

# The use of global abstractions: national income accounting in the period of imperial decline

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## Abstract

*This article explores the history of a conceptual world economic order of nations created by statistically minded economists over the last seventy years. Drawing upon work by Colin Clark, Richard Stone, and Simon Kuznets from the 1930s, 1940s, and 1950s, it reconstructs the rise of new economic indicators referring to economic inequality. Two forms of intellectual practice can be identified that characterized a remarkable shift in knowledge production in Anglo-American economics in the period of French and British imperial decline. One was new methods of counting and comparing income, which produced a sensational new view of the world as a place of enormous poverty. The other was the belief that these issues could be solved by applying a limited set of policy recommendations to all economies in the world.*

**Keywords** development history, economic history, history of decolonization, history of economic thought, history of national income accounting

In 1940, the British economist Colin Clark published a comparative study of the economic performance of all existing states. This was pioneering work in many respects. Starting in the late 1920s, he had compiled the first set of modern national income accounts for the United Kingdom. In the 1930s, based first at Cambridge University and then in Queensland, Australia, he did an enormous amount of legwork gathering information from all corners of the world. The scientific community lauded his Herculean effort, because the scarcity of global economic data was well known. Most of Clark's figures were rough estimates based on very poor empirical evidence. But the overall picture that tentatively emerged from his 1940 compilation nevertheless seemed convincing. It showed that more than half of the world population was living in countries with an average income below 200 international currency units – what amounted to less than one-sixth of the average income in the United States. The conclusion Clark drew was a sensation. He stated quite simply that 'the world is a wretchedly poor place' and that charitable action was necessary.<sup>1</sup>

Clark pioneered a social scientific endeavour that is still being pursued. In the early twenty-first century, facts and figures concerning global economic inequality or differing paths of development and change are constantly recorded and made available through sources

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1 Colin Clark, *The conditions of economic progress*, London: Macmillan, 1940, introduction.

such as the Groningen Growth and Development Centre, the Penn World Table, or the relevant publications of the Organisation for Economic Co-operation and Development (OECD). A massive statistical device has been set in place by the United Nations, which found its apogee in the fifty-three indicators for monitoring global compliance with the Millennium Development Goals.<sup>2</sup> Huge sets of data have been gathered since Clark made the first steps. Enormous progress was achieved in standardizing the procedures of data collection and in homogenizing the basic categories and concepts. And a series of tools including the Purchasing Power Parities have been refined in order to make meaningful international comparison of national macroeconomic data possible. Abstractions such as the Gross Domestic Product (GDP) or the Gross National Income (GNI), and many derived indicators, form the epistemic basis for economic research and policy decisions alike. Economic statistics have become a part of social reality and they are the most prominent agents of societal change.

But this has not always been the case. Over the last century the social sciences produced an environment that is today taken for granted, as if it were a second nature. However, as Immanuel Wallerstein repeatedly remarked, social scientific knowledge is highly artificial and has a history at which it seems worthwhile throwing a glance.<sup>3</sup> This article explores the conceptual world economic order of nations created by statistically minded economists over the last seventy years. It takes a close look at the way in which factual knowledge about global inequality was produced and how the pertaining modes of knowledge shaped global action with respect to economic policy. In this, national income accounts proved especially important.

We are relatively well informed about the historical sequence of leading dogmas in the analysis of global economic inequality that have informed different policies at different points in the post-Second World War epoch. Rather often, the history of development thinking is understood as a pattern of conflicting interpretations of the objective facts concerning rich and poor nations. Neoclassical approaches are localized in an opposition to structuralist ideas; Marxian theories are set against neo-liberal concepts.<sup>4</sup> But only recently has the intellectual history of economics been complemented by a deeper analysis that also takes the epistemic practices of economic knowledge production into view. The following argument suggests extending into the subfield of development economics this ‘practice turn’ from a history of economic thought to a cultural analysis of the history of economic knowledge.<sup>5</sup> Such a move obliges the historian not only to carry out research into the interpretation of facts but also to take into account the historicity of these facts themselves. Indeed, the very concept of scientific objectivity has a history, and so does the notion of ‘established

2 <http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm> (consulted 26 October 2010).

3 Immanuel Wallerstein, *Open the social sciences*, Stanford, CA: Stanford University Press, 1996; Judy Klein and Mary Morgan, eds., *The age of economic measurement*, Durham, NC: Duke University Press, 2001.

4 Albert O. Hirschman, ‘The rise and decline of development economics’, in Albert O. Hirschman, *Essays in trespassing: economics to politics and beyond*, New York: Cambridge University Press, 1981, pp. 1–24; Michael Cowen and Robert Shenton, *Doctrines of development*, New York: Routledge, 1996.

5 Margret Schabas, ‘Coming together: history of economics as history of science’, *History of Political Economy*, Ann. Suppl. 34, 2002, pp. 208–25; Theodore R. Schatzki, Karin Knorr Cetina, and Eike von Savigny, eds., *The practice turn in contemporary theory*, New York: Routledge, 2001.

facts'.<sup>6</sup> This history is closely related to the advent of techniques of bookkeeping and accounting.<sup>7</sup> Only in tracking down records of economic performance did it become possible to establish 'hard' facts and to open up an analytical framework representing economic realities.<sup>8</sup> National accounts, as were first globally applied by Colin Clark in 1940, bore witness to a new realism of abstract objects that fundamentally informed discourse on global inequality in the second half of the twentieth century.

Looking back at decades of development practice and theory, one finds many instances where the local implementation of global abstractions was fundamentally called into question. Most prominently, Ernst Schumacher, in 1973, postulated that 'small is beautiful'.<sup>9</sup> For a long time, the 'scaling up' of local successes had been one prominent means of intervention into the problem of global inequality.<sup>10</sup> As of the 1970s, however, a new discourse gained ground that emphasized the importance of 'local knowledge', as opposed to the universalist approaches of current developmental certainties, and highlighted problems of scale.<sup>11</sup> Furthermore, in the remote discipline of the social studies of science and technology, the emphasis on locality was taken up. Scholars such as Karin Knorr-Cetina or Bruno Latour started to localize the very core of Western science in specific circumstances and claimed that the abstractions resulting from those endeavours could not easily be universalized.<sup>12</sup>

These findings suggest looking more closely at the ways in which a globalized discourse on macroeconomic realities has shaped the world in the epoch of decolonization. Global abstractions were put to local uses across the planet. Such a change in scale opened up new action frames of social engineering and new modes of legitimizing political power locally. Research into the epistemic modes and the political consequences of macroeconomic expertise is thus promising. In this article, the productivity of statistical representations is my main interest. When talking about global economic inequality, it also seems important to include dimensions of knowledge and of assumed conceptual certainties. While current actors in global development politics need a certain degree of certainty concerning poverty and wealth, the historian must know of the historical contingency of these categories. It is

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- 6 Lorraine Daston and Peter Galison, *Objectivity*, New York: Zone Books, 2007; Mary Poovey, *A history of the modern fact: problems of knowledge in the sciences of wealth and society*, Chicago, IL: University of Chicago Press, 1998.
  - 7 Michael Power, *The audit society: rituals of verification*, Oxford: Oxford University Press, 1997; Tomo Suzuki, 'The epistemology of macroeconomic reality: the Keynesian revolution from an accounting point of view', *Accounting, Organization and Society*, 28, 2003, pp. 471–517.
  - 8 Alain Desrosières, 'Du réalisme des objets de la comptabilité nationale', in Alain Desrosières, *Gouverner par les nombres: l'argument statistique Tome II*, Paris: Mines, 2008, pp. 257–70.
  - 9 Ernst Friedrich Schumacher, *Small is beautiful: a study of economics as if people mattered*, London: Blond & Briggs, 1973.
  - 10 See Unger, 'Towards global equilibrium: American foundations and Indian modernization, 1950s to 1970s', in this issue, pp. 121–42.
  - 11 Clifford Geertz, *Local knowledge: further essays in interpretive anthropology*, New York: Basic Books, 1983. For further details on this point see Daniel Speich, 'Der Blick von Lake Success: das Entwicklungsdenken der frühen UNO als "lokales Wissen"', in Hubertus Büschel and Daniel Speich, eds., *Entwicklungswelten: Globalgeschichte der Entwicklungszusammenarbeit*, Frankfurt am Main: Campus, 2009, pp. 143–74.
  - 12 Karin Knorr Cetina, *Die Fabrikation von Erkenntnis: zur Anthropologie der Naturwissenschaft*, Frankfurt am Main: Suhrkamp; Bruno Latour and Steve Woolgar, *Laboratory life: the social construction of scientific facts*, Beverly Hills, CA: Sage, 1979.

not easy to discern a factual level of global inequality from the history of the North–South conflict. Macroeconomic expertise has informed political stances in the old metropolitan centres as well as in the new states of the South; thus the creation of knowledge about economic inequality is an important chapter in the account of recent global politics. Much analytical work still has to be undertaken in this direction and this article might suggest some guidelines in pursuing such a task.<sup>13</sup>

How have global economic facts been accumulated? What were the comparative advantages of certain modes of knowing the global economy? Which groups of actors profited and which did not? I will address these questions by restricting my attention to the middle decades of the twentieth century. In the 1930s, 1940s, and 1950s, a paradigmatic shift in global economic knowledge occurred that informed the subsequent process of decolonization and accompanied the decline of the French and British empires. This article focuses on two aspects of the quantitative order of economic knowledge that emerged at that time. One was new methods of counting and comparing income, which produced a sensational new view of the world as a place of enormous poverty. The other was the belief that these issues could be solved through social engineering.

Reading Clark's book, economists were surprised to see that, on a global scale, the creation of wealth was a crucial problem. The academic understanding of material progress and the formulation of policy-relevant recommendations for wealth creation had been at the core of economic thought with the Mercantilists and the Physiocrats as well as the classical authors. Adam Smith, David Ricardo, Friedrich List, and Karl Marx all had their recipes for social and economic change. With the marginal revolution and the turn towards individual allocative efficiency, however, these issues lost importance within the Anglo-American discipline. Scholars focused their professional attention largely on the equilibrium properties of industrialized economies and on domestic problems of distribution.<sup>14</sup> According to one historian of development economics, the 'static epoch' in the history of economics came to a surprisingly quick end around 1940. Within the framework of an economic theory of growth, the new discipline of development economics emerged and rose to prominence.<sup>15</sup>

In contrast to concepts of earlier centuries, these endeavours were systematically tied to state authorities. Economic theory production now went hand in hand with the design of statistical inquiries and was increasingly commissioned by national governments or international organizations. It built upon a technical space of homogenous figures that depicted the whole world. Moreover, the discipline of economics itself was gradually globalized in the terms of standardized procedures and professional exchange.<sup>16</sup> New sets of macroeconomic statistics came to the fore, and figures such as GDP and other derivatives of national income

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13 I am highly indebted to the work of Mary Morgan in this connection. See Mary S. Morgan, 'Seeking parts, looking for wholes', History of Observation in Economics Working Paper Series 1, University of Amsterdam, 2009, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1496882](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1496882) (consulted 8 December 2010).

14 Heinz W. Arndt, *The rise and fall of economic growth: a study in contemporary thought*, Melbourne: Longman, 1978.

15 Heinz W. Arndt, *Economic development: the history of an idea*, Chicago, IL: University of Chicago Press, 1987, p. 35.

16 Marion Fourcade, *Economists and societies: discipline and profession in the United States, Britain, and France, 1890s to 1990s*, Princeton, NJ: Princeton University Press, 2009.

accounting gained importance. These statistics opened up useful frameworks for international deliberations on economic difference after 1945 and offered political guidelines to level inequality.<sup>17</sup>

In the new comparative perspective, two novelties appeared. First, the sheer poverty of overwhelming parts of the world became visible. Their dismal condition turned into an analytical problem in its own right, which had so far been hidden within the concept of colonial economic interchange. Second, it seemed possible to erase these inequalities by formalizing the secret of Western economic success and by applying a limited number of policy recommendations to all economies on the globe.

The first aspect that I wish to explore is therefore the new methods of counting and comparing income. Macroeconomic statistics set up a comparative framework in which the productivity of one economic entity could easily be compared to another nation or to itself over time. However, this comparative project was strongly contested among economic scholars. The quantitative procedures on display in economic knowledge shaped the realm of societal interactions in the mode of social engineering. Since the end of the nineteenth century – and even more clearly since the interwar period – economic knowledge has been acquired almost exclusively in the pursuit of controlled social change. Economic expertise on growth and development established itself in the inner circles of power in almost all nation-states post-1945 because the specific mode of social engineering that these knowledge claims proposed convincingly opened up new horizons of general welfare to local political stakeholders. The second part of the article reflects upon these issues of political use.

## New methods of counting and comparing income

One arsenal of quantitative information was national income statistics, a field greatly advanced by authors such as Simon Kuznets in the USA or Colin Clark and Richard Stone in Great Britain. This instrument was initially designed to make visible the structure of wealth within a given economic entity. Modern estimates of gross or net national incomes are a result of the interwar period, the Great Depression of the 1930s, and the Second World War. The practice of assessing a king's richness or a nation's wealth is – of course – much older, and stretches back into the eighteenth century. But the 1930s gave rise to a new comparative framework of analysis. In order to gain a quasi-cartographic view, scholars compiled data from tax registers and other sources to add up the full activity of one nation's economy. To put it in the terms suggested by Bruno Latour, these procedures can be understood as 'inscription devices' that generated a new kind of visibility.<sup>18</sup>

17 On the history of national income accounting, see Paul Studenski, *The income of nations: theory, measurement, and analysis, past and present: a study in applied economics and statistics*, New York: New York University Press, 1958. More recent work includes Raymond Vernon, 'The politics of comparative economic statistics: three cultures and three cases', in William Alonso and Paul Starr, eds., *The politics of numbers*, New York: Russell Sage, 1987, pp 61–82; Robert A. Horvath, 'The rise of macroeconomic calculations in economic statistics', in Lorenz Krüger et al., eds, *The probabilistic revolution 2: ideas in the sciences*, Cambridge, MA: MIT Press, pp. 147–70; Zoltan Kenessey, ed., *The accounts of nations*, Amsterdam: IOS Press, 1994; Michael Ward, *Quantifying the world: UN ideas and statistics*, Bloomington, IN: Indiana University Press, 2004.

18 Bruno Latour, *Science in action: how to follow scientists and engineers through society*, Cambridge, MA: Harvard University Press, 1987, p. 68.

In the United States, around 1900, some private scholars started to collect statistical information on incomes and compiled national accounts in order to better understand the distribution of wealth across social classes. In 1920, a National Bureau for Economic Research (NBER) was founded. In 1932, the US Senate commissioned the Department of Commerce to compile a national income account. For lack of government expertise, the job was assigned to the economist Simon Kuznets of the NBER, who, in 1934, published a 260-page report that represented the performance of the US economy for the years 1929–32. This first fully fledged national account of the United States offered a detailed overview of all commodities and services produced by the American people and of all such goods received by the nation's individual members in return for their assistance in producing those goods.<sup>19</sup>

Kuznets explained his conception in 1933 in an influential article in the *Encyclopaedia of the social sciences*. He stressed the usefulness of computing gross economic totals as an instrument to 'appraise the prevailing economic organization in terms of its returns'. In other words, estimating the end product of a country's economic activity gave rise to the question of whether a change in economic organization would lead to a change in returns.<sup>20</sup> Evidence for such inquiries could be gathered in principle through comparative investigations. By offering more or less stable inscriptions of the condition of one economic entity at one point in time, the accounting procedures made it possible to relate several such inscriptions to each other. To take up Bruno Latour's vocabulary again, 'cascades of inscriptions' could be arranged through which economic facts would move in the form of 'immutable mobiles'.<sup>21</sup> One important step in this direction was to take total income for a given year (as measured in terms of gross national income), divide it by population size and then connect the resulting figure to estimates of earlier years, thus composing a time series out of which yet another inscription could be derived, namely a rate of growth.<sup>22</sup>

Two points seem crucial. First, for Kuznets, the most useful insight was the relative importance of different economic sectors and the distribution of income in the population. It is important to note that the overall total of production or incomes – a figure we now know as the GDP – was for him just a by-product, and not something of analytical interest in itself. National accounting was completely designed for domestic purposes because it offered perspectives to improve productivity and thus to raise levels of wealth. The second very important point in Kuznets' 1933 explanation was his emphasis on the historical and cultural specificity of national accounting. He took great care to separate analytically a

19 Simon Kuznets, *National income, 1929–1932*, 73rd US Congress, 2nd Session, Senate Document No. 123, Washington, DC: United States Government Printing Office, 1934; idem, 'National income', in Edwin R. A. Seligman, ed., *Encyclopedia of the social sciences*, New York: Macmillan, 1933, vol. 11, pp. 205–24; Mark Perlman, 'Political purpose and the national accounts', in William Alonso and Paul Starr, eds., *The politics of numbers*, New York: Russell Sage, 1987, pp. 133–53.

20 Kuznets, 'National income', p. 205. See also Vibha Kapuria-Foreman and Mark Perlman, 'An economic historian's economist: remembering Simon Kuznets', *Economic Journal*, 105, 433, 1995, pp. 1524–47.

21 Bruno Latour, 'Drawing things together', in Michael Lynch and Steve Woolgar, eds., *Representation in Scientific Practice*, Cambridge, MA: MIT Press, 1990, p. 27.

22 For the history of statistical time series, see Judy L. Klein, *Statistical visions in time: a history of time series analysis, 1662–1938*, Cambridge: Cambridge University Press, 1997. The immediate problem at hand was, of course, the change in prices over time. For the history of techniques of deflation, see Studenski, *Income of nations*, pp. 217ff.

realm of what he called 'life in general' from the 'economy proper'. Only the latter took place in monetized transactions and was accessible to Kuznets' tools. In order to describe the economic situation of a nation, he argued, it was central to understand the local importance of unpaid work, such as domestic housework usually performed by housewives. For the socioeconomic reality in the United States he considered it appropriate to not include these services in the overall total. But such a decision, he insisted, had to be taken differently in each national case. He wrote in the 1933 article: 'Being conditioned by the institutional set up of the family and of economic society, the line between economic and non-economic activity shifts from country to country and from time to time'.<sup>23</sup>

The measuring procedures of income accounting thus had to reflect the socio-cultural structure of the entity that it wanted to depict. It had to be grounded in local specificities and in the contingency of history. In fact, it was Kuznets' conviction that one had to design a specific procedure of quantification for each entity in time and space. Inevitably, this rendered the compilation of global data rather problematic. Initially, Kuznets' cautionary remarks referred to the comparison of two or more industrialized countries that shared basic economic structures. The problem really became fundamental, when international comparisons on a national income accounting basis were expanded into what was to become known as the 'Third World'.

It is no wonder, then, that the great epistemic success of Colin Clark's work has been accompanied by harsh criticism within the economist's profession. Practical objections were raised concerning the reliability of his data. And – more importantly – the feasibility of such global comparisons of national income data and of GDPs was also fundamentally called into question.

In order to get an idea of the state of the art in global economic statistics around 1940, let us look at an 'experiment', conducted at the University of Cambridge in 1941. In the autumn of that year the economics professor Austin G. Robinson hired a young economist named Phyllis Deane. Assuming that the tools of national income accounting were established for domestic use in industrialized countries, her job was to test their applicability to selected non-industrialized territories. Robinson had been a co-worker on Lord Hailey's *African survey* and he was very well aware of the fundamental lack of macroeconomic data on Africa.<sup>24</sup> He wanted Deane to show the usefulness of national accounts in administering the colonies, and ultimately aimed at convincing the Colonial Office to make macroeconomic statistics a government task. Over several years Phyllis Deane compiled all the pieces of information on the economies of Northern Rhodesia, Nyasaland, and Jamaica for 1938 that were available in wartime London.

However, the experiment failed in several respects. The Colonial Office could not be convinced that collecting macroeconomic data should be considered a government task. And Deane herself did not rate the reliability of her data very highly. Rather, she concluded: 'In working out national income tables for the Central African colonies, however, it soon became clear that a more comprehensive and direct knowledge of the social and economic

23 Kuznets, 'National income', p. 209.

24 William Malcolm Hailey, *An African survey: a study of problems arising in Africa south of the Sahara*, London: Oxford University Press, 1938.

structure of Central African peoples was essential if a satisfactory framework was to be evolved.<sup>25</sup>

More research was needed. Consequently, Deane embarked immediately after the war on an eighteen-month field trip to Central Africa. But the resulting 1953 publication on *Colonial social accounting* in Northern Rhodesia and Nyasaland still bore witness to the fundamental problems of the task. Deane stated quite clearly in that book:

The problem of obtaining adequate data on the rural economies of Africa is the most serious obstacle in the way of framing satisfactory national income estimates for these territories. . . . The accounting problem is not simply that of the acute scarcity of quantitative data . . . it is also a qualitative problem, which brings into question the fundamental validity for primitive communities of the social accounting concepts themselves.<sup>26</sup>

Deane was frustrated by the fact that the compilation of national accounts required quantitative information in the form of money prices. But subsistence production and barter trade largely dominated the entities of her study, in which the surprisingly widespread use of money was occasional and did not represent continuous economic flows. Also, these entities lacked internal cohesion to such an extent that it became questionable whether they should be represented as single economic units at all. While it seemed extraordinarily difficult to render all economic activities of the Central African territories within one single framework, it clearly turned out impossible to calculate a single figure – a GDP – that could reasonably be compared to other entities, such as the United States or Great Britain. Other economic statisticians encountered similar problems to Deane in conducting their African field work. In a study on the national income of Nigeria, which was published in 1953, A. R. Prest and I. G. Stewart observed the absence of a functional division of labour, in view of which most of the categorical divisions of national accounting collapsed. Prest and Stewart found the separation of a private sphere of the family from the public realm of wage labour completely useless. In Nigeria, they could not easily differentiate between consumption and production, or between investment and consumption, or between different economic branches or types of activity. In their view, economic activity in rural Africa was completely different from those realities that the American and British pioneers of national accounting had had in mind. They perceived Africa as being largely pre-modern and stated: ‘It is the pre-industrial revolution economics of Adam Smith and not the economics of the modern American college text-book which is the relevant standard.’<sup>27</sup>

In other words, Prest and Stewart tried to locate the epistemic tools of national accounting historically and scanned the history of economics in order to find more adequate approaches. More specifically, they argued that within single Nigerian households a range of economic transactions were taking place that rather often had a monetized form and needed to be included in the sum total of economic activity. They thus violated the principle of national income accounting according to which the family was considered non-economic

25 Phyllis Deane, *The measurement of colonial national incomes: an experiment*, Cambridge: Cambridge University Press, 1948, p. 152.

26 Phyllis Deane, *Colonial social accounting*, Cambridge: Cambridge University Press, 1953, p. 115.

27 A. R. Prest and I. G. Stewart, *National income of Nigeria*, London: HSMO, 1953, p. 4.



and all transactions within single households were excluded from the statistical compilation. Phyllis Deane did not go that far, but she too found the concept of the household highly impractical for African studies.<sup>28</sup> All these authors were well aware of the progress in establishing international standards for the compilation of national income accounts, the centre of which at that time was the Cambridge Department of Applied Economics, under the direction of Richard Stone.<sup>29</sup> Standardized categories were crucial for strengthening the analytical power of national income accounts. But the problem of difference proved complicated. Applying a standard category such as the household to rural African economies did not primarily make differences in economic wealth visible (which is what economic statisticians were interested in) but rather differences in economic organization (which is what made them turn to cultural anthropologists and suggest revising the standards).

Another problem was the question of units of measurement. In the absence of monetized market transactions in large parts of the Nigerian economy, Prest and Stewart invented highly original techniques of estimation. For instance, they assumed that unpaid female labour was of considerable economic importance. As a proxy for this contribution to national income, they estimated bride prices and divided them by the average productive life span of Nigerian spouses. Few economic statisticians followed in this venture into the study of matrimonial culture. In a similar manner, however, Alan T. Peacock, who compiled the first estimates of the national income of Tanganyika for the years 1952–54, was convinced that subsistence production had to be taken fully into account if one wanted to compile meaningful figures. And he had no doubt that such an operation was possible: ‘So long as the production of any commodity, even cattle blood, has an opportunity cost, then that commodity has a price in terms of other commodities. These commodities in turn will have prices in terms of others, and surely somewhere or other the chain of substitutes will be linked to a commodity which is priced in a market.’<sup>30</sup>

In the discipline of cultural anthropology, this debate gave rise to even more fundamental objections. The suggestions of Peacock and Prest were refuted by some anthropologists because the two authors assumed that all human beings, irrespective of their cultural background, acted in an economically rational way. A long lasting debate on the anthropological universality of ‘economic man’ departed from this discursive conjuncture.<sup>31</sup>

Looking more closely at one African territory, Kenya, makes evident how weakly the statistical experts assessed the reliability of their findings. Here, the colonial government

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28 Morgan, ‘Seeking parts’, pp. 28 and 32.

29 On Stone, see M. Hashem Pesaran and G. C. Harcourt, ‘Life and work of John Richard Nicholas Stone 1913–1991’, *Economic Journal*, 110, 461, 2000, pp. F146–65; Flavio Comim, ‘Richard Stone and measurement criteria for national accounts’, in Klein and Morgan, *The age*, pp. 213–34.

30 Alan T. Peacock and Douglas Dosser, *The national income of Tanganyika 1952–54*, London: HMSO, 1958, p. 16.

31 Here, theoretical propositions by Karl Polanyi met empirical substance: Karl Polanyi, ‘The economy as instituted process’, in Karl Polanyi, Conrad M. Arensberg, and Harry W. Pearson, eds., *Trade and market in the early empires: economies in history and theory*, Glencoe: Free Press, 1957, pp. 243–69. A ‘substantivist’ position was proposed by, for example, George Dalton, ‘Economic theory and primitive society’, *American Anthropologist*, n.s. 63, 1, 1961, pp. 1–25. A ‘formalist’ position is established in Harold K. Schneider, ‘A model of African indigenous economy and society’, *Comparative Studies in Society and History*, 7, 1, 1964, pp. 37–55. For a general overview, see Richard R. Wilk, *Economies and cultures: foundations of economic anthropology*, Boulder, CO: Westview, 1996.

started making national income estimates as early as 1949. In 1958, the Nairobi-based East African Statistical Department produced a comprehensive summary of its experiences and designed a standard procedure for its statistical tasks.<sup>32</sup> Kenyan macroeconomic statistics were considered to be among the best work in the area and there existed a certain institutional continuity in the estimates throughout the 1950s. Nevertheless, the Statistical Department stated in the year of Kenya's independence, 1963: 'It is . . . not possible to construct a useful series of *per capita* real incomes. Nor, because of the absence of useful price indicators is it possible to produce a satisfactory series showing changes in aggregate real domestic product.'<sup>33</sup>

In the history of macroeconomic abstractions one often finds contradictory instances where the authors of such abstractions show great zeal in estimating values and sum totals while at the same time calling the validity of their results fundamentally into question. The 1953 work of Phyllis Deane is a case in point. One reviewer of the book wrote in 1955:

The most valuable chapters are those describing the problems that must be solved if native African economies are to be forced into this mould that fits European and American economies only imperfectly. Unfortunately these sections will be read and quoted less widely than the estimates themselves. . . . The book itself speaks with two voices: the straight face with which the estimates are presented is disturbingly inconsistent with the bewilderment expressed in later chapters over the problem of evaluating native activities in units commensurable with those used for the European part of the economy.<sup>34</sup>

Consequently, Dudley Seers, who had been working on the economic statistics of the Gold Coast, completely opposed any quantification of non-monetized economic transactions. When it came to the question of transposing subsistence economical activities into market transactions, he spoke of 'the well-known morass which those estimating national incomes of underdeveloped areas either skirt, rush across, or die in'.<sup>35</sup> Seers offered two reasons for his fundamental doubt: first, such procedures necessarily had to differ from one African case to another, and the resulting totals could therefore never be commensurable. Second, sophisticated procedures to depict non-industrialized economic realities in the analytical guise of monetized economies, as were suggested for Nigeria by Prest and for Tanganyika by Peacock, did not help very much, because they made the local dynamics of modernization invisible. The importance of unpaid work and of non-monetized transactions would diminish in the course of modernization and statistical long-term time series would

32 C. J. Martin, 'The development and diversity of national income series in East Africa since 1947', in L. H. Samuels, ed., *African studies in income and wealth*, Chicago, IL: Quadrangle Books, 1963, pp. 333–49.

33 T. A. Kennedy, H. W. Ord, and David Walker, 'On the calculation and interpretation of national accounting material in East Africa', in Samuels, *African studies*, p. 393.

34 William O. Jones, 'Colonial social accounting', *Journal of the American Statistical Association*, 50, 271, 1955, p. 665.

35 Dudley Seers, 'The role of national income estimates in the statistical policy of an under-developed area', *Review of Economic Studies*, 20, 3, 1952, p. 166. See also idem, 'The political economy of national accounting', in Alec Cairncross and Mohinder Puri, eds., *Employment, income distribution and development strategy: problems of the developing countries: essays in honour of H. W. Singer*, London: Macmillan, 1976, pp. 193–210.

thus become imprecise. The tool was at its best in describing changes within a relatively stable framework of institutions. But ‘developing’ economies were characterized precisely by dynamic changes in their institutional set up, which in the long term could not be represented within a fixed national accounting framework. Seers stated that national income data for ‘developing countries’ of necessity had to be unstable and that sum totals remained largely fictitious: ‘for all these reasons . . . a statement that a certain quantity “represents x per cent of national income” may tell us much less than it appears to’.<sup>36</sup>

However, leading textbooks on development economics, such as W. Arthur Lewis’s *Theory of economic growth*, precisely suggested working with such percentages. Most famously, Lewis argued that a share of between 10% and 15% of national income should be directed to productive investments in order for a poor economy to develop favourably.<sup>37</sup> And the comparison of sum totals and derived indicators in a global framework of national economies was precisely the essence of Colin Clark’s project and had already taken on an impressive international dynamic. As of 1953, for example, based on work by Richard Stone, the Statistical Office of the United Nations published a standardized *System of national accounts*, for use by all UN member states.<sup>38</sup> Seers critically concluded: ‘In the hands of authorities, such international comparisons may yield correlations which throw light on the circumstances of economic progress, and they tell us something about relative efficiencies and standards of living, but they are very widely abused. Do they not on the whole mislead more than they instruct, causing a net reduction in human knowledge?’<sup>39</sup>

Economists who shared general scepticism towards the quantifying move in the discipline, such as Sally Herbert Frankel or Peter Thomas Bauer, joined forces with Seers and voiced serious opposition against far-reaching abstraction.<sup>40</sup> Moreover, within the emerging hard core of mathematized economic reasoning support for Clark’s approach was also thin. The usefulness of macroeconomic abstraction was controversially debated in the journal *Econometrica*, the publication of the Econometric Society, in the early 1940s. At the society’s annual conference in 1947, which was held in conjunction with the world congress of the International Statistical Institute in Washington, the problem was the topic of several specialized sessions. Here the consensus emerged that sum totals of national accounts could only meaningfully be composed if it remained clear to what end such an operation was conducted. A GDP figure that was detached from specific research or policy aims did not seem useful to the majority of experts. Notably, Richard Stone asked at the Washington meeting:

Why do we want to compare the United States with, say, China or India? What possible interest is there in it? Everybody knows that one country is, in economic terms, very rich and another country very poor; does it matter whether the factor is thirty or fifty of what? I suggest that . . . we should content ourselves with comparisons of a

36 Seers, ‘Role’, p. 160.

37 W. Arthur Lewis, *The theory of economic growth*, London: Allen & Unwin, 1955, p. 202.

38 United Nations Statistical Office, *A system of national accounts and supporting tables*, New York: United Nations, 1953.

39 Seers, ‘Role’, p. 160.

40 S. Herbert Frankel, ‘United Nations primer for development: reply’, *Quarterly Journal of Economics*, 67, 2, 1953, pp. 280–5; P. T. Bauer, ‘The United Nations report on the economic development of under-developed countries’, *Economic Journal*, 63, 249, 1953, pp. 210–22.

rather simple kind; and furthermore that we should not always expect to be able to sum up the relevant position in a single figure.<sup>41</sup>

Concurrently, the community rather helplessly had to observe complete loss of definitional authority in the field, not unlike the sorcerer's apprentice in Goethe's poem: 'Sir, my need is sore / Spirits that I've cited / My commands ignore'.<sup>42</sup> One discussant at the conference, the American economist Arthur Smithies, suggested an unconditional forward strategy:

These figures have been produced and people use them. They will continue to be produced, and people will continue to use them. If we were starting afresh, I would have a great deal of sympathy with what has been said about not using a single figure, and not even producing one. But the way the thing stands now is that in every governmental problem where a multiplicity of regions or countries is involved, national-income figures are used. ... And every international organization that has been formed has used national-income statistics in one way or another. Therefore, I think the statistician cannot bury his head in the sand in this matter. He should know the practical politicians will use his results and probably will misuse them. And therefore I do believe that it is imperative to make the best single figure that is possible and to use a few very simple rules for its application.<sup>43</sup>

The statistical departments of the Organisation for European Economic Co-operation (OEEC) and the United Nations, as well as the International Association for Research in Income and Wealth (IARIW) and the regular US conference on income and wealth hosted by the American NBER, followed this rationale and spent considerable time designing systems of national accounting that would fit industrialized countries as well as less developed ones. In this, Richard Stone was of major importance. Meanwhile, scholars such as Milton Gilbert and Irving Kravis, or Roy Geary and Salem Hanna Khamis, aimed at strengthening economic comparability by designing instruments to convert local currencies into universal values.<sup>44</sup> The purchasing power parities in use today are one of the results of this rather successful endeavour.

Gender aspects were powerfully introduced in the late 1960s by Ester Boserup and others. The informal sector became a major concern to economists.<sup>45</sup> And when from the early 1970s onwards the desirability of growth and its identity with development came under increased criticism, alternative conceptions were designed to include social and ecological aspects as well. The latest suggestions include a 'Green GDP' or the 'Human

41 Richard Stone, quoted in Milton Gilbert, 'The measurement of national wealth: discussion', *Econometrica*, 17, 1949, p. 261.

42 Johann Wolfgang Goethe, *The sorcerer's apprentice*, translated by Edwin Zeydel in *Goethe, the Lyrist: 100 poems in new translations*, Chapel Hill, NC: University of North Carolina Press, 1955.

43 Smithies, quoted in Gilbert, 'Measurement', p. 269.

44 Milton Gilbert, ed., *Income and wealth*, series 3, Cambridge: Bowes & Bowes, 1953; Samuels, *African studies*.

45 Ester Boserup, *Woman's role in economic development*, London: Allen & Unwin, 1970; Hans W. Singer and Richard Jolly, *Employment, incomes and equality. A strategy for increasing productive employment in Kenya*, Geneva: International Labour Office, 1972.

Development Index' (HDI) promoted by the United Nations Development Programme (UNDP) since 1990.<sup>46</sup>

While economists were always well aware of the shortcomings, there still is no other indicator in development economics as universal and as widely accepted as the GDP per capita rate of growth. Despite the many flaws of its construction, national accounting, and the GDP abstraction in particular, proved to be surprisingly stable and gained a life of their own. A curious double-bind was at play here: the fundamental social and economic differences that, in one way or another, characterized the numerous entities under scrutiny had to be spirited away from the comparative system. Only then did it become possible to represent the multitude of rich and poor economies in a universal order of macroeconomic statistics – and only then would the fundamental differences in productivity and standard of living across the planet become visible.

To sum up, national income accounting as an instrument to visualize international differences in income levels deployed a productivity that clearly exceeded mere representational mechanisms. Three aspects are noteworthy. First, it produced a norm. Weakly developed African economies, for example, were carefully analysed and framed in a way that suited their assumed future compliance with the industrialized model. But the representational techniques did not necessarily depict their present state in an adequate way. Simon Kuznets objected powerfully to this normative approach.<sup>47</sup> However, measuring instruments necessarily have to rely upon normative instances, which were in this case the structures of the Australian, British, and American economies of the interwar period.

Second, the national accounting framework produced a homogenous space in which it became possible to acquire comparative knowledge about global economic issues. One might call this an epistemic space in which the discipline of development economics found its well-suited niche.<sup>48</sup> And its main intellectual currency, so to speak, was macroeconomic abstractions. Notions such as the GDP per capita, but also indicators including the incremental capital–output ratio (ICOR), enabled the experts to travel easily from one developmental case study to another. Measured against the US or the United Kingdom, the performance of the Mexican economy could be used as a benchmark for Nigeria, and the East African Community seemed comparable to Indonesia.<sup>49</sup> The new tool presented an inscription device that increasingly stabilized itself by virtue of its connectivity.

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46 Charles I. Jones, *Introduction to economic growth*, New York: Norton, 2002. The topic has become 'hot' again with the global economic crisis of 2008–09. See Joseph Stiglitz, Amartya Sen, and Jean-Paul Fitoussi, *Report by the Commission on the Measurement of Economic Performance and Social Progress*, Paris: Stiglitz-Sen-Fitoussi-Commission, 2009.

47 Kuznets sharply criticized Colin Clark's comparison between Chinese and US economic performance: Simon Kuznets, 'National income and industrial structure', *Econometrica*, 17, 1949, pp. 205–41. He substantiated the argument in idem, 'International differences in income levels: reflections on their causes', *Economic Development and Cultural Change*, 2, 1, 1953, pp. 3–26. A series of voluminous studies on 'Quantitative aspects of economic growth' followed in the same journal between 1956 and 1964.

48 For the notion of epistemic spaces, see Hans-Jörg Rheinberger, *Toward a history of epistemic things: synthesizing proteins in the test tube*, Stanford, CA: Stanford University Press, 1997.

49 A typical example for a comparative study taking Mexican performance as a benchmark for Africa is G. J. Lighthart and B. Abbai, 'Economic development in Africa: aims and possibilities', in Austin G. Robinson, ed., *Economic development for Africa, south of the Sahara*, London: Macmillan, 1964, pp. 3–47.

It incorporated different forms of economic activity within one nation and produced links between different economies. Furthermore, it intrinsically tied economic theory production to the design of statistical inquiries. A stable epistemic environment resulted, in which economic facts about wealth and poverty could travel as immutable mobiles in space.

Moreover, the rise of national income accounting fostered a new interest in economic history, or, to be more precise, in historical statistics of economic change. Phyllis Deane, for example, turned her attention in the 1950s from the colonial setting to early British economic history.<sup>50</sup> Depicting the past in the terms of current national income accounting rendered historical experience useful for the analysis of present problems of growth and development. But the systematic complication, which leads one to negate otherness and institutional specificities in order to make differences in economic performance statistically visible, also prevailed in historical research. The audacity of scholars such as Angus Maddison, who has extended this universal framework to the Roman empire, is impressive.<sup>51</sup> However, one has to keep in mind that the intellectual tools of the cliometric approach themselves have a history and therefore most adequately describe those institutional settings in which they were historically designed. Their context of discovery was neither the Roman empire nor an African subsistence economy but the institutional structure of some powerful and nationally consolidated industrial economies of the interwar period.

Third, the most important connection growing out of national income accounting was the one linking economic expertise to the state. The gathering of statistical data is expensive and the composition of aggregate indicators is difficult. Without a strong interest of the state in these figures, the current level of availability of economic information would not have been reached. For the figures of national income accounting to be useful for economic analysis, the categories had to be consistent over as long a period as possible. Such qualities could only be secured by government authorities.<sup>52</sup> Until the 1920s, scholars interested in macroeconomic interrelations mostly had to gather data privately. Then, beginning with Canada and the Soviet Union in 1925 and Germany in 1929, governments started to take over national income estimation. For the 1930s, the French historian of statistics Alain Desrosières has suggested thinking of a specific ‘co-construction’ of techniques of governing, modes of data accumulation, and logics of abstraction.<sup>53</sup> While this finding is consigned to the level of the nation-state, it seems promising to explore such a line of interconnection in a

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50 Phyllis Deane and W. A. Cole, *British economic growth 1688–1959: trends and structure*, Cambridge: Cambridge University Press, 1962. The new perspective was strongly promoted by Alexander Gerschenkron, ‘Economic backwardness in historical perspective’, in Bert F. Hoselitz, ed., *The progress of underdeveloped areas*, Chicago, IL: University of Chicago Press, 1952, pp. 3–29. For an overview, see Cristel de Rouvray, ‘“Old” economic history in the United States 1939–1954’, *Journal of the History of Economic Thought*, 26, 2, 2004, pp. 221–39; John S. Lyons, Louis P. Cain, and Samuel H. Williamson, eds., *Reflections on the cliometrics revolution: conversations with economic historians*, London: Routledge, 2008.

51 Angus Maddison, *Contours of the world economy, 1–2030 AD: essays in macro-economic history*, Oxford: Oxford University Press, 2007.

52 The problem has been discussed for population statistics in Libby Schweber, *Disciplining statistics. Demography and vital statistics in France and England, 1830–1885*, Durham: Duke University Press, 2006.

53 Alain Desrosières, ‘Managing the economy’, in Theodore M. Porter and Dorothy Ross, eds., *The modern social sciences*, Cambridge History of the Sciences 7, Cambridge UK: Cambridge University Press, 2003, pp. 553–64, here p. 560.

more globally historical approach. The second section of this article ventures into the relationship between economic abstractions and a new perspective on global economic inequality that emerged in the period of decolonization.

## The generalization of economic policy advice

The focus on technical aspects of knowledge informing this article shows quite clearly that the way in which we presume to know the global economy today is historically contingent. There needs to be further analysis as to why the modern order of economic knowledge has become so stable and why its quantitative representations of the world economic situation seem convincing. I would argue that this is the case because the global facts that can easily be downloaded from the Penn World Table and other comparable sources are presented in an engineering perspective of possible change.

Macroeconomic abstractions opened up convincing action frames for political actors for several reasons. First, the new development economical theories promised to address global poverty at relatively low cost. While the comparative statistical compilations suggested that there would be a need and a demand for enormous transfers of capital from the North to the South, the new development economical theories clearly stated that the supply of technical know-how sufficed for gearing up poor economies and that there was no need to ‘buy’ them out of misery with scarce post-war capital. The vision of a self-sustained process of building up modern, welfare-oriented states gained plausibility because it relieved former colonial centres of the cost burden of such a development. The realization of welfare projects in the new states seemed largely to be a question of good economic governance.

Second, Colin Clark’s statistics envisioned a world free of racial prejudice. Abstract development economical expertise easily overcame the fundamental separation between Western potentials and the assumed incapability of the inhabitants of the rest of the world.<sup>54</sup> This is why leading politicians of the nascent ‘developing world’ so quickly embraced the comparative framework of macroeconomic expertise and built up local power bases on its promises. Only very recently has this local use of global abstractions become an object of historical study.<sup>55</sup>

A third point must be made. Despite its universalism, the national income view of global inequality did not force Western politicians to reconsider the colonial logic of domination fundamentally. Notions of supremacy, which used to be grounded in cultural considerations, found easy expression in the statistically based language of economic strength. Moreover, the direction of knowledge flows from the North to the South, which formed the core of the new task of development aid, fitted well with earlier civilizing missions.<sup>56</sup> In the

54 Stuart Hall, ‘The West and the rest’, in Stuart Hall and Bram Gieben, eds., *Formations of modernity*, Milton Keynes: Polity Press, pp. 275–320.

55 See Bradley R. Simpson, *Economists with guns: authoritarian development and US–Indonesian relations, 1960–1968*, Stanford, CA: Stanford University Press, 2008.

56 On civilizing missions, see Boris Barth and Jürgen Osterhammel, eds., *Zivilisierungsmissionen: imperiale Weltverbesserung seit dem 18. Jahrhundert*, Konstanz: UVK Verlagsgesellschaft, 2005.

remainder of this article, points one and two will be substantiated while point three will be taken up in the conclusion.

Obviously, the economic policies of the United States and Great Britain during the Second World War have had a strong impact on the national accounting framework as a political tool. During the war, John Maynard Keynes had advised the government of Great Britain how to pay for the war largely by drawing upon figures estimated by Colin Clark.<sup>57</sup> In parallel, though on a somewhat different theoretical basis, the national economy of the United States was re-engineered under the auspices of Simon Kuznets in order to reach the specific productivity necessary for the war effort. These successful interventions enormously strengthened the standing of the new quantitative tools for economic planning.<sup>58</sup>

National governments were not only consumers and producers of economic statistics but also in themselves became an object of statistical representation. Most importantly, it has to be kept in mind that, in all instances of national income accounting, the nation-state was reified as a category of knowledge and hence enormously stabilized as a historic entity. In many cases, the attention of governments to the field was of course an expression of the new Keynesian conception of the relationship between the state and the economy. Keynes had made national product and the expenditures for final products by the different sectors central to his theory of income determination. He conceived government itself as one of the key economic actors, whose income and expenditure necessarily had to be included in any national account. He prominently stated that governments could improve the overall economic situation by deliberately changing their expenditures.<sup>59</sup> And Keynes lobbied the British Exchequer strongly to publish the statistics compiled by Richard Stone with the 1941 budget – thus making national income accounting a government task.<sup>60</sup>

Since the war, most large industrialized states have put considerable resources into macroeconomic statistics.<sup>61</sup> They did so, because it allowed them to inform their policy interventions in constructing a modern welfare state. In France from 1945, the endeavour of ‘planification’ was firmly based upon such tables, and the setting up of the Marshall Plan for European reconstruction would have been impossible without their help.<sup>62</sup> In the

57 John Maynard Keynes, *How to pay for the war*, London: Macmillan, 1940; Angus Maddison, ‘Quantifying and interpreting world development: macromasurement before and after Colin Clark’, *Australian Economic History Review*, 44, 1, 2004, pp. 1–34.

58 On the relationship between economic theory and operations research during the Second World War, see Philip Mirowski, ‘Cyborg agonistes: economics meets operations research in mid-century’, *Social Studies of Science*, 29, 5, 1999, pp. 685–718.

59 John Maynard Keynes, *The general theory of employment, interest and money*, London: Macmillan, 1936. For Keynes’ international impact, see Peter A. Hall, ed., *The political power of economic ideas: Keynesianism across nations*, Princeton, NJ: Princeton University Press, 1989.

60 Roy Harrod, *The life of John Maynard Keynes*, London: Macmillan, 1951, pp. 501ff.

61 Germany went a ‘Sonderweg’. Early attempts at professionalizing macroeconomic statistics fell victim to the dynamics of a polycentric state administration in 1936. See J. Adam Tooze, *Statistics and the German state, 1900–1945: the making of modern economic knowledge*, Cambridge: Cambridge University Press, 2001, ch. 6. After 1945, German national accounting had to regain plausibility. On West Germany, see Alexander Nützenadel, *Stunde der Ökonomen: Wissenschaft, Politik und Expertenkultur in der Bundesrepublik 1949–1974*, Göttingen: Vandenhoeck & Ruprecht, 2005. Most local experiences in national income accounting have been registered by Studenski, *Income of nations*.

62 Pierre Bauchet, *La planification française: quinze ans d’expérience*, Paris: Editions du Seuil, 1962; François Fourquet, *Les comptes de la puissance: histoire de la comptabilité nationale et du plan*, Paris: Encres, 1980; André Vanoli, *Une histoire de la comptabilité nationale*, Paris: La Découverte, 2002.



Netherlands, the economist Jan Tinbergen fostered a unique co-construction of economic policy, statistical data collection, and econometric theory production.<sup>63</sup> Given the extraordinary circumstances of war and subsequent reconstruction, national income accounting had opened up a space for real experiments in the delicate machinery of the economic network of relationships.<sup>64</sup>

The American, British, French, and other European experiences turned national income accounting into a general basis for economic policy. These ventures into Western macroeconomic planning formed a crucial point of reference in the 1940s debates on a new international organization. It motivated the Bretton Woods Conference of 1944, aiming at a soundly regulated international monetary regime.<sup>65</sup> It found its expression in US President Harry Truman's Point Four Program of 1949.<sup>66</sup> And it formed one of the *raison d'être* of the emerging UN system. The new United Nations considered itself an instrument to secure global peace, and the UN conceived of global economic inequality as one major possible source of future military conflict. Preventing open warfare seemed largely to be a technical question of levelling global differences in living standards and national wealth. The global application of macroeconomic insight promised a whole new field of activity. 'The long-term opportunities for the United Nations in the economic field are almost limitless', wrote the chief of the Australian UN Mission, Herbert Vere Evatt, in 1948. 'Never before has the world been so well equipped with detailed statistical and other information, nor with the means for analysis and discussion of desirable courses of international cooperation in this field.'<sup>67</sup>

Let us go back to the work of Colin Clark. His book on *The conditions of economic progress* had a powerful impact at the end of the Second World War because it presented seemingly objective evidence of the poor living conditions of the vast majority of the world's population. His work and comparable surveys by the International Labour Organization (ILO)<sup>68</sup> defined a specific worldview that reduced the complexities of global economic situations to a manageable scale. A first UN report on 'salient features of the world economic situation', published in 1948, clearly embraced the language of abstractions: 'there is extreme disparity in the average level of living standards among the various countries

63 Marcel Boumans, *How economists model the world into numbers*, London: Routledge, 2005.

64 For the notion of real experiments – 'Realexperimente' – see Matthias Gross and Wolfgang Krohn, 'Society as experiment: sociological foundations for a self-experimental society', *History of the Human Sciences*, 18, 2, 2005, pp. 63–86.

65 Harold James, *International monetary cooperation since Bretton Woods*, Washington, DC: IMF, 1996.

66 Truman promised to the world 'a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas'. Dennis Merrill, ed., *The Point Four Program: reaching out to help the less developed countries*, Documentary History of the Truman Presidency 27, Bethesda, MD: University Publications of America, 1999, pp. 4–5. On Truman see generally Elizabeth Edwards Spalding, *The first Cold Warrior: Harry Truman, containment, and the remaking of liberal internationalism*, Lexington, KY: University Press of Kentucky, 2006.

67 Herbert Vere Evatt, *The United Nations*, London: Oxford University Press, 1948, p. 127.

68 Eugene Staley, *World economic development: effects on advanced industrial countries*, Montreal: International Labour Office, 1944. On Staley, see David Ekbladh, *The great American mission: modernization and the construction of an American world order*, Princeton, NJ: Princeton University Press, 2010. On the ILO see Daniel Maul, *Menschenrechte, Sozialpolitik und Dekolonisation: die internationale Arbeitsorganisation (IAO) 1940–1970*, Essen: Klartext, 2007.

of the world. A comparison of national income per head of population indicates the order of magnitude of the disparity'.<sup>69</sup> Abstractions were a condition for the possibility of taking the whole world into view. And national accounting offered an organizing principle for the action to be taken: all interventions were designed in a way that converged upon raising national income per head of population.

For centuries, colonial discourse had made a strong claim about the incommensurability of Europeans and their 'others'. Evidently, the fact that different societies enjoyed different levels of economic wealth was known well before Colin Clark presented his tables. One historically highly loaded explanation for these differences in economic performance had long been given by reference to racial characteristics. The legitimizing discourse of colonialism assumed fundamental racial differences that seemed insurmountable. In the imperial view, the economic advancement of the colonies could only be secured through the presence of the white man. Clark's results were distinctly postcolonial in contrast. He was a trained chemist, who thought of economics as a quasi-natural science. Accordingly, he framed his research object – the conditions of economic progress – in terms of universal laws of unrestricted applicability. He envisioned a world without fundamental divides between 'civilized' and 'barbarian' peoples. In his global compilation there were no colonizers, no colonized, no white man's burdens or civilizing missions – just numbers representing human collectives and their economic potential.

His universalism matched well with two basic principles of the organization of the United Nations. First it posited as the basic unit of analysis the nation-state, which was also the basic organizational unit of the UN as reflected in the General Assembly. All these entities were considered equal irrespective of their size and power, while the share of each member state in financing the organization was based upon its respective gross domestic product. Second, it departed from anthropological assumptions that fitted the new moral codes promoted by the United Nations, which were expressed in the Universal Declaration of Human Rights in 1948 as well as in the discussions concerning the UNESCO Statement on Race in the early 1950s.<sup>70</sup> When, in 1953, Simon Kuznets listed some explanations for the apparent differences in international income levels, he explicitly rejected the category of race. For both Kuznets and Clark, the very ability of any group of human beings to develop economically and to achieve better living conditions was an anthropological fact. The question to be addressed, then, was that of obstacles hindering this advancement.<sup>71</sup> Thus, while the possibility of development was held universally, its impediments were consigned to historically contingent social institutions and global power relations – which, in principle, could be overthrown.

The postcolonial discourse of development became thoroughly permeated with a specific blend of anthropological universalism and a technocratic belief in the feasibility of change. Economic statistics seem to have been an important source of knowledge to counter still

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69 United Nations Department of Economic Affairs, *Economic report: salient features of the world economic situation 1945–47*, Lake Success, NY: United Nations, 1948, p. 243.

70 Staffan Müller-Wille, 'Race et appartenance ethnique: la diversité humaine et l'UNESCO Déclarations sur la race (1950 et 1951)', in UNESCO, *60 ans d'histoire de l'UNESCO, Actes du colloque international, Paris, 16–18 novembre 2005*, Paris: UNESCO, pp. 211–20.

71 Kuznets, 'International differences', p. 10.

prevailing racial prejudice.<sup>72</sup> All exponents of the emerging UN activities in levelling global economic inequality stressed the strong opposition of these multilateral endeavours to any kind of imperialism. In his opening speech to the first pledging conference of the Technical Assistance Programme of the United Nations in 1950, the acting Secretary-General, Trygve Lie, left no doubt that ‘none of the abuses associated with past experiences of political or economic domination of one country by another are possible. Under the United Nations programme, technical assistance for economic development cannot be used for purposes of domination or imperialism.’<sup>73</sup>

Unsurprisingly, this construction had a strong appeal to the leaders of independence movements and to the elites of the new postcolonial states because it so clearly stated the feasibility of change.<sup>74</sup> The Indian planning experience is the most prominent case in point.<sup>75</sup> Here, scholars such as V. K. R. V. Rao and P. C. Mahalanobis excelled in the production of policy-relevant economic statistics.<sup>76</sup> W. Arthur Lewis, who in 1948 became the first black professor of economics in England, devoted his life work to the comparative perspective of engineering the world economy. The early writings of African intellectuals such as Julius Nyerere or Tom Mboya clearly embraced these promises of development economics.<sup>77</sup> Kwame Nkrumah early on invited Lewis to advise the government of Ghana on economic policy; Lewis’ experience in West Africa has been analysed in detail.<sup>78</sup> In this case, the application of abstract economic findings to concrete postcolonial realities proved rather ambiguous and complicated. In Lewis’ own account, the political agenda of Nkrumah constantly interfered with his technocratic stance and devalued the learned policy advice. Raúl Prebisch encountered comparable difficulties in designing national economic plans for Argentina.<sup>79</sup> However, it seems too simple to attribute these failures to the politicization of planning expertise. As the diaries of one world-leading economist show, expert work in

72 See e.g. Hugh L. Keenleyside, *International aid: a summary: with special reference to the programmes of the United Nations*, New York: James H. Heineman, 1966, p. 37ff.

73 Trygve Lie, ‘Opening statement at first UN Technical Assistance Conference’, in Andrew W. Cordier and Wilder Foote, eds., *Public papers of the Secretaries-General of the United Nations, 1: Trygve Lie 1946–1953*, New York: Columbia University Press, 1969, p. 311.

74 Frederick Cooper, ‘Modernizing bureaucrats, backward Africans, and the development concept’, in Frederick Cooper and Randall Packard, eds., *International development and the social sciences: essays on the history and politics of knowledge*, Berkeley, CA: California University Press, 1997, pp. 64–92.

75 Dietmar Rothermund, ‘Indien: von der Planwirtschaft zur Liberalisierung’, in Wolfram Fischer, ed., *Lebensstandard und Wirtschaftssysteme: Studien im Auftrage des Wissenschaftsfonds der DG Bank*, Frankfurt am Main: Fritz Knapp, 1995, pp. 501–42.

76 Prasanta Chandra Mahalanobis, *The approach of operational research to planning in India*, Calcutta: Statistical Publishing Society, 1955; C. R. Rao, ‘Prasanta Chandra Mahalanobis 1893–1972’, *Biographical memoirs of Fellows of the Royal Society*, 19, 1973, pp. 454–92; V. K. R. V. Rao and S. L. Rao, *The partial memoirs of V. K. R. V. Rao*, New Delhi: Oxford University Press, 2002.

77 Tom Mboya, ‘Tensions in African development’, in Tom Mboya, ed., *The challenge of nationhood: a collection of speeches and writings*, Nairobi: Heinemann, 1970, pp. 24–33; B. T. G. Chidzero, ‘The United Nations Economic Commission for Africa’, *African Studies Bulletin*, 6, 2, 1963, pp. 1–5.

78 Robert L. Tignor, *W. Arthur Lewis and the birth of development economics*, Princeton, NJ: Princeton University Press, 2006, chs. 4, 5, and 6; Craig N. Murphy, *The United Nations Development Programme: a better way?*, Cambridge: Cambridge University Press, 2006, ch. 5.

79 Edgar J. Dosman, *The life and times of Raúl Prebisch*, Montreal: McGill-Queen’s University Press, 2008, ch. 14.

newly independent Nigeria was bound to fail, not only because politicians would constantly interfere but also because localizing the abstractions of macroeconomic theory was a lengthy process that did not produce the required setting of political guidelines quickly enough.<sup>80</sup>

From 1959, the newly independent African states made the advancement of national accounting a core issue on the agenda of the UN Economic Commission for Africa. Following the example of its more famous Latin American sister institution, CEPAL, the new body based in Addis Ababa aimed at building up an African centre for macroeconomic expertise that would assist governments of the region in designing meaningful development plans.<sup>81</sup> Localizing global abstractions in African contexts was seen as a task of considerable symbolic importance. On the one hand, it made the Economic Commission for Africa ‘in a real sense the United Nations in Africa’, to quote the Malawian economist Bernard Chidzero, as it promised to Africanize expertise.<sup>82</sup> On the other hand, estimating a GDP for the new African countries equalled an act of sovereignty. In the order of macroeconomic knowledge, the very existence of these political bodies and their developmental potential could be displayed powerfully on the international political stage. One economic statistician, Richard Barkay, was quick to suggest making clever use of this symbolic added value. In 1963, he claimed:

Today in many independent countries national accounts are regarded, alongside the national flag and the national anthem, as symbols of independence. This mystical belief can be turned to the planners’ advantage, provided national accounts are treated as a means to an end – development – and not as an end in itself. We at least should not become creatures of our own national accounts slogans.<sup>83</sup>

Leading political scientists have argued that the decline of colonial empires gave rise to a number of new states that consisted only of formal structures, without adequate substance.<sup>84</sup> The empty shell of macroeconomic abstractions seems to sustain this view. However, the engineering perspective connected to the new tools of development planning also deployed considerable domestic dynamics. It helped local elites in stabilizing their positions and thus worked as a genuine agent of historical change.<sup>85</sup>

80 Clive S. Gray, *Inside independent Nigeria: diaries of Wolfgang Stolper, 1960–1962*, Aldershot: Ashgate, 2003; Mary Morgan, “‘On a mission’ with mutable mobiles”, Working papers on the nature of evidence: how well do ‘facts’ travel?, 34, 2008, Department of Economic History, London School of Economics, <http://eprints.lse.ac.uk/22500/1/3408Morgan.pdf> (consulted 9 December 2010).

81 Adebayo Adedeji, ‘The ECA: forging a future for Africa’, in Yves Berthelot, ed., *Unity and diversity in development ideas: perspectives from the UN Regional Commissions*, Bloomington: Indiana University Press, 2003), pp. 233–306; Bahgat El-Tawil, ‘Statistical activities of the U.N. Economic Commission for Africa, Addis Ababa’, *Journal of Modern African Studies*, 3, 3, 1965, pp. 437–9.

82 Chidzero, ‘United Nations Economic Commission’.

83 Richard M. Barkay, ‘The statistical macro-economic framework needed in development planning in Africa’, in Samuels, *African Studies*, p. 85. I thank Mary S. Morgan for bringing this quote to my attention.

84 Robert H. Jackson, *Quasi-States: sovereignty, international relations, and the Third World*, Cambridge UK: Cambridge University Press, 1990; Bertrand Badie, *L’état importé: essai sur l’occidentalisation de l’ordre politique*, Paris: Fayard, 1992.

85 Frederick Cooper, ‘The dialectics of decolonization: nationalism and labour movements in post-war French Africa’, in Frederick Cooper and Laura Ann Stoler, eds., *Tensions of empire: colonial cultures in a*

## Conclusion

The epistemic space of macroeconomics, in which national income abstractions could easily travel, reflected the universal assumption that the people of the world equalled one ‘family of man’. All distinct entities of economic activity were assumed to work according to the same universal principles. Their malfunctions could be analysed in an engineering perspective that generated policy advice on how to gear up productivity. All political players of the global community that emerged after the war – the two superpowers as well as the new postcolonial states and the Europeans, who had to reconstruct both their domestic and their colonial economies – strongly embraced quantitative macroeconomic knowledge. Veiled behind the ideological confrontation of the Cold War, the idea of levelling global inequalities through planned intervention gained universal ground.<sup>86</sup>

This new universalism of a ‘family of man’ constituting a global ‘family of nations’ did not, however, completely discard perceptions of difference. The quest for comparability made postcolonial economists conceive of different social institutions, value systems, and beliefs as non-economic aspects. In the course of the disciplinary professionalization of macroeconomics, these soft factors were pushed aside and handed over to the attention of cultural anthropology and sociology. In the global economic order of knowledge, however, a fundamental demarcation between developed and underdeveloped entities still prevailed, which ran parallel to the old dichotomy between ‘civilized’ social groups and their ‘others’.

A divide between the rich and the poor, or the North and the South, was already present in Clark’s 1940 outlook, which drew this line at a per capita income of 200 international units. In a series of international documents, starting with the Havana Charter of the International Trade Organization in 1948, such a line had been installed to structure the world of development politics. In its 1982 report the World Bank, for example, issued a benchmark of a per capita share in aggregate domestic income of US\$2,650 to define those ‘poor’ countries to which it offered favourable financing conditions.<sup>87</sup> In the framework of the Millennium Development Goals, the United Nations talked about ‘a dollar a day’ – or a per capita yearly domestic product of US\$364 to delineate the divide between rich and poor nations.

One could assume, pragmatically, that this distinction is a remnant of the colonial past that will necessarily wither because of the engineering capacity of modern economics. But one could also take a more philosophical stance.<sup>88</sup> Macroeconomic abstractions are inscription devices that refer to complicated phenomena not otherwise accessible. One is tempted to attribute to them a productivity that exceeds the mere reproduction of given data.<sup>89</sup> They have made global inequality visible and have concurrently offered tools to efface it. This engineering perspective deployed a fascinating vision of a future world of glo-

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*bourgeois world*, Berkeley, CA: University of California Press, 1997, pp. 406–35; Daniel Speich, ‘The Kenyan style of “African socialism”: developmental knowledge claims and the explanatory limits of the Cold War’, *Diplomatic History*, 33, 3, 2009, pp. 449–66.

86 Peter J. Boettke, ed., *The collapse of development planning*, New York: New York University Press, 1994.

87 It is interesting to note that these benchmarks created an incentive for underdeveloped countries to keep their official national income figures low: Vernon, ‘Politics’, p. 65.

88 Carl E. Pletsch, ‘The three worlds, or the division of social scientific labor, circa 1950–1975’, *Comparative Studies in Society and History*, 23, 4, 1981, pp. 565–90.

89 Mary Morgan, ‘Perspective: making measuring instruments’, in Klein and Morgan, *The age*, pp. 235–51.

bal equity, which was functional as an exit strategy from colonial power systems. But a high price had to be paid to make this promise credible. Macroeconomic abstractions radically reduced the complexity of the human world and tended to replace the manifold economic relationships within it with simple dichotomies. Rich Western economic aggregates were put in place as developmental models for their poorer counterparts, who emerged as sovereign agents on the international stage in the wake of decolonization.<sup>90</sup> The abstract order of nations in the post-colonial development era is based on a technique of knowledge that needs such fundamental differences. They will not be overcome easily, as long as there is an epistemic necessity for them.

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90 The limitations of national sovereignty in the postcolonial world order are analysed in Antony Anghie, *Imperialism, sovereignty and the making of international law*, Cambridge: Cambridge University Press, 2004.