



## The IMF and government health expenditure: A response to Sanjeev Gupta

Thomas Stubbs<sup>a, b, \*</sup>, Alexander Kentikelenis<sup>c, d</sup>, David Stuckler<sup>c</sup>, Martin McKee<sup>e</sup>, Lawrence King<sup>a</sup>

<sup>a</sup> Department of Sociology, University of Cambridge, United Kingdom

<sup>b</sup> School of Social Sciences, University of Waikato, New Zealand

<sup>c</sup> Department of Sociology, University of Oxford, United Kingdom

<sup>d</sup> Department of Sociology, University of Amsterdam, The Netherlands

<sup>e</sup> European Observatory on Health Systems and Policies, London School of Hygiene & Tropical Medicine, United Kingdom

© 2016 Published by Elsevier Ltd.

Do policy conditions attached to International Monetary Fund (IMF) lending programmes have an impact on government health expenditure in developing countries? Yes, according to a large body of literature (see Kentikelenis, 2017), and our recent article (Stubbs et al., 2017).

We systematically reviewed IMF loan agreements and staff reports to generate a database of “binding” conditions that could plausibly impact health expenditure. Our database offered an alternative to the IMF’s own conditionality dataset, which has been widely criticized for inaccuracies and omissions (Arpac et al., 2008; IEO, 2007). Using cross-national models covering 16 West African countries between 1995 and 2014, we found that each additional binding IMF policy reform reduces government health expenditure per capita by 0.25% (95% CI -0.44 to -0.06). The mean number of binding conditions, at 25 per year, thus corresponds to a 6.21% reduction, on average, in government health spending per capita associated with IMF conditions.

To further test these findings, we performed a narrative review of these documents. They showed that IMF policy reforms reduce fiscal space for health investment, limit expansion of doctors and nurses, and undermine health system efficiency. It was clear that IMF programmes placed enormous pressure on already strained health systems, reducing health spending at times when economic crises placed more people in harm’s way.

In the comment on our research paper, Sanjeev Gupta (2017), deputy director of the IMF’s influential Fiscal Affairs Department, disagrees. Here we take each of his points in turn.

First, Gupta asks, “is the qualitative method adopted by the article suitable for drawing causal inferences?” Qualitative research can serve as an additional source of data that can greatly increase our confidence in quantitative findings. Importantly, it can help elucidate the mechanisms through which a given intervention or reform affects outcomes, rather than merely treating these mechanisms as a ‘black box’. Social scientists have long since reached a consensus that mixed-methods research designs can strengthen the validity of inferences (consistent with Bayesian thinking about causality).

\* Corresponding author. Department of Sociology, University of Cambridge, Office S13, 17 Mill Lane, Cambridge, Cambridgeshire CB2 1RX, United Kingdom.

Email address: ths27@cam.ac.uk (T. Stubbs)

Gupta claims the “findings from the qualitative methods are mostly selective and anecdotal.” As detailed in the original article, we systematically searched the IMF’s archival material on the 16 West African countries for information related to health systems and social protection policies. Our analysis is reproducible; we report the specific documents retrieved, the search terms, and the inclusion criteria, following standard methods in systematic reviews.

Second, Gupta then claims our search terminology missed key channels of potentially positive IMF impact, such as minimum social spending floors and spending efficiency. This is incorrect. Turning first to minimum floors on social spending, Gupta claims the study fails to have an “explicit incorporation of minimum floors on social spending in Fund-supported programmes [which] has encouraged countries to raise health spending.” Yet, our search did cover this issue. Indeed, we noted that there are some successes; but the data from the IMF’s archives revealed that “of the 210 priority spending floors for which we could identify implementation data, only 97 were implemented, about 46%” (Stubbs et al., 2017, p. 223).

Further, we cited the IMF’s archival documents for Benin, Guinea, and Sierra Leone, in which country officials attest to difficulties in meeting social spending floors because of IMF-mandated expenditure reductions. Their testimonies are further supported by new research showing that when social spending floors are rarely met, budget balance conditions are met almost all the time (Kentikelenis et al., 2016). These findings suggest that although the IMF does include priority spending floors in their programmes, they assign less importance to them than to budget balance ceilings.

Similarly, Gupta claims that our search did not capture how “[by] improving spending efficiency ... IMF programmes [can] help improve health outcomes even with the same level of health spending.” Yet, we clearly reported on the case of Benin, where the IMF successfully assisted the country to “improve the utilization of social sector appropriations” by introducing budgetary execution systems (Stubbs et al., 2017, p. 224).

Most evidence we found was, however, contrary to what Gupta asserts. As we demonstrated, drawing on IMF documents from Guinea, Mali, Burkina Faso, and Senegal, the Fund’s steps towards improving budget execution typically translated into fiscal and administrative decentralisation of health-care systems; this often created governance problems and exacerbated local institutional weaknesses,

creating challenges especially when managing nationwide disease outbreaks.

Third, commenting on our quantitative analysis, Gupta accuses us of failing to address “endogeneity issues”, such as the initial conditions faced by countries. He suggests, for example, that “the findings from the article could simply reflect different initial conditions faced by countries with/without IMF programmes and countries with different binding conditions.” In fact, we anticipated this issue and directly addressed it in our econometric models. Using Heckman’s (1979) two-stage method, our regression analysis explicitly controlled for a range of observable initial conditions: GDP per capita, ODA per capita, war, urbanisation, the dependency ratio, and two-way fixed effects in the outcome model; as well as total number of countries under IMF programmes, economic growth, current account balance, and levels of democracy in the selection model. As is well-established in the literature, the Heckman method also accounts for potential unobserved factors, including initial conditions, which could affect both selection into IMF programmes and the outcome of interest (see Vreeland, 2003). Moreover, concerns about endogeneity of the IMF variables were alleviated in extensive robustness checks. We obtained consistent results when using a two-stage-least-squares model, with IMF variables instrumented using United Nations General Assembly voting affinity with the United States and the total number of countries under IMF programmes (Barro and Lee, 2005; Dreher, 2006; Oberdabernig, 2013).

Lastly, Gupta questions our statistical understanding, but in turn makes basic statistical errors of interpretation. He says that “Model 1 of the paper suggests that IMF programmes on average have positive but statistically insignificant effects on government health expenditure. The magnitude in fact is quite large,” and that “Without bringing any of these discussions in the abstract the latter misleads readers.” In other words, we are accused of failing to detect an effect that was not statistically significant. We are surprised that the IMF would be confused on this basic statistical point.

Generally, Gupta misrepresents literature on the socio-economic effects of IMF policies by selectively citing past studies. He exhibits confirmatory bias by failing to acknowledge research that contradicts his views and is more representative of the field. We provide a few examples below, referring to the peer-reviewed literature.

First, Gupta notes that “IMF-supported programmes lead to higher economic growth through macroeconomic stability and other channels,” and can thus generate fiscal space to finance health care. Most of the empirical evidence does not support this claim; it typically finds that IMF programmes either decrease or have no effect on economic growth (Barro and Lee, 2005; Dreher, 2006), provoke civil conflict (Hartzell et al., 2010), diminish rule of law (Barro and Lee, 2005), and adversely affect poverty and inequality (Oberdabernig, 2013).

Second, Gupta claims that our findings are not consistent with the literature, citing an IMF study (Clements et al., 2013). He asserts that “previous research ... shows that health spending has risen in these programmes.” Yet this fails to acknowledge research that has found the opposite (Kentikelenis et al., 2015; Nooruddin and Simmons, 2006).

Third, Gupta suggests IMF-supported programmes increase donor financing; in fact, we noted that IMF lending programmes did catalyse aid for some sectors, but not for health (Stubbs et al., 2016). Other studies found that IMF programmes displace health aid by diverting these resources to replenish reserves or repay debt (Baker, 2010; Stuckler et al., 2011).

Finally, Gupta is critical of a conditionality count as a way to capture programme heterogeneity. We followed best practice in using this measure as a characterization of programme stringency and intru-

siveness (Beazer and Woo, 2016; Chwieroth, 2015; Dreher et al., 2015; Rickard and Caraway, 2014). This advances on earlier studies, where IMF programmes are treated as homogenous by using a dummy variable for participation (e.g., Clements et al., 2013).

We welcome that the IMF—through its senior staff members—responds to and engages with academic researchers. After all, we believe that we share the view—long expressed by the United Nations (1988)—that structural adjustment programmes should be judged by their effects on the human condition. In an era of global uncertainty and important challenges to international organizations (Babb and Kentikelenis, 2017), the IMF could best address criticism by reforming its practices, thereby living up to its own standards on social protection, rather than continuing to deny evidence.

## References

- Arpac, O., Bird, G., Mandilaras, A., 2008. Stop interrupting: an empirical analysis of the implementation of IMF programs. *World Dev.* 36 (9), 1493–1513. <http://doi.org/10.1016/j.worlddev.2007.09.001>.
- Babb, S., Kentikelenis, A., 2017. International financial institutions as agents of neoliberalism. In: Cahill, D., Cooper, M., Konings, M. (Eds.), *The Sage Handbook of Neoliberalism*. Sage, Thousand Oaks, California.
- Baker, B., 2010. The impact of the International Monetary Fund’s macroeconomic policies on the aids pandemic. *Int. J. Health Serv.* 40 (2), 347–363. <http://doi.org/10.2190/HS.40.2.p>.
- Barro, R., Lee, J.-W., 2005. IMF programs: who is chosen and what are the effects?. *J. Monetary Econ.* 52 (7), 1245–1269.
- Beazer, Q.H., Woo, B., 2016. IMF conditionality, government partisanship, and the progress of economic reforms. *Am. J. Political Sci.* 60 (2), 304–321. <http://doi.org/10.1111/ajps.12200>.
- Chwieroth, J.M., 2015. Professional ties that bind: how normative orientations shape IMF conditionality. *Rev. Int. Political Econ.* 22 (4), 757–787. <http://doi.org/10.1080/09692290.2014.898214>.
- Clements, B., Gupta, S., Nozaki, M., 2013. What happens to social spending in IMF-supported programmes?. *Appl. Econ.* 48 (28), 4022–4033. <http://doi.org/10.1080/00036846.2012.744136>.
- Dreher, A., 2006. IMF and economic growth: the effects of programs, loans, and compliance with conditionality. *World Dev.* 34 (5), 769–788. <http://doi.org/10.1016/j.worlddev.2005.11.002>.
- Dreher, A., Sturm, J.-E., Vreeland, J., 2015. Politics and IMF conditionality. *J. Confl. Resolut.* 59, 120–148. <http://doi.org/10.1177/0022002713499723>.
- Gupta, S., 2017. Can a causal link be drawn? A commentary on “the impact of IMF conditionality on government health expenditure: a cross-national analysis of 16 West African nations”. *Soc. Sci. Med.* <http://doi.org/10.1016/j.socscimed.2017.03.022>.
- Hartzell, C.A., Hoddie, M., Bauer, M., 2010. Economic liberalization via IMF structural adjustment: sowing the seeds of civil war?. *Int. Organ.* 64 (2), 339–356. <http://doi.org/10.1017/S0020818310000068>.
- Heckman, J., 1979. Sample selection bias as a specification error. *Econometrica* 47, 153–161. <http://doi.org/10.2307/1912352>.
- IEO, 2007. *Structural Conditionality in IMF-supported Programs: Background Documents*. Washington, DC.
- Kentikelenis, A., 2017. Structural adjustment and health: a conceptual framework and evidence on pathways. *Soc. Sci. Med.* <http://doi.org/10.1016/j.socscimed.2017.02.021>.
- Kentikelenis, A., Stubbs, T., King, L., 2015. Structural adjustment and public spending on health: evidence from IMF programs in low-income countries. *Soc. Sci. Med.* 126, 169–176. <http://doi.org/10.1016/j.socscimed.2014.12.027>.
- Kentikelenis, A., Stubbs, T., King, L., 2016. IMF conditionality and development policy space, 1985–2014. *Rev. Int. Political Econ.* 23 (4), 543–582. <http://doi.org/10.1080/09692290.2016.1174953>.
- Nations, United, 1988. *Khartoum Declaration: towards a Human-focused Approach to Socio-economic Recovery and Development in Africa*. Addis Ababa.
- Nooruddin, I., Simmons, J.W., 2006. The politics of hard choices: IMF programs and government spending. *Int. Organ.* 60 (4), 1001–1033. <http://doi.org/10.1017/S0020818306060334>.
- Oberdabernig, D., 2013. Revisiting the effects of IMF programs on poverty and inequality. *World Dev.* 46, 113–142. <http://doi.org/10.1016/j.worlddev.2013.01.033>.
- Rickard, S., Caraway, T., 2014. International negotiations in the shadow of national elections. *Int. Organ.* 68 (3), 701–720. <http://doi.org/10.1017/S0020818314000058>.
- Stubbs, T., Kentikelenis, A., King, L., 2016. Catalyzing aid? The IMF and donor behavior in aid allocation. *World Dev.* 78, 511–528. <http://doi.org/10.1016/j.worlddev.2015.10.010>.

Stubbs, T., Kentikelenis, A., Stuckler, D., McKee, M., King, L., 2017. The impact of IMF conditionality on government health expenditure: a cross-national analysis of 16 West African nations. *Soc. Sci. Med.* 174, 220–227. <http://doi.org/10.1016/j.socscimed.2016.12.016>.

Stuckler, D., Basu, S., McKee, M., 2011. International monetary Fund and aid displacement. *Int. J. Health Serv.* 41, 67–76. <http://doi.org/10.2190/HS.41.1.e>.  
Vreeland, J., 2003. *The IMF and Economic Development*. Cambridge University Press, Cambridge.

UNCORRECTED PROOF