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SPECIAL FORUM: THE INTERNATIONAL POLITICAL
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Economic statistics as political artefacts*

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ABSTRACT

Macroeconomic statistics simultaneously shape and try to capture the political economy we study. Their biases mold social and political dynamics; they also infect academic and policy analysis. Political economy can both benefit from and advance an understanding of economic statistics as political artefacts. To help unlock that potential, this article builds on scholarship dispersed across disciplines and highlights three points. First, a binary debate that either acclaims or vilifies economic data is misdirected. Indispensable for public policy, quantification is neither good nor bad per se; the question is what its specific ramifications are. Second, macroeconomic statistics have been built around an ideal of white male factory work for wages. The further economic activity is removed from that image, the more statistics misrepresent or ignore it, with systematic biases as a result. Third, the real-world impact of statistics always depends on how they are understood, used, and subverted. It hinges on statistical *practices*, not just on abstract measurement approaches. As political economists we are political agents when we define, and reproduce, our object of study. We face both an analytical and a normative imperative to work with and towards statistics that do justice to the world and the people in it.

KEYWORDS

Economic statistics; political economy; constructivism; gender bias; policy practice; GDP

Introduction

Macroeconomic statistics tame the unwieldy political economy we study. But they are more than just informative, neutral reflections of reality out there (Desrosières, 2001). Statisticians face thorny methodological choices when they quantify highly abstract concepts like inequality, growth or unemployment. Whether intentionally or not, these choices privilege some views, causes, and people over others, and they become consequential when investors, policymakers, and citizens understand the political economy through the prism of numbers and act upon them. Borrowing

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from MacKenzie (2006), statistics are both a “camera” to analyze the political economy and an “engine” that propels it forward.

The political baggage of statistics means that they deserve our attention both as sites of politics in their own right, and because they permeate so many dimensions of the political economy we study. We need to understand better how statistics skew our politics and perceptions, who has made the relevant methodological choices in the first place, and why. These questions inspire the research underlying the contributions to this special issue.

Sociology and history have a long tradition of examining public statistics critically (for overviews see Mennicken & Espeland, 2019; Popp Berman & Hirschman, 2018). Much work has dissected highly charged figures, such as censuses (Loveman, 2014), or statistics about health (Adams, 2016), crime (Andreas & Greenhill, 2010), and violence against women (Merry, 2016). In the study of such topics, numbers are an object of critical inquiry as much as raw material for it.

In political economy, the situation is different. Economic historians have meticulously documented the evolution of prominent economic indicators—figures that cover the bread and butter themes of political economy: wealth, income, growth, debt, trade, foreign direct investment, unemployment, and so on. But contemporary scholarship without such a historical bend rarely pauses to peer behind headline indicators’ facade of objectivity.¹ My mission here is to exhibit economic statistics as political artefacts in a way that speaks to the concerns and research traditions of political economists. Standing on the shoulders of giants—mostly from other disciplines—I want to show why and how political economists, too, should heed the political charge of economic statistics.

As examples of what is to be gained, the pieces gathered here bring a critical gaze on statistics to topics familiar to political economists: changes in the global organization of production (Nguyen and Coyle); domestic resistance to or adaptation of such trends (Alenda-Demoutiez; van Heijster and DeRock); and the role of economic information and its fudging in relations between indebted countries and investors (Aragão and Linsi).

At the same time, political economists can enrich the study of statistics. Full appreciation of their constructed character sometimes invites an unproductive relativism or even nihilism: because statistics are always reductionist, all of them are dismissed as equally wrong. Yet many political economists may worry less about statistics’ ontological quality, and more about their consequences as social facts and the winners and losers they produce. How, for example, are trade disputes shaped by defective import and export figures? How do inflation indices that ignore real estate bubbles shape public debates about distributional justice? How does GDP’s ignorance of unremunerated female labor buttress initiatives to integrate women into the labor force and prod them into being “economically active”—as if people who labor without pay did not make a contribution nevertheless? To what degree does political reverence for GDP growth concentrate economic stimulus on those specific activities that, rather haphazardly, figure in measured GDP growth? Such applied analyses answer the “So what?”-question that arises once we appreciate economic statistics as political artefacts.

To promote fruitful exchange between political economy scholarship and the critical study of statistics, I highlight three overarching arguments: first, statistics are not either good or bad. Some see them as imperfect but nonetheless best-practice efforts to rationalize economic governance and research (as many

economists and quantitative politics researchers do); others reject them either as bloodless, technocratic handmaidens of exploitative capitalism or fatally flawed prisms through which to see the world (common views among their critics). Neither view is fair. Macroeconomic statistics are an indispensable pillar of societies' informational infrastructure. Crucially, they are central not so much to *private* actors' wheeling and dealing, but to attempts to buttress *public* sovereignty over economic life. Statistics can function as tools of both oppression and emancipation. Because blanket vilification of quantification is as misguided as its uncritical embrace, detailed case-based or comparative research about statistics' origins and effects is essential. The contributions to this special issue document, for example, South Africa's and China's contradictory and conflicted relationships with global statistical standards (Alenda-Demoutiez, this issue; van Heijster and DeRock, this issue). Also normatively, the question is not *whether* a policy field is quantified, but *how so*.

Second, headline economic indicators have been crafted around an ideal of white male wage labor in factories as the epitome of productive activity; the further labor or production are removed from this image, the less official statistics are able to capture realities on the ground. Emerging trends such as factoryless manufacturing clash with assumptions baked into traditional economic metrics, and they starkly lay bare the defects of the latter (Nguyen and Coyle, this issue). As statistical standards were crafted with the industrialized countries of the Global North in mind, the diffusion of these templates to other parts of the world can generate distorted images—not least by naturalizing inequalities both between and within countries. When we use economic data without reflecting on the skews and silences they contain, we are liable to reproduce them.

Third, mainstreaming statistics as political artefacts into our analyses also means appreciating what happens with these metrics in the real world. We should focus not only on abstract definitions but on data *practices*—on how data is actually put together, on potential data fudges, and on how and when data is used or ignored. The discretion statisticians and politicians have in their dealings with data blunts its immediate impact, both for better and for worse. Yet the selective and strategic engagement with economic data is a largely unexplored realm of politics in its own right. It is fruitful terrain for scholars of policy and politics whose interest reaches beyond statistics and measurement alone. Aragão and Linsi for example show how the statistical practices of many countries fall into a grey area between full compliance and blatant data manipulation.

Scholars from a range of fields have investigated economic statistics, including not only history and sociology, but also international relations, gender studies, political science, anthropology and at times also economics itself. Drawing on their work, I hope to build scholarly bridges that allow political economy researchers to put statistics as political artefacts in their place and to advance our understanding of them as drivers of politics. The three main sections of this contribution do so by concentrating on its three central points: the Janus face of economics statistics as political tools; their biases and real-world impact; and the importance of statistical *practices* beyond abstract standard setting.

Statistics and economic governance

Political economists frequently use economic statistics as raw material for their analyses. Inferential statistics remain the most prominent methodological approach

in the field, particularly in North American academia (cf. Lake, 2006; Oatley, 2011). Data defects or biases receive little attention. Small-n work, too, rarely pauses to dissect the numbers it marshals as evidence.

At the same time, economic statistics have acquired a dubious reputation in public discourse. More than any other headline figure, gross domestic product (GDP) has been lambasted for its reductionist economism (Hoekstra, 2019; Philipsen, 2015; Stiglitz et al., 2010) and blamed for leading economic policies down socially harmful and environmentally unsustainable paths (Hamilton, 2003; Pilling, 2018). Leading economic metrics are seen to hinder social progress when they block our view of broader societal goals (Fioramonti, 2013). Skeptics of quantification see the codification of the 17 Sustainable Development Goals (SDGs) in hundreds of indicators as a double-edged sword. At worst, statistics can seem an informational straightjacket baked into a morally deficient contemporary capitalism (Bruno et al., 2014; cf. Campbell-Verduyn et al., 2017).

But although the charge of reductionism is both fair and relevant, the relationship between statistics and our socio-economic systems is more complicated. Economic statistics have been devised as governance tools (for a concise overview, see Mügge, 2019; Porter, 1995). They therefore vary with the goals, ideologies and capacities of those in charge.

Millennia ago already, political rulers tracked citizens' wealth in order to tax them (Graeber, 2011). William Petty's seventeenth century Political Arithmetick systematized demographic and social statistics to tighten the grip of England's rulers over Ireland (Carroll, 2006; McCormick, 2009). In subsequent centuries, statistics remained wedded to colonial enterprises as tools to render subjugated societies legible and hence amenable to bureaucratic control (Appadurai, 1996; Bonnescase, 2014; Mitchell, 2002). These legacies remain visible in the contentious ways in which censuses pigeonhole people's ethnicity and race (Bowker & Leigh Star, 1999, p. 195ff; Conk, 1987; Loveman, 2014; Nobles, 2000; Petersen, 1987; Thompson, 2016).

But if statistics are a source of power, then like power in general (Barnett & Duvall, 2005), they can be used for emancipatory as well as oppressive ends (Desrosières, 2014). In North America and Europe, nineteenth century unions and labor organizers successfully campaigned for cost of living and unemployment statistics to evidence the plight of the working class better (Stapleford, 2009; Tooze, 2001; Zimmermann, 2006)—prominent examples of what more recently has been labelled Statactivism (Bruno et al., 2014). Our ability to demonstrate for example entrenched inequalities today crucially hinges on the availability of data (Hirschman, 2016; Piketty, 2014).

Shifting from individual inequalities to intergovernmental interactions, International Relations scholars have analyzed indicators and rankings as a source of soft power in global politics and highlighted the policy skew that may result (Best, 2017; Broome et al., 2018; Broome & Quirk, 2015; Cooley & Snyder, 2015; Davis, 2012; Kelley & Simmons, 2019; Krause Hansen & Mühlen-Schulte, 2012). Most of these indicators had been crafted de novo for specific political projects—say, the Ease of Doing Business Indicator (Doshi et al., 2019) or the Aid Transparency Index (Honig & Weaver, 2019). Their human-made character is rarely lost on us.

In contrast, headline economic indicators are so entrenched that it is easier to miss how they, too, are historically rooted in political projects (Desrosières, 1998).

Take the case of GDP (Hirschman, 2016). While incidental estimates of national income have been around for centuries (Kenessey, 1994; Studenski, 1958), it was only in the 1930s that they matured into the regular statistical enterprise vaguely resembling the GDP statistics we know today (Lepenies, 2013). During the Great Depression, members of US Congress pored over the economic slump following the 1929 crash and vigorously debated alternative policy responses. No one, however, was able to give them convincing data about the on-the-ground economic malaise. In response, they tasked the young economist Simon Kuznets to develop an American national income measure, which in the subsequent two decades would evolve into Gross National Product, GDP's precursor (Fogel et al., 2013). Combined with John Maynard Keynes' theory, which also reified nationally conceived macroeconomic aggregates (Mitchell, 2002), the foundation was laid for economic statistics as we know them today.

Though much-maligned, GDP statistics were originally developed as tools to reassert public control over the debilitating gyrations of unregulated markets, an aspect many contemporary critics ignore. This tension runs through statistics more generally: effective public governance—not just of economic affairs but also, say, of crime (Andreas & Greenhill, 2010), racial inequalities (Thompson, 2016), or public health (Adams, 2016)—demands that the domain in question be convincingly charted. The resultant need to reduce complexity frequently invites controversial quantification (Deringer, 2018; Muller, 2018; Porter, 1995). Struggles over racial classifications in official statistics for example have mirrored the tension between the violence they do to people's individuality (e.g. Pitts, 2019) and their importance as weapons in the fight against discrimination and racism when they reveal stark inequalities (Robbin, 2000).

To be sure, grandiose government schemes built on quantitative abstractions are at risk of equally grandiose failures, and “seeing like a state” (Scott, 1998) often means ignoring situated individual experience (Merry, 2016). Yet also local knowledge built on individual experience can suffer from real skew when it reproduces the class, gender and racial biases of those whose experiences are selectively made to count. That social quantification is always contestable does not mean that even well-intentioned public governance schemes can dispense with it altogether. The same is true for academic analysis that tries to unearth patterns in large numbers of cases.

Beyond national macroeconomic management, economic statistics also help order economic affairs between governments. When the International Monetary Fund was established, its Articles of Agreement specified how countries should manage their monetary relations and which thresholds—say for capital flows or exchange rates—would justify exceptional interventions (cf. Best, 2005; de Cecco, 1979; Helleiner, 1994). Relations among the members of European Economic and Monetary Union have been codified even more explicitly (Savage, 2005). Although actual EU policy may be more flexible than legalistic frameworks suggest (Savage & Howarth, 2018), European economic governance rests on economic metrics—in particular various public debt measures (Mabbett & Schelkle, 2015).

Much political economy debate engaging these dynamics has been dichotomous: either accepting quantitative thresholds as self-evident governance tools, or as technocratic cloaks to conceal political force and power asymmetries (Barry, 2002). In fact, while the charge of hidden bias and politics is fair, it is also hard to see

how international economic agreements could do without quantified thresholds (Mügge, 2020). Metrics such as “Maastricht debt” or BOP statistics (Mügge & Linsi, 2020) frequently outlive the historical circumstances of their creation. They may entrench obsolete coordinate systems for public policy and debate not because change is actively resisted, but because better alternatives are technically or politically out of reach. Statistics, in other words, are baked into contemporary governance, both domestically and internationally. They are not enforcers of a ruthlessly private gain-driven economic order, but mainly a corollary of the state’s conflicted role in contemporary capitalism. Unless public authorities abdicate this role, they will build statistics to fulfil it.

Biases, big and small

While statistics *in general* may be ubiquitous, there is nothing natural about the *specific* figures that populate our politics and debates (Alonso & Starr, 1987). Economic statistics are beset with countless measurement ambiguities (the pioneering study here is Morgenstern, 1963) that affect figures for inflation, unemployment, public debt, economic growth, balance of payments, productivity, and many more.² Addressing these ambiguities frequently requires arbitrary measurement choices. And because these choices highlight some things and obscure others, statistics are bound to introduce bias into our economic perceptions.

Consider some examples: headline public debt figures systematically ignore public pension liabilities, offering a skewed image of fiscal sustainability (Bloch & Fall, 2015). Harmonized inflation indices in the EU have traditionally excluded owner-occupied housing—arguably the crucial item determining people’s cost of living during the real estate booms and busts of the past decades. Strategic transfer pricing by multinationals distorts our image of where production takes place (Bruner et al., 2018). Headline unemployment indicators do not distinguish between voluntary joblessness and jobseekers so despaired that they have given up looking for employment. Standard FDI measures often conflate greenfield and brownfield investments, and thereby mistake simple changes in ownership for the creation of new productive capacity (Kerner, 2014; Linsi, 2019). GDP statistics equate public sector output with the cost of public services (Atkinson, 2005), which might both over- and underestimate their value.

Indeed, statistics are more than somewhat skewed reflections of economic life “out there”. Measurement objects like unemployment or inflation are *de facto* defined through the data that captures them. Statistics don’t just *measure* the economy. They *constitute* it (cf. Searle, 1995). It is in the political practice of people who deal with economic matters—whether in the private or the public sector—that routinized reactions to economic statistics and ideas bring the economy *as a social field* into being (Cochoy et al., 2010). Statistics are performative in that actors adjust their behavior with an eye to what statistics do or do not capture (critically Didier, 2007; MacKenzie & Millo, 2003).

Once engrained, statistics develop a force of their own that supersedes the goals of their creators (Fukada-Parr, 2014), in line with Latour’s conception of non-human agents (Latour, 1988, 2005) and Searle’s social facts (Searle, 1995). Statistics have independent effects both as specific but potentially biased data and as generic formats for information (Porter, 1995), which *a priori* bends our attention towards

the readily quantifiable. For example, statistical pioneers like Colin Clark used national per capita wealth as a metric to compare economic development levels (Speich, 2011). In spite of the measure's serious imperfections—which Clark recognized—subsequent attempts to boost development concentrated on raising such per capita wealth. The imperfect metric turned into the focal point of policy.

Statistics are performative in another way, as well: Ian Hacking (1990) has chronicled how widespread public data collection around the mid-nineteenth century revealed that various forms of “deviancy” (a perennial concern of political rulers) follow regular patterns across society. Individual cases came to be seen as concrete manifestations of probabilistic social laws covering whole populations. There was a truth to societal patterns beyond any single person, and statistics could make it visible—just as 1930s public opinion surveys revealed the “average American” (Igo, 2008).

Such statistical practices have reinforced a sense that diverse members of an *ex ante* vague category are commensurable. Countries are countries, no matter where in the world; workers are workers, consumers are consumers, and so on. Statistics' promise of distilling essences from large numbers of cases has often trumped doubts about their comparability (Mügge & Linsi, 2020; Speich, 2011).

On top, comparing large numbers of putatively similar cases generated a sense of what would be normal (say, a normal level of GDP growth or a normal rate of unemployment), and what would deserve policy interventions. National aggregates obscure that the distribution of a particular property such as wealth may not be normal at all. Population averages conceal for example the constitutive role of race in economic inequalities (Tilley & Shilliam, 2018). A concept such as “economic growth of a country” then hides the enormous diversity of economic fortunes across sectors and people. Silicon Valley may be booming while Main Street feels the squeeze. When political economists use national aggregates, they run the risk of buying into a representation in which the gains of the winners disguise the losses of the losers.

That rankings and comparative statistics influence the behavior of political actors is often not an unfortunate side-effect but their central goal (Kelley, 2017; Muller, 2018). Yet in their behavioral adjustments to league tables and the like, the addressees unwittingly reproduce the slants built into them (e.g. Espeland & Sauder, 2016). For example, governments may be loath to invest public funds unless they produce measurable growth, even if such investments may otherwise seem appropriate. To depress headline debt figures, the same governments may be lured into financial trickery that serves little substantive purpose (Aragão and Linsi, this issue ; Koen & van den Noord, 2005; Savage, 2005). Labor market policies, too, can be geared towards lowering measured unemployment rates, even if they have no beneficial long-term effects.

From both a social scientific and a normative perspective, such biases challenge us to heed statistics' role in society and politics. The skews vary with myriad measurement ambiguities and do not necessarily map onto some grand political fault line. That said, two central ones deserve explicit consideration: their in-built bias in favor of obsolete views of production, and their naturalization of economic inequalities.

Consider the distorted image of economic production first. Macroeconomic statistics came into their own in the wake of the Second World War (Ward, 2004).

The first System of National Accounts (SNA), which codifies GDP, and the first Balance of Payments Manual (BPM), which does the same for trade and capital flows, were published in the late 1940s. Together with inflation and unemployment statistics, they were built around an idealized image of “the economy”: white male wage labor in factories. Kuznets’ original national income estimates were developed to capture the post-1929 drop in industrial output, not the economic value of haircuts or education services. Early price indices covered large industrial cities (particularly harbor cities) and working-class households due to anxieties over worker unrest fueled by rising living costs. Unemployment figures did not focus on inactivity in general but on looming political upheaval by jobless males in urban agglomerations. The further removed production or labor have been from this quintessential image of economic activity—because labor was forced or voluntary, or the product was an elusive service—the more trouble macroeconomic statistics have had capturing it.

The most glaring resulting bias lies in economic indicators’ dismissive treatment of social reproduction and the largely female labor that sustains it (Hoskyns & Rai, 2007; Waring, 1999). GDP and trade statistics are centered on commodity production—essentially material stuff that can be sold. Their scope extends further, but measuring and geographically attributing services production remains thorny (OECD, 2016). The effort that goes into sustaining the labor power necessary for such production, and the wider social and family relations surrounding it, remains invisible (Bhattacharya, 2017). This differential treatment is indebted to the masculine values with which mainstream economics is imbued (Nelson, 1996), and to a patriarchal ideology that contrasts men’s public and economically profit-oriented roles with women’s private lives centered around altruistic familial duties (Folbre, 2009).

The gravest injustice, surely, is to women themselves, whose unremunerated labor is demeaned as a taken-for-granted prop for the proper, male-dominated money economy (Waring, 1999). Such bias distorts our perspectives and insights (Peterson, forthcoming). As Rai argues, the gender blindness of much scholarship “skews the analysis towards certain issues, modalities, and methodologies” rather than others—effectively those that suit men (Rai et al., 2013, p. 273). Biased statistics are complicit in this omission.

Countries also vary enormously in how social reproduction is organized. “Care chains” drain female labor from poor parts of the world (e.g. Ferguson et al., 2013), not least because public care provision in many affluent countries has been scaled back and care work has been re-privatized (Bakker, 2007; Rossella & Sainsbury, 2018). The work that remains under the radar of mainstream statistics thus varies between countries. In this sense, comparing “output” or “productivity” across borders—a staple of (political) economy analysis—risks losing meaning rather rapidly as we move beyond the narrowly conceived money economy.

The equation of work and employment hides another important bias: an inattentiveness to unfree and exploitative labor relationships around the world.³ The problems for mainstream statistics are manifold. Most immediately, forced labor is often hidden behind facades of propriety and therefore difficult to quantify (Phillips, 2018). Moreover, how should employment statistics categorize forced labor? Considering coercive and exploitative labor relations as employment, with its positive ring, is clearly inadequate—but so are the alternative categories of

“unemployment” and “inactivity”. Standard employment statistics simply do not foresee the possibility of unfree labor; hence it remains invisible in much country-comparative quantitative work.

Indeed, free versus unfree-labor dichotomies fail to do justice to the myriad forms and degrees of unfreedom that exist (LeBaron, 2015). How little agency must a worker have before her work no longer counts as employment but forced labor? Labor markets vary enormously around the globe, and so do public alternatives to paid employment provided through welfare states, where they exist. Institutionalized racism also means where one person finds a whole palette of employment opportunities, another may meet discrimination and little choice. If destitution is the only other option, people will accept “employment” that elsewhere would unambiguously qualify as exploitation. “Unemployment” means something very different in Norway than in Namibia or Nicaragua.

When racial and gendered inequalities overlap, statistical distortions are likely to be particularly pronounced (cf. Alenda-Demoutiez, this issue). To what degree do even basic demographic categories do justice to the lives of people at the intersections of different forms of privilege and discrimination (Collins, 2000)? Mainstream statistics may capture the realities of white male factory workers just fine. The lived experiences of (often disadvantaged) women of color, in contrast, are often systematically different, and therefore frequently hard to square with institutionalized categories—whether in poor countries or rich ones (Bertrand & Mullainathan, 2004; Browne & Misra, 2003; Mills, 2003). Hardwired typologies suit some people much more than others (Celis & Mügge, 2018), but statistics built on them conceal such skews.

Over the decades, statisticians have acknowledged such narrowness (e.g. Studenski, 1958, p. 177), worried about comparability (Speich, 2011), and widened the net of what statistics should capture (Vanoli, 2002). But as a socially constructed entity, the national economy remains blurry, especially around its edges: the different facets of cross-border production are not clearly demarcated (cf. Nguyen and Coyle, this issue), and coerced, voluntary and wage labor bleed into each other. Our daily lives are not chopped up into discrete economic and non-economic pieces, and increasing working from home, which may stick even as Covid-19 health threats recede, muddle the distinction between them further. The resulting measurement ambiguities clash with statistics’ need for neat compartmentalization, a tension that reinforces the narrowness of data (Bowker & Leigh Star, 1999; Mügge & Linsi, 2020). For example, efforts in the international statistical community to include unremunerated female labor in national accounts were ultimately aborted as no consistent and convincing way could be found to attach monetary value to it, which is essential for calculating GDP (DeRock, 2019; Hoskyns & Rai, 2007). The bias, therefore, rests not so much in statisticians’ unawareness of unpaid labor, but in its incompatibility with an economic measure that continues to prioritize, if not fetishize, the money economy.

Beyond such biases at the individual level, statistics naturalize unequal economic relations between countries. Macroeconomic data has an air of objectivity; indeed, the veneer of facticity is its greatest asset. This fetishization of objectivity is itself historically contingent (Daston & Galison, 2007; Kwa, 2011), as other claims to trustworthy knowledge—for example personal experience—have lost out to ‘facts speaking for themselves’. Yet as it stands, macroeconomic data reifies the power

relations that underpin the emergence of particular economic outcomes as quantified in statistics. In “The GDP Illusion”, Smith (2012) highlights how production figures conflate price with value (cf. Mazzucato, 2018). Real-world prices, the building blocks of GDP statistics, do not emerge in some ideal market situation but amidst highly unequal terms of trade. Raw materials from poor countries may be cheap not because they have little intrinsic value, but because global power relations help others to appropriate the value produced by disadvantaged workers. Imagine people in rich countries paying prices for their morning coffee or T-shirts that would allow the workers who harvest the beans or sew the cloth to sustain what Europeans or Americans would deem acceptable living standards. Relative prices would be much higher and rich country-poor country GDP differentials much lower. GDP figures thus add insult to injury by showing poor countries to be producing little, suggesting that they are unproductive—when in fact part of the problem is that they, or more precisely their workers, are forced to part with the fruits of their labor on disadvantageous terms.

This insight harks back to the broader point that capital valuations do not simply mirror inherent productive capacity. Instead, they build on capital owners’ ability to appropriate surplus value, including through the legal and potentially coercive context in which production is embedded (Nitzan & Bichler, 2009; Perry, 2009). The insight travels further: across different economic sectors, seeming “contributions to GDP” may in effect simply reflect sectors’ successful value-capture, as Greta Krippner (2005) has argued for finance and real estate, and many others have since her (Assa, 2016; Christophers, 2011; Mazzucato, 2018). The factoryless manufacturing Nguyen and Coyle (this issue) examine reveals this point starkly: the most money for fashionable sneakers or fancy consumer electronics is earned by companies that do not actually produce them. Factoryless manufacturing highlights how detached production and profiting from it really are.

Once we abandon the assumption that money earned somewhere must reflect genuinely productive activity, we see GDP figures in a different light: they track monetary flows and accretions. By presenting the latter as mirrors of productive activity (Christophers, 2011), such statistics sap the politics from them (Barry, 2002). But what if we decided that, say, arms production, gambling, advertising and sundry other things did not contribute to the wealth of nations and hence should not count, even if money is certainly earned through them (Shaikh & Tonak, 1994)? The resulting statistics would look rather different, perhaps much closer to our own sense of what constitutes wealth and production and what does not. Whenever we use mainstream GDP figures, we reproduce the moral agnosticism built into them—and thus the sense that money-might is right.

Statistics in political practice

For students of politics, two questions follow: who or what actually determines the content and implementation of statistical standards? And how do policymakers, politicians, citizens and academics make use of macroeconomic statistics, such that the biases built into them might matter beyond skewed representations?

Historians of statistics have chronicled the evolution of economic data and the standards underlying it in great detail (e.g. Desrosières, 1998; Kenessey, 1994; Lepenies, 2013; Porter, 1995; Salais et al., 1986; Stapleford, 2009; Studenski, 1958;

Tooze, 2001; Zimmermann, 2006). This rich scholarship forbids simple summary (cf. Mügge, 2019 for a genealogical sketch). What is clear, however, is that public statistics have always been built with a political purpose in mind, reflecting the political preoccupations and mindsets of those who commissioned them. In this sense, statistical standards are more or less recent sediments of political struggles as they congealed around particular issues—be they unemployment, lagging productivity, public debt, or rising costs of living.

Once institutionalized, standards tend to be sticky, although their categories or concepts may no longer chime with updated policy goals or present-day economic realities (Mügge & Linsi, 2020). Statistical standards are embedded in hard-to-renegotiate international agreements, most obviously in the European Union. Statisticians are loath to break long time-series by frequently overhauling standards, while popular demands for accountability through solid quantitative evidence discourage their hasty and experimental adaptation.

This stickiness of standards has meant that important economic developments in recent decades have been poorly captured in mainstream indicators—think of digitization and globalization in GDP statistics (Bean, 2016; Brynjolfsson & McAfee, 2014; UNECE & Eurostat & OECD, 2011), fragmenting labor markets in unemployment figures (Sennett, 2006), derivatives in debt statistics (cf. Bryan et al., 2017), or online shopping in inflation numbers (Johnson, 2015). These problems are rooted in the increasing blurriness of economic relations: globalization blurs economic borders; the so-called gig economy and Covid-19 inspired homeworking blurs the line between employment and non-employment; derivatives blur boundaries between currencies and between what is money and what is not; online shopping, with prices custom-tailored to the client, blurs “the price” of any given good. Present-day economic trends throw down the gauntlet to customary economic statistics with their reliance on bright-line definitions, and analysts have to ask themselves whether the figures they use still capture what they claim to do.

Institutionally, actual standards-setting is dominated by a small, transnationally integrated circle of experts. International templates such as the System of National Accounts, the Balance of Payments manual, and ILO standard definitions of unemployment are not negotiated between governments proper but in working groups that bridge international organizations such as the OECD, the UN and the IMF. On the one hand, actual standards-setting is more insulated from self-interested inter-governmental haggling than skeptics might suspect. On the other hand, it is also relatively detached from societal input and concerns. This may be unsurprising given the complexity of statistics. Nevertheless, the potential disconnect between societal priorities and data construction and composition is worrying. As statactivists remind us (Bruno et al., 2014), democratizing public statistics further would require making sure they reflect a broad palette of societal priorities. The same is true on the global level, because the expert-deliberative character of statistical standards-setting—as opposed to more negotiated dynamics in, for example, World Bank lending programs—means that relative outsiders to this system, for example from poorer countries, may struggle to influence global measurement rules.

This matters because economic structures and conditions differ enormously around the world, and it is not evident that superimposing a unified statistical yardstick onto its more than 200 jurisdictions makes sense. That makes the global spread of harmonized statistical standards remarkable in its own right (Speich, 2011).

International organizations have proselytized for such harmonization after the second World War in the name of development (cf. Schmelzer, 2016; Ward, 2004). But the SNA's roll-out across the world—especially to (former) colonies—did not always proceed smoothly (Masood, 2016). Only with the demise of the Soviet Union in the early 1990s (Herrera, 2010) and Chinese market-oriented reforms around the same time (van Heijster, 2020) did the SNA complete its global conquest.

The Chinese and South African cases in this special issue demonstrate the complicated politics of macroeconomic statistics' worldwide spread. As van Heijster and DeRock's contribution issue shows, it is no coincidence that China was the last domino to fall in GDP's global march to dominance. Even though Beijing has abandoned outright planning, no other major global power operates such a highly coordinated and intrusive form of economic policy. With the material product system, China already had a sophisticated economic measurement system in place decades ago; embracing GDP meant jettisoning entrenched practices. Administered prices, certainly in the 1990s, proved a poor fit with the market price-based measures of GDP. And Beijing's insistence on provincial production targets had given growth figures an additional, unique role, replete with incentives for local officials to subvert the system (Wallace, 2016). For all these reasons, the Chinese adoption of GDP entailed significant local translation (cf. Ban, 2016). That GDP prevailed even there, in spite of its shortcomings, demonstrates the unique appeal of such metrics, also to project an image of technical sophistication and maturity abroad.

South Africa, examined by Juliette Alenda in this issue, is an equally instructive outlier. Formally, the country abided by international statistical standards even during apartheid. In practice, the racial segregation and oppression South Africa practiced distorted its national statistics. As Alenda details, the lives of black South Africans largely dropped out of the data—think of information about their labor market situation, much of the production and consumption within the townships, or price levels and financial developments there. With the official end of apartheid in the mid-1990s, South Africa reformed its statistics, eager to let the data reflect its societal transformation. But despite good intentions, these efforts have only partially been successful. Like all other countries, South Africa encountered the inherent limits of mirroring complex social and economic conditions in simple spreadsheets. Shades of grey, subtleties, and local specificities were inevitably lost, much to the chagrin of those who felt ignored in consequence. Economic statistics remained a bone of contention, with opposing political parties decrying their political charge. In light of these difficulties, Statistics South Africa eventually embraced international standards more than the specificities of the country might initially have justified. Such standards functioned as a quality seal for local statistics, which might otherwise have struggled to escape constant challenges to their solidity.

Both cases detail how governments around the world face incentives to subscribe to international statistical standards—even where both the conceptual fit and the local capacity to implement measurement standards have lagged behind the ambition of globally harmonized figures (Jerven, 2013; Speich, 2008). As argued above, harmonized indicators already introduce serious skew into our perceptions of global economic relations. A gap between what standards prescribe and the measurements that are actually implemented only muddles statistical representations further.

To permit international on-paper-harmonization, international rules and standards frequently have ambiguity built into them—a key tool, as Best (2005) has argued, to square formal compliance with flexibility (cf. Herrera, 2013). This flexibility entails, for example, different admissible ways to collect data or the application of different valuation procedures. International rules for FDI stock statistics for instance offer a whole range of calculation options. Danish Central Bank and IMF researchers Damgaard and Elkjaer (2014) have demonstrated how using alternative valuations can generate completely different figures—all compliant with one and the same international standard (cf. Kerner, 2014).

As Aragão and Linsi show in their contribution to this special issue, such multiple options contravene simplistic notions of accurate versus fraudulent figures (Hollyer et al., 2011; Kerner et al., 2017; Wallace, 2016), even though there certainly is room for and evidence of genuine statistical fraud. With incentives to put their best foot forward, governments are likely to choose measurement options that portray their own achievements in a positive light. A political slant on, say, growth or unemployment figures need not coincide with non-compliance and outright lies. As often in global governance, formal compliance with standards may politically be as least as relevant as substantive buy-in—to the point at which the IMF itself may actively support statistical charades (Samuel, 2014). Both critics and champions of social and economic statistics have to realize that there is a gap between what on-paper standards prescribe and what ends up in spreadsheets.

The use of macroeconomic data in policy is no less complicated than its production. On the one hand, metrics, rankings, indicators and the like seem uniquely powerful (Fioramonti, 2014; Lepenies, 2013)—a trend that has intensified as new public management ideas have strengthened their grip on both domestic and transnational politics (Knafo, 2020; Power, 1997). Statistical offices invest great energy in producing economic and social data, and complaints about excessive quantification notwithstanding (Muller, 2018), such metrics' weight in public life is bound to increase further (Data Revolution Group, 2014; Susskind, 2018). The Sustainable Development Goals, with 17 goals underpinned by no fewer than 300 indicators, is a prime example of this trend.⁴

On the other hand, macroeconomic statistics have fewer immediate, unfiltered effects on policies and society than one might expect (Hirschman & Berman, 2014 have argued this point for economic expertise more generally). They are directly fed into macroeconomic models used by finance and economics ministries, central banks, and so on (Henriksen, 2013). But beyond this, statistics require interpretation and narration (Espeland et al., 2015), even in highly technocratic policy settings such as central banks (Abolafia, 2010). Such narratives explain, for example, whether an uptick in inflation is incidental or structural, or when we should or should not expect growth to pick up again after a slump.

Statistics also offer policymakers at least the illusion of control. As Beckert (2016) has argued, to orient and justify actions in the here and now, economic agents need a sense of what the future may hold and how alternative scenarios interact with present-day decisions. These fictions are highly contingent and frequently build on simplistic narratives—"the rise of the BRICS", "secular stagnation", "the coming take-over of robots"—that are stylized abstractions from economic data.

Interpretative frames also tell policymakers which statistics matter most, and which ones less so. Previous financial crises triggered the IMF to expand its statistical arsenal only after the fact. The Fund shifted its attention to debt statistics after the Latin American debt crises of the 1980s, and to foreign currency reserves following the Mexican meltdown in 1994 (Reichmann, 2016). Most central bankers missed the warning signs of the global financial crisis—which, retrospectively, were hiding in plain sight—because their interpretative frames accorded little importance to ballooning derivatives markets or real estate bubbles (Fligstein et al., 2017).

Politicians are no hostages to economic data; they can and frequently do ignore the advice that economists derive from it (cf. Hirschman & Berman, 2014). Depending on whether they are incumbents or in opposition, politicians will selectively highlight data that vindicates or indicts current economic policy. While economic statistics still carry weight as a basis for uniquely authoritative claims, they are far from independent referees that pronounce definitive verdicts on economic conditions.

At the same time, statistics can bear on economic policy not because politicians themselves care, but because other stakeholders do (cf. Espeland & Sauder, 2007). Debt to GDP ratios, for example, suffer from significant measurement ambiguities (Bloch & Fall, 2015). But they shape investor perceptions of fiscal probity and, when they trigger adverse market reactions, can shape policy itself (Mosley, 2003). Through such second-order effects, metrics can be consequential even when the entity in question—whether a state or an individual—dismisses them as inappropriate or irrelevant. Many international country-rankings, for example about gender equality, labor rights or the ease of doing business, leverage this dynamic to effect involuntary policy change (Best, 2017; Broome & Quirk, 2015; Kelley, 2017; Kelley & Simmons, 2015).

In inter-country affairs, economic statistics can feature as benchmarks or arbiters for agreements between governments (Mügge, 2020). The most obvious case is the European Union's Stability and Growth Pact with its infamous debt and deficit thresholds (Schelkle, 2009). Scholars and public debate have often decried or derided the highly quantified EU economic governance apparatus (cf. Bokhorst, 2019). The first camp sees it as a bloodless technocratic automatism that violates member state sovereignty and common sense. The second laments it as a toothless paper tiger that is little less than a flimsy cover for power politics as usual.

Neither view does justice to the messy interplay of political arm-twisting and expertise-based authority. Statistics in EU economic governance have not functioned as a policy straightjacket; they have instead fueled debate and deliberation as well as pushback from indicted member states. The question is not whether actors play by the quantified rules or not, but how, when and why their fragile epistemic authority can act as a bulwark against brute forms of self-interested bargaining—which may itself be shaped by beliefs derived from statistics. Data practices can blunt both the virtues and the vices of statistics as governance tools, and it takes case-based empirical investigation to find out how much.

Conclusion

Statistics are as central in our societies as they are problematic. This is true not only for economic statistics but also for demographic data drawn from censuses, crime statistics, figures about conflicts, pandemics, and so on. Macroeconomic statistics still reify an economic imagery centered around white male factory work

and wage labor. This bias and the attendant view of what “the economy proper” is (and is not) is not only relevant to politics but also to scientific research. It informs academic boundaries between economics and other disciplines such as sociology, political science, law, history and anthropology, which harbor much of the political economy research more broadly conceived.

Once we appreciate economic statistics as the politically charged and historically contingent constructs that they are, we dilute the disciplinary restrictions that obstruct a more holistic study of “the economy” as a domain of politics. Because statistics go to the heart of how our objects of study are defined, we need to read and teach them as political artefacts (Saetnan et al., 2011).

Statistics will not disappear from political life anytime soon; nor should they. They can be used to expose injustices as much as to hide them. As uniquely powerful simplification devices, they are essential to public governance. We therefore face an ineluctable dilemma: how can we square fairness and inclusiveness with the need for simplification? The key, I think, lies in a dynamic view of statistics, marked by iterative eradication of their most egregious shortcomings. Amartya Sen (2009) has argued that justice is not a pre-defined, perfect end-state—an unattainable and thereby ultimately immobilizing goal. Instead, it is the progressive eradication of injustices as we identify them. I see statistics similarly: the goal should not be their complete freedom from bias, but an approach that, one step at a time, tries to correct the skews in the data.

Such a stance faces clear challenges in practice. It would either invite an enormous proliferation of statistics, with myriad parallel measures that lose their function as intersubjectively shared yardsticks and focal points. Or it would mean that standards for, say, GDP or unemployment are frequently overhauled, such that we would lose the ability to make comparisons over long stretches of time—one important ambition underpinning economic data (Mügge & Linsi, 2020). But to align statistics with pressing normative concerns—for example racial justice or sustainability—abandoning long time series may be a price worth paying.

Which biases and omissions we find most in need of correction is inevitably a normative debate. Political economists have an important role to play in it, because it hinges on the impact data has on real-world matters: how does the data that we have, or do not have, shape our ability to study the issues we care about? And how do skews reverberate in concrete policy? With answers to these questions, political economy analyses can feed debates about how statistics can and should be improved. The “best” way to measure, say, FDI is not only about chasing statistical ideals. It is also a practical question: which of the alternative measurement options would allow us to track better things that we care about, for example corporate tax evasion or stark imbalances in global wealth?

Such debates about statistical yardsticks, which take inspiration from data’s real-world impact, will need political economists to unearth it. We face both an analytical and a normative imperative to work towards figures that do justice to the world and the people in it.

Notes

1. This broad acceptance of *headline* indicators—figures for trade, unemployment, inflation, and so on—stands in contrast to frequent critical analyses of more obviously constructed metrics, such as the output gaps (Heimberger & Kapeller, 2017), financial

risk (de Goede, 2004), credit ratings (Paudyn, 2013), or accounting standards (Mügge & Stellinga, 2015; Perry & Nölke, 2006).

2. For inflation, see (Boskin *et al.*, 1998; Johnson, 2015; Mackie & Schultze, 2002); for unemployment (author; Baxandall, 2004; Green, 2000); for public debt (Bloch & Fall, 2015); for economic growth (Shaikh & Tonak, 1994; Stiglitz *et al.*, 2010; Fleurbaey & Blanchet, 2013); for the balance of payments (UNECE & Eurostat & OECD, 2011; Kerner, 2014; author); for productivity statistics (Block & Burns, 1986; Guvenen *et al.*, 2017).
3. By all accounts, forced labor is a more acute problem in poor countries than in richer ones, which continue to stand central in most IPE research. But also in the latter, the blindness of mainstream statistics to forced labor and other forms of unfreedom can distort our view of labor markets.
4. This is not to mention corporate hunger for data, which grows at an even faster pace (Lanier, 2013; Zuboff, 2019).

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