Paper Series 587*, The World Bank.