Educational system reforms, changes, and inequality in attainment in low- and middle-income countries (LMICs)



Mobarak Hossain

Department of Social Policy and Intervention, Nuffield College

University of Oxford

Trinity 2022

Thesis submitted in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

Abstract

Educational systems in low- and middle-income countries (LMICs) have gone through considerable reforms and changes, especially during the last four decades. This has been a part of the broader shift of development assistance by international organisations (IOs) from merely financing to policy reforms for better results by overcoming the limitations of traditional, centralised institutions in many LMICs. One of these reform areas has been to decrease standards or de-standardise educational systems by devolving managerial responsibilities regarding education policies to sub-national and school levels. De-standardisation means the extent to which educational systems do not maintain equal standards across local entities and schools. The World Bank (WB) has played a pioneering role to lead this 'movement'. Nonetheless, there is a lack of literature about the theoretical and empirical understanding of these reforms, actual changes in educational systems brought in LMICs, and how they relate to inequality in educational outcomes. This dissertation examines four major questions addressing these issues in four different papers.

The ***first*** paper (published in *Sociology of Education*) investigates the trends and the types of de-standardisation reforms implemented by the WB across 99 LMICs. Data come from coding all available WB projects on primary and secondary education through extensive archival research. Findings show that WB-implemented de-standardisation reforms have experienced notable growth since the late 1980s and early 1990s onwards. Around 63 percent of WB project components have focused on de-standardisation reforms. This could be arguably led by the end of the Cold War resulting in diffusing these reforms across LMICs from countries with liberal democratic institutions. The ***second*** paper, using the same measures as in paper 1, examines why the WB may have implemented more de-standardisation reforms in some countries compared to others. Results suggest that the more authoritarian regimes are, the more likely they have received these reforms

by the WB at the sub-national level. This aligns with the existing debate that de-standardisation reforms may have been diffused more authoritarian regimes; many of those were part of the former Soviet Union. However, the result is the reverse for de-standardisation at the school level. This could be because school-level de-standardisation may require substantial autonomy at the sub-national level first. This is why more authoritarian regimes have been more likely to implement these reforms in sub-national entities, while less likely to implement at the school level. The ***third*** paper examines whether de-standardisation reforms are associated with factual changes in decreasing the standards of educational systems on the ground in 30 LMICs. This is based on a unique dataset on the actual state of the de-standardisation of educational systems. There is no evidence of the association between WB reforms and corresponding factual changes. Finally, the ***fourth*** paper investigates the association between the actual state of the de-standardisation of educational systems and the inequality in attainment at the secondary level in 27 LMICs. Combining the macro institutional measures at the country level with household surveys, findings suggest that the attainment gap between the poorest and richest individuals is 11 percentage points higher in highly de-standardised systems at the sub-national level compared to that of weakly de-standardised systems. The gap is 14 percentage points when considering school-level de-standardisation. Moreover, highly de-standardised systems, especially at the school level, continue demonstrating wider attainment gaps over time. These results align with existing evidence from high-income countries that educational systems maintaining dissimilar standards may widen inequalities in educational outcomes. Implementing educational reforms in LMICs by IOs without evidence still remains a prevalent practice. Instead of diffusing similar reforms across educational systems, more focus should be given to contextual elements and how the reforms may affect marginalised communities in particular.

Acknowledgements

This dissertation could not have been accomplished without the support of many including my family, friends, and the academic community at the University of Oxford. I am grateful to my DPhil supervisor Erzsébet Bukodi for her continuous support and feedback not only to write the dissertation but also to navigate academia, to shape my thoughts, and helping me explore different subdisciplines of sociology. I am also thankful to my college advisor Richard Breen for being very supportive during the course of the DPhil programme.

It has been a great privilege to write this dissertation at the University of Oxford. I am grateful to Nuffield College and the Department of Social Policy and Intervention to support my DPhil through the Barnett House-Nuffield Joint Scholarship. I particularly thank Nuffield College and the college staff for providing incredible support during the COVID-19 pandemic.

I am also thankful to the examiners at various stages of my DPhil, participants in the Social Inequality Research Group seminar who provided me helpful feedback, and friends at the Department and College for all the exchanges which helped me develop new analytical insights.

Contents

Introduction	6
Paper 1: Diffusing 'De-standardisation' Reforms Across Educational Systems in LMICs: The Case of the World Bank, 1965-2020	28
Paper 2: Authoritarianism and the 'de-standardisation' of educational systems in LMICs by the World Bank	101
Paper 3: Blaming international organisations? The association between World Bank projects and changes in the standardisation of educational systems in 30 LMICs, 1990 to 2019	143
Paper 4: Educational systems and the inequality in attainment: Evidence from 27 LMICs over three decades	190
Conclusion	238

Introduction

Development aid and grants by international organisations (IOs) after the Second World War were mainly financed for the reconstruction and development of infrastructure up until the late 1980s. Since then, IOs' assistance has increasingly shifted to policy reforms in low- and middle-income countries (LMICs). One of these reform areas has been to drastically change institutions by devolving responsibilities from the central to the local levels to enhance the service delivery system and increase service recipients' satisfaction. Receiving development assistance has largely become conditional on implementing these reforms (Kentikelenis, Stubbs and King 2016). Nevertheless, due to dependency on aid, less powerful countries are often required to accept such conditions (Nanda 2006). These reforms followed the renewed world order of gaining more hegemonic power by the United States (US) and its allies after the collapse of the former Soviet Union (Wunsch 2014).

This shift from financing to policy reforms refers to a broad umbrella term of *neoliberalism*, infiltrated into many LMICs by the so-called Washington Consensus (Naim 2000, Williamson 1993). Overcentralisation and less democratic space in sharing responsibilities with local governments and communities have been seen as some of the prime causes of the slow development progress across LMICs. This push by IOs and powerful states has debatably appeared as a one-size-fits-all strategy not only across continents but also political spectrums. For instance, Williamson (1993) argues that "there is no inherent reason" (p. 1334) why the left would not endorse Washington Consensus-backed economic reforms as much as the right.

Neoliberalism as a dominant buzzword calls for two major changes: (i) limited state intervention in formulating and implementing public policies; and (ii) more privatisation and the deregulation of markets. The former phenomenon includes running public institutions, such as

education and health sectors, by the principles of private enterprise to efficiently use public resources and to satisfy 'customers' rather than 'citizens'. This is also known as the new public management (NPM) (Ferlie, Fitzgerald and Pettigrew 1996). The latter phenomenon promotes easing regulations and barriers to 'liberate' the creativity and potential of the markets (Harvey 2007).

In this dissertation, we focus on the former aspect of neoliberal institutional reforms in providing public services using the case of the education sector. This is because the state is primarily responsible for providing education in most of the LMICs, especially at the primary and secondary levels (UNESCO 2021). We know little about the forms of institutional reforms that have taken place in education, their trend over time, and, more importantly, their effects. Under NPM, to reach the goals of maximising efficiency and better results in public service, one of the common strategies of IOs has been to devolve responsibilities from the central to the local levels and to strengthen local institutions. In the 1990s, 80 percent of developing and emerging economies in different regions were devolving institutions to accelerate socioeconomic development (Manor, 1999).

In addition to the sectoral focus on education, the thematic focus in this dissertation is on the dislocation of educational responsibilities from the central to the local levels. We define this as the 'de-standardisation' of educational systems. Standardisation is understood as the degree to which educational responsibilities are centralised and equally applicable to all schools and local entities in a country (Allmendinger 1989). Hence, de-standardisation means educational responsibilities/policies do not maintain the same standards across a country. We argue that by devolving the educational system, local governments and schools maintain 'decreased standards' in implementing educational policies. In other words, educational policies are not uniformly

implemented throughout a country (Barrera-Osorio, Fasih and Patrinos 2009). In this dissertation, we use the case of the World Bank (WB) to implement these reforms across LMICs, this is due to the following reason.

The WB has been one of the pioneering IOs to implement these institutional reforms in the education and social sectors. The WB started lending in social sectors including education since the 1960s while becoming the largest source of development financing in international education during the last few decades (Heyneman 2003). As development financing has increasingly accompanied policy reforms including de-standardisation reforms, the WB has been playing a major role in initiating and diffusing such practices. WB's reforms encouraging the de-standardisation of educational systems have met critical views including that it attempts to impose its own version of neoliberal logic. That is, blaming national governments for socioeconomic outcomes (such as educational attainment and achievement) and providing policy recommendations to implement these reforms without any evidence of their effectiveness (Regmi 2017, Rhodes 1996). As an initiator of de-standardisation reforms in education, the WB has not backed its reforms with sufficient evidence with little familiarity with these reforms in many contexts. Therefore, the WB's role in diffusing de-standardisation reforms deserves in-depth research, which we aim to address in this dissertation.

Other development banks and IOs – for instance, the Asian Development Bank (ADB) and UNESCO – joined later in promoting and implementing de-standardisation reforms following the work of the WB, more so since the 1990s (Regmi 2017, Yeom, Acedo and Utomo 2002). For instance, the International Institute for Educational Planning (IIEP) UNESCO has been publishing reports and technical papers about education management reforms and the decentralisation of educational systems since the late 1990s (Govinda 1997, Naidoo 2005). Studying the activities of

IOs other than the WB in diffusing de-standardisation reforms is equally important. However, in this dissertation, we only focus on the WB as it will give us the long-term scenario of de-standardisation reforms initiated by the WB going back to the 1960s. The next step for future research will be to examine whether other IOs followed the same strategy as late joiners.

We adopt the term de-standardisation rather than decentralisation or devolution for several reasons. First, we argue that de-standardisation encapsulates broader institutional changes by IOs. Precisely, subnational entities and schools have varying levels of capacity and ability due to, for instance, differences in resources and skills among teachers and education officials. The variation in capacity means local authorities and schools may not be able to administer devolved responsibilities uniformly. Second, along with devolving educational systems, we also examine how reforms have triggered non-standard educational practices by creating new local platforms and by capacity-building. For instance, the WB promotes school-based management (SBM) through more school autonomy and encouraging participatory decision-making (Barrera-Osorio, Fasih and Patrinos 2009). SBM does not always necessitate the transfer of responsibilities from the central government to schools; it mainly encourages schools to autonomously run different functions. This is likely to increase non-standard practices across schools. Finally, non-standard practices may lead to inequalities in educational outcomes depending on the school children attend. We put forward this discussion and theoretical framework for future research to examine the inequality consequences of de-standardisation-like reforms.

These reforms were packaged under the structural adjustment programmes (SAP) aiming at reducing the fiscal and administrative burden on the central government (Rodrik 1990). Hence, advocates argue that through de-standardisation reforms, *first*, local governments and other grassroots service-providing units would be able to mobilise resources and reduce the pressure on

the budget of the central government. *Second*, this paradigm shift also assumes that by engaging local communities or service recipients in the decision-making process, public policies will be better implemented since they would be well-informed about their problems. In other words, this is to democratise and contextualise decision-making processes at the local level. Rigidly centralised traditional administration has been seen as a root cause of ineffective service delivery (Rondinelli, McCullough and Johnson 1989).

Nevertheless, the education sector in LMICs has been one of the major targets of implementing these neoliberal institutional reforms or de-standardisation. Two factors may have largely driven these reforms: (1) education is one of the largest service sectors, and (2) it universally involves grassroots communities through schools such as students, parents, and social and political stakeholders. These distinct features of the educational system may have caused an increased volume of de-standardisation reforms triggered by the shift from financing to reforms. De-standardisation reforms have taken place through devolving educational responsibilities to (1) sub-national governments and (2) schools and strengthening institutions at the local level.

D-standardisation reforms across LMICs

In this section, we briefly discuss the increasing adoption of de-standardisation reforms in LMICs. As stated, in the late 1990s, 80 percent of developing and emerging economies in different regions were experimenting with decentralisation reforms (Manor 1999). These reforms have mainly been triggered by the democratisation process worldwide thanks to the changing global political hegemony during the post-Cold War period. Many pro-Soviet regimes started leaning towards the United States (US) and allies' bloc and embraced reforms led by development banks and aid agencies (Thimmaiah 2000, Wunsch 2014). Thus, education systems have mainly been de-standardised in countries allied to pro-Western blocs. Moreover, the chronic ineffectiveness of

traditional administration to deliver services to the local level has arguably contributed to this policy shift (Rondinelli, McCullough and Johnson 1989) to reduce bureaucratic complexities.

This neoliberal reform element advocates for "transferring decision-making power in basic education from the administrative center of a country (such as the central ministry of education) to authorities closer to the users (such as countries, municipalities, or individual schools)" (Florestal and Cooper 1997:viii). Thus, it has focused on creating autonomous local governments and schools aiming at promoting more accountability and participation in the decision-making process, and result-oriented organisational culture (Ball and Youdell 2009, Jütting et al. 2005, Leithwood and Menzies 1998, Robinson 2007).

The de-standardisation process has mainly taken place from the primary through the secondary level (Channa and Faguet 2012). This is partly because, despite a sharp increase in enrolment rate at the basic education level in the developing world followed by the Millennium Development Goals (MDGs) of the United Nations (UN), the learning crisis has become an alarming issue. To overcome this crisis, decentralisation has become a common policy suggestion (e.g., Pritchett 2013).

Despite being a global phenomenon, the implementation of de-standardisation reforms has not been identical in the developing world because of heterogeneous institutional features, different institutional cultures, and community involvement patterns. Existing literature defining standardisation, which is predominantly based on high-income countries, views decreasing standardisation merely as an opposite scenario to centralisation. This definition and measurement of standardisation overlook the heterogeneous, complex and multidimensional features of institutions in LMICs (Van de Werfhorst and Mijs 2010, van Hek, Buchmann and Kraaykamp 2019). De-standardisation may take place at the sub-national and school levels. Since the set of

actors and educational responsibilities involved at each of these levels may substantially differ, it would be paramount to distinguish them. In this dissertation, we make this distinction for the first time, which follows across all four articles.

Why is the inequality effect a concern?

Despite a notable expansion of education in terms of enrolment and completion of basic education in the last three decades, intergenerational educational inequality remains considerably high in developing countries (Torche 2019), mainly channelled through parents' education and economic resources (Filmer and Pritchett 2001, Lewin 2007). However, as mentioned, the ambiguous stance of de-standardisation reforms on inequality is largely unexplored in research. There are, nonetheless, two major reasons why de-standardisation reforms may be a concern for inequality effects.

The first factor is regarding the implicit assumption of this management paradigm that autonomy would enable local stakeholders and they would rationally respond by participating in decision-making processes. This 'inclusiveness' argument has contributed to installing de-standardisation reforms. However, advocates and critics of this notion have differing opinions about how it can affect the achievement gaps. Proponents conceive the de-standardisation reform of an effective instrument to get closer to citizens by delegating financial and management responsibilities to the local government (McGinn and Street 1986). The reasoning is that devolving responsibilities to the local level and encouraging participation in decision-making processes would empower people from all walks of life leading to closing achievement gaps between advantaged and disadvantaged students.

On the other hand, critics argue that autonomy at the local and school levels and, hence, decreasing standards would create a great deal of differentiation in policies between schools. Since

parents would choose schools that would maximise the performance of their children most (Pfeffer 2008), the degree of de-standardisation may affect different social strata differently as their cost-benefit assessment of having an education would vary (Breen and Goldthorpe 1997). Higher educated parents would be at an advantage to know which schools would be more conducive to children's learning progress (Park 2008). In other words, the rational choice assumption that de-standardising educational policies would empower marginalised populations often overlooks contextual elements in society and family environments that may hinder the disadvantaged groups.

The second reason is related to the likelihood of contextual incompatibility between the institutions of reform exporters and receivers, the latter traditionally marked by clientelism and informal governance. To elaborate, de-standardisation reforms have arguably been exported from liberal institutions of the Global North (Maroy 2009, Steiner-Khamsi 2012). However, institutions in LMICs possess very different characteristics which often constitute informal governance within the formal institutional settings, the clientelist relationship between superiors and subordinates, and other frequent irregularities. Evidence from LMICs suggests that bringing bureaucracy to the local level to serve marginalised people may potentially have an adverse impact keeping this group aloof by strengthening informal governance at the nexus between local politicians, teachers and school administration (Baghdasaryan 2017, Beteille 2009, Jiang 2018, Kingdon et al. 2014, Kitschelt and Wilkinson 2007, Nishimura 2017). There is little room for parents' participation (Essuman and Akyeampong 2011). This would particularly deter lower educated and disadvantaged parents benefiting from autonomous education systems as they would not have access to social capital to navigate informal governance. On the other hand, higher educated and rich parents would be able to benefit more by having both monetary and social capital. They can also avoid the 'informal' system and have alternative schooling. For instance, Joshi (2014) finds

that parents prefer sending their children to private schools in Nepal as excessive political interference in the school management committee and negligence of teachers impede the learning environment in public schools.

Research gap and questions

There are four research questions in this dissertation. Before providing details, we briefly set them out. *First*, as mentioned, we provide a new theoretical framework about the types of de-standardisation reforms in education and conduct extensive archival research to build the case. *Second*, we investigate the reason why these reforms might have been implemented at different scales across countries. *Third*, we assess the probable impact of these reforms on changing educational systems using unique and untapped data. *Fourth*, we investigate how far the de-standardisation of educational systems is associated with reducing or widening educational inequalities by social origins. The terms used in the whole dissertation such as effects, influence, reasons or affect do not indicate attaining causality. The research project is rather a sophisticated description of empirical regularities using unique data although we strive to minimise the sources of endogeneity.

First objective: **The growth and types of 'de-standardisation' reforms diffused across educational systems in LMICs by the World Bank between 1965 and 2020.**

As we argue, the education sector remains distinct for de-standardisation reforms because of its sheer size and unique institutional set-up with grassroots communities. However, there is currently no empirical evidence examining the types of de-standardisation or related reforms in the educational systems, that have increasingly taken place since the late 1980s. Hence, the first objective of this study is to investigate the growth of these reforms. In doing so, the motivation of this first aim is twofold: *first*, to examine the growth pattern of de-standardisation reforms before

and after the late 1980s when neoliberal reforms started expanding across borders. *Second*, we investigate the types of de-standardisation reforms that the WB has implemented in LMICs. Existing literature in the sociology of education, predominantly from high-income countries, defines de-standardisation from a simplistic perspective. This dominant view considers educational systems as more or less standardised (Chmielewski and Reardon 2016, Van de Werfhorst and Mijs 2010). Hence, it overlooks the fact that every country has multiple layers in the administrative system, for instance, regions, districts, sub-districts, and finally, schools. We categorise de-standardisation considering this multifaceted complexity in the administrative hierarchy. To address this first objective, we rely on all available WB projects on primary and secondary education in 99 historical and present LMICs from 1965 until 2020.

Second objective: **How far the degree of authoritarianism is associated with the diffusion of 'de-standardisation' reforms across LMICs by the World Bank.**

Although global, de-standardisation reforms have likely been heterogeneous across LMICs. The second objective of this study is to investigate the reason why some countries may have adopted more of these neoliberal reforms in de-standardising the educational system than others. Past research argues that the success and failure of these neoliberal reforms depend on countries' political and economic characteristics (Dollar and Svensson 2000). However, we do not know much to what extent these characteristics push countries to adopt institutional reforms by IOs in the first place, especially in education, which can be an easy target for institutional reforms as explained. Past research takes a top-down approach to investigate this adoption. This means the reasoning is examined from IOs' perspectives, not the perspectives of countries. For instance, a study finds that the characteristics of the political position of leaders in IOs matter in disseminating neoliberal reforms (Copelovitch and Rickard 2021). Similarly, the greater reform initiatives are

also understood to be the result of how connected countries are with the US and major European countries (Barro and Lee 2005). Research also shows that IOs implement institutional reforms to expand the political dominance of countries in the Global North (Owen 2002). The current discussion in development and political science literature clearly lacks a bottom-up approach to examining the extent to which countries' socio-political characteristics also matter for adopting reforms. In other words, how countries' characteristics may have attracted IOs to implement de-standardisation reforms. The second chapter of the dissertation addresses this issue by examining the association between political regimes, or how authoritarian countries are, with implementing de-standardisation reforms in education by the WB. The top-down approach often shows that the ideological disposition of world powers to encounter highly authoritarian regimes in the former Soviet Union has played a dominant role in spreading de-standardisation reforms. This has then continued as the aim and narrative of devolving institutions and adopting private sector-like reforms have barely changed. This is why we emphasise countries' political systems or the degree of authoritarianism, which may have been a major factor for the WB when implementing institutional reforms. Similar to the first research objective, we use WB's projects combined with data on the characteristics of countries from other sources (1965-2019) to investigate the second research puzzle.

Third objective: **The association between World Bank reforms and factual changes in the standardisation of educational systems in 30 LMICs.**

The third objective of this dissertation is to examine whether the implementation of de-standardisation reforms by the WB has changed the actual degree of standardisation of the educational system. Even though these reforms have been implemented globally, currently there is no evidence, to the best of our knowledge, about how far they have impacted the actual state of

the educational system in LMICs. Precisely, this chapter aims to examine whether the implementation of WB's de-standardisation projects is associated with changing the actual state of de-standardisation in educational systems. The gap in the literature on this issue is surprising given that although research is consistently concerned about the effects of WB's projects on socioeconomic outcomes, we know little about the actual changes these projects may have brought. To examine this research puzzle, we combine WB project data with a novel, untapped dataset on the actual level of the degree of de-standardisation between 1990 and 2019.

Fourth objective: **The relationship between the de-standardisation of educational systems in LMICs and the inequality in attainment.**

The fourth objective of this dissertation is to examine the relationship between the actual level of de-standardisation and the inequality in educational attainment by social origins. The WB argues that de-standardisation-like reforms would bring positive results for marginalised communities (Barrera-Osorio, Fasih and Patrinos 2009). De-standardisation advocates are optimistic about its positive effects since it has introduced the practice of participatory decision-making processes in many non-democratic societies. According to this supportive view, de-standardisation can arguably help democratise curriculum and teaching since many non-democratic countries have a standardised curriculum which provides limited opportunities to innovate. For instance, authoritarian regimes with highly standardised educational systems may impose stories of kings or their preferred political ideology in the curriculum, which can be the only source of learning for poor students. But rich students may have other sources of learning alternative content. This can lead to knowledge gaps between disadvantaged and advantaged children. A more de-standardised system may arguably diversify the source of learning for all.

However, this pro-de-standardisation view can be contested in two ways. *First*, the WB-mechanism claims that the devolution of educational responsibilities to the local government and schools will empower parents and local communities from all walks of life. Especially, marginalised parents will have the opportunity to participate in school decisions, for example. This would then lead to better outcomes for all and minimise the gap between rich and poor children (Barrera-Osorio, Fasih and Patrinos 2009). This simplistic assumption overlooks the fact that poverty and other social barriers may hinder parents from poor or disadvantaged households to participate in the decision-making process. Scholars have warned that SAP lending lacks a human face and can overlook the needs of the poor (Summers and Pritchett 1993). Even if it is taken that poor and low-income parents attend school meetings, their opinions may not matter in taking decisions. This is because there is strong empirical evidence that school management committees and local governments in many LMICs are influenced by local politicians and marked by the presence of clientelist politics (Essuman and Akyeampong 2011, Joshi 2014, Shibuya 2020). This means school decisions are taken with the view of a few people and serve the interests of politicians and bureaucrats through different means of corruption. Hence, this scheme may not matter for reducing the achievement gap or it may rather widen it.

Second, there is a long tradition of research in the sociology of education investigating the relationship between de-standardisation and educational inequality. The results of which remain mixed (Bukodi et al. 2018, Van de Werfhorst and Mijs 2010). But there is almost no evidence on this issue from LMICs. This research is one of the first to investigate how far the actual degree of de-standardisation is associated with closing or widening educational inequality by social origins. To investigate this puzzle, we combine country-level macro data from research question 3 with individual-level household surveys between 1991 and 2017.

To summarise, this dissertation enquires four questions:

1. To what extent neoliberal reforms implemented by the WB to 'de-standardise' the educational system in LMICs have grown since the late 1980s? What types of de-standardisation reforms have been implemented?
2. Why have some countries adopted more de-standardisation reforms implemented by the WB than others?
3. Have de-standardisation reforms implemented by the WB really decreased the actual level of standardisation of the educational system in LMICs?
4. What is the relationship between the actual level of de-standardisation of educational systems and the inequality in educational attainment by social origins?

To address these research questions, this dissertation uses some original datasets prepared through extensive archival research. Specifically, for papers 1 and 2, we have manually coded all available WB projects on primary and secondary education implemented in 99 historical and present LMICs. There are 897 projects in 3,312 country-project-year in the final dataset. This has required going through around 2,500 archived project documents. In paper 3, in addition to WB projects, we also built an original dataset on factual de-standardisation at the sub-national and school levels by manually coding numerous education policy documents from three sources. These include: (1) the UNESCO Bureau of Education (IBE) (International Bureau of Education 2007, 2011), (2) the UNESCO right to education (RTE) database (UNESCO n.d.), and (3) national laws and policy documents. This study includes data from 30 LMICs. Finally, paper 4 uses data on factual de-standardisation at the country level from paper 3 and combines individual-level educational attainment data from household surveys including demographic and health surveys

(DHS) and multiple indicator cluster surveys (MICS) from UNICEF (IFC 1990-2020, UNICEF 2000-2020). The study includes 27 LMICs.

Summary of contributions: Taken together, there are five main contributions of this dissertation to the existing literature. First, the literature on policy diffusion in LMICs using quantitative cross-country data is scarce, let alone policy diffusion in de-standardising educational systems. This study aims to fill this notable research gap. Second, the literature on policy diffusion or borrowing including in education is concentrated on a top-down approach to explaining why IOs diffuse more reforms in some countries compared to others. This means explaining the variation in policy borrowing across countries by the characteristics of IOs and global phenomena. In this dissertation, specifically in paper 2, we take a bottom-up approach to examining how countries' political regime systems or the degree of authoritarianism may play a role in diffusing policies. Third, existing research typically assesses the impact of different interventions by IOs. However, we know little whether the interventions or reforms have actually changed what these were meant to change – for instance, whether de-standardisation reforms have actually de-standardised educational systems. We investigate this question in paper 3, which can be applied to other contexts or sectors. Fourth, there is a very little cross-national comparison of the association between the de-standardisation of educational systems and the inequality in educational outcomes by social origins in LMICs. In paper 4, we provide evidence in this relatively unexplored area. Fifth, we utilise original datasets on de-standardisation reforms and actual changes in the process of de-standardisation, prepared through extensive archival research as mentioned.

Reference

Allmendinger, Jutta. 1989. "Educational Systems and Labor Market Outcomes." *European sociological review* 5(3):231-50.

Baghdasaryan, Milena. 2017. "The Practice of Political Rights and Patron–Client Relations: A Case Study of a Party in Armenia." *Citizenship studies* 21(8):1034-51.

Ball, Stephen J and Deborah Youdell. 2009. *Hidden Privatisation in Public Education*. Brussels: Education International.

Barrera-Osorio, Felipe, Tazeen Fasih and Harry Anthony Patrinos. 2009. *Decentralized Decision-Making in Schools: The Theory and Evidence on School-Based Management*. Washington, DC: World Bank.

Barro, Robert J and Jong-Wha Lee. 2005. "Imf Programs: Who Is Chosen and What Are the Effects?". *Journal of monetary Economics* 52(7):1245-69.

Beteille, Tara. 2009. "Absenteeism, Transfers and Patronage: The Political Economy of Teacher Labor Markets in India." Doctoral Dissertation, School of Education, Stanford University, Stanford, CA.

Breen, Richard and John H Goldthorpe. 1997. "Explaining Educational Differentials: Towards a Formal Rational Action Theory." *Rationality and society* 9(3):275-305.

Bukodi, Erzsébet, Ferdinand Eibl, Sandra Buchholz, Sonia Marzadro, Alessandra Minello, Susanne Wahler, Hans-Peter Blossfeld, Robert Erikson and Antonio Schizzerotto. 2018. "Linking the Macro to the Micro: A Multidimensional Approach to Educational Inequalities in Four European Countries." *European societies* 20(1):26-64.

Channa, Anila and Jean-Paul Faguet. 2012. "Decentralization of Health and Education in Developing Countries: A Quality-Adjusted Review of the Empirical Literature." *The World Bank Research Observer* 31(2):199-241.

Chmielewski, Anna K and Sean F Reardon. 2016. "Patterns of Cross-National Variation in the Association between Income and Academic Achievement." *AERA Open* 2(3):2332858416649593.

Copelovitch, Mark and Stephanie Rickard. 2021. "Partisan Technocrats: How Leaders Matter in International Organizations." *Global Studies Quarterly* 1(3):ksab021.

Dollar, David and Jakob Svensson. 2000. "What Explains the Success or Failure of Structural Adjustment Programmes?". *The Economic Journal* 110(466):894-917.

Essuman, Ato and Kwame Akyeampong. 2011. "Decentralisation Policy and Practice in Ghana: The Promise and Reality of Community Participation in Education in Rural Communities." *Journal of Education Policy* 26(4):513-27.

Ferlie, Ewan, Louise Fitzgerald and Andrew Pettigrew. 1996. *The New Public Management in Action*: Oxford University Press, USA.

Filmer, Deon and Lant H Pritchett. 2001. "Estimating Wealth Effects without Expenditure Data—or Tears: An Application to Educational Enrollments in States of India." *Demography* 38(1):115-32.

Florestal, Ketleen and Robb Cooper. 1997. *Decentralization of Education: Legal Issues*. Washington, DC: World Bank.

Govinda, R. 1997. *Decentralization of Educational Management: Experiences from South Asia*: IIEP Paris.

Harvey, David. 2007. *A Brief History of Neoliberalism*: Oxford University Press, USA.

Heyneman, Stephen P. 2003. "The History and Problems in the Making of Education Policy at the World Bank 1960–2000." *International journal of educational development* 23(3):315-37.

IFC. 1990-2020. "Demographic and Health Surveys (Various). Funded by Usaid." Rockville, Maryland: ICF.

International Bureau of Education. 2007, 2011. "World Data on Education." edited by U. I. B. o. E. (IBE). Geneva.

Jiang, Junyan. 2018. "Making Bureaucracy Work: Patronage Networks, Performance Incentives, and Economic Development in China." *American Journal of Political Science* 62(4):982-99.

Joshi, Priyadarshani. 2014. "Parent Decision-Making When Selecting Schools: The Case of Nepal." *Prospects* 44(3):411-28.

Jütting, Johannes, Elena Corsi, Celine Kauffmann, Ida McDonnell, Holger Osterrieder, Nicolas Pinaud and Lucia Wegner. 2005. "What Makes Decentralisation in Developing Countries Pro-Poor?". *The European Journal of Development Research* 17(4):626-48.

Kentikelenis, Alexander E, Thomas H Stubbs and Lawrence P King. 2016. "Imf Conditionality and Development Policy Space, 1985–2014." *Review of International Political Economy* 23(4):543-82.

Kingdon, Geeta Gandhi, Angela Little, Monazza Aslam, Shenila Rawal, Terry Moe, Harry Patrinos, Tara Beteille, Rukmini Banerji, Brent Parton and Shailendra K Sharma. 2014. "A Rigorous Review of the Political Economy of Education Systems in Developing Countries." Vol. *Final Report. Education Rigorous Literature Review. Department for International Development (UK).*

Kitschelt, Herbert and Steven I Wilkinson. 2007. "Citizen-Politician Linkages: An Introduction." *Patrons, clients, and policies: Patterns of democratic accountability and political competition* 2007:1-49.

Leithwood, Kenneth and Teresa Menzies. 1998. "Forms and Effects of School-Based Management: A Review." *Educational policy* 12(3):325-46.

Lewin, Keith M. 2007. "Diversity in Convergence: Access to Education for All." *Compare* 37(5):577-99.

Manor, James. 1999. *The Political Economy of Democratic Decentralization*: World Bank.

Maroy, Christian. 2009. "Convergences and Hybridization of Educational Policies around 'Post-Bureaucratic'models of Regulation." *Compare* 39(1):71-84.

McGinn, Noel and Susan Street. 1986. "Educational Decentralization: Weak State or Strong State?". *Comparative Education Review* 30(4):471-90.

Naidoo, Jordan P. 2005. *Educational Decentralization and School Governance in South Africa: From Policy to Practice*. Paris: International Institute for Educational Planning (IIEP) UNESCO.

Naim, Moises. 2000. "Washington Consensus or Washington Confusion?". *Foreign policy*:87-103.

Nanda, Ved P. 2006. "The "Good Governance" Concept Revisited." *The ANNALS of the American academy of political and social science* 603(1):269-83.

Nishimura, Mikiko. 2017. "Community Participation in School Management in Developing Countries." *Oxford Research Encyclopedia of Education*. doi: https://doi.org/10.1093/acrefore/9780190264093.013.64.

Owen, John M. 2002. "The Foreign Imposition of Domestic Institutions." *International organization* 56(2):375-409.

Park, Hyunjoon. 2008. "The Varied Educational Effects of Parent-Child Communication: A Comparative Study of Fourteen Countries." *Comparative Education Review* 52(2):219-43.

Pfeffer, Fabian T. 2008. "Persistent Inequality in Educational Attainment and Its Institutional Context." *European sociological review* 24(5):543-65.

Pritchett, Lant. 2013. *The Rebirth of Education: Schooling Ain't Learning*. Washington, DC: Center for Global Development.

Regmi, Kapil Dev. 2017. "World Bank in Nepal's Education: Three Decades of Neoliberal Reform." *Globalisation, Societies and Education* 15(2):188-201.

Rhodes, Roderick Arthur William. 1996. "The New Governance: Governing without Government." *Political studies* 44(4):652-67.

Robinson, Mark. 2007. "Does Decentralisation Improve Equity and Efficiency in Public Service Delivery Provision?".

Rodrik, Dani. 1990. "How Should Structural Adjustment Programs Be Designed?". *World development* 18(7):933-47.

Rondinelli, Dennis A, James S McCullough and Ronald W Johnson. 1989. "Analysing Decentralization Policies in Developing Countries: A Political-Economy Framework." *Development and change* 20(1):57-87.

Shibuya, Kazuro. 2020. "Community Participation in School Management from the Viewpoint of Relational Trust: A Case from the Akatsi South District, Ghana." *International journal of educational development* 76:102196.

Steiner-Khamsi, Gita. 2012. "Understanding Policy Borrowing and Lending: Building Comparative Policy Studies." Pp. 3-17 in *World Yearbook of Education 2012: Policy Borrowing and Lending in Education*, edited by G. Steiner-Khamsi and F. Waldow. Oxford, UK: Routledge.

Summers, Lawrence H and Lant H Pritchett. 1993. "The Structural-Adjustment Debate." *The American Economic Review* 83(2):383-89.

Thimmaiah, G. 2000. "Decentralization and Economic Development: Indian Experience." *Hitotsubashi Journal of Economics* 41(2):123-36.

Torche, Florencia. 2019. *Educational Mobility in Developing Countries*: WIDER Working Paper.

UNESCO. 2021. "Non-State Actors in Education: Who Chooses? Who Loses?" Vol. Paris: Global Education Monitoring Report.

UNESCO. n.d. "Observatory on the Right to Education." Paris.

UNICEF. 2000-2020. "Multiple Indicator Cluster Surveys (Mics)." New York, NY.

Van de Werfhorst, Herman G and Jonathan JB Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective." *Annual review of sociology* 36:407-28.

van Hek, Margriet, Claudia Buchmann and Gerbert Kraaykamp. 2019. "Educational Systems and Gender Differences in Reading: A Comparative Multilevel Analysis." *European sociological review* 35(2):169-86.

Williamson, John. 1993. "Democracy and the “Washington Consensus”." *World development* 21(8):1329-36.

Wunsch, James S. 2014. "Decentralization: Theoretical, Conceptual, and Analytical Issues." Pp. 1-22 in *Decentralization in Africa: The Paradox of State Strength*, edited by J. T. Dickovick and J. S. Wunsch. Boulder, CO: Lynne Rienner.

Yeom, MinHo, Clementina Acedo and Erry Utomo. 2002. "The Reform of Secondary Education in Indonesia During the 1990s: Basic Education Expansion and Quality Improvement through Curriculum Decentralization." *Asia Pacific Education Review* 3(1):56-68.

Paper 1

Diffusing 'De-standardisation' Reforms Across Educational Systems in LMICs: The Case of the World Bank, 1965-2020[1]

Abstract

During the past few decades, low- and middle-income countries (LMICs) have experienced a surge in institutional reforms aimed at more efficiently delivering public services including education. This has been a part of shifting the objective of development assistance: from financing to policy reforms. One of these reforms has been to devolve educational systems from the central to the local levels. This has arguably decreased the standards of educational policies across schools in a country. Despite overwhelming discussion in the literature about the diffusion of 'de-standardisation' reforms, there is little empirical evidence about the growth and types of these policy models. This paper is the first to investigate the growth and types of de-standardisation reforms implemented by the World Bank (WB) between 1965 and 2020 in the educational systems of 99 LMICs. Unlike past sociological literature, we categorise de-standardisation into two types: (i) devolving educational responsibilities to the sub-national entities and (ii) schools. Results suggest that about 63 percent of WB project components in primary and secondary education have focused on de-standardisation reforms. The growth of sub-national level de-standardisation has slowed down since the mid-1990s and the early 2000s while it is still on the rise at the school level starting from the late 1980s. We argue this could be led by a global emphasis on school-based intervention, an urge for aid effectiveness and better results, and the priority to spread democratic values in micro-social units. Our results give important evidence of how homogeneous strategies of supranational organisations spread through heterogeneous educational systems of nation-states because of aid dependency.

Keywords: educational systems, de-standardisation reforms, policy diffusion, world bank, LMICs.

[1] A version of this paper has been published (open access) in *Sociology of Education*. https://doi.org/10.1177/00380407221109209

The politics of foreign aid has experienced a dramatic shift from merely financing in, for instance, developing infrastructure to policy reforms since the mid to late 1980s. Two broad interrelated narratives typically explain this move. The first view posits the shifting focus to policy reforms as a political tool. The US re-emerged as a global hegemon after the demise of the former Soviet Union. Reforming political and social institutions through international organisations (IOs) has become a strategy of the global powers led by the US and UK to influence 'less-powerful' nation states (Owen 2002). This is also familiar as a coercion approach to bringing policy reforms in low- and middle-income countries (LMICs) (Dobbin, Simmons and Garrett 2007).

The second view considers the shift as a necessary step to reform and re-culture institutions in LMICs to make the public service delivery system more cost-effective and satisfactory to customers. This management paradigm has thus treated people as customers rather than citizens. In the 1980s, development actors started debating that simply financing is not enough to make the aid effective; reforming institutions and policies is a must (Dollar and Easterly 1999, Islam 2005). Consequently, several reform packages have been infiltrated into LMICs followed by the so-called Washington Consensus, also known as structural adjustment programmes (SAP) (Naim 2000, Williamson 1993). Similar to some social services, the education sector has remained one of the primary targets of these reforms in LMICs (Bardhan and Mookherjee 2006, Masino and Niño-Zarazúa 2016).

The neoliberal reforms call for two major changes: public sector reforms using private-sector principles, and more privatisation of public services and deregulation of businesses. This paper focuses on public sector reforms, specifically, the devolution of public services from central to the local levels. In doing so, we document the projects of the World Bank (WB) *implemented* in the education sector of 99 LMICs between 1965 and 2020. We focus on the 'de-standardisation'

reforms which mean WB projects implemented to devolve educational responsibilities from the central to the local levels, that is, sub-national governments and schools. In the sociological literature, standardisation is understood as "the degree to which the quality of education meets the same standards nationwide" (Allmendinger 1989: 233). Hence, 'de-standardisation' signifies decreasing standardisation in an educational system as a result of devolution reforms.

Our study looks at primary through secondary levels. We focus on the education sector since schooling at our targeted level is largely run by the government in LMICs. Besides, schools are strongly embedded in local communities, for instance, through parents and community leaders. Under SAP, de-standardisation-like reforms were promoted to lessen the burden on the central government by sharing financial and administrative costs with local governments and communities (Reimers 1994). Since the educational system is connected with the local population, it is naturally a major target to de-standardise.

Our study contributes to the current literature in two ways. First, it is well documented that the rise of policy reforms by IOs including the WB started in the mid to late 1980s led by the US and the UK (Baylies 1995, Dollar and Svensson 2000). So are the reforms related to de-standardisation (Bardhan and Mookherjee 2006). However, despite this overwhelming discussion in the literature, there is currently no empirical evidence using good quality data on how far a social sector like education has received de-standardisation reforms from IOs and their growth over time. Evidence on this issue is critical to understanding the outcomes and consequences of these reforms for individuals from different socioeconomic groups. Critiques have raised concerns about the negligence of neoliberal Washington-backed reforms towards social inequality they may induce (Summers and Pritchett 1993). But this paper only focuses on documenting reforms using quantitative data given the limited scope. Additionally, the nature of de-standardisation reforms

has arguably been similar across LMICs despite that the socio-political and cultural variability among these countries is enormous. Our study aims to investigate whether the pattern of de-standardisation reforms has been similar or dissimilar across LMICs over time.

Second, we know next to nothing about the nature of de-standardisation reforms since its definition remains ambiguous. To elaborate, the sociology of education literature, predominantly from advanced economies, describes de-standardisation from a dichotomous viewpoint, that is, a system can be more or less standardised (e.g., Gamoran 1996, Van de Werfhorst and Mijs 2010). However, educational systems typically contain multiple layers of governance such as regions, districts and schools. This implies that de-standardisation may rather be a multifaceted phenomenon involving different types of actors in each tier of administrative hierarchy. Thus, we categorise the channels[2] of de-standardisation into (i) sub-national and (ii) school levels through which reforms have taken place. To sum, we enquire the following research questions in the paper:

1. How has the prominence of de-standardisation reforms (at the sub-national and school levels) implemented by the WB grown in LMICs since 1965? This question describes the magnitude of de-standardisation reforms and their growth through different channels.
2. How far has the growth of de-standardisation reforms (at the sub-national and school levels) been similar or dissimilar across LMICs? This question examines homogeneity or heterogeneity in the growth of de-standardisation reforms implemented by the WB.

This study covers most regions of the world excluding Western Europe, North America and Oceania apart from Papua New Guinea. It includes 99 present and historical LMICs from 1965 until 2020. Here, historical means countries that were once considered to be LMICs and received

[2] Channels refer to the administrative tier through which de-standardisation reforms took place—sub-national agencies and schools.

aid, but later became economically advanced and lost aid eligibility, for instance, Korea and Malaysia.

THEORETICAL FRAMEWORK

What does the de-standardisation of educational systems look like?

The de-standardisation of educational systems in LMICs has primarily focused on transferring educational responsibilities to the local government and schools, strengthening accountability between education providers (e.g., schools) and recipients (e.g., students and parents), building local leadership, and enhancing participatory management, a few to mention. Primarily infiltrated by donors or international organisations, these reforms are often seen as a cure to the 'failure' of state-provided education and 'ineffectiveness' of rigidly centralised traditional bureaucracy to deliver primary and secondary education (Ball and Youdell 2009). The new management paradigm has thus called for more empowerment of individuals, and meso- and micro-level institutions— local governments and schools. The increasing attention to local autonomy has likely decreased the 'standardisation' of educational responsibilities and policies across countries.

We term the transfer of responsibilities to sub-national and school levels as 'de-standardisation' rather than 'de-centralisation' due to distinct characteristics of education actors with a greater scope for utilising autonomy. To elaborate, a system can be de-centralised by transferring power to local governments but can also maintain service standards across the country. This may happen more in non-education sectors such as health. To exemplify, humans share a certain physiological resemblance, which allows doctors to suggest similar prescriptions and medication for a disease even in a de-centralised health care system. However, the way pupils learn can be very different. Thus, in a more autonomous schooling system, teachers can have

greater flexibility to customise teaching for students' learning needs. At the same time, the scope for autonomy can also be exploited, for instance, by focusing less on in-class teaching and arranging fee-paying private tuition, a prevalent practice in LMICs (Bray 2006). This means in educational systems de-centralisation can take place in the form of de-standardisation.

Why do IOs import de-standardisation reforms?

Decreasing standardisation or 'de-standardisation' reforms have been triggered by neoliberal ideas of limited state intervention and the dominance of market principles in managing public services such as education and health (Harvey 2006). Originated during the Reagan-Thatcher era in the 1980s, these neo- and hyper-liberal reforms in the education sector 'aggressively' travelled the world throughout the 1990s and onwards (Steiner-Khamsi 2014). These reforms have taken place in LMICs triggered by structural adjustment policies (SAP) (Vavrus 2005). Primarily pioneered by the WB, other development agencies have later actively advocated for bringing these reforms including the UNESCO. Scholars identify this as a policy lending and borrowing phenomenon, that is, transporting educational reforms by donors and countries in the global North to aid recipient countries (Steiner-Khamsi 2012). However, why was it necessary to suddenly shift towards reforms like de-standardisation in the 1980s from just financing in projects?

First, the chronic ineffectiveness of traditional rigidly centralised administration to deliver services is also said to have contributed to this policy shift (Rondinelli, McCullough and Johnson 1989). Hence, the new paradigm has advocated for "transferring decision-making power in basic education from the administrative center of a country (such as the central ministry of education) to authorities closer to the users (such as countries, municipalities, or individual schools)" (Florestal and Cooper 1997: viii).

Second, a group of scholars argue that this is due to learning and imposition reasons. For instance, Steiner-Khamsi (2006) argues that the prime motivation for diffusing neoliberal norms and practices is 'economic', that is, donors export perceived 'best practices' from their own educational systems to aid-dependent countries. In other words, policy diffusion takes place so that countries can *learn* from each other (Dobbin, Simmons and Garrett 2007). Owen (2002) sees this infiltration of reforms a coercive mechanism to influence institutions in LMICs by global powers. Kentikelenis and Babb (2019) contend that the flow of neoliberal policies has played a leading role in penetrating 'new norms' in the institutions of Third World countries. This has been partly possible thanks to 'conditional' aids and loans in bringing reforms to institutions (Baylies 1995, Reinsberg et al. 2019, Stokke 1995). Primarily enunciated by the US and the WB, countries in European Council also started imposing these conditions after the breakdown of communism in Eastern Europe (EE) and the commencement of democratisation in many developing parts of the world. Routine pronouncements have been made by donor countries about reducing aid if these political conditions are not met (Robinson 1993). Yet, evidence about the efficiency of these neo-liberal reforms remains inconclusive (Gibbon 1993).

Third, another line of thought posits that institutional reforms such as de-standardisation are prerequisites for sustainable aid effectiveness. This issue has come into the limelight as despite foreign aid has grown in LMICs since World War II its impact on economic development and poverty reduction remains debatable (Cassen 1994). This debate has grown since the 1980s (Lipton and Toye 2010). Specifically in the education sector, while school enrolment has improved, learning achievement has not (UNESCO 2015). Hence, to make aid more effective, the policy focus has shifted to building more democratic institutions as aid is argued to be more effective in democracies and ineffective in autocracies (Kosack 2003). De-standardisation reforms such as

more local autonomy with educational responsibilities, especially at pre-tertiary levels (Channa and Faguet 2012), have been considered a great enabler for creating democratic space.

The current scholarly discussion misses systematically scaling up the implementation of IOs including WB's projects in diffusing these reforms. We know the rhetoric of increasing de-standardisation-like reforms since the 1980s from the literature. But how do these reforms look like, especially in education? Do these reforms take place similarly at different levels of administration? Providing evidence on these issues are important since they would have varying degrees of social implications in terms of educational outcomes and inequalities. As we mention in the introduction, these neoliberal reforms aim to satisfy 'customers' rather than 'citizens' (Ferlie, Fitzgerald and Pettigrew 1996), these may overlook universal delivery of quality education. Instead, educational systems may focus on individual status when delivering services

Why do governments 'borrow' de-standardisation reforms?

While IOs may have different strategies of infiltrating de-standardisation reforms, why would nation states accept these? There are several reasons why countries may want to implement these reforms. First, the colonial legacy of policy borrowing by LMICs from IOs and wealthy countries often goes unnoticed in the scholarly discussion. Policy borrowing in educational systems reportedly dates to colonial times. The most frequently cited example in comparative education is the case of transferring the American industrial education model designed for African Americans by the British colonial government to Achimota, located near Accra in Ghana, in 1920. The model, borrowed from Hampton Institute in Virginia, originally provided industrial education to the racially segregated South in the US. Adapters in Accra argued that it was necessary to adapt the education of 'natives' to their rural environment compared to European modern urban culture. By contrast, opponents contended that by doing this, adapters linked black Africa to Afro America.

The ‘native and ‘black’ concepts were heatedly debated criticising the underlying racism behind the non-academic and racially segregated training for Africans (Berman 1971, Steiner-Khamsi and Quist 2000).

While this case might seem different from recent neoliberal reforms, two things are still common: the cross-border travelling of reforms from the global ‘centre’ to ‘periphery’ and more importantly the notion of *supposedly* ‘what works’. While controversial, the Achimota model was embraced arguing what works for ‘natives’ may work in their ‘rural’ environment. The colonial government thought it was the best fit although there was no rigorous evidence behind this claim. Similarly, the motivation for the recent transfer of de-standardisation along with other reforms by donors represents the ideological disposition of global leaders in the 1980s onwards including the US and United Kingdom (UK) for integrating market principles in service delivery. These reforms have been deemed to work best for efficient service delivery in LMICs although there is no conclusive evidence on this even in advanced economies (e.g., Van de Werfhorst and Mijs 2010).

Second, aid dependency makes recipient LMICs, particularly low-income countries, vulnerable to accepting conditions. Because of this, IOs are often emphasised to prioritise cultural contexts and countries’ ownership over reform policies (Nanda 2006). Third, similarly, some poor countries simply do not have enough technical expertise. Hence, they often need to ‘borrow’ expertise from IOs such as the WB (Mundy and Verger 2015). This can also make countries vulnerable to accepting conditions since de-standardisation reforms are quite one-size-fits-all as they are designed to implement across LMICs.

Fourth, countries may accept de-standardisation reforms to show support towards their international allies. After the collapse of the Soviet Union, many regimes started leaning towards the US and allies’ bloc and embraced reforms led by development banks and aid agencies

(Thimmaiah 2000, Wunsch 2014). However, scholars such as Owen (2002) argues that this is rather as a coercive mechanism to influence institutions in LMICs by wealthy countries.

Again, regardless of countries are forced or attracted to the de-standardisation reforms, evidence is missing about the nature and growth of these reforms. Our evidence on this issue and a new theoretical framework of categorising de-standardisation reforms will help researchers link these with possible societal outcomes.

Channels of De-standardisation

Alongside scaling up the growth of de-standardisation reforms in education, our study also provides a new theoretical framework of its channels, that is, through which these reforms may take place in institutions.

Standardisation tends to be lower in devolved institutions (Kerckhoff 2001). However, there is no existing literature discussing whether de-standardisation can differ within local institutions in different administrative tiers. In this paper, we argue that de-standardisation reforms can be implemented using two different channels: namely, sub-national/local governments; and micro social units such as schools. The reasoning for categorisation is explained in the following.

The sociology of education literature, based on advanced economies, identifies de-standardisation as a two-fold phenomenon, that is, either a system low or highly standardised (e.g., Chmielewski and Reardon 2016, Gamoran 1996, Van de Werfhorst and Mijs 2010, van Hek, Buchmann and Kraaykamp 2019). While western emerged, the adoption of these reforms may not have been similar in LMICs. The current literature barely considers that multiple administrative tiers — for instance, regions, districts, sub-districts and schools — may result in

multidimensionality in de-standardisation. Recognising this gap in the existing literature, we divide the channels representing the diversity of systems across LMICs in the following ways.[3]

The first channel refers to the distribution of power to the meso level or *sub-national* authorities, which would then have a strong position to independently make policies and implement them. The central government would have minimal or no interference in running local affairs. Sub-national bodies include districts, regional or any other entities above schools. These bodies would have substantial authority to decide education policies including issues such as monitoring and supervision of schools, devolution in managing staff recruitment, teacher training, strengthening management skills of regional staff by training and resources, and distribution of budget, among others.

The second channel is de-standardisation at the micro or *school level*. Even if certain educational policy power is handed over to schools, they do not have the ultimate authority to

[3] One may argue that devolving responsibilities to the sub-national level actually harmonises or 'standardises' education service delivery across a country. However, this may not be the case with the recent waves of institutional reforms for two reasons. First, strengthening regional governments has been a part of the de-standardisation initiative to reinforce and better monitor school autonomy. Thus, any efforts to strengthen autonomous governance of sub-national entities is not a sign of standardisation.

Second, the neoliberal ethos of applying market principles in operating the public sector has promoted building leadership at the local level, both districts and schools, and results-based management. This comes from the spirit of competition among, say, district administrations by, for instance, annually rewarding the best performing districts. A competitive environment means every sub-national agency would have its own way of delivering services by training teachers, mobilising local resources, or even determining teaching methods. Therefore, there would not be any standard maintained across the country. For these reasons, devolution at the sub-national level cannot be considered standardisation.

decide it at the meso and macro levels, that are, sub-national and central governments. At the school level, de-standardisation reforms would include enhancing the democratic environment by ensuring the participation of parents and other local stakeholders in the decision-making process. The decisions may include issues such as budget, school improvement plan, teacher recruitment and training, deciding formative assessment and teaching method, infrastructural development, community volunteering if schools have limited resources, a few to mention (Barrera-Osorio, Fasih and Patrinos 2009). Enhancing school autonomy or decreasing standards for these key educational policies and responsibilities is very likely to lead to variation in the school environment across a country. For instance, local monetary resource mobilisation by community volunteering activities may result in unequal budget sizes across schools since wealthier neighbourhoods would be able to accumulate more resources. Both sub-national and school levels represent de-standardisation in two different forms, which does not mean one form is weaker than the other.

De-standardisation at both levels can happen in two ways: (a) by transferring power, and (b) by building capacity at each level. The latter can happen, for instance, by establishing district education offices or training officers to manage local education affairs. Although the latter seems to be implicit in de-standardising, this is a key to transfer power. Without the required capacity at the local levels, autonomy in deciding policies would not be sustainable.

Why Expecting Differences in Trajectories Across Countries?

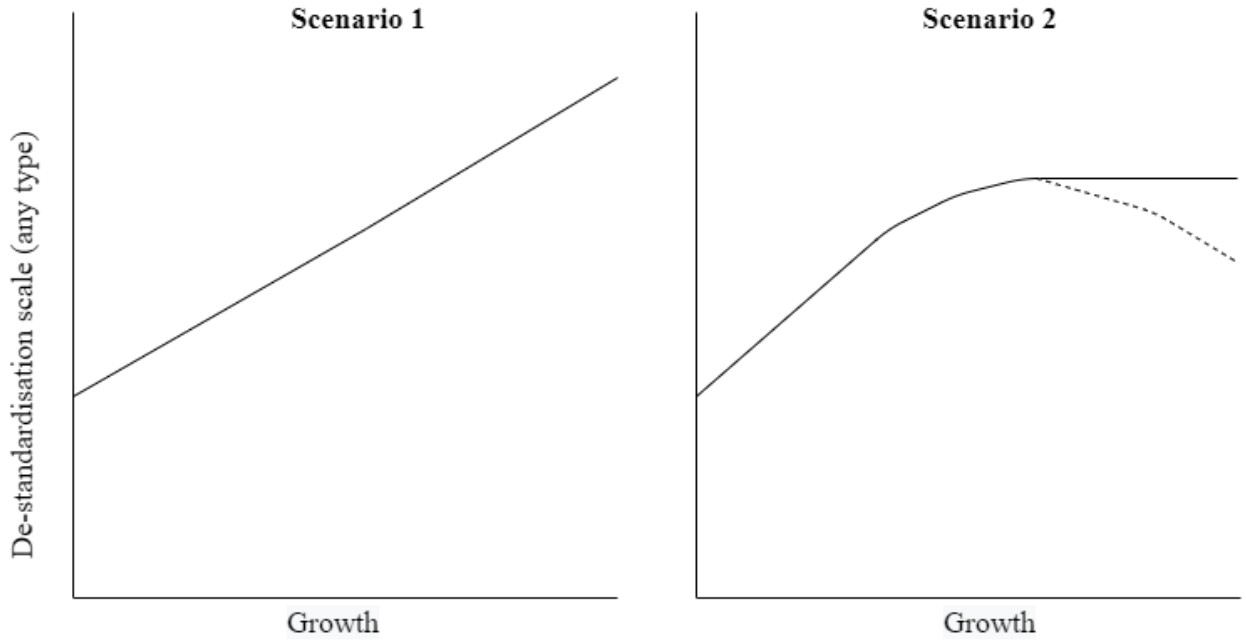
The WB suggests that a homogeneous strategy to implement de-standardisation reforms would work across LMICs (Barrera-Osorio, Fasih and Patrinos 2009). However, while reform strategies can be homogeneous, can they be implemented in the same way in all countries?

Research question two is concerned about this while the first one is concerned with the descriptive overview of growth trajectories of the two channels of the de-standardisation reforms.

As question two goes beyond the descriptive overview, we expect to observe some patterns in de-standardisation growth. The main expectations are related to the shape and timing of growth trajectories, two interrelated phenomena. These are, nonetheless, exploratory expectations rather than hypotheses as the study is mainly descriptive and one of the first ones in the field.

Specifically, regarding the *shape,* we may see an increasing push from the WB to implement de-standardisation reforms at both channels across countries over time. This is in line with the well-established theory that once certain policies are embraced by world society they tend to spread globally (Boyle, Kim and Longhofer 2015, Schofer 2003). But the embracement may happen by coercion and, eventually, a global consensus led by word society. This is because, de-standardisation reforms have taken place through 'what works' principles which Dobbin, Simmons and Garrett (2007) term as a 'follow-the-leader' approach. To elaborate, as we have argued, the conceptualisation and operationalisation of de-standardisation elements in LMICs have been designed following developed societies that have had a long tradition of autonomy in local governance (e.g., Ladner, Keuffer and Baldersheim 2016). Hence, the presumably lower level of de-standardisation in LMICs means all aid recipients would get pushed by these reforms to apply supposedly 'best practices' from the global North to the South. As long as educational performance in LMICs is lower than that of developed societies, the 'what works' point in reforming educational systems remains valid to re-culture institutional capacities. While some countries may receive fewer reforms than others because of time effects and contextual differences, on average, the growth pattern may show some similarities. In addition, reforms through aid and loans mean suggested reforms would accompany conditionality.

Figure 1. Stylised scenarios of the process of de-standardisation reforms over time



Source: Own analysis.

Moreover, as explained in the theoretical section, the diffusion of neoliberal reforms started in the mid to late 1980s with a market-centred approach to run state apparatuses, especially focusing on devolving institutions and democratisation at the local level (Manor 1999). Thus, as illustrated at the left panel in Figure 1, we expect that the growth of both channels of de-standardisation may go steeply upward, especially starting from the late 1980s and the early 1990s.

While the growth of de-standardisation elements is likely to be increasingly upward, we might observe heterogeneity in timing when countries have started receiving reforms. Besides, we may also observe the between-country variance in reforms. While some western allies such as Chile and Argentina may have experienced de-standardisation reforms throughout the Cold War era (Harvey 2006, Holmes 1981), the gradual decolonisation and democratisation of many LMICs were likely to have led to the rapid growth of these reforms worldwide.

The differences in the implementation of de-standardisation reforms at the initial stage or afterwards can be driven by changes in the global political landscape, more specifically, the Cold War between Western countries and the former Soviet Union. For instance, US-led multilateral aid agencies such as the WB and the Inter-American Development Bank (IADB) started influencing LMICs in which the Soviets did not have a stronghold (Willis, da CB Garman and Haggard 1999). On the other hand, countries that emerged from the Soviet Union that are in Central Asia and EE may have experienced de-standardisation reforms much later because of the late engagement of development partners involved in those countries. This means the closeness of countries with western allies may lead to experiencing more such reforms. The proximity hypothesis has also been supported by Schofer (2003).

However, the adoption of reforms may have become slower at some point after achieving a certain level of de-standardisation in the educational systems, as scenario 2 at the right panel suggests. This can also happen as the total proportion of WB project resources may reach a tipping point and remain gradually steady or it may even slowly decline.

Moreover, since the Cold War period was more involved with political decentralisation (Manor 1999), we may see the growth of sub-national level reforms start comparatively earlier than that of school-level across countries. To elaborate, political decentralisation, a reduction in the policymaking authority of the central government, requires devolution at the system or sub-national level, not the school level. We assume that school-level de-standardisation started becoming a major focus in the late 1980s when the failure of aid came into the attention of neoliberal reform promoters as we mentioned in the previous section. Hence, the school-level de-standardisation has been seen as an alternative to improve learning.

The initial de-standardisation level may influence how far external actors can infiltrate reforms and how far these can be implemented. However, in this study we do not observe the actual de-standardisation level at the initial phase, rather the reforms implemented by the WB to change it.

Additionally, since the main argument of this study is that the infiltration of de-standardisation reforms by the WB has been implemented at a global scale, we do not expect to see between-region differences of growth. This is in line with the literature discussed throughout the paper that hints that the WB and other development actors have adopted similar reform strategies across countries (e.g., Steiner-Khamsi 2012).

ANALYTICAL FRAMEWORK

Data

Despite the overwhelming discussion in the literature and policy debates about the neoliberal educational reforms in LMICs in the recent few decades, empirical evidence in this field is very scarce. This is mainly because of the lack of organised data on this issue. Since de-standardisation of educational systems, along with other reforms, has either been financially or technically assisted by development agencies (Bandur 2012, Geo-Jaja 2004a, Prawda 1993, Steiner-Khamsi 2012), an analysis of projects implemented by international organisations is crucial to understanding this issue across LMICs. Thus, to address the research puzzle described in the previous sections, we analyse all available projects that have taken place at the primary and secondary education levels in LMICs by the WB, a primary advocate for diffusing neoliberal reforms in social sectors.

We manually code all 910 projects available at the targeted education level on the WB website that have been and some are still being implemented in 99 countries from 1965 until 2020[4] (World Bank n.d.-b). However, the starting and ending periods of reforms differ across countries. For selecting relevant projects, we went through the WB website where all the projects and operations to date are archived. We then sorted all projects by three categories provided on the website— 'Primary Education', 'Secondary Education', and further 'Public Administration – Education'. This search provided a total of 1,160 projects from which 910 were found related to primary and secondary education. The rest were related to non-education projects in which education was very remotely related.[5] We exclude all projects that have been dropped or cancelled after the commencement and that do not have any detailed information on the website, decreasing the project number in the analysis to 897.[6]

Since most of the projects span a few years in duration, we convert each project into country-project year observations according to its implementation period. For instance, the project in Honduras in Box 1 lasted for five years from 2008 to 2013 hence the country-project year observations for the project are five. The total country-project year observations then become 3,312. The panel structure of the data is unbalanced due to the heterogeneous beginning and ending times of projects. Our unit of analysis is project-year rather than just the beginning or ending year

[4] Since some projects are still being implemented, we include those as well with their expected date of completion, such as 2025.

[5] For instance, if the intended long-term impact of a maternal health project were to increase primary and secondary school enrolment rates, it also appeared in the total of 1,160 when filtered by the three education categories mentioned.

[6] A very negligible proportion of the projects have been dropped/cancelled constituting less than 0.20 percent of all education projects which is similar across countries.

of projects as the latter would give an incomplete and erroneous state of WB operations. Without including the whole timeframe of a project, it would not be possible to know the trend in WB reforms, which is the main purpose of this study. Moreover, the WB may operate more than one project at a time in a country. Hence, considering just the start or terminal year will not allow us to capture the length of each project. Project length may indicate how large a project is and its significance in changing the education sector.

What do WB projects mean?

WB projects used in this paper have already been implemented and evaluated or are being currently implemented. Ideally, WB projects can have three statuses: first, they are proposed to nation states; second, they are implemented by the WB in collaboration with the states upon their acceptance; and third, they are evaluated by the WB after implementation. For the projects which have been implemented and evaluated by the WB, we used impact evaluation documents to code the de-standardisation indicators. For the projects currently being implemented, we review and code the latest available project documents. These are project implementation status documents explaining how far each project component has been implemented. Although there is a logical possibility that a country may reject the proposal of the WB to implement reform, this cannot be traced as such events are not systematically recorded by the WB or nation states. However, de-standardisation-like reforms do not come alone and often accompany larger education projects such as building schools or conditional cash transfers. The budget for these institutional reforms is also a smaller part of the total project expenditure. Given the aid dependency of many LMICs and the costs of not implementing the de-standardisation reforms are substantial (e.g., losing the bigger budget), it is unlikely that the nation states refuse to implement these reforms. We have not come across such events in the literature, especially for the education sector.

Under each project, there are various documents such as project appraisal documents, project implementation and review documents in addition to many other technical and descriptive records depending on the type and length of projects. On average, we went through around 2/3 documents for each project including the evaluation and final review documents. This is to ensure consistency across these documents as there is a possibility that some documents might have been uploaded mistakenly. We did not notice any such inconsistency. Nonetheless, we read over 2,500 documents for coding the indicators. But as explained above, we only coded evaluation reports for the completed and evaluated projects and the latest implementation status documents for currently implemented projects. The measurement process of de-standardisation indicators is presented below.

Variables

Measuring de-standardisation channels.

We construct two indicators of de-standardisation reforms: meso or sub-national and micro or school level de-standardisation.

Meso or sub-national level. To construct this indicator, we take into account WB project components that focus on educational autonomy at the sub-national levels including regions, directorates, districts and sub-districts or any unit above schools (a) which has more than one school under its jurisdiction and (b) hierarchically linked with central government above (either directly or through other tiers) and schools below. As mentioned in the theoretical framework, de-standardisation can happen by transferring power and by strengthening or building local capacity. We include the latter as without local capacity, power cannot be transferred and sustainable. Besides, aligning with the theoretical argument, the sub-national level index contains projects on primary through secondary levels.

To explain the construction of the measure it is pertinent to briefly mention the project structure of the WB. Each project consists of a single to several components as illustrated in Box 1. The content of components could involve a range of issues and is not necessarily the same within a single project. For instance, the education project in Honduras in Box 1 has four components involving issues such as the expansion of education, teacher training, community involvement in schools and strengthening education ministry at the central and local levels.

To code the sub-national level indicator, we consider any project component that involves creating more autonomy at the sub-national level, as defined. For instance, in the Box 1 example, component 3 would be considered in the sub-national category as it worked towards capacity building at the departmental/regional levels for education planning and use of information. The component also acted towards building a better system at the sub-national level to reliably disseminate information on teachers. While these components may appear to bring coherence across the country, it combines other elements such as accountability among stakeholders to make better decisions about teacher wages or how to disseminate the wages, which are likely to de-standardise responsibilities, that is, different local governments may take decisions differently. Additionally, the second component of the project is about creating autonomy at the school level as explained below.[7] The de-standardisation reforms combined at both levels reflect the ethos of neoliberal reforms to democratise the decision-making process.

[7] In selecting the project documents, we take a very conservative approach considering all projects even that are partially connected with primary and secondary education. In other words, we consider projects that have fully and partially targeted schools and the education sector. For example, the dataset includes projects like in Box 1 and also projects having the main theme of health or poverty reduction partially devoting to repairing local schools or school-

In the first step of variable construction, we code according to the number of components in a project associated with sub-national level de-standardisation. For instance, in the case of Box 1, there is only one component that deals with the sub-national level. The remaining 3 components are unrelated to it. In the second or final step, we convert the numeric values to proportion dividing the sub-national component(s) *SN* by the total components of a project *C* or SN/C. In the example of Box 1, the sub-national score becomes 25 percentage points and the remaining 75 are un-related. The constructed continuous variable means the proportion of project components invested in sub-national-level de-standardisation. When none of the components is related to the sub-national level, then it is coded 0 hence 0 percentage points.

Box 1. An example of an education project implemented by the World Bank in Honduras during 2008-2013

Component 1: Enhancing and Scaling-Up Interventions that Address the Needs of the Poor. This component would support pre-primary and primary school interventions focused on the poorest segments of the population. ...

Component 2: Community Participation in School Management. This component would foster community participation within an Integrated School Management System. It had three subcomponents: (2.1) Consolidation and Institutionalization of the School Management System: This sub-component would finance analysis of existing school management modalities among traditional, … educational networks to develop consolidated policies for community participation, social management, school planning, school systems for information, monitoring and evaluation, and financial administration. (2.2) School Planning and Resources for Quality Education: This sub-component would finance the review

based health intervention. Thus, the results do not demonstrate any exaggeration of the focus of development partners during the last few decades.

and development of instruments to support school and network planning and resource management through cooperative school networks. (2.3) School Management and Education Performance Monitoring and Evaluation: This sub-component would finance the development and implementation of a participatory monitoring and evaluation system for school management.

Component 3: Governance and Institutional Strengthening of the Ministry of Education. The component would finance efforts to strengthen SEDUC [*Ministry of Education*], including improving governance and management capacity. The component was divided into three sub-components: (3.1) Information for improved performance and greater accountability: … expanding, strengthening, updating and maintaining the SIARHD [*Integrated System for the Administration of Teachers' Payroll*] at central and sub-national levels to provide reliable information on teachers at all levels…; and strengthening the capacity for educational planning and the use of information for decision-making at the central and departmental levels. (3.2) National System of Assessment of Learning Outcomes: … strengthen the institutional capacities of SEDUC to use the information for monitoring of learning outcomes and decision-making, and to increase overall transparency through dissemination of the results....

Component 4. Project Administration: This component would finance the cost of technical personnel (local consultants) and operating costs. …

Source. World Bank (2013:3-4)

Micro or school-level. School-level de-standardisation is measured in the same way as for sub-national level. The only difference is that the number of project components is coded as school-level when these are dedicated to creating autonomy in schools about certain tasks or decision-making processes as explained in the definition in the theoretical section. For instance, in Box 1, the second component is about school-level de-standardisation as it emphasised more

autonomy in schools, community participation[8], and monitoring and evaluation of schools through a participatory process. Thus, with one component on the school level, the final value would be 25 percent similar to the sub-national level and 75 percent refer to non-school components. Together this project represents 50 percent of de-standardisation elements.

This is to note that both school and sub-national-level de-standardisation are 'independent' of each other since the absence of one channel does not mean the presence of another. Both components are defined distinctively, which means they can either appear alone or simultaneously in a project. Hence, both channels may not add up to 100 percent. We present some randomly selected examples of coding for both sub-national and school levels in Table S1 in the supplementary materials file.

We check the reliability of manually coded measures in two ways. First, we conduct automated text analysis using the project documents considered for this study to construct these two measures. While the scale of the measures is different in manual and automated coding schemes, we check whether growth trajectories and other distributional patterns remain similar in both cases. We discuss this in detail in robustness checks and in Appendix S1 (Reliability) in the supplementary materials file. Second, since a single coder coded the measures, a random sample

[8] In this study, 'community' indicates local stakeholders such as parents or direct school service beneficiaries and other members from socio-political or cultural institutions in the area. We consider 'communities' a school-level element when it is mentioned as a unit horizontal to schools, not districts or other sub-national agencies. If a project specifies community at the sub-national level, then it is not included to estimate the school-level de-standardisation indicator.

We do not cluster the whole list of de-standardisation methods into different categories as this is beyond the scope of this paper. But the reforms have many similarities across countries falling into the two channels as we define here. To exemplify, a list of de-standardisation methods from the dataset is shown in Table S3 in the supplementary materials.

of WB projects was re-coded with a time-lapse for checking consistency and intra-rater reliability as suggested by Mackey and Gass (2015) (see the end of Appendix S1 in the supplementary materials file). Both techniques demonstrate the high reliability of our measures.

Controls. The control variables include region dummy in seven categories; a dummy of educational level in which WB projects have been implemented, that is, primary, secondary or both; and the log of primary and secondary education aid in USD. The log of aid variable is the budget for each WB project considered in this study. This, in turn, reflects the total aid in primary and secondary education since we consider all available WB projects for these education levels. Education aid accounts for two issues. First, the implementation of de-standardisation reforms may be dependent on how much aid a country has received. Second, it can also act as a proxy to the development level or gross domestic product (GDP) per capita as aid provision largely depends on this. Finally, we also control for the starting time of de-standardisation reforms since the heterogeneity of the starting time point may affect growth trajectories across countries.

Modelling

To investigate the first research question, we visualise the data using various plots showing the trajectories of de-standardisation reforms over time by countries and regions. This is also to see whether the timing of growth corresponds to our initial expectations.

To address the second research question, we use generalised linear mixed models (GLMM) with a logit link function to examine similarities or differences in the process of de-standardisation reforms. We do this as our dependent variable is measured in proportion bounded between 0 and 1 while there are many observations with 0 with a skewed distribution. Since we are interested in the predicted growth trajectories for all countries, using linear models would lead to having slopes outside the range of 0 and 1. We, nonetheless, also present linear regression outputs for robustness

checks. The reason we use mixed/country random effects models is to capture the variance across countries in receiving WB reforms. We fit the main model in equation 1 where,

$$\text{logit}(\mu_{yc}) = \gamma + \lambda Y_c + \alpha Y2_c + QR_c + \boldsymbol{\beta Z}_{yc} + u_c \quad (1)$$

$_y$ is the country-project year in country $_c$. μ_{cy} represents $\Pr(D_{yc} = 1|Y_c, Y2_c, R_c, \boldsymbol{Z}_{yc,} u_c)$ meaning the expected value for sub-national or school-level de-standardisation D_{cy} is the probability that $D_{cy} = 1$ with a conditional distribution of $D_{yc} = 1|Y_c, Y2_c, R_c, \boldsymbol{Z}_{yc} \sim B(1, \pi_{yc})$. λ and α are the coefficients on year Y_c and the quadratic function of year $Y2_c$, respectively. R_c is the region dummy and Q is the respective coefficient while $\boldsymbol{\beta}$ is a vector of the coefficient on control variables $\boldsymbol{Z}_{yc}$ as defined in the variable section. u_c is the country-level random intercept.

Moreover, since we expect that growth trajectories of both levels would be approximately similar across regions, we test this expectation by equation 2. Here,

$$\text{logit}(\mu_{yc}) = \gamma + \delta T_c + QR_c + \psi(T_c \times R_c) + \boldsymbol{\beta Z}_{yc} + u_c \quad (2)$$

we include a dummy of year categories T_c with five years interval between 1965 and 2025 (since some projects are still active). Then, we interact the time dummy with regions ($T_c \times R_c$) to see the similarities or dissimilarities across regions. We include year dummies instead of year and the quadratic term of year to capture potential non-parametric patterns in growth, which may not be as smooth as the pattern from the linear plus quadratic trend may show.

FINDINGS

Descriptive Account of the Growth of De-standardisation Reforms

Findings closely assimilate the overwhelming claim about how far development partners have pushed towards de-standardising social services including education. As Figure A1 in the appendix illustrates, around 63 percent of all projects implemented on primary and secondary education have been dedicated to de-standardise educational systems since 1965, combining both

school and sub-national levels (excluding projects not related to de-standardisation). However, when examined closely, more than 69 percent of basic education projects after 1988 involved de-standardisation projects, which was only 24.65 percent before 1988.[9] As expected, starting from the late 1980s, the golden era of neoliberal growth, de-standardisation reforms have rapidly increased. During that time, the Washington Consensus-triggered neoliberal packages of structural reforms were widely diffused in LMICs. This illustrates the magnitude of infiltrating market principles in running a basic service sector in recent times.

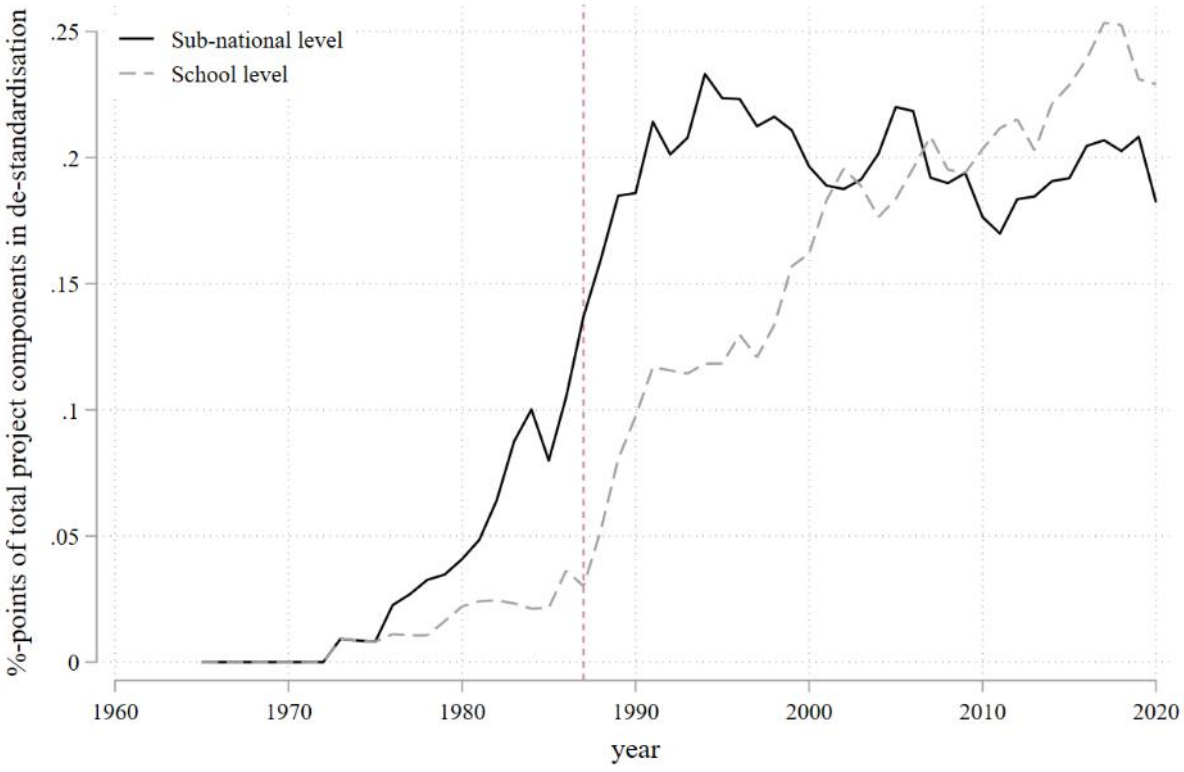
The trend in de-standardisation reforms at sub-national and school levels shows a similar growth pattern as illustrated in Figure 2. From 1965 up to the beginning of the 1980s, the growth of reforms at both levels remained quite slow. However, sub-national reforms have experienced a steep growth from around 1980 while school level has sharply increased since the end of the 1980s. As assumed in the theoretical assumption, the growth of sub-national reforms started earlier than that of the school level. This aligns with existing literature that during the Cold War period, the US and allies promoted political decentralisation at the sub-national level in its bloc countries (Steiner-Khamsi and Quist 2000). Nonetheless, concerns about aid effectiveness, declaration of MDGs in 1990, and structural reforms have led to shifting focus to lower administrative tiers of providing services such as schools and local communities. This is to increase the efficiency of the educational system by making it more participatory and focused on service recipients at the grassroots level. This would presumably increase the effective use of aid and loans (Baylies 1995).

Figure 3 disentangles the trend in sub-national and school-level de-standardisation by region. The initial growth of the former was similar to or higher than that of the latter in most

[9] Table S1 in the supplementary materials lists countries that are considered in this study with a descriptive overview of de-standardisation reforms at both levels.

cases. Sub-national reforms were much higher initially in Central and Western Asia (CWA), East Asia and Pacific (EAP) and EE. But across all seven regions, similar to Figure 2, the growth of sub-national reforms have fallen down compared to that of school-level, which is, as speculated, not similar everywhere. However, the difference between the growth of both channels is less noticeable in Latin America and the Caribbean (LAC), MENA and SSA.

Figure 2. The share of sub-national and school-level de-standardisation project content by the World Bank over the years



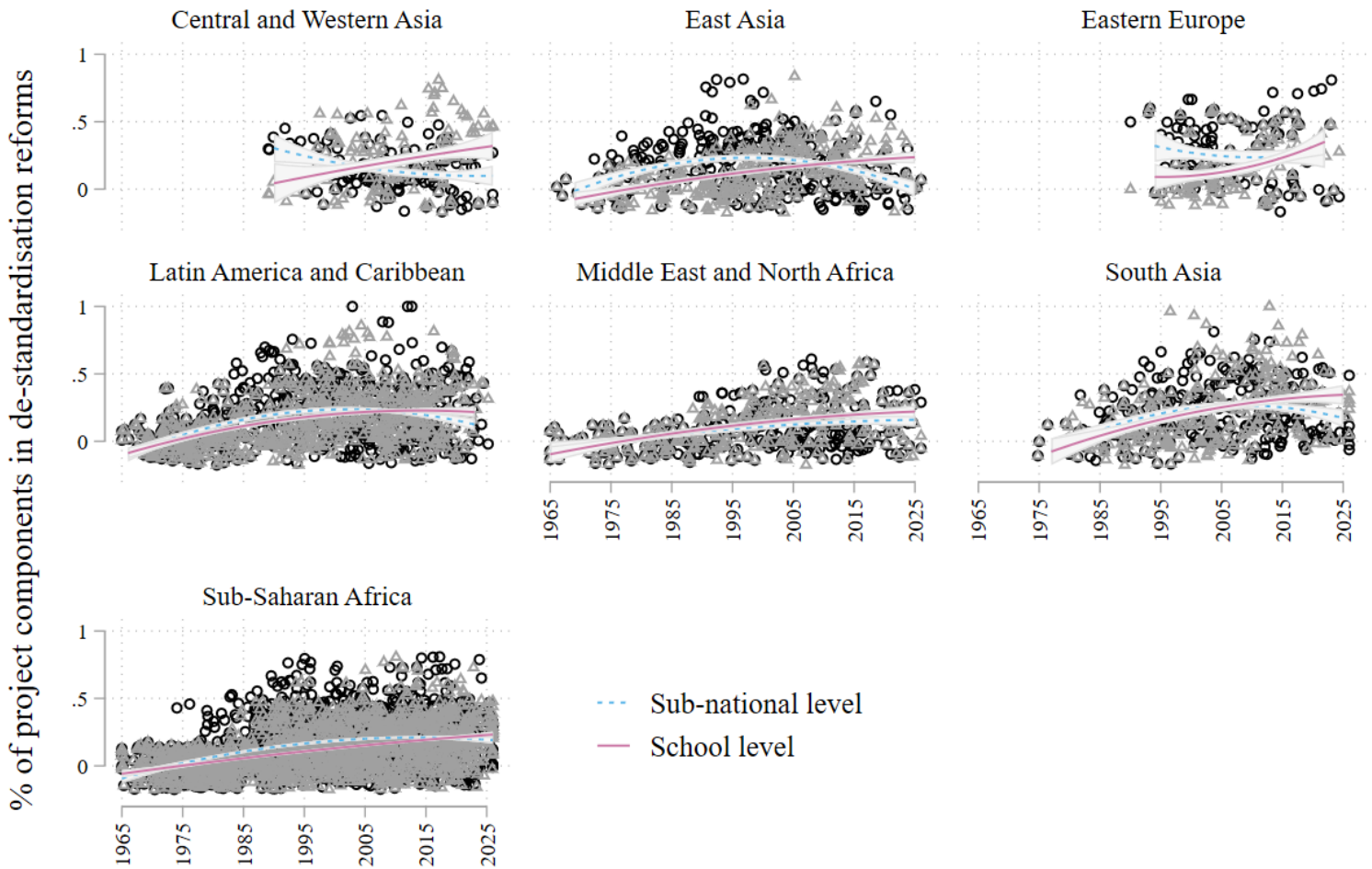
Notes: The Y-axis indicates the proportion of project components representing de-standardisation at either sub-national or school level in a given year. As explained in variable construction, both channels may not add up to 100 percent as they are coded indepdently. Hence, when sub-national score is 0.2 percentage points, it means the remaining 0.8 percentage points are not related to sub-national reforms. The same applies for school level. The vertical dash line indicates the late 1980s when Washington Concensus-led neoliberal reforms were rapidly spreading.
Source. Own dataset.

The distinction in the rise and decline of both elements are more apparent in EAP, where sub-national reforms started taking place earlier compared to other regions but started dropping from around 2000. By contrast, school-level reforms are steeply increasing in the region. The trend is somewhat similar in SA although reforms at the school level are also slowing down in recent times. The decline of sub-national reforms is slightly slower in SSA and in the MENA region. The trend in CWA and EE regions is more dramatic as de-standardisation reforms took place there much later. As mentioned, this could be driven by the end of the Cold War and the breakdown of the Soviet Union. Both regions demonstrate that while sub-national de-standardisation has declined, it has increased at the school level since the commencement of reforms. In these regions, sub-national reforms did not experience growth at the initial stage but took a sudden start at a higher level. This indicates that at a given point in time, WB's projects and policies have been universal in de-standardising educational systems. So, had a country started receiving aids from the WB in the early or mid-1990s, it might have suddenly received a higher level of de-standardisation packages than it would in the 1970s.[10]

In short, educational systems across LMICs, historical and present, have received a notable volume of de-standardisation reforms by the WB echoing Western-born neoliberal ethos.

[10] Questions may arise whether the WB has focused on centralising any policies. Although rare, there have been some projects somewhat resembling centralisation, which may not mean standardisation. For instance, some projects have focused on strengthening the skills and infrastructures of the Ministry of Education (MoE) at the central and local levels. While the former aspect may indicate some centralisation efforts, it is rather to run local agencies more efficiently. Moreover, even if the project only focused on strengthening the MoE, it does not indicate standardising any education policies. It rather points out the dire need for resources at the administrative focal point, which is a basic requirement to run a modern state regardless of whether the system is centralised or decentralised.

Figure 3. Scatter plots of both channels of de-standardisation and time, by region.



Notes: Country N=99 and country-year N= 3,312. The y-axis represents the proportion of WB project components about de-standardisation reforms. The trend extending beyond 2020 means some projects are still being implemented. Jittering is used to prevent overplotting of observations on a single point. While black circles represent sub-national, grey tringle hollows signify school-level de-standardisation.
Source. Own dataset.

Table 1. Regression results in log odds from generalised linear mixed-effects models

	Dependent variables							
	Sub-national				**School**			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Year	16.4***	16.4***	13.0***	11.0***	17.5***	17.6***	15.1**	13.6**
	(2.39)	(2.39)	(3.13)	(3.24)	(3.44)	(3.43)	(4.79)	(4.77)
Year quadratic	-0.0041***	-0.0041***	-0.0032***	-0.0027***	-0.0044***	-0.0044***	-0.0037**	-0.0034**
	(0.00060)	(0.00060)	(0.00078)	(0.00081)	(0.00086)	(0.00086)	(0.0012)	(0.0012)
Region fixed effects		Yes	Yes	Yes		Yes	Yes	Yes
Starting time			Yes	Yes			Yes	Yes
Education levels				Yes				Yes
Project cost (log)				Yes				Yes
Constant	-16442.9***	-16402.5***	-13005.7***	-11009.7***	-17665.0***	-17713.0***	-15177.0**	-13739.1**
	(2388.5)	(2390.2)	(3140.5)	(3242.8)	(3446.4)	(3436.4)	(4808.0)	(4783.9)
Random effects								
Σu (Country)	1.68***	1.45***	1.46***	1.52***	3.74***	3.35***	3.35***	3.41***
	(0.42)	(0.39)	(0.39)	(0.37)	(0.93)	(0.81)	(0.80)	(0.87)
Variance explained[a]		13.7%	13%	9.5%		10.67%	10.4%	8.8%
Country-year N	3312	3312	3312	3312	3312	3312	3312	3312
Country N	99	99	99	99	99	99	99	99

Notes: [a]Compared to the model with no controls. (b) The models are estimated using equation 1 step by step. (c) Robust standard errors in parentheses. * p < 0.05 ** p < 0.01 *** p < 0.001

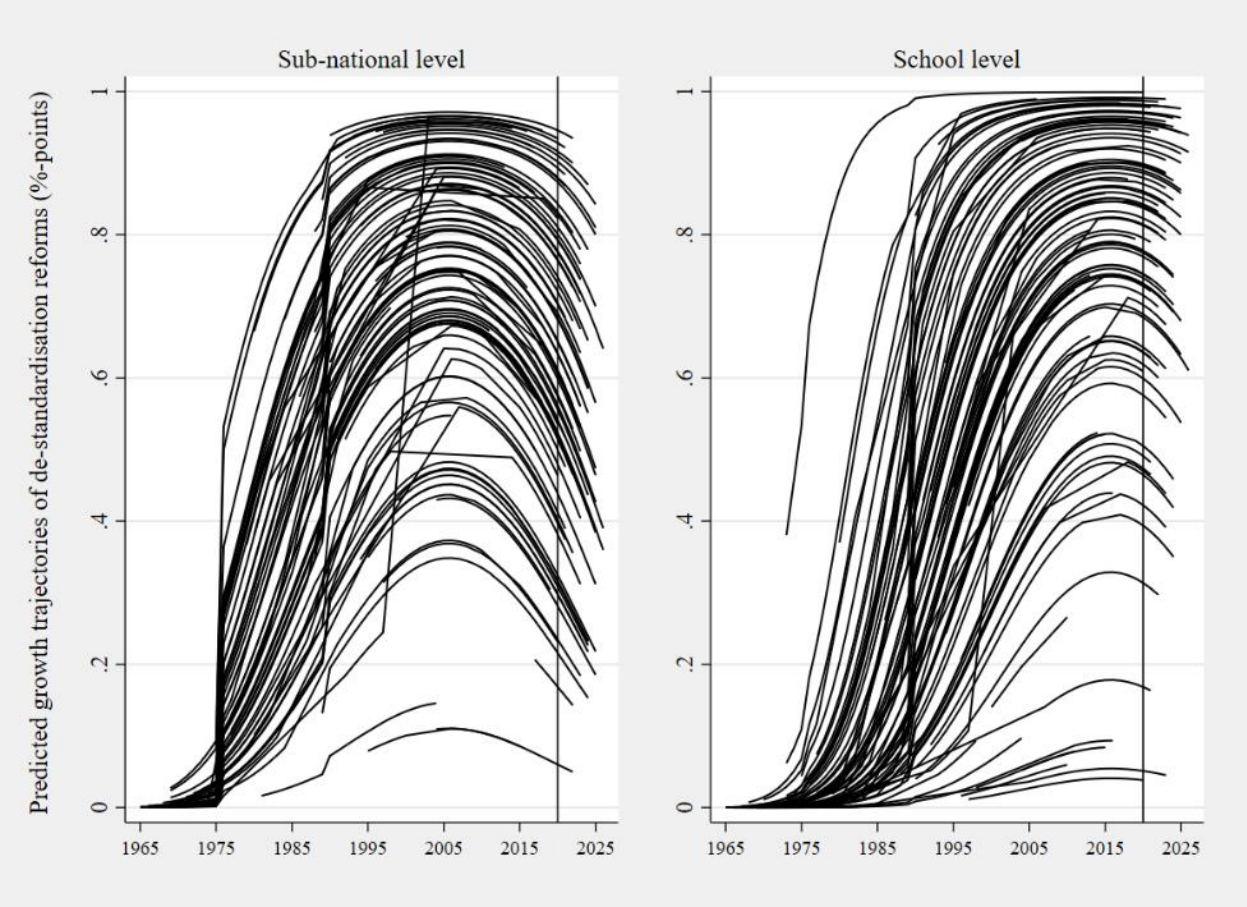
The second research question in this paper is about whether there are any similarities or differences in the implementation of de-standardisation reforms across countries. To answer this query, we examine the trajectories in all countries using GLMM models. Figure 4 presents growth curves of sub-national and school-level de-standardisation using equation 1 where each slope represents a country. Both graphs depict quite different pictures. Sub-national reforms started slowing down in the early 1990s with a downward curvature starting from the mid-2000s. Conversely, school-level reforms have kept rising until reaching a tipping point, then remained steady.

Regression results from different models in Table 1 also suggest that the coefficients for the year variable in all models are larger for school level than that of sub-national level. It indicates that the instantaneous growth is higher for the school level, which means it has experienced a steeper growth than the sub-national level.

The results demonstrate a uniform growth of both channels. The shape of reforms is similar to scenario 2 on the right panel of Figure 1 which suggests that after reaching a tipping point, WB projects regarding de-standardisation either slow down (for sub-national level) or remain steady (for school). Notably, for many countries in certain years, the tipping point of school-level reforms is 100 percent of WB projects. Because of reaching the maximum point, the growth remains steady indicating that the trend in school-level reforms is still on the rise. This conforms to our initial assumption that the focus of reforms in educational systems may shift towards lower service tiers such as schools and local governments closer to school communities. This strategy is more feasible for the WB, especially in countries where sub-national level de-standardisation is difficult to implement because of political unwillingness as civil service reforms require radical changes in the bureaucratic system. By contrast, bringing de-standardisation reforms at the school level by

reinforcing more democratic decision-making processes is deemed to be comparatively easier to overcome bureaucratic and political complexities. This would apply to many LMICs with limited democracy and rigidly centralised administrative systems.

Figure 4. While sub-national de-standardisation reforms demonstrate a strong curvature, school-level growth less so.



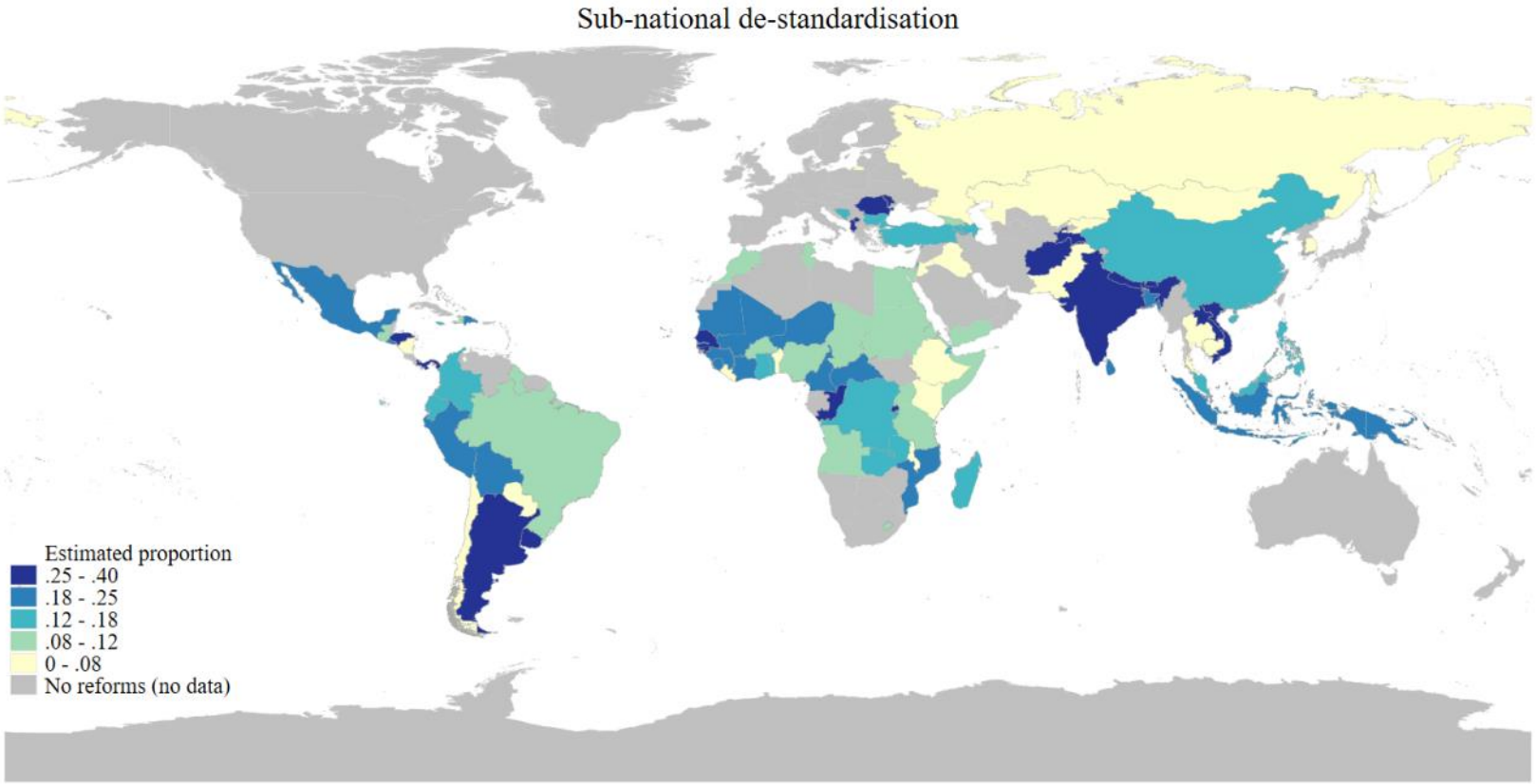
Notes: Country N=99 and country-project year N= 3,312. Each slope represents a country. The growth curves of de-standardisation at sub-national (left panel) and school level (right panel), using equation 1 but includes only year, quadratic year, region fixed effects, and a dummy of reform start times. Results from full model is presented in Table 1 and in Figure S1 in the supplementary materials that shows similar growth trajectories. The vertical line indicates year 2020; exceeding this line means some projects are still ongoing. *Source*. Own dataset.

While we find consistent growth of both channels of de-standardisation across countries, we see a noticeable variance in the growth of slopes, which suggests that the level of growth across countries has been different. The between-country variance is statistically significant as shown in

the random part of the regression results in Table 1. When region dummy is added to the second model, it explains around 13.7 percent of the between-country variance of sub-national reforms and 10.67 percent for school-level. However, a large proportion of variance remains unexplained. Moreover, it does not explain within-country growth or country-project year variance. When we add time-variant relevant controls, these do not also explain any level-1 variance. This indicates between-country variation in de-standardisation reforms is more pertinent rather than within country or across year variation.

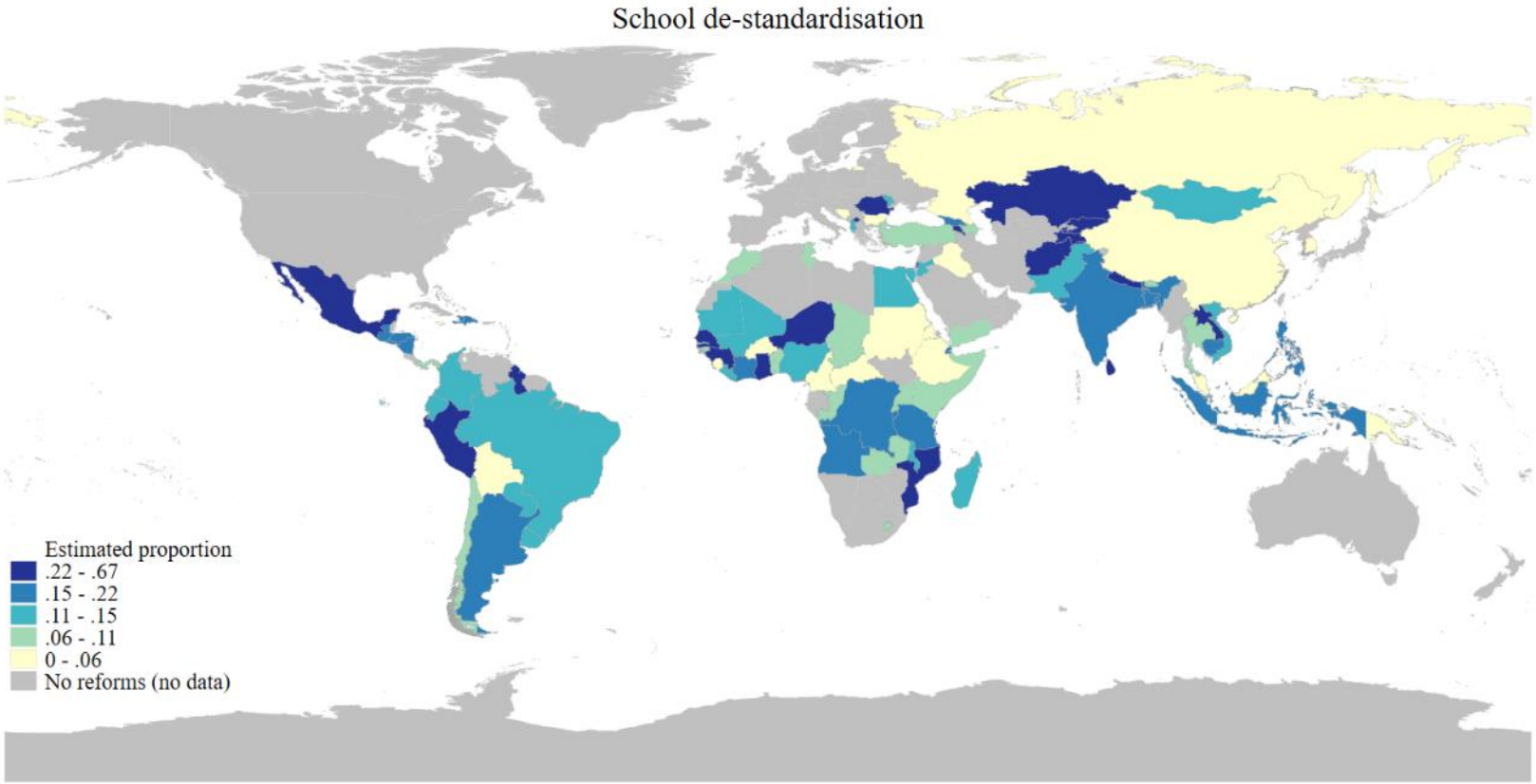
Furthermore, we investigate whether the growth of the two channels of de-standardisation is similar across regions. To examine this, we use the interaction of region and year dummies on the two channels of de-standardisation by equation 2. However, we do not find significant differences in the growth of two channels across regions when we add confidence intervals in the slopes (see Figure S2 in the supplementary materials which is presented without confidence interval for the purpose of clear understanding of the pattern). This means de-standardisation reforms are fairly uniform across regions. This conforms to our initial assumption that the trajectories of de-standardisation would be uniform across regions given its global movement. However, a notable between-country variance in implementing sub-national and school reforms does not mean that countries do not learn from their neighbours. As suggested by previous studies (Ramirez, Soysal and Shanahan 1997, Sikkink 1993), countries accept new policy models such as women's suffrage rights or human rights protection from their neighbours. In our case, reforms still travel across countries, but their degree varies.

Figure 5. Cross-country differences in the level of implementation of de-standardisation reforms at the sub-national level



Notes: The mean of estimated prediction of sub-national-level de-standardisation for all available years, based on equation 1 (model 3 in sub-national in Table 1). The independent variables include year, quadratic year, basic education aid, projects' education level, and regions.
Source. Own dataset.

Figure 6. Cross-country differences in the level of implementation of de-standardisation reforms at the school level



Notes. The mean of estimated prediction of school-level de-standardisation for all available years, based on equation 1 (model 3 in school in Table 1). The independent variables include year, quadratic year, basic education aid, projects' education level, and regions.
Source. Own dataset.

To better understand the between-country variance, we plot the expected values of both channels estimated by equation 1 in a map in Figure 5 on sub-national and 6 on school. The notable feature of both maps is that the higher concentration of de-standardisation reforms is not centred in a specific region. Every region is characterised by countries having a higher and lower proportion of de-standardisation reform components, as we anticipated. Moreover, the maps also show that some countries received both types of institutional reforms quite highly in some regions, especially in Afghanistan, Bangladesh, India, Nepal and Sri Lanka in SA, Argentina, Ecuador, Mexico, Peru in LAC and some countries in SSA including Cote D'Ivoire, Mozambique, Niger, Senegal, among others.[11]

The growth patterns of the two elements of de-standardisation confirm that the neoliberal reforms have started increasingly taking place at the end of the Cold War era, although US allies countries received the reforms earlier. The reason sub-national level reforms have slowed down after Washington Consensus and UN's MDGs could be because development partners have shifted their agenda to micro-level organisations such as schools for better results of aid. However, despite at a slower pace, sub-national-level de-standardisation is still being implemented as seen. Since WB policies have been universal, that is, focused on aid effectiveness using 'what works' tools, the growth of de-standardisation has been quite uniform rather across countries.

The results about the growth trajectories of both channels reflect our initial expectations. First, the shape of trajectories demonstrates that there is a close linkage between the actions of world society platforms— for instance, the Washington Consensus in the late 1980s— and the diffusion of neoliberal educational reforms. This aligns with the existing evidence that once there

[11] Countries with limited international communication or pariah status have not received any world bank projects at all such as Cuba, Iran, Myanmar and North Korea.

is a widely agreed policy model by global society it rapidly spreads across countries (Dobbin, Simmons and Garrett 2007). However, since the reforms were borrowed by LMICs through aid and loans (Steiner-Khamsi 2012), we assume the reforms were conditional and diffused somewhat with compulsion (Owen 2002). In receiving the reforms, we observe a notable variance across countries as shown in Figures 5 and 6.

While we do not examine the reasons for the variance in the study (due to limited scope), we observe some patterns that may explain this. We find that countries in EE and CWA regions started receiving de-standardisation reforms later than other countries, which is after the breakdown of the Soviet Union. Besides, comparatively disconnected or pariah states such as Cuba, Iran and Myanmar have not received any reforms at all. This means countries with close affinity to the WB, the US and allies received more of the neoliberal reforms in the educational system. Past studies support this theory that countries deeply embedded in the world system tend to embrace policies that align with core principles of world society (Mathias 2013, Schofer 2003).

Sensitivity Analyses

The robustness of the results would depend on the reliability of the two main measures in the study— sub-national and school-level de-standardisation, which are manually coded. To examine whether manual coding is driving findings on growth trajectories of these two channels of de-standardisation, we construct the same measures by automated coding using text analysis techniques. Specifically, we web scrape all WB project documents used in this study. We then create two lists of keywords, one related to reforms at sub-national and the other one to the school level, based on the literature in the field (see Table S3 in the supplementary materials). Next, we construct the measures based on the relative occurrence of the respective keywords in project

document texts (a detailed account of the process is explained in Appendix S1 or the Reliability section in the supplementary materials).

After constructing the measures, we compare the growth trajectories of the two channels by manual and automated coding estimated by the same models as equation 1. At a quick glance, we find close proximity in the distribution of growth in both measures using manual and automated coding (Figure S3 in the supplementary materials). More importantly, as illustrated in Figure S4 and S5 in the supplementary materials, the predicted growth in the country slope of both channels is approximately similar in both manual and automated coding. In other words, growth trends from automatic coding closely approximate the results in Figure 4. Moreover, as Figures S4 and S5 in the supplementary materials show we find a very similar trend when we use country fixed effects, but with less between-country variance since country unobservable characteristics are now eliminated. Additionally, we find a high correlation between the predicted growth of both measures using manual and textual coding (see Figure S7 in the supplementary materials). When using the country random-effects model, the correlation for sub-national reforms stands 0.88 and for school, it is 0.79. However, after employing country fixed effects in the models, the correlation between the estimated growth by manual and automated coding rises to 0.98 and 0.99 for sub-national and school levels, respectively. All these analyses suggest that the growth trajectories of de-standardisation channels are not sensitive to the coding decisions and the measures are robust.

In addition to automated text analysis, we also re-coded a randomly selected five percent of the total WB projects considered in the study. The results show a strong correlation between the original and re-coded measures (see the Reliability section in Appendix S1 in the supplementary materials).

DISCUSSION AND CONCLUSION

This paper has extensively reviewed educational projects of the WB in LMICs worldwide to examine to what extent this 'powerful' supranational agency has implemented de-standardisation reforms across educational systems. To our knowledge, this is the first study analysing such large scale data covering major developing territories of the world since 1965. We find that an overwhelming share of implemented basic educational projects consisting of 63 percent has been dedicated to de-standardisation, that is, devolving educational management and responsibilities to sub-national agencies and schools. The diffusion of these reforms has been implemented across boundaries regardless of region. However, in recent times, especially since the late 1980s, the focus has increasingly shifted towards the management of educational responsibilities at the school level. This includes school autonomy in making key educational decisions. While sub-national de-standardisation has decelerated recently since the mid-1990s to early 2000s, it is still being implemented in many countries.

We observe a uniform growth of reforms at both levels across countries, which indicates the diffusion of coherent policies worldwide. While there is between-country variance, the shape of trajectories is quite consistent as we have discussed. Another notable feature of the trend in de-standardisation reforms is its timing. We observe that the growth of these reforms skyrocketed especially around the late 1980s, in particular school-level reforms. The growth of these policy reforms is consistent with the past research suggesting that development assistance made a radical shift from financing to reform strategy at that period (Dollar and Svensson 2000). The main motto of these reforms has been to improve students' learning and school attendance in LMICs, which as the advocates for these reforms argue have been plagued by the 'malgovernance' of traditional bureaucracy. This includes rigid centralisation of bureaucracy which blocks management and

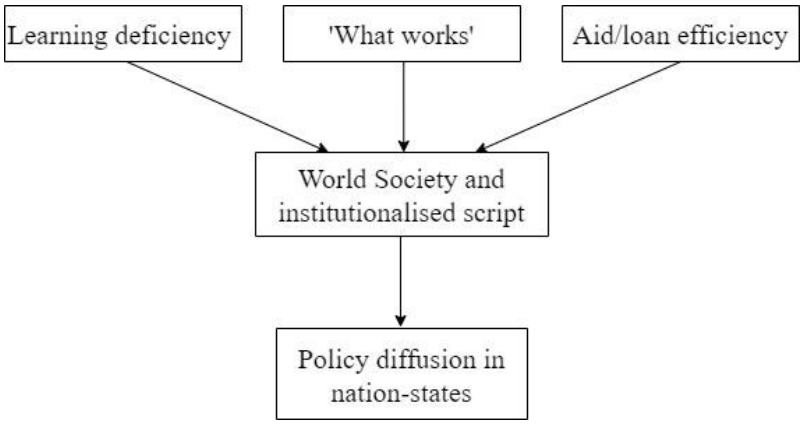
pedagogical innovation in schools. Thus, the increasing influence of local governments and school self-management has been advocated (Barrera-Osorio, Fasih and Patrinos 2009).

However, one may ask the origin of such reforms as they would have to work somewhere to implement in LMICs. As we have discussed in the theoretical framework, these reforms have reportedly originated mainly from the US and UK and diffused primarily by the WB along with other multilateral agencies (Steiner-Khamsi 2012, Steiner-Khamsi 2014) even the UN (Naidoo 2005). However, there is very limited evidence about the effectiveness of de-standardised or similar schooling systems (Bukodi et al. 2018, Hanushek, Link and Wöbmann 2013). This suggests that policies can be diffused based on theory rather than evidence. Additionally, donors have also been concerned about the efficiency of loans or aid invested in education since learning achievement has remained slow despite increasing school enrolment in LMICs (Birchler and Michaelowa 2016). Changing educational systems has been a key suggestion to improve learning (Pritchett 2013).

We suppose a key trigger of de-standardisation reforms in education is learning deficiency, which has led powerful countries to look for models/reforms that would presumably improve learning. They do it also to ensure the efficient use of aid and get more results with strategic investment. As shown in Figure 7, these multiple frameworks are then internalised by world society associations and get scripted. For instance, these reforms have been institutionalised during the Washington Consensus in the late 1980s through structural adjustment programmes across LMICs. Once the scripts are written the reforms get diffused in countries that are closely linked to world society, that is, through aid or other strategic partnership. The scripts also become universal. For instance, while the WB was the primary advocate for de-standardisation related reforms, the UN also later joined to support these. As we have discussed, countries that are not connected to

the world society or powerful states that advocate for such policies do not tend to accept these reforms. For instance, EE and CWA countries accepted de-standardisation reforms only after the breakdown of the Soviet Union while countries like Cuba, Iran and Myanmar are yet to accept.

Figure 7. Institutionalisation process of reforming educational systems in LMICs



Source: Own analysis and adapted from Boyle, Kim and Longhofer (2015).

Furthermore, as our findings suggest, sub-national de-standardisation has experienced a slow and decreasing growth recently while school-level de-standardisation kept rising. We argue there could be four possible explanations for this.

The *first* reason could be the time effect which brought many other actors together with the WB. To elaborate, while initially pioneered by the WB, neoliberal practices or specifically the idea of structural reforms in education became popular also among other actors including UNESCO. This has increasingly happened after the declaration of MDGs in 1990. In one of its policy papers, UNESCO's International Institute for Educational Planning (IIEP) argues that the main goal of devolving educational responsibilities in LMICs is to mobilise local resources and to lessen the financial burden on the central government (McGinn and Welsh 1999), which echoes the structural reforms of the WB and the International Monetary Fund (IMF). IIEP has published many other conceptual papers in the subsequent years promoting the necessity of de-standardisation of

educational systems (e.g., Abu-Duhou 1999, Naidoo 2005). So have WB pioneers (Barrera-Osorio, Fasih and Patrinos 2009, Paqueo and Lammert 2000).

One common aspect of these policy briefs or scripts, both from the WB and the IIEP and many others, is the ambiguous distinction between autonomy at the sub-national and school levels. Devolving educational systems to the local level is often used in these documents to refer to school-level autonomy as well as district and regional autonomy. It could be because, in many LMICs, local governments at the district and regional levels are rigidly hierarchically linked to the central government, which means resource mobilisation efforts at these levels may not have been as successful as donors had envisaged. But, schools are embedded in communities that are also service recipients. It would be more feasible to mobilise resources from service recipients rather than bureaucratic hierarchies. Thus, school-level de-standardisation may have received more attention because of practical reasons started by structural adjustment programmes.

The *second* potential reasoning is relevant to the first one. Reforming system-level or sub-national bureaucracy is much harder and less cost-effective. Thus, after learning this lesson for many years, school-level de-standardisation may have recently become an efficient strategy for donors. In a way, this was done to make aid more effective and result-driven by focusing on 'easy-to-implement' reforms in schools.

The *third* possible explanation is related to the black box of scriptwriting. As Kentikelenis and Seabrooke (2017) explain with the example of IMF, scriptwriting plays a pivotal role in implementing policies in LMICs even sometimes going against the will of stakeholders in nation-states. Whether a policy script is final depends on the attempts of both scientific and political wings of international organisations, which is hard to change once set. Thus, the WB may have fixed

these policies in the script and recently prioritised school-level de-standardisation more, even though these have been contentious in many contexts.

The *fourth* reason for a steep rise in school-level reforms could be to nurture more individual freedom and create democratic practices in micro-level social organisations such as schools rather than at the meso level, that is, sub-national agencies. This is also suitable to promote democratisation by reaching out to the grassroots population when a regime is authoritarian.

Implications for nation states

Our study, providing a new dataset, has important implications for future states, especially when considering linking the data to educational and other societal outcomes. As we argue in the introduction, the de-standardisation-related reforms induced by SAP lack a human face (Summers and Pritchett 1993) and consider citizens as customers (Ferlie, Fitzgerald and Pettigrew 1996). The de-standardisation reforms also assume that marginalised parents and stakeholders will be automatically empowered by creating participatory platforms at the local and school levels (Barrera-Osorio, Fasih and Patrinos 2009). By overlooking differences in financial and social capabilities of different social strata, these reforms may bring concerning outcomes. However, the reforms may also bring positive results as they take public services closer to people who may otherwise be left unserved in resource-scarce contexts and under very centralised systems. Our data could be used to explore these dimensions linking with different data sources such as household surveys and new measures on educational systems.

Limitations

We would like to point out that our study is not without limitations. We summarise two major ones in the following. First, we only rely on WB projects to examine the de-standardisation reforms. While the WB is a dominant actor in promoting these reforms, there are other donors that

may also be implementing similar projects in LMICs. Future research can explore this further focusing on other actors. Second, we could not explore cultural contexts in detail. Given that our sample includes countries with heterogeneous characteristics, contexts may affect how the WB approaches its reforms. As we have mentioned, there are different types of de-standardisation reforms taking place both at the sub-national and school levels. The variation of these types may depend on the context of a country. Since we mainly looked at overall trends across nations, it was not possible to further disaggregate the reform types by country. This issue would be worth exploring in future studies.

References

Abu-Duhou, Ibtisam. 1999. *School-Based Management*. Paris: UNESCO International Institute for Educational Planning (IIEP).

Allmendinger, Jutta. 1989. "Educational Systems and Labor Market Outcomes." *European sociological review* 5(3):231-50.

Ball, Stephen J and Deborah Youdell. 2009. *Hidden Privatisation in Public Education*. Brussels: Education International.

Bandur, Agustinus. 2012. "School-Based Management Developments and Partnership: Evidence from Indonesia." *International journal of educational development* 32(2):316-28.

Bardhan, Pranab and Dilip Mookherjee. 2006. "Decentralisation and Accountability in Infrastructure Delivery in Developing Countries." *The Economic Journal* 116(508):101-27.

Barrera-Osorio, Felipe, Tazeen Fasih and Harry Anthony Patrinos. 2009. *Decentralized Decision-Making in Schools: The Theory and Evidence on School-Based Management*. Washington, DC: World Bank.

Baylies, Carolyn. 1995. "'Political Conditionality' and Democratisation." *Review of African Political Economy* 22(65):321-37.

Berman, Edward H. 1971. "American Influence on African Education: The Role of the Phelps-Stokes Fund's Education Commissions." *Comparative Education Review* 15(2):132-45.

Birchler, Kassandra and Katharina Michaelowa. 2016. "Making Aid Work for Education in Developing Countries: An Analysis of Aid Effectiveness for Primary Education Coverage and Quality." *International journal of educational development* 48:37-52.

Boyle, Elizabeth H, Minzee Kim and Wesley Longhofer. 2015. "Abortion Liberalization in World Society, 1960–2009." *American Journal of Sociology* 121(3):882-913.

Bray, Mark. 2006. "Private Supplementary Tutoring: Comparative Perspectives on Patterns and Implications." *Compare* 36(4):515-30.

Bukodi, Erzsébet, Ferdinand Eibl, Sandra Buchholz, Sonia Marzadro, Alessandra Minello, Susanne Wahler, Hans-Peter Blossfeld, Robert Erikson and Antonio Schizzerotto. 2018. "Linking the Macro to the Micro: A Multidimensional Approach to Educational Inequalities in Four European Countries." *European societies* 20(1):26-64.

Cassen, Robert. 1994. *Does Aid Work?: Report to an Intergovernmental Task Force*. Oxford: Clarendon Press.

Channa, Anila and Jean-Paul Faguet. 2012. "Decentralization of Health and Education in Developing Countries: A Quality-Adjusted Review of the Empirical Literature." *The World Bank Research Observer* 31(2):199-241.

Chmielewski, Anna K and Sean F Reardon. 2016. "Patterns of Cross-National Variation in the Association between Income and Academic Achievement." *AERA Open* 2(3):2332858416649593.

Dobbin, Frank, Beth Simmons and Geoffrey Garrett. 2007. "The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning?". *Annu. Rev. Sociol.* 33:449-72.

Dollar, David and William Easterly. 1999. "The Search for the Key: Aid, Investment and Policies in Africa." *Journal of African Economies* 8(4):546-77.

Dollar, David and Jakob Svensson. 2000. "What Explains the Success or Failure of Structural Adjustment Programmes?". *The Economic Journal* 110(466):894-917.

Ferlie, Ewan, Louise Fitzgerald and Andrew Pettigrew. 1996. *The New Public Management in Action*: Oxford University Press, USA.

Florestal, Ketleen and Robb Cooper. 1997. *Decentralization of Education: Legal Issues*. Washington, DC: The World Bank.

Gamoran, Adam. 1996. "Curriculum Standardization and Equality of Opportunity in Scottish Secondary Education: 1984-90." *Sociology of Education* 69(1):1-21.

Geo-Jaja, Macleans A. 2004. "Decentralisation and Privatisation of Education in Africa: Which Option for Nigeria?". *International Review of Education* 50(3-4):307-23.

Gibbon, Peter. 1993. "The World Bank and the New Politics of Aid." *The European Journal of Development Research* 5(1):35-62.

Hanushek, Eric A, Susanne Link and Ludger Wöbmann. 2013. "Does School Autonomy Make Sense Everywhere? Panel Estimates from Pisa." *Journal of Development Economics* 104:212-32.

Harvey, David. 2006. "Neo-Liberalism as Creative Destruction." *Geografiska Annaler: Series B, Human Geography* 88(2):145-58.

Holmes, Brian. 1981. *Some Considerations in Method*. London: George Allen A Unwim.

Islam, Muhammed N. 2005. "Regime Changes, Economic Policies and the Effect of Aid on Growth." *The Journal of Development Studies* 41(8):1467-92.

Kentikelenis, Alexander E and Leonard Seabrooke. 2017. "The Politics of World Polity: Script-Writing in International Organizations." *American Sociological Review* 82(5):1065-92.

Kentikelenis, Alexander E and Sarah Babb. 2019. "The Making of Neoliberal Globalization: Norm Substitution and the Politics of Clandestine Institutional Change." *American Journal of Sociology* 124(6):1720-62.

Kerckhoff, Alan C. 2001. "Education and Social Stratification Processes in Comparative Perspective." *Sociology of Education* 74:3-18.

Kosack, Stephen. 2003. "Effective Aid: How Democracy Allows Development Aid to Improve the Quality of Life." *World development* 31(1):1-22.

Ladner, Andreas, Nicolas Keuffer and Harald Baldersheim. 2016. "Measuring Local Autonomy in 39 Countries (1990–2014)." *Regional & Federal Studies* 26(3):321-57.

Lipton, Michael and John Toye. 2010. *Does Aid Work in India? A Country Study of the Impact of Official Development Assistance*. London: Routledge.

Mackey, Alison and Susan M Gass. 2015. *Second Language Research: Methodology and Design*. Mahwah, New Jersey and London: Routledge.

Manor, James. 1999. *The Political Economy of Democratic Decentralization*: World Bank.

Masino, Serena and Miguel Niño-Zarazúa. 2016. "What Works to Improve the Quality of Student Learning in Developing Countries?". *International journal of educational development* 48:53-65.

Mathias, Matthew D. 2013. "The Sacralization of the Individual: Human Rights and the Abolition of the Death Penalty." *American Journal of Sociology* 118(5):1246-83.

McGinn, Noel and Thomas Welsh. 1999. *Decentralization of Education: Why, When, What and How?* Paris: UNESCO International Institute for Educational Planning (IIEP).

Mundy, Karen and Antoni Verger. 2015. "The World Bank and the Global Governance of Education in a Changing World Order." *International journal of educational development* 40:9-18.

Naidoo, Jordan P. 2005. *Educational Decentralization and School Governance in South Africa: From Policy to Practice*. Paris: International Institute for Educational Planning (IIEP) UNESCO.

Naim, Moises. 2000. "Washington Consensus or Washington Confusion?". *Foreign policy*:87-103.

Nanda, Ved P. 2006. "The "Good Governance" Concept Revisited." *The ANNALS of the American academy of political and social science* 603(1):269-83.

Owen, John M. 2002. "The Foreign Imposition of Domestic Institutions." *International organization* 56(2):375-409.

Paqueo, V and J Lammert. 2000. *Decentralization & School-Based Management Resource Kit*. Washington, DC: World Bank.

Prawda, Juan. 1993. "Educational Decentralization in Latin America: Lessons Learned." *International journal of educational development* 13(3):253-64.

Pritchett, Lant. 2013. *The Rebirth of Education: Schooling Ain't Learning*. Washington, DC: Center for Global Development.

Ramirez, Francisco O, Yasemin Soysal and Suzanne Shanahan. 1997. "The Changing Logic of Political Citizenship: Cross-National Acquisition of Women's Suffrage Rights, 1890 to 1990." *American Sociological Review* 62(5):735-45.

Reimers, Fernando. 1994. "Education and Structural Adjustment in Latin America and Sub-Saharan Africa." *International journal of educational development* 14(2):119-29.

Reinsberg, Bernhard, Alexander Kentikelenis, Thomas Stubbs and Lawrence King. 2019. "The World System and the Hollowing out of State Capacity: How Structural Adjustment

Programs Affect Bureaucratic Quality in Developing Countries." *American Journal of Sociology* 124(4):1222-57.

Robinson, Mark. 1993. "Aid, Democracy and Political Conditionality in Sub-Saharan Africa." *The European Journal of Development Research* 5(1):85-99.

Rondinelli, Dennis A, James S McCullough and Ronald W Johnson. 1989. "Analysing Decentralization Policies in Developing Countries: A Political-Economy Framework." *Development and change* 20(1):57-87.

Schofer, Evan. 2003. "The Global Institutionalization of Geological Science, 1800 to 1990." *American Sociological Review* 68(3):730-59.

Sikkink, Kathryn. 1993. "Human Rights, Principled Issue-Networks, and Sovereignty in Latin America." *International organization* 47(3):411-41.

Steiner-Khamsi, Gita and Hubert O Quist. 2000. "The Politics of Educational Borrowing: Reopening the Case of Achimota in British Ghana." *Comparative Education Review* 44(3):272-99.

Steiner-Khamsi, Gita. 2012. "Understanding Policy Borrowing and Lending: Building Comparative Policy Studies." Pp. 3-17 in *World Yearbook of Education 2012: Policy Borrowing and Lending in Education*, edited by G. Steiner-Khamsi and F. Waldow. Oxford, UK: Routledge.

Steiner-Khamsi, Gita. 2014. "Cross-National Policy Borrowing: Understanding Reception and Translation." *Asia Pacific Journal of Education* 34(2):153-67.

Steiner-Khamsi, Gita. 2006. "The Economics of Policy Borrowing and Lending: A Study of Late Adopters." *Oxford Review of Education* 32(5):665-78.

Stokke, Olav. 1995. "Aid and Political Conditionality: Core Issues and State of the Art." Pp. 1-87 in *Aid and Political Conditionality,* edited by O. Stokke. London: Frank Cass.

Summers, Lawrence H and Lant H Pritchett. 1993. "The Structural-Adjustment Debate." *The American Economic Review* 83(2):383-89.

Thimmaiah, G. 2000. "Decentralization and Economic Development: Indian Experience." *Hitotsubashi Journal of Economics* 41(2):123-36.

UNESCO. 2015. *Education for All 2000-2015: Achievements and Challenges; Efa Global Monitoring Report, 2015*. Paris: UNESCO.

Van de Werfhorst, Herman G and Jonathan JB Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective." *Annual review of sociology* 36:407-28.

van Hek, Margriet, Claudia Buchmann and Gerbert Kraaykamp. 2019. "Educational Systems and Gender Differences in Reading: A Comparative Multilevel Analysis." *European sociological review* 35(2):169-86.

Vavrus, F. 2005. "Adjusting Inequality: Education and Structural Adjustment Policies in Tanzania." *Harvard Educational Review* 75(2):174-201. doi: DOI 10.17763/haer.75.2.565v0213145413t5.

Williamson, John. 1993. "Democracy and the “Washington Consensus”." *World development* 21(8):1329-36.

Willis, Eliza, Christopher da CB Garman and Stephan Haggard. 1999. "The Politics of Decentralization in Latin America." *Latin American research review*:7-56.

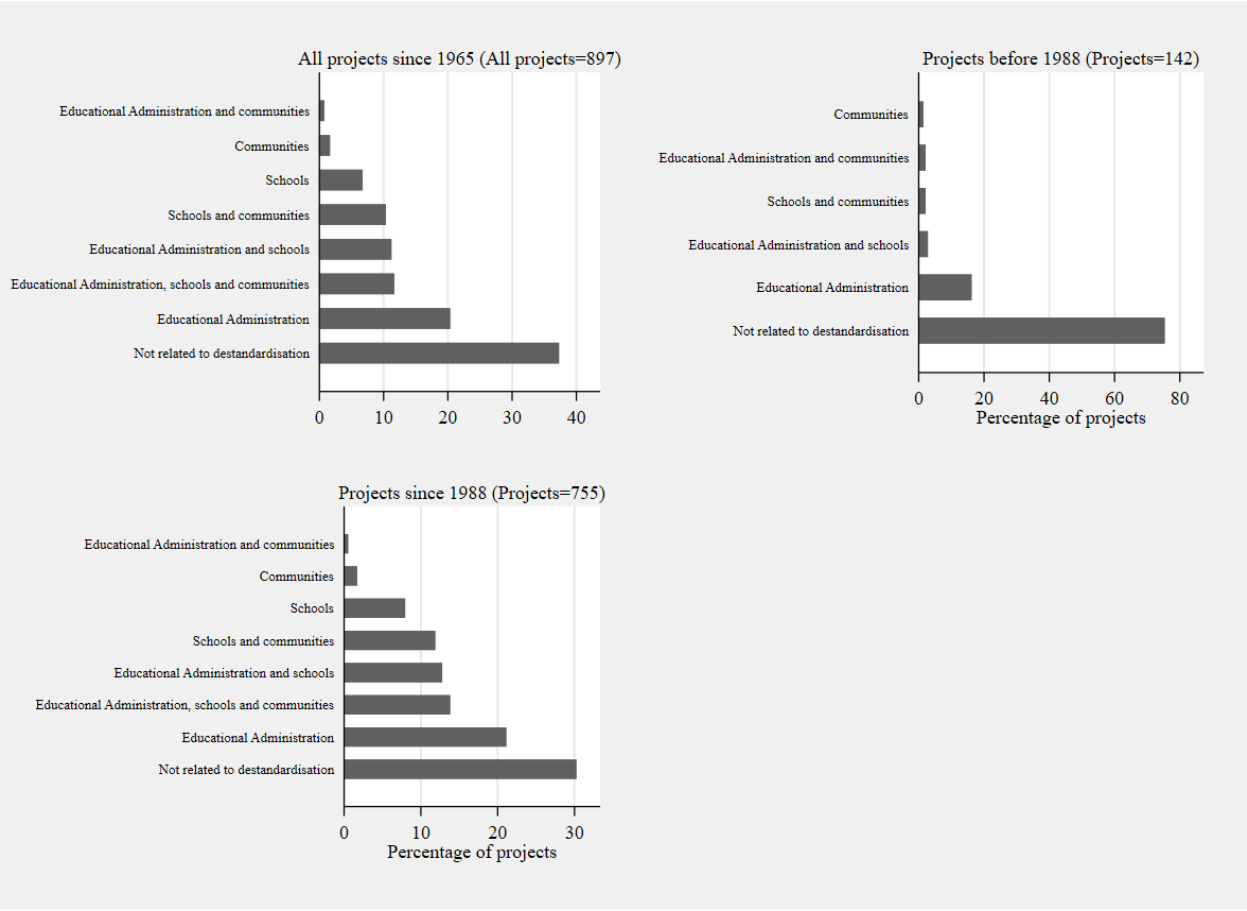
World Bank. 2013. "Education Quality, Governance and Institutional Strengthening Project." Vol. *Implementation Completion and Results Report (IDA-43810).* Washington, DC: Author.

World Bank. n.d., "Projects & Operations", Washington DC: World Bank. Retrieved 15 November, 2020 (https://projects.worldbank.org/).

Wunsch, James S. 2014. "Decentralization: Theoretical, Conceptual, and Analytical Issues." Pp. 1-22 in *Decentralization in Africa: The Paradox of State Strength*, edited by J. T. Dickovick and J. S. Wunsch. Boulder, CO: Lynne Rienner.

APPEIDIX

Figure A1. Projects implementing de-standardisation at various levels, separately and in the combination of different levels.



Source. Own dataset.

Supplementary Materials

Diffusing 'De-standardisation' Reforms Across Educational Systems in Low- and Middle-Income Countries: The Case of the World Bank, 1965-2020

Contents

Table S1. Examples of de-standardisation reforms 82

Table S2. Descriptive statistics by country 86

Figure S1. While sub-national level de-standardisation reforms demonstrate an inflexion point, school-level growth does not. 89

Figure S2. Marginal effects of region and year dummies on sub-national- and school-level de-standardisation reforms. 90

Appendix S1: Reliability 90

Table S3. List of keywords about sub-national and school-level de-standardisation 91

Figure S3. The cumulative distribution of sub-national- and school-level de-standardisation using manual and computer-assisted coding techniques. 92

Table S4. Comparison between the growth trajectories of sub-national de-standardisation reforms when coded manually and using automated text analysis 93

Figure S4. Growth trajectories of sub-national de-standardisation reforms using both manual and automated coding 95

Table S5. Comparison between the growth trajectories of school-level de-standardisation reforms when coded manually and using automated text analysis 96

Figure S5. Growth trajectories of school-level de-standardisation reforms using both manual and automated coding 97

Figure S6. Growth trajectories of sub-national and school-level de-standardisation reforms by automated measures weighted by the number of documents in each WB project 98

Figure S7. The correlation between the predicted probability of sub-national and school-level de-standardisation from GLMM and country fixed effects models 99

Table S1. Examples of de-standardisation reforms

No	Country	Project id	Starting year	Closing year	Education level	De-standardisation level	Examples of de-standardisation method
1	El Salvador	P007156	1979	1987	Primary	Sub-national	50 rural basic education nuclei/administrative clusters that included 356 schools (7-8 in each cluster)
2	Bangladesh	P162619	2018	2023	Primary	Sub-national	Administrative and financial powers will be further devolved to divisional, district, and Upazila (sub-district) education offices.
3	Somalia	P173731	2020	2023	Primary and Secondary	Communities	Citizen feedback and corrective measures at the community level
4	Indonesia	P168076	2019	2024	Primary and Secondary	Sub-national	Electronic performance-based planning and budgeting, enabling budget management support and monitoring at the provincial and district levels system
5	Chile	P006668	1991	1998	Primary and Secondary	Sub-national	Gradually change the managerial and organizational culture in the central and decentralized parts of the Ministry of Education and in the municipalities
6	Congo, DR	P086294	2007	2014	Primary	Schools and communities	Increase local communities' participation in school-level decision-making
7	Madagascar	P172051	2020	2023	Primary	Schools and communities	Increasing student attendance through Community-based school construction, school-based management (SBM), principals trained
8	El Salvador	P007169	1995	2001	Primary	Schools and communities	Policy reforms that gave legal status to school management councils for managing public funds

9	Romania	P073967	2003	2009	Primary and Secondary	Schools	School-based professional development of teachers
10	West Bank and Gaza	P152914	2015	2019	Primary	Schools	Strengthening “school-based practice” of preservice teacher education programs
11	Gambia	P035643	1998	2005	Primary and Secondary	Sub-national	Strengthening the capacity of regional education offices
12	Ecuador	P152096	2015	2020	Primary and Secondary	Sub-national	Education Management Information System (EMIS)-e-governance by strengthening data collection capacity at the school and sub-national level
13	Togo	P174166	2020	2021	Primary	Schools	Targeted School Grants to support readiness and functioning of the school management committees (SMCs)
14	Cote d'Ivoire	P163218	2018	2023	Primary	Sub-national	Preparing for citizen dialogue
15	Bangladesh	P077789	2004	2004	Secondary	Sub-national, schools and communities	A more devolved and efficient management of the education system, with greater stakeholder involvement, SMC, community participation
16	India	P009955	1993	2000	Primary	Sub-national	A strengthened framework of state and district-level planning
17	Rwanda	P115816	2009	2010	Primary and Secondary	Sub-national and schools	Adoption of a framework and procedures for the implementation of decentralized procurement and school-level selection of textbooks

18	Burkina Faso	P115264	2009	2009	Primary and Secondary	Sub-national and schools	Allocations of financial resources transferred to municipalities; Decentralized management at the school level
19	Nepal	P040612	1999	2004	Primary	Schools and communities	Annual school-based in-service teacher training; community mobilization programs through training of Village Development Committees (VDCs) and SMCs
20	Papua New Guinea	P004392	1992	2001	Primary and Secondary	Sub-national	Appointment and training of regional planning and management advisors
21	Brazil	P006305	1980	1987	Primary	Sub-national	Assisting the creation of project management units at federal and state levels within the existing structure; (ii) strengthening municipal education administration
22	Colombia	P050578	2000	2006	Primary	Schools and communities	At the local level, improved use of participatory and democratic forms school governance and programs for peaceful coexistence through educational, cultural, social and sports programs in the community
23	Tanzania	P083080	2004	2007	Secondary	Sub-national, schools and communities	Authority and responsibilities to lower levels of management (schools and communities); strengthening the inspectorate and support mechanisms
24	Argentina	P064614	2000	2008	Secondary	Schools	Autonomous school management and innovative school projects in the selected junior secondary schools and their districts

25	Bangladesh	P044876	2002	2008	Secondary	Sub-national and schools	Awareness training for Upazila Program Officers and Assistant Program Officers, field-level officials, and educational institutions' School Management Committees and Parent Teachers Associations
26	Peru	P007986	1984	1991	Primary and Secondary	Sub-national and schools	Better decentralized governance: 1000 regional and local supervisors; 2500 school principals and 17,500 teachers
27	Ethiopia	P128891	2012	2019	Primary	Sub-national	Block grants are transferred through the decentralized fiscal system for recurrent expenditures (salaries, maintenance) in the five basic service sectors (education)
28	Dominican Republic	P125806	2011	2012	Primary and Secondary	Sub-national	Budget transfers to subnational governments aimed at efficiency improvements in public spending in education
29	Malawi	P114847	2010	2015	Primary and Secondary	Sub-national, schools and communities	Budgetary capacity building at the district level; training for all public-school personnel, school management committees (SMCs), and parent-teacher associations (PTAs) in planning, financial management (FM), and accountability to prepare development plans and budget
30	Nepal	P010199	1984	1992	Primary	Sub-national	Building district and regional offices for stable specific support would support services for primary education

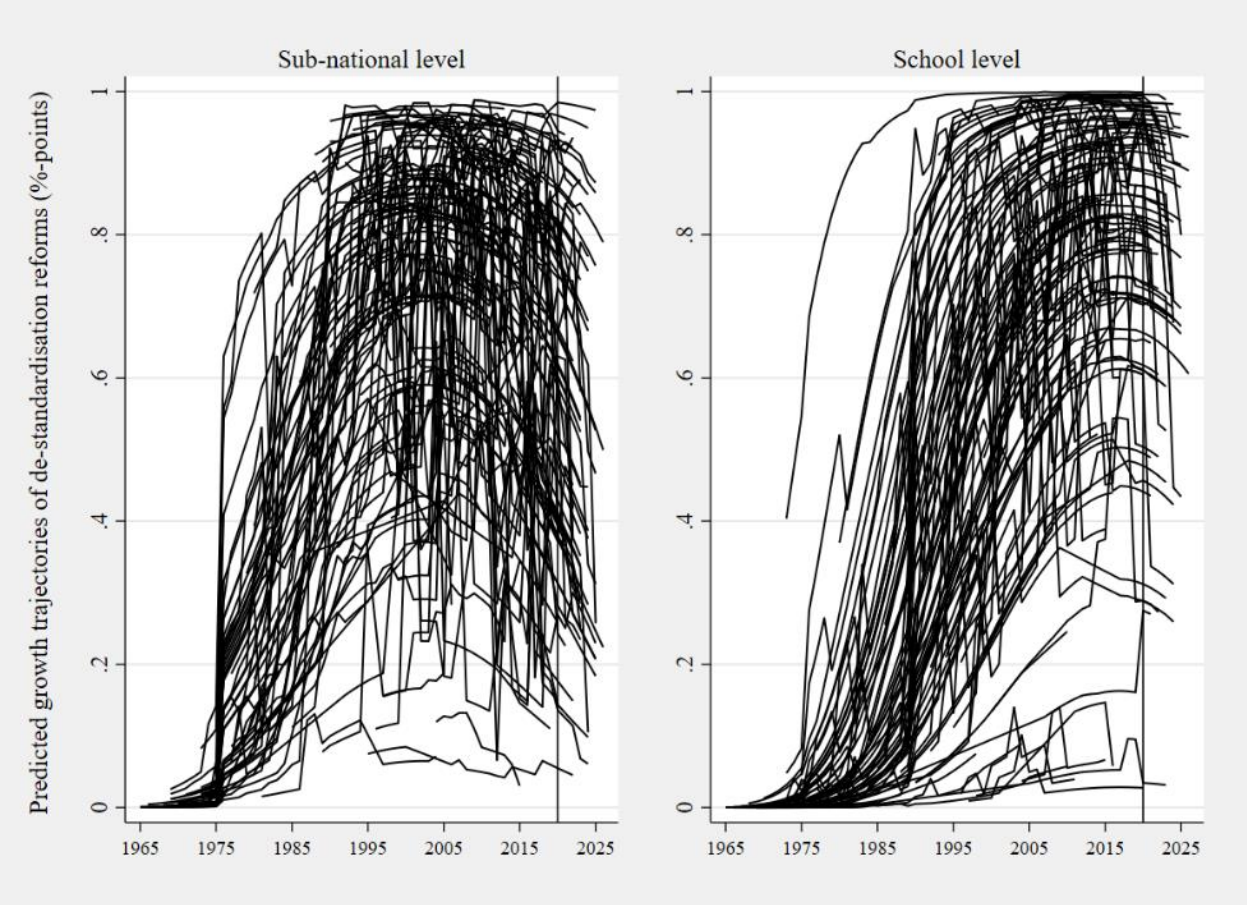
Table S2. Descriptive statistics by country

No	Country	Region	Year started	Last year	Sub-national	School
1	Armenia	Central and Western Asia	2003	2022	0.16	0.22
2	Azerbaijan	Central and Western Asia	1998	2016	0.13	0.09
3	Georgia	Central and Western Asia	1995	2026	0.10	0.19
4	Kazakhstan	Central and Western Asia	2016	2022	0.00	0.67
5	Kyrgyz Republic	Central and Western Asia	2003	2025	0.07	0.30
6	Tajikistan	Central and Western Asia	1998	2017	0.33	0.27
7	Turkey	Central and Western Asia	1989	2024	0.15	0.09
8	Cambodia	East Asia	1998	2024	0.06	0.19
9	China	East Asia	1991	2023	0.17	0.06
10	Indonesia	East Asia	1972	2024	0.25	0.17
11	Korea	East Asia	1968	1997	0.00	0.00
12	Lao	East Asia	1992	2020	0.40	0.32
13	Malaysia	East Asia	1968	2004	0.16	0.00
14	Mongolia	East Asia	1994	2022	0.00	0.12
15	Papua New Guinea	East Asia	1979	2016	0.23	0.00
16	Philippines	East Asia	1975	2022	0.15	0.18
17	Thailand	East Asia	1972	2006	0.07	0.10
18	Timor-Leste	East Asia	1999	2025	0.13	0.22
19	Vietnam	East Asia	1992	2021	0.27	0.14
20	Albania	Eastern Europe	1993	2013	0.32	0.15
21	Bosnia and Herzegovina	Eastern Europe	1995	2010	0.18	0.00
22	Bulgaria	Eastern Europe	1999	2004	0.17	0.00
23	Kosovo	Eastern Europe	2002	2020	0.40	0.32
24	Moldova	Eastern Europe	1996	2022	0.31	0.15
25	Romania	Eastern Europe	1993	2022	0.33	0.36
26	Russia	Eastern Europe	1996	2020	0.04	0.00
27	Argentina	Latin America and Caribbean	1993	2023	0.25	0.16
28	Bolivia	Latin America and Caribbean	1976	2021	0.19	0.04
29	Brazil	Latin America and Caribbean	1973	2023	0.10	0.13
30	Chile	Latin America and Caribbean	1969	2001	0.04	0.07
31	Colombia	Latin America and Caribbean	1967	2015	0.16	0.11
32	Dominican Republic	Latin America and Caribbean	1969	2022	0.22	0.21
33	Ecuador	Latin America and Caribbean	1967	2020	0.13	0.13
34	El Salvador	Latin America and Caribbean	1968	2018	0.20	0.19
35	Guatemala	Latin America and Caribbean	1967	2020	0.11	0.16
36	Guyana	Latin America and Caribbean	1968	2023	0.12	0.22
37	Haiti	Latin America and Caribbean	1975	2022	0.11	0.20
38	Honduras	Latin America and Caribbean	1972	2013	0.30	0.16

39	Jamaica	Latin America and Caribbean	1965	2015	0.17	0.04
40	Mexico	Latin America and Caribbean	1990	2018	0.22	0.25
41	Nicaragua	Latin America and Caribbean	1967	2022	0.07	0.19
42	Panama	Latin America and Caribbean	1995	2014	0.30	0.10
43	Paraguay	Latin America and Caribbean	1971	2009	0.08	0.15
44	Peru	Latin America and Caribbean	1972	2020	0.20	0.26
45	Uruguay	Latin America and Caribbean	1993	2022	0.35	0.13
46	Djibouti	Middle East and North Africa	1984	2024	0.14	0.20
47	Egypt	Middle East and North Africa	1992	2023	0.10	0.15
48	Iraq	Middle East and North Africa	2003	2015	0.00	0.00
49	Jordan	Middle East and North Africa	1974	2025	0.08	0.12
50	Morocco	Middle East and North Africa	1964	2024	0.08	0.09
51	Tunisia	Middle East and North Africa	1965	2025	0.11	0.10
52	West Bank and Gaza	Middle East and North Africa	1994	2019	0.13	0.25
53	Yemen	Middle East and North Africa	1973	2017	0.08	0.08
54	Afghanistan	South Asia	1978	2023	0.37	0.28
55	Bangladesh	South Asia	1979	2023	0.21	0.22
56	Bhutan	South Asia	1987	2011	0.29	0.08
57	India	South Asia	1991	2025	0.28	0.19
58	Maldives	South Asia	1988	2024	0.04	0.14
59	Nepal	South Asia	1983	2021	0.29	0.44
60	Pakistan	South Asia	1976	2025	0.07	0.15
61	Sri Lanka	South Asia	1988	2024	0.24	0.23
62	Angola	Sub-Saharan Africa	1991	2021	0.12	0.18
63	Benin	Sub-Saharan Africa	1993	2024	0.05	0.11
64	Burkina Faso	Sub-Saharan Africa	1972	2013	0.12	0.04
65	Burundi	Sub-Saharan Africa	1976	2023	0.13	0.18
66	Cameroon	Sub-Saharan Africa	1968	2023	0.18	0.00
67	Cape Verde	Sub-Saharan Africa	1994	2023	0.20	0.11
68	Central African Republic	Sub-Saharan Africa	1970	2023	0.25	0.04
69	Chad	Sub-Saharan Africa	1977	2025	0.11	0.09
70	Comoros	Sub-Saharan Africa	1980	2004	0.00	0.05
71	Congo, DR	Sub-Saharan Africa	1975	2024	0.15	0.18
72	Congo, Republic of	Sub-Saharan Africa	1970	2022	0.32	0.08
73	Cote d'Ivoire	Sub-Saharan Africa	1969	2023	0.19	0.20
74	Eritrea	Sub-Saharan Africa	1997	2011	0.09	0.00
75	Ethiopia	Sub-Saharan Africa	1965	2023	0.06	0.05
76	Gambia	Sub-Saharan Africa	1989	2022	0.25	0.03
77	Ghana	Sub-Saharan Africa	1989	2025	0.18	0.23
78	Guinea	Sub-Saharan Africa	1989	2024	0.21	0.30

79	Guinea-Bissau	Sub-Saharan Africa	1987	2023	0.27	0.10
80	Kenya	Sub-Saharan Africa	1965	2023	0.04	0.07
81	Lesotho	Sub-Saharan Africa	1976	2021	0.11	0.07
82	Liberia	Sub-Saharan Africa	1971	2023	0.05	0.14
83	Madagascar	Sub-Saharan Africa	1966	2023	0.13	0.14
84	Malawi	Sub-Saharan Africa	1966	2025	0.06	0.12
85	Mali	Sub-Saharan Africa	1972	2017	0.19	0.11
86	Mauritania	Sub-Saharan Africa	1987	2021	0.24	0.15
87	Mauritius	Sub-Saharan Africa	1973	1998	0.11	0.00
88	Mozambique	Sub-Saharan Africa	1987	2025	0.21	0.22
89	Niger	Sub-Saharan Africa	1985	2026	0.22	0.25
90	Nigeria	Sub-Saharan Africa	1964	2025	0.09	0.13
91	Rwanda	Sub-Saharan Africa	1974	2024	0.26	0.09
92	Senegal	Sub-Saharan Africa	1974	2021	0.33	0.24
93	Sierra Leone	Sub-Saharan Africa	1968	2025	0.23	0.06
94	Somalia	Sub-Saharan Africa	1970	2023	0.09	0.07
95	Sudan	Sub-Saharan Africa	1967	2021	0.08	0.02
96	Tanzania	Sub-Saharan Africa	1972	2026	0.12	0.22
97	Togo	Sub-Saharan Africa	1979	2021	0.15	0.11
98	Uganda	Sub-Saharan Africa	1966	2024	0.11	0.08
99	Zambia	Sub-Saharan Africa	1968	2024	0.14	0.06

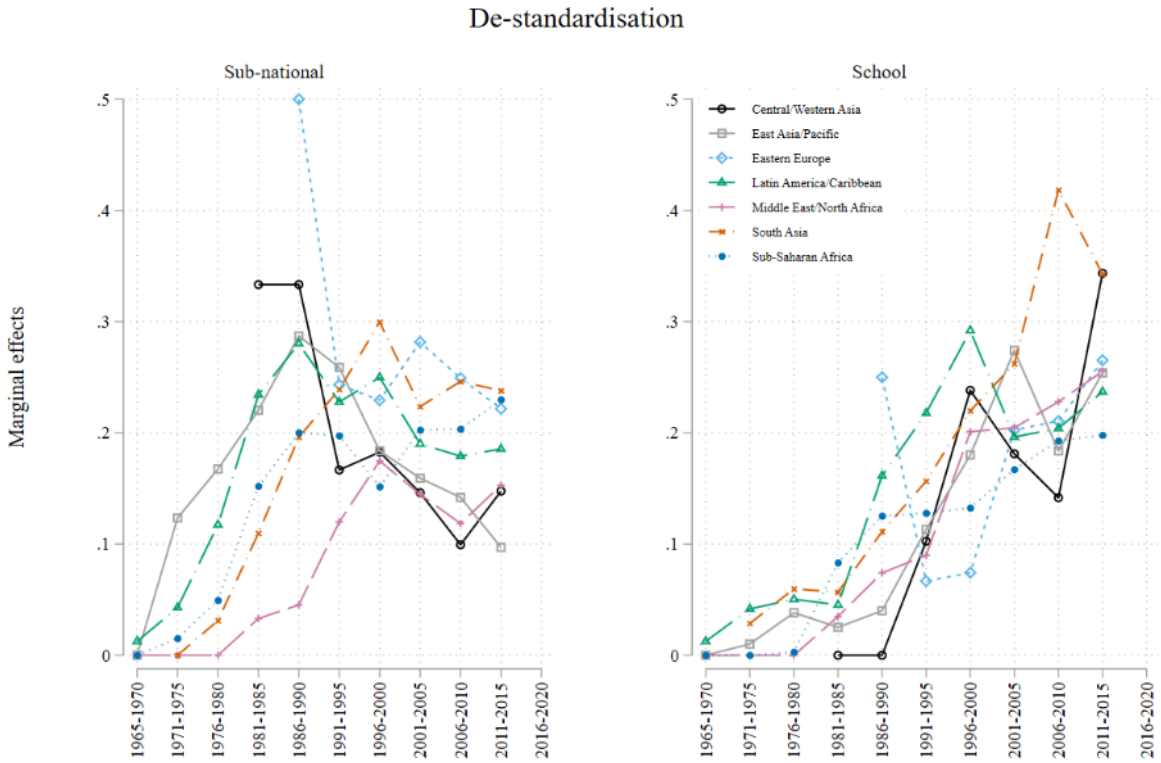
Figure S1. While sub-national level de-standardisation reforms demonstrate an inflexion point, school-level growth does not.



Notes. Country N=99 and country-project-year N= 3,312. The growth curves of sub-national (left side) and school-level de-standardisation (right side), from mixed-effects models, include year and quadratic year. Additionally, the models control for logged total primary and secondary education aid by the WB, the level of education projects focused on, and a region dummy. Slopes extending beyond 2020 means some projects are currently being implemented. The negative and zero values of starting points suggest that some countries had a negative or no instantaneous growth rate at the initial phase.

Source. Own data.

Figure S2. Marginal effects of region and year dummies on sub-national- and school-level de-standardisation reforms.



Notes. Country N=99 and country-year N= 3,312. The models control for logged primary and secondary education aid by the WB and the level of education projects focused on. The negative and zero values of starting points suggest that some countries had a negative or no instantaneous growth rate at the initial phase.

Source. Own data

Appendix S1: Reliability

One may argue that the growth trajectories of sub-national and school-level de-standardisation may be driven by the coding decision questioning the reliability of the measurement. Examining inter-rater reliability is challenging in this study since a single researcher coded the data. To address the reliability issue, we use two approaches: (a) computer-assisted text analysis for coding the measures; (b) re-coding a partial sample of the manually coded measures with a time-lapse.

First, we use computer-assisted automated text analysis techniques to analyse WB project documents that are included in the study. It examines whether analyses derived from manually coded measures of sub-national and school-level de-standardisation can be approximately replicated by the measures constructed by text analysis.

For coding by computer-assisted text analysis, we first process 19,633 project documents[12] on all study countries using natural language processing (NLP) techniques. Precisely, we lower case, tokenise and remove all stop words and any words containing less than three characters. Next, to code sub-national de-standardisation, we create a dictionary using the following keywords listed at the upper panel of Table S3 with both American and British spellings. We construct the lists based on the literature used in the study that suggests the types of de-standardisation reforms that took place in developing countries over the past few decades and the words used to define them (e.g., Ball and Youdell 2009, Florestal and Cooper 1997, Galiani, Gertler and Schargrodsky 2008, Ganimian 2016, Gershberg and Winkler 2004, Gertler, Patrinos and Rubio-Codina 2006). We create the variable by counting the frequency of occurrences of the listed words in every 1,000 words as the size of documents widely varies. We follow the same strategies to code school-level de-standardisation but with a different set of words as shown in the lower panel of Table S3.

Table S3. List of keywords about sub-national and school-level de-standardisation

De-standardisation channels	List of keywords
Sub-national	'decentralization', 'decentralize', 'decentralizing', 'decentralized', 'decentralisation', 'decentralise', 'decentralising', 'decentralised', 'devolution', 'devolved', 'devolving', 'devolve', 'devolves', 'delegation', 'delegate'
School	'school management committee', 'smc', 'school management committees', 'school autonomy', 'school-based management', 'school based management', 'sbm', 'parent-teacher association', 'parent teacher association'

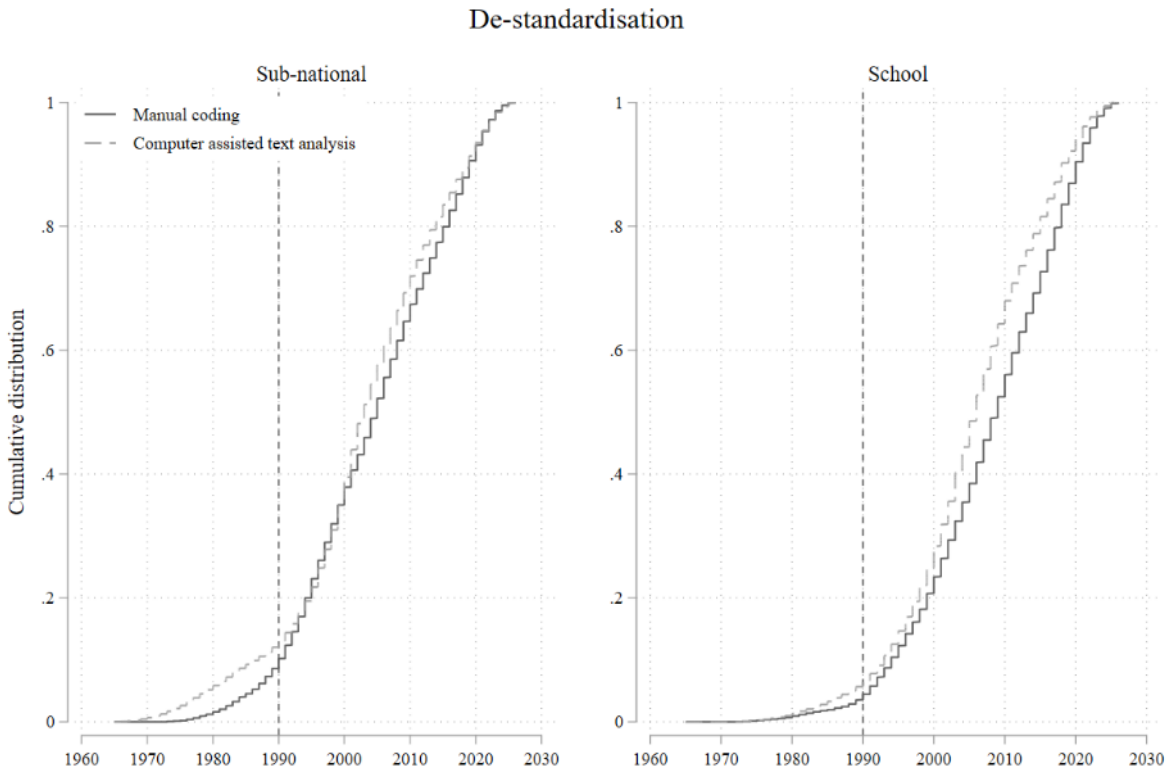
Note: The lists are constructed based on the literature as suggested.

[12] Each single project has multiple documents produced throughout its lifespan. This leads to having more documents than the number of total documents read for manual coding, around 2,500 documents. The reason we use fewer documents manual coding is that for hand coding, we go through only key documents such as project appraisal and evaluation documents that usually contain most of the project information including the keywords used in the text analysis. However, to account for any potential bias large documents may cause we use relative frequency of keywords to the document size. In addition, we present results for textual coding in Figure S6 weighted by the number of documents.

As demonstrated in Figure S3, the distribution of sub-national and school-level de-standardisation over the years is approximately similar when manually coded measures are compared with the ones coded using automated text analysis.

Our analysis using manual and automated coding separately also suggests quite similar growth trajectories of sub-national and school-level de-standardisation. As Table S4 illustrates models 1 and 2 for manual coding and models 5 and 6 for automated coding suggest that after an initial instantaneous growth in sub-national de-standardisation reforms, there is a downward curvature. This holds similar in both types of coding and approximates the scenario in Figure 4 in the main analysis.

Figure S3. The cumulative distribution of sub-national- and school-level de-standardisation using manual and computer-assisted coding techniques.



Notes: The vertical dash lines signify the initial stage of the neoliberal era after the Washington Consensus in 1989.

Source. Own data.

To calculate models 1, 2, 5 and 6, we use generalised linear mixed models (GLMM) to be consistent with our main analysis. Besides, in both measures, a significant number of observations

have 0 value which makes the distribution skewed and likely to be heteroscedastic. We use the linear link function for models 1, 2, 5 and 6. This is because the automated measure is a continuous variable ranging between 0 and 9 for which the linear function is more appropriate. To make the regression outputs from manually coded measures comparable to that of automated coding, we also apply a linear function to the manually coded measure which is a proportion measure ranged 0 to 1. However, when we use the logit link function in models 3 and 4 similar to the main analysis, the results still suggest a similar trajectory, that is, after an instantaneous growth, sub-national de-standardisation reforms take a negative curvature.

We plot the estimated slope for each country over time in Figure S4. The upper and lower panels on the left side of the figure show quite similar growth trajectories in both manual and automated measure of sub-national de-standardisation.

Table S4. Comparison between the growth trajectories of sub-national de-standardisation reforms when coded manually and using automated text analysis

	Sub-national de-standardisation					
	Manual-linear (1)	Manual-linear (2)	Manual-logit (3)	Manual-logit (4)	Automated-linear (5)	Automated-linear (6)
Year	0.66***	0.42**	16.4***	11.0***	2.92***	2.61***
	(0.12)	(0.16)	(2.39)	(3.24)	(0.42)	(0.56)
Year quadratic	-0.00016***	-0.00010**	-0.0041***	-0.0027***	-0.00073***	-0.00065***
	(0.000030)	(0.000040)	(0.00060)	(0.00081)	(0.00011)	(0.00014)
Region fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Starting time		Yes		Yes		Yes
Project cost (log)		Yes		Yes		Yes
Education levels		Yes		Yes		Yes
Constant	-662.2***	-420.3**	-16402.5***	-11009.7***	-2916.6***	-2602.9***
	(120.6)	(161.7)	(2390.2)	(3242.8)	(421.2)	(566.2)
Σu (Country)	0.0062***	0.0063***	1.45***	1.52***	0.11**	0.11**
	(0.0010)	(0.0010)	(0.39)	(0.37)	(0.035)	(0.035)
Σe (Country-project year)	0.022***	0.021***			0.28***	0.28***
	(0.0018)	(0.0018)			(0.064)	(0.064)
N	3312	3312	3312	3312	3313	3313

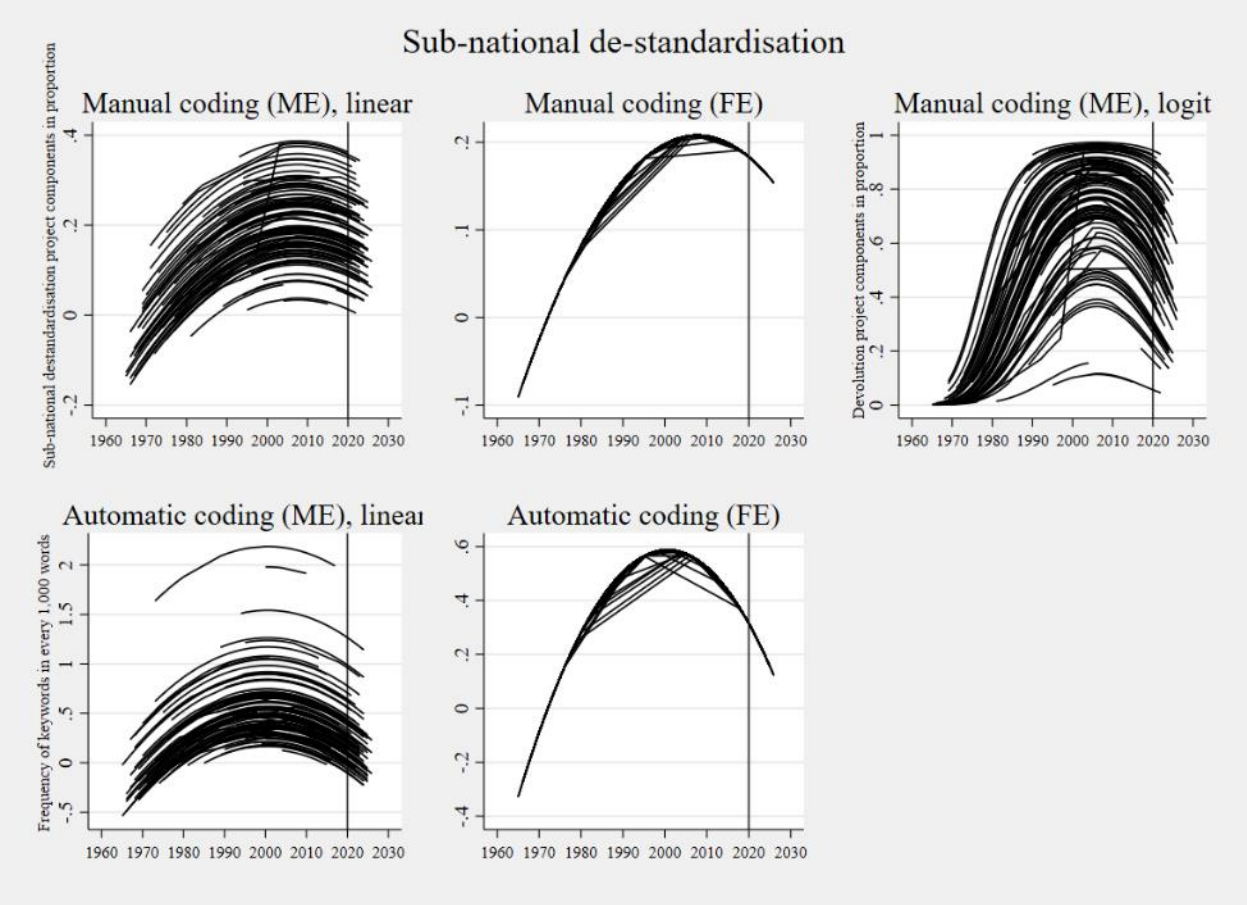
Robust standard errors in parentheses. * *p < 0.05* ** *p < 0.01* *** *p < 0.001*

Notes: (a) 'Manual' denotes manual coding of the sub-national de-standardisation variable by WB projects while 'automated' means coding sub-national using text analysis. (b) 'Linear' indicates that we use

generalised linear mixed models (GLMM) with linear (identity) link function, whereas 'logit' suggests that the use of logit link function. (c) Coefficients from the linear models for the manually coded measure can be interpreted as the proportion of WB project components focusing on sub-national de-standardisation. For instance, the instantaneous growth (as suggested by the year coefficients in model 2) of sub-national de-standardisation reforms is 66 percentage points by each year. But then it decreases by 0.016 percentage points (as the year quadratic coefficient suggests) after a certain amount of time indicating a downward curvature. For the automated coding, coefficients can be interpreted as changes in the frequency of sub-national de-standardisation-related words in every 1,000 words in WB project documents. Conversely, manual logit coefficients can be interpreted as the log odds of sub-national components in WB projects.
Source: Own data.

Here, we also use country fixed effects in the lower and upper panels in the middle of the figure. After accounting for time-invariant country-specific unobservable factors, the variation across countries gets shrunk. Importantly, both manual and automated measures of sub-national-level reforms as the outcome provide a very similar growth trend. The panel on the furthest right is similar to the plot on the left panel of Figure 4 in the main analysis, which uses the logit link function. It also closely resembles the overall trend in all panels using any type of coded measure.

Figure S4. Growth trajectories of sub-national de-standardisation reforms using both manual and automated coding



Similar to sub-national de-standardisation, we also carry out comparative analyses using the manual and automated coded measures of school-level de-standardisation reforms as shown in Table S5. The only difference in this table is that we do not find growth curvature statistically significant when we use linear link function in GLMM regressions for both types of the school-level de-standardisation measure as suggested in models 1, 2, 6 and 7. However, we do not use the year quadratic function, the growth seems to be significant in both manual and automated coding as presented in models 3 and 8. This suggests that de-standardisation growth at the school level is linear as opposed to sub-national level. Although the quadratic year is significant when the logit link function is used (as shown in models 4 and 5 in Table S5) the curvature is not as downward as for sub-national de-standardisation as presented on the furthest right panel in Figure S5. This also closely resembles the descriptive view of the growth of school-level de-standardisation

reforms in Figure 2 in the main analysis. Additionally, as the lower and upper panels on the left and middle of Figure S5 suggests, the estimated growth is very similar in both manual and automated measure of school-level de-standardisation when we use country random effects/mixed effects and country fixed effects.

Table S5. Comparison between the growth trajectories of school-level de-standardisation reforms when coded manually and using automated text analysis

	School-level de-standardisation							
	Manual-linear (1)	Manual-linear (2)	Manual-linear (3)	Manual-logit (4)	Manual-logit (5)	Automated-linear (6)	Automated-linear (7)	Automated-linear (8)
Year	0.20	0.22	0.0034***	17.6***	13.6**	0.11	0.57	0.0052**
	(0.11)	(0.15)	(0.00077)	(3.43)	(4.77)	(0.23)	(0.30)	(0.0017)
Year quadratic	-0.000048	-0.000055		-0.0044***	-0.0034**	-0.000025	-0.00014	
	(0.000027)	(0.000037)		(0.00086)	(0.0012)	(0.000058)	(0.000076)	
Region fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Starting time		Yes	Yes		Yes		Yes	Yes
Project cost (log)		Yes	Yes		Yes		Yes	Yes
Education levels		Yes	Yes		Yes		Yes	Yes
Constant	-200.3	-227.6	-6.70***	-17713.0***	-13739.1**	-112.6	-579.9	-10.5**
	(106.2)	(147.8)	(1.53)	(3436.4)	(4783.9)	(229.3)	(303.0)	(3.36)
Σu (Country)	0.0061***	0.0063***	0.0063***	3.35***	3.41***	0.021**	0.021**	0.021**
	(0.0013)	(0.0014)	(0.0013)	(0.81)	(0.87)	(0.0066)	(0.0066)	(0.0065)
Σe (Country-project year)	0.018***	0.017***	0.017***			0.064***	0.064***	0.064***
	(0.0015)	(0.0014)	(0.0015)			(0.015)	(0.015)	(0.015)
N	3312	3312	3312	3312	3312	3313	3313	3313

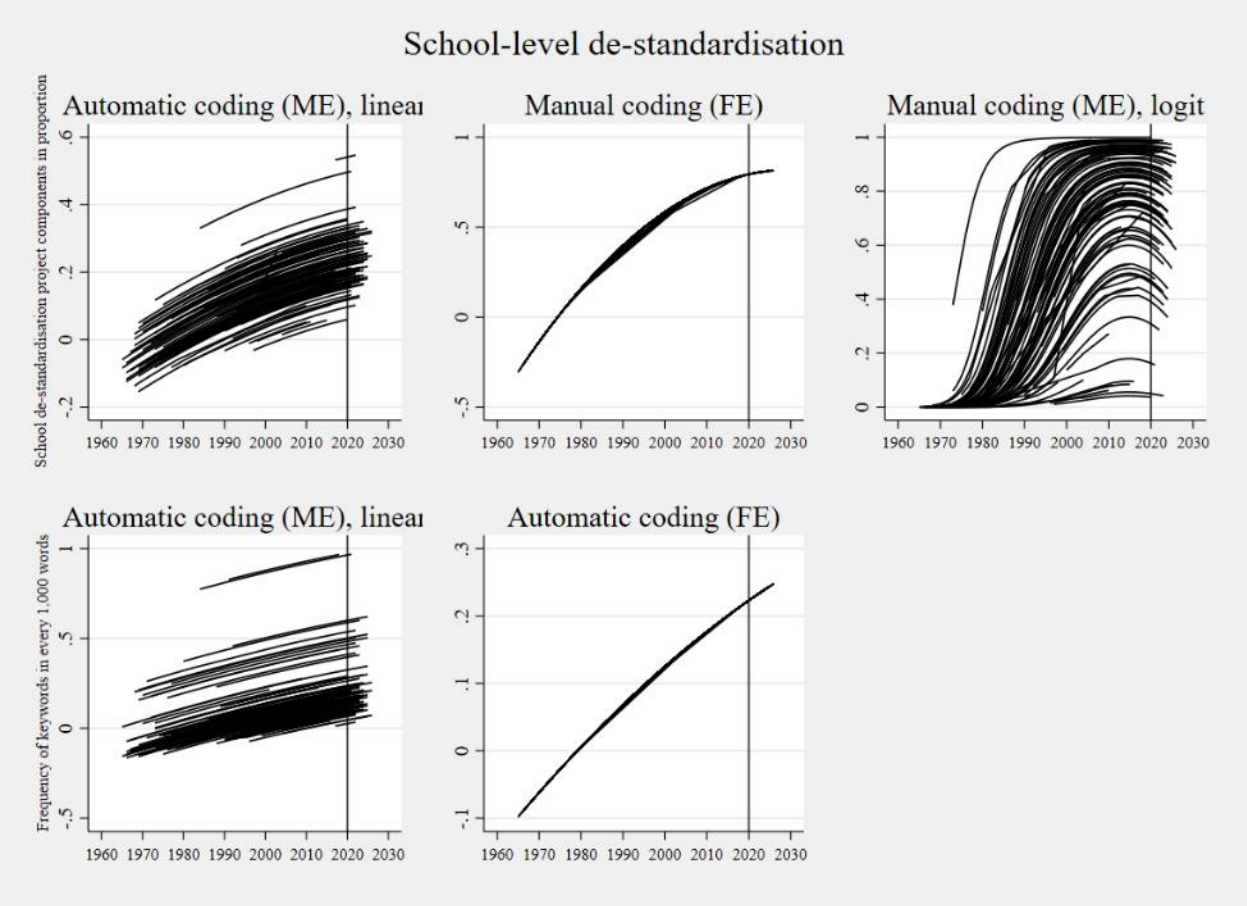
Robust standard errors in parentheses. * *p < 0.05* ** *p < 0.01* *** *p < 0.001*

Notes: (a) 'Manual' denotes manual coding of the sub-national de-standardisation variable by WB projects while 'automated' means coding school-level de-standardisation using text analysis. (b) 'Linear' indicates that we use generalised linear mixed models (GLMM) with linear (identity) link function, whereas 'logit' suggests that the use of logit link function. (c) Coefficients from the linear models for the manually coded measure can be interpreted as the proportion of WB project components focusing on sub-national level. For instance, as suggested by year coefficient in model 3, school-level de-standardisation reforms increase by 0.34 percentage points each year. For the automated coding, the linear automated coding coefficients can be interpreted as the changes in the frequency of sub-national de-standardisation-related words relative to

every 1,000 words in WB project documents. Conversely, manual logit coefficients can be interpreted as the log odds of school-level de-standardisation components in WB projects.

Source: Own data.

Figure S5. Growth trajectories of school-level de-standardisation reforms using both manual and automated coding

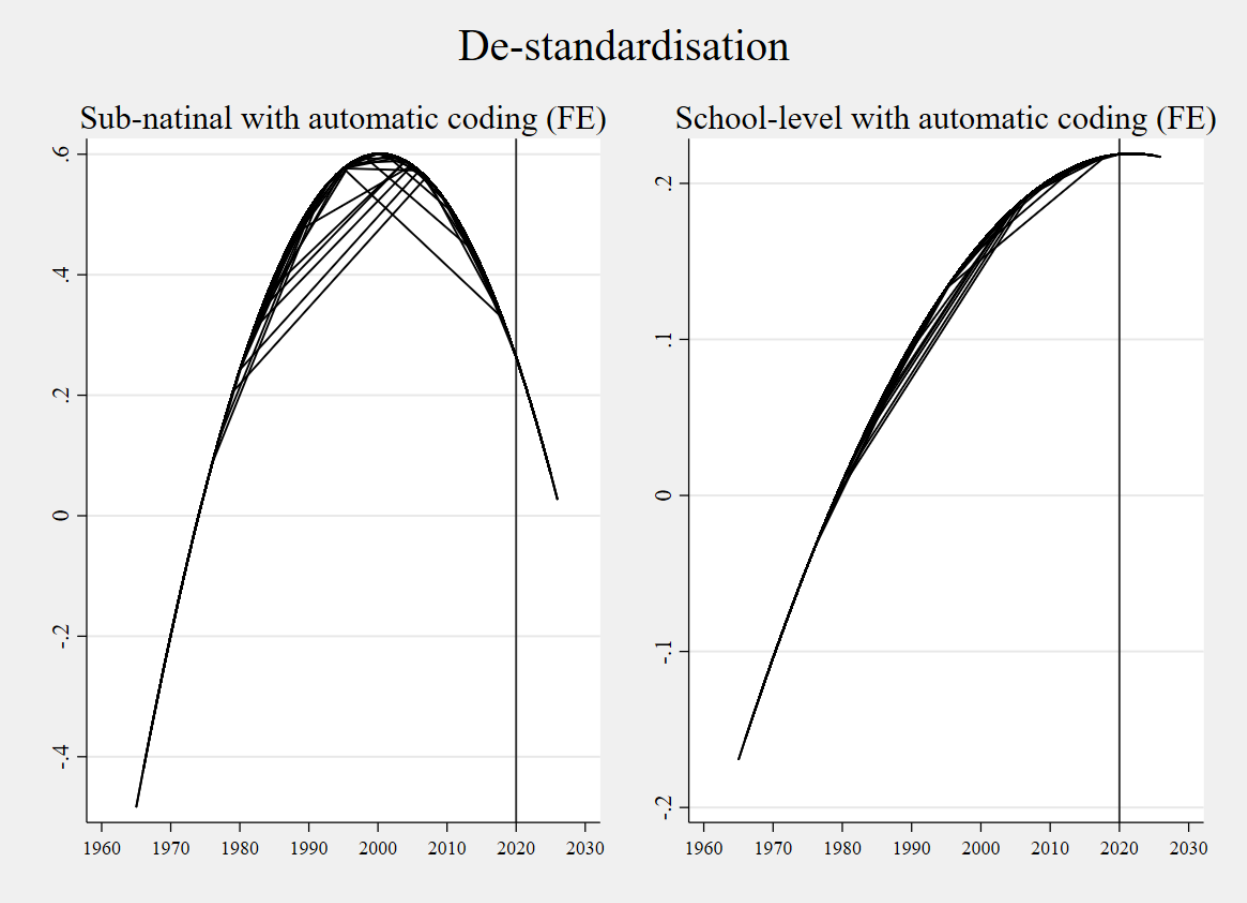


Additionally, to account for any potential bias that the variation in the number of documents within each project may cause we run OLS regression with country fixed effects for automated coded measures. As presented in Figure S6, even after taking into account the number of project documents in the analysis, the results remain similar suggesting the robustness of our measures.

Finally, we check the relationship between the predicted probability of manual and automated measures of both sub-national and school-level de-standardisation reforms using both GLMM (country random effects/mixed-effects) and country fixed effects models. We find a high correlation between the predicted probability of both de-standardisation channels as shown in Figure S7. In mixed-effects or GLMM models, the correlation is around 0.78 for sub-national and

around 0.8 for school-level as demonstrated on the left panels in Figure S5. This is worth noting that we only use predicted probability from the fixed portion of the mixed models unlike the growth slopes used in Figure S5 and S6 that use predicted probability from both fixed and random portions of the models. This is to keep the correlation comparable with the country fixed effects on the right panels of the figure. When we account for country-specific time-invariant and unobservable factors the correlation becomes stronger, that is, 0.86 and 0.99 for sub-national and school-level de-standardisation, respectively.

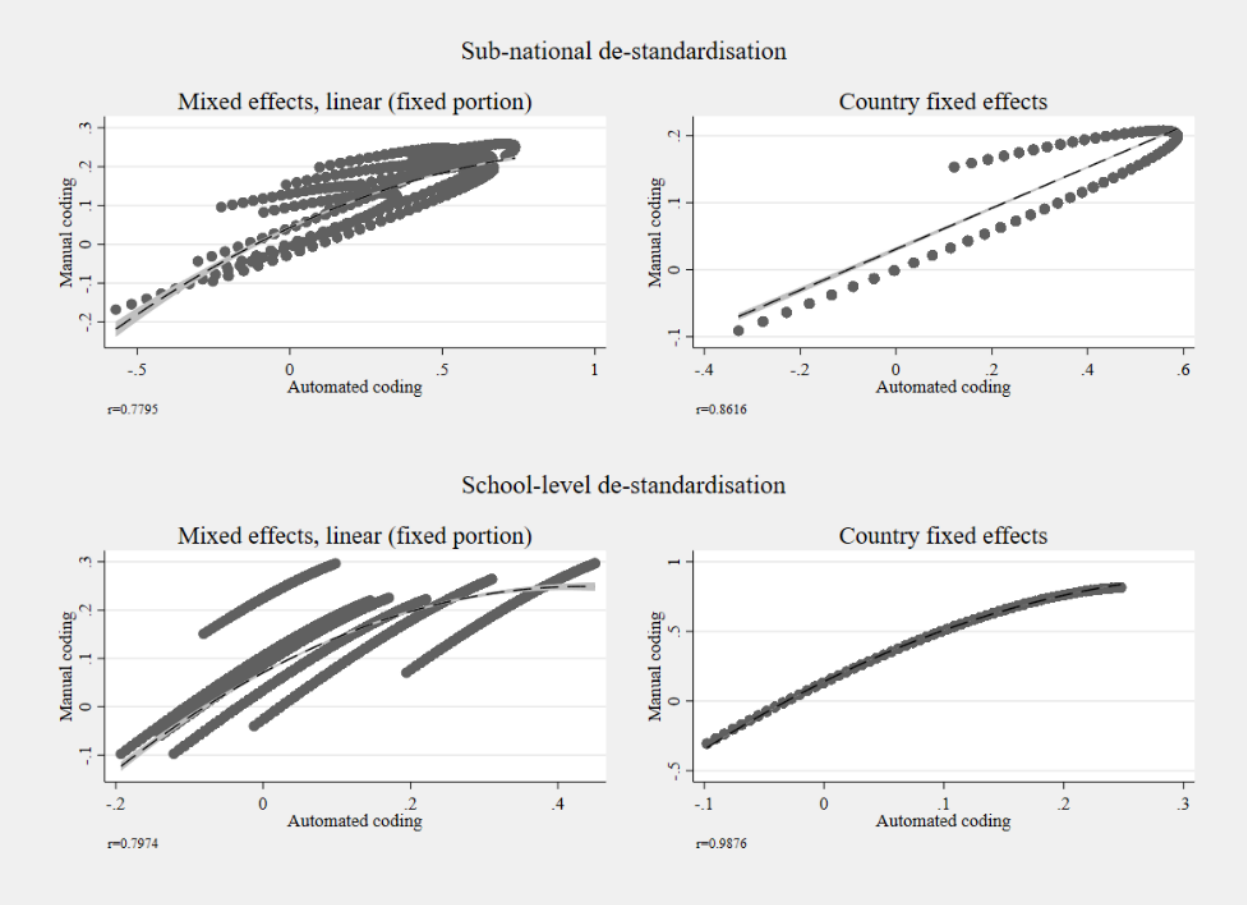
Figure S6. Growth trajectories of sub-national and school-level de-standardisation reforms by automated measures weighted by the number of documents in each WB project



Notes: (a) FE, fixed effects. (b) The results are from OLS regression with country fixed effects as it allows weighting by analytical weights even when weights are not constant within the group, i.e., country.

All these analyses suggest that our measures are reliable, and the findings are not driven by coding decisions.

Figure S7. The correlation between the predicted probability of sub-national and school-level de-standardisation from GLMM and country fixed effects models



As the second step for examining reliability, we re-code 5 percent of the data after more than 6 months of the original coding using the same guidelines and see whether the results are similar. That is, the association between the first and re-coded variables is identical or nearly identical. Since a single coder coded the two measures, an inter-rater reliability check is not feasible to carry out. In such circumstances, recoding with a lapse of time is suggested by Mackey and Gass (2015). This first coding was completed between June 2020 and October 2020 while the re-coding was carried out in May 2021. We find a high correlation between the first coded and re-coded measures of sub-national and school-level de-standardisation (manual), which stands over 0.95 for both measures[13].

[13] The results are not presented here to avoid repetitions but available upon request.

References

Ball, Stephen J and Deborah Youdell. 2009. *Hidden Privatisation in Public Education*. Brussels: Education International.

Florestal, Ketleen and Robb Cooper. 1997. *Decentralization of Education: Legal Issues*. Washington, DC: World Bank.

Galiani, Sebastian, Paul Gertler and Ernesto Schargrodsky. 2008. "School Decentralization: Helping the Good Get Better, but Leaving the Poor Behind." *Journal of Public Economics* 92(10-11):2106-20.

Ganimian, Alejandro J. 2016. "Why Do Some School-Based Management Reforms Survive While Others Are Reversed? The Cases of Honduras and Guatemala." *International journal of educational development* 47:33-46.

Gershberg, Alec Ian and Don Winkler. 2004. "Education Decentralization in Africa: A Review of Recent Policy and Practice." *Building State Capacity in Africa* 323.

Gertler, Paul, Harry Patrinos and Marta Rubio-Codina. 2006. *Empowering Parents to Improve Education: Evidence from Rural Mexico*. Washington, DC: World Bank.

Mackey, Alison and Susan M Gass. 2015. *Second Language Research: Methodology and Design*. Mahwah, New Jersey and London: Routledge.

Paper 2

Authoritarianism and the 'de-standardisation' of educational systems in LMICs by the World Bank

Mobarak Hossain

Nuffield College, University of Oxford

Abstract

There has been a growing emphasis by the World Bank (WB) to de-standardise the educational systems in low- and middle-income countries (LMICs) by transferring responsibilities to subnational and school levels during the past few decades. Using country-level original panel data, we investigate the link between the degree of authoritarianism and the adoption of de-standardisation reforms by the WB. Findings show that the higher degree of authoritarianism is significantly associated with a greater implementation of de-standardisation reforms at the subnational level while it is linked with a lower level of implementation of these reforms at the school level. We argue that authoritarian countries tend to be rigidly centralised which might have led the WB to propose de-standardisation reforms at the subnational level. Once countries become less authoritarian with a greater degree of autonomy at the subnational level, they may start receiving de-standardisation reforms in schools. Our results remain similar in different specifications. We show how political regimes may attract international organisations to reform social sectors.

Keywords

international organisations, policy diffusion, World Bank, Global South, educational systems, de-standardisation reforms

Transferring educational responsibilities from the central to the local level has received an increasing emphasis across many low- and middle-income countries (LMICs)[14] during the last three and half decades. Development actors such as donors and international organisations (IOs) have played a pivotal role in diffusing these neoliberal reforms. This has been an integral part of a drastic shift in the focus of development assistance from simply financing to policy reforms during the 1980s (Dollar and Svensson 2000, Svensson 2003). However, the diffused reform packages on educational systems in LMICs have been quite similar, mainly focusing on dislocating educational responsibilities from the central level to subnational entities and schools, capacity building of local institutions, community empowerment, and participatory governance (Brown 1990, Essuman and Akyeampong 2011, Faguet and Sanchez 2008, Hossain 2022). This process has likely decreased the standards of educational systems, that is, education policies do not maintain the same standards across regions and schools in a country (Hossain 2022). We argue that the neoliberal institutional reforms led by IOs focus on decreasing the standards of education by considering that each local unit has a unique lens for addressing a problem (Barrera-Osorio, Fasih and Patrinos 2009). This definition is supported by existing literature (e.g., Bukodi et al. 2018, Gamoran 1996, Van de Werfhorst and Mijs 2010).[15]

[14] LMICs according to World Bank categorisation, both historical and present. See: World Bank Country and Lending Groups https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups. Accessed on 15 July 2021.

[15] Standardisation is understood as the extent to which educational systems maintain uniformity of standards across a country (Allmendinger, 1989). Thus, de-standardisation would mean how far local entities and schools can set their own standards regarding, for instance, course content or teaching style, personnel management, inspection and budget management. Since the capacity of local entities is likely to differ in implementing devolved responsibilities, we term this phenomenon as de-standardisation rather than decentralisation following the existing definition (Hossain, 2022).

Two major arguments are typically used to explain the drastic policy shift in the 1980s which resulted in decreasing the standards of educational systems. First, centralised institutions, which tend to provide more standard or uniform services, were seen as one of the obstacles to achieving economic development. Hence, providing aid conditional on reforming institutions has been considered an effective mechanism to increase the efficiency of the public service delivery system (Manor 1999, Svensson 2003). Many projects were transferred to LMICs masked as structural adjustment programmes (SAP) during that time backed by the Washington Consensus (Reimers 1994). This view supports that policies diffuse by construct without any force (Boyle, Kim and Longhofer 2015, Meyer et al. 1997) for countries to learn from each other (Dobbin, Simmons and Garrett 2007).

Contrarily, the second view argues that the shift is rather a way of imposing the institutional structures of world powers on less powerful countries to prevail their dominance as world hegemons (Owen 2002). World society scholars identify this mechanism as a coercion approach, for instance, through conditional aid (Dobbin, Simmons and Garrett 2007, Kentikelenis, Stubbs and King 2016, Kentikelenis and Babb 2019). This 'one-size-fits-all' approach (Reinsberg et al. 2019) diffuses de-standardisation policies globally in the same manner (Hossain 2022). Some other studies provide qualitative evidence from a similar angle that policy diffusion might be linked to: a deeply rooted colonial legacy (Steiner-Khamsi and Quist 2000), vulnerability due to aid dependency (Mundy and Verger 2015), and the necessity to have international legitimacy (Thimmaiah 2000).

Both views hold a top-down approach to explaining why IOs implement policy reforms in LMICs taking the perspectives of IOs and policy exporting countries. But there is limited research examining how countries' socio-political and cultural characteristics may have driven IOs to

implement reforms. We shed light on this issue by using the case of de-standardisation reforms in education by the World Bank (WB), a leading platform to implement these reforms across LMICs. Our main research puzzle is why some educational systems may receive more de-standardisation reforms than others as the past research shows substantial cross-country variation in diffusing these reforms (Hossain 2022).

To our knowledge, there is no large-scale empirical study on this issue. There are some plausible assumptions why external actors – donors and IOs – may have implemented de-standardisation reforms differently. These assumptions mainly point out the characteristics of regime type or the level of authoritarianism, diversity of population and culture (Clune 1993, Waks 2006), and the size of countries' population and geographical territory. However, we posit that the degree of authoritarianism may have been a more determinant factor for implementing these reforms by IOs, specifically the WB.

To elaborate on our assumption, we first briefly explain the nature of de-standardisation reforms in LMICs. The motivation for de-standardising the education sector in LMICs has been to reform and re-culture the traditional administration characterised by rigid centralisation and inefficient service delivery process. This movement started during the 1980s while its peak was during the 1990s and early 2000s (Brown 1990, Fiske 1996, Manor 1999). In addition to transferring authority, these reforms have typically included more local and school autonomy, strengthening their capacity by various means, participatory decision making, and more local accountability (Ball and Youdell 2009).

In this study, de-standardisation refers to two mechanisms: (1) the transfer of authority and/or responsibilities to subnational and school levels. (2) It also means building or strengthening the capacity of these levels, for instance, by providing more independence, training employees to

efficiently run local institutions, or even establishing new local units such as district education offices. Despite seemingly implicit, capacity building creates a strong local government system in LMICs, which would make de-standardised systems more sustainable. Previous literature in this area, based on advanced economies, (e.g., Allmendinger 1989, Van de Werfhorst and Mijs 2010) overlooks this issue. This could be because the local government has traditionally had a stronger presence in high-income countries (Ladner, Keuffer and Baldersheim 2016).

Moreover, we categorise de-standardisation reforms into (a) subnational level or an entity between the central government and school and (b) school level, as reforms at both levels may differ, so may their implications. For instance, when districts (subnational level) in a country can independently decide certain education policies, it means there is de-standardisation between districts. By contrast, there would be between-school variance if policies do not maintain standards across schools. Past literature largely overlooks de-standardisation by different administrative tiers.

We argue that WB's de-standardisation reforms would likely depend on how authoritarian a regime is. In authoritarian regimes, institutions tend to be more centralised partly due to the personalisation of power in the hands of a few (Gelman 2010, Mauceri 1997, O'Driscoll 2017, Slater 2003). The service provision system is also somewhat unified maintaining common standards across the country. For instance, many post-Soviet countries in Eastern Europe, and Central and West Asia, characterised by standardised educational systems, have received de-standardisation reforms right after the breakdown of the Union (Takala and Piattoeva 2012, and Figure 1 in the variable section). To sum, these neoliberal reforms have been ideologically motivated primarily backed by the US and its allies with liberal democracy.

Nevertheless, in the early period of de-standardisation reforms, the focus was mainly on de-standardising educational responsibilities at the subnational level. Subnational level transfer of authority is a significant political decision requiring a fundamental transformation in civil service (Manor 1999). Hence, it is very likely that more authoritarian regimes have received more de-standardisation reforms at the subnational level to radically transform the educational system.

On the other hand, the de-standardisation of educational responsibilities at the school level has likely been implemented more in countries that have achieved some degree of subnational de-standardisation. These are likely to be more democratic regimes. This is because to make education policies more de-standardised at the school level, subnational entities would need to have more capacity and authority for monitoring and supervision, we contend.

To examine the research puzzle explained, we draw on evidence from 99 historical and present LMICs or developing countries from 1965 until 2019. Since the WB has been playing an influential role in promoting these reforms, we use all available WB education projects on primary and secondary education to track its de-standardisation reforms.

Why Does Authoritarianism Matter for Institutional Reforms by the WB?

We would like to begin with how and why we define authoritarianism. We do not consider authoritarianism a binary factor but a continuum since regime types are not a twofold phenomenon (Levitsky and Way 2002). Authoritarian regimes can be very different, some of which may allow, for instance, more civic engagement than others (Vasilyeva and Libman 2020). This approach aligns with our theoretical assumption that the degree of authoritarianism may be associated with how the WB may have approached de-standardisation reforms. Moreover, we focus on the degree of authoritarianism rather than the level of democracy since liberal democracy is not common in LMICs. Although many of the countries in LMICs may constitutionally be democratic, in practice,

they share traits of authoritarian regimes which may include controlling power effectively by only a few individuals or offices, such as the Prime Minister's Office or the cabinet.

We now discuss why authoritarianism may matter for the variation in the diffusion of WB-led de-standardisation reforms. Owen (2002) argues that two patterns are common when great powers promote their institutions in other countries—expansion of their power and keeping their ideological confreres in power as incumbent regimes. De-standardisation reforms in education have been driven by the idea of having limited state intervention and more market principles in delivering public education (Harvey 2006). One point to take from here is that the WB would implement de-standardisation reforms where educational systems maintain uniform standards. According to Kerckhoff (2001), educational systems are more standardised in countries with centralised administration. As mentioned, authoritarian regimes are more likely to have centralised administration as the power is concentrated in the hands of a few individuals. In other words, the culture of not sharing authority with the wider society makes the authoritarian countries more prone to be centralised and therefore have, on average, an educational system with greater standardisation.[16]

This discussion is in line with the past literature and WB's research papers. Centrally controlled interventions were seen by many as a cause of slow socio-economic development. Thus, shifting power from the central to the local level has been considered a potential alternative to

[16] By associating centralised regime with having more standardised educational system, we do not imply that all educational policies would be standardised in those contexts. But, on average, these countries would have more policies standardised. For instance, many countries with effective decentralised institutions may have a standardised curriculum. However, on average, other decisions including annual planning for schools, learning improvement strategies, teacher recruitment and training may be more de-standardised in these countries.

enhance economic growth during the late 1980s and throughout the 1990s onwards (Manor 1999, McGinn and Welsh 1999). This implies that when a system is more centralised, the question of transferring education-related authority to the lower administrative tiers becomes pertinent.

However, we do not assume that centralisation has primarily attracted IOs to implement de-standardisation reforms, but the authoritarian regimes which happened to have more centralised and standardised systems. This suggests that an implicit aim of the WB has been to make more authoritarian regimes less so. To attain this goal, IOs including the WB have targeted de-standardising public services including education, health, and social security (Jütting et al. 2005). As suggested, this process democratises grassroots organisations, thereby strengthening the ideological position of the US and allies as global hegemons, the main objective of these reforms (Owen 2002). This is why we do not assume that it was centralisation but authoritarianism that led the WB to implement the policy reforms. For instance, while the countries in the former Soviet Union quickly received many reforms by the WB right after the Union's collapse, countries such as Nepal and Bhutan, with the lesser influence of any global hegemons, have received fewer such reforms despite being highly centralised (Hossain 2022).

Earlier WB policies regarding reforming institutions (e.g., Brown 1990, Hinchliffe 1980, Rondinelli, McCullough and Johnson 1989, Winkler 1989) mostly discuss shifting educational authority to the subnational level such as regions, districts or sub-districts. This has continued since the 1980s and even before for some countries. It indicates that school-level de-standardisation has become a focus at a later point. This is perhaps because the Cold War era was more about bringing political changes to the subnational government such as in districts, which required more structural transformation such as creating new subnational governments and bringing administrative reforms. Around 80 percent of developing and emerging economies in different regions were

experimenting to devolve their institutions during the 1980s (Manor 1999). This means the process of subnational-level de-standardisation started in many authoritarian regimes during the early period of diffusing neoliberal reforms. LMICs were characterised by strong autocratic ruling around that time while some countries were in the transition to becoming democratic (Abootalebi 1995). Hence, it can be argued that countries with a greater degree of authoritarian ruling would be more likely to receive subnational de-standardisation provided that they receive WB loans or grants. This is because, as we argue, aid is provided conditional on implementing certain reforms (Dobbin, Simmons and Garrett 2007, Kentikelenis, Stubbs and King 2016). In this way, receiving aid makes LMICs dependent on the WB and IOs. Reforms can also come in the form of compulsion somewhat forcibly as Owen (2002) suggests.

Based on these arguments, our first expectation is that the higher the authoritarianism in a country, the more likely it is to implement de-standardisation reforms at the subnational level by the WB as presented in Table 1. We expect the opposite for the school level, that is, the higher the existence of authoritarianism in a country, the lower the volume of de-standardisation of responsibilities at the school level (expectation 2 in Table 1). We term these as expectations rather than hypotheses since our aim is to run exploratory analyses as there are no existing theoretical mechanisms on this issue. Additionally, we do not infer any causal conclusion in the study.

Our expectation 2 is based on the following reasoning. School-level de-standardisation started taking place later than that of the subnational level, more so from the early 1990s. The trend has, however, drastically increased since the early 2000s. This has been investigated in many studies (e.g., Faguet and Sanchez 2008, Galiani, Gertler and Schargrodsky 2008). One plausible explanation for the later adoption of school-level de-standardisation is that once countries have become more democratic, bringing devolved political institutions at the subnational level, it may

provide them opportunities to focus on micro-level institutions such as schools. This is to democratise these institutions in addition to meso-level agencies such as regions and districts. Thus, focusing on autonomous school management, school-level de-standardisation aims at democratising educational decision-making processes at the grassroots level. Without having any strong local government at the subnational level, it would be difficult to manage whether schools can efficiently implement their autonomous duties. In a nutshell, school-level reforms have followed a 'follow the subnational de-standardisation' process. As a result, more authoritarian regimes would be, on average, less likely to receive these reforms. Focusing directly on the school level may not be an effective strategy. This is, however, not to suggest that more authoritarian regimes have not received any reforms at the school level. The intensity of adoption, however, would be less than that of less authoritarian countries.

Table 1. Summary of expectations

Dependent variables / Independent variable	High sub-national de-standardisation	Low sub-national de-standardisation	High school de-standardisation	Low school de-standardisation
High Authoritarianism	Yes	No	No	Yes
Low Authoritarianism	No	Yes	Yes	No

Source. Own depiction.

In both scenarios, we do not assume that the WB would make an immediate move after a country has changed its position to become more or less authoritarian. In fact, the WB might be more forward-looking (that is, responds with a lag) to implement its projects by assessing current circumstances as past research suggests (Go 1994). In other words, the WB would be more likely to wait to initiate projects with de-standardisation reforms after a country shifts its political position regarding authoritarianism.

Data and methods

To address the research puzzle explained, data come from multiple sources. However, each variable is constructed using only one source. That is, we do not use multiple sources to construct one variable. The resulting dataset becomes a country-year unbalanced panel from 1965 until 2019. We describe all measures below with their sources.

Dependent variables

There are two outcome variables in this study: de-standardisation of educational reforms implemented by the WB at the (a) subnational level, and (b) school level. To construct both measures, we analyse all available 910 WB projects on primary and secondary education implemented in 99 historical and present LMICs from its website (World Bank n.d.-c). To select projects, we sorted projects from the WB website by 'Primary Education', 'Secondary Education', and further 'Public Administration – Education'. This provided us with 1,160 projects from which 910 were found directly related to education. We further excluded some projects that were dropped or cancelled after the initiation or that do not have any information on the website reducing the number in this study to 897 projects.

Sub-national de-standardisation

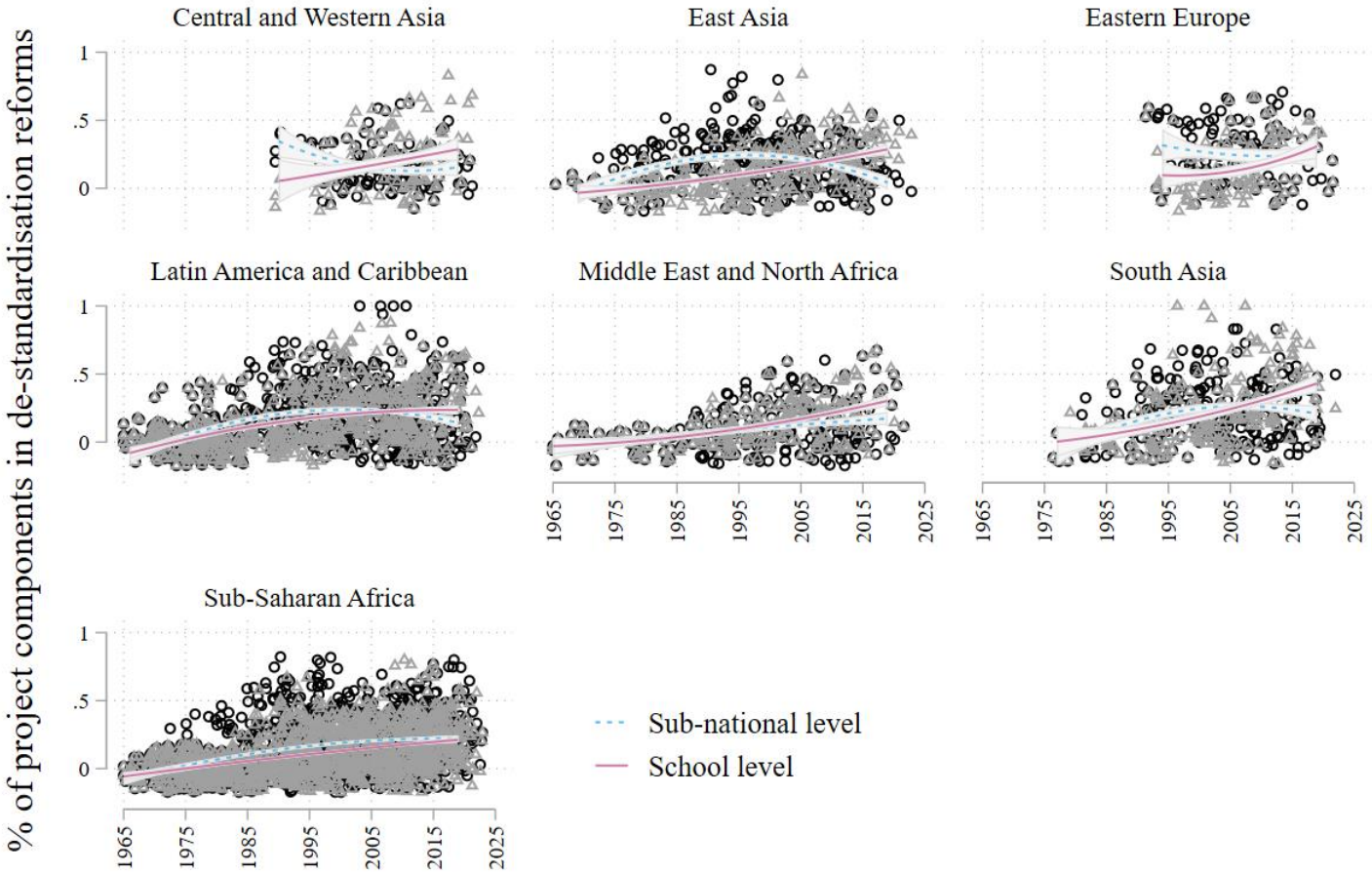
To describe the variable construction process, each WB project has one or more components as shown in Box A1 in the appendix. Hence, if a project component has dealt with de-standardising educational responsibilities to the subnational level (defined as the administrative tier between the central government and schools), we code it accordingly. For instance, the project in Honduras in Box A1 has four components and the third one is about subnational de-standardisation since it worked towards capacity building at subnational levels for education planning and information use. Hence, the value of the variable becomes 1/4 or 25 percent of all

components of subnational de-standardisation. The rest indicates not related to subnational de-standardisation. Some randomly selected examples of coding both subnational- and school-level de-standardisation are presented in Table S1 in the supplementary file. Countries considered in the study are listed in Table S2 in the supplementary file.

School-level de-standardisation

Similarly, if one or more project components have dealt with the de-standardisation of educational responsibilities at the school level, we code it as the proportion of project components accordingly. For instance, component 2 in the project in Box A1 in the appendix worked towards creating more school autonomy, community participation in school decisions and participatory school supervision. Thus, the value for this variable becomes 1/4 or 25 percent. We plot data for both indicators by region in Figure 1 for a descriptive overview. It shows that overall, de-standardisation at both levels has been on the rise with a notable cross-national variation. While the school-level de-standardisation is still upward, it is slowing down at the subnational level in recent years with a downward curvature from the mid-2000s.

Figure 1. The level and timing of sub-national and school-level de-standardisation reforms by the World Bank vary across countries.



Notes: (a) The y-axis indicates the proportion of WB project components implemented in basic education, that is, primary and secondary levels, focusing on de-standardisation. (b) The data are from 99 countries and 3,312 country-project years from 910 WB projects (1965-2019). Each point in the graph represents a country-project year. A detailed account of the construction of both indicators is explained in the data and methods section. (c) Black circles denote sub-national and grey triangle hollows represent school-level de-standardisation. (d) Jittering is used to prevent overplotting of observations on a single point. (e) This figure is the same as Figure 3 in paper 1.
Source. Own dataset.

Since most projects span a few years in duration we treat each project as country-project year. For instance, since the project in Box A1 in the appendix was implemented from 2008 until 2013, the country-project year becomes 5 consecutive years. Thus, the unit of analysis is the country-project year rather than just the starting date of projects. We do this as just one period of a project (for instance, the starting year) would give an incomplete and erroneous state of WB operations. It is not possible to know the trend or trajectories of WB's de-standardisation reforms without including the whole timeframe of a project, which is the prime objective of the study. Furthermore, the WB conducts its operations under more than one project at a time in a country. Hence, we cannot capture the total length of each project if we just consider the starting or ending year. Project length may indicate the significance and size of education reforms, that is, small or large. More importantly, the initial value of the measures does not determine the value for the latter years. For instance, school-level de-standardisation is 25 percent in Box 1, which will be the same for all six years of the project life span. Since multiple projects are being implemented by the WB in the same country simultaneously, the value does not remain constant over all the years.

Additionally, although uncommon, WB project components may change over time. This usually happens at the initial stages of a project. To capture any potential changes, we look at documents on both project design (before a project begins) and evaluation (after a project has been implemented). Thus, our analyses incorporate all WB project components. Finally, this is worth noting that subnational and school-level de-standardisation do not add up to 100 percent of a project as they are measured independently. In other words, the presence of one type does not mean the absence of the other. Both types can also appear in the same project.

We run robustness checks for both measures using two techniques to examine whether there is a bias in the data due to manual coding. First, we construct the same measures by automated

coding employing text analysis methods. We web scrape all relevant WB project documents considered in this study. Then, we analyse the texts in the documents using some keywords following the existing literature in the field. The measures from manual and automated coding closely approximate as explained in Appendix S1 in paper 1 (Reliability). Second, we recode the data with a time-lapse since a single coder coded the measures. This approach also suggests high reliability of the data, which is explained in the same section of the supplementary file as well.

Independent variables

The degree of authoritarianism

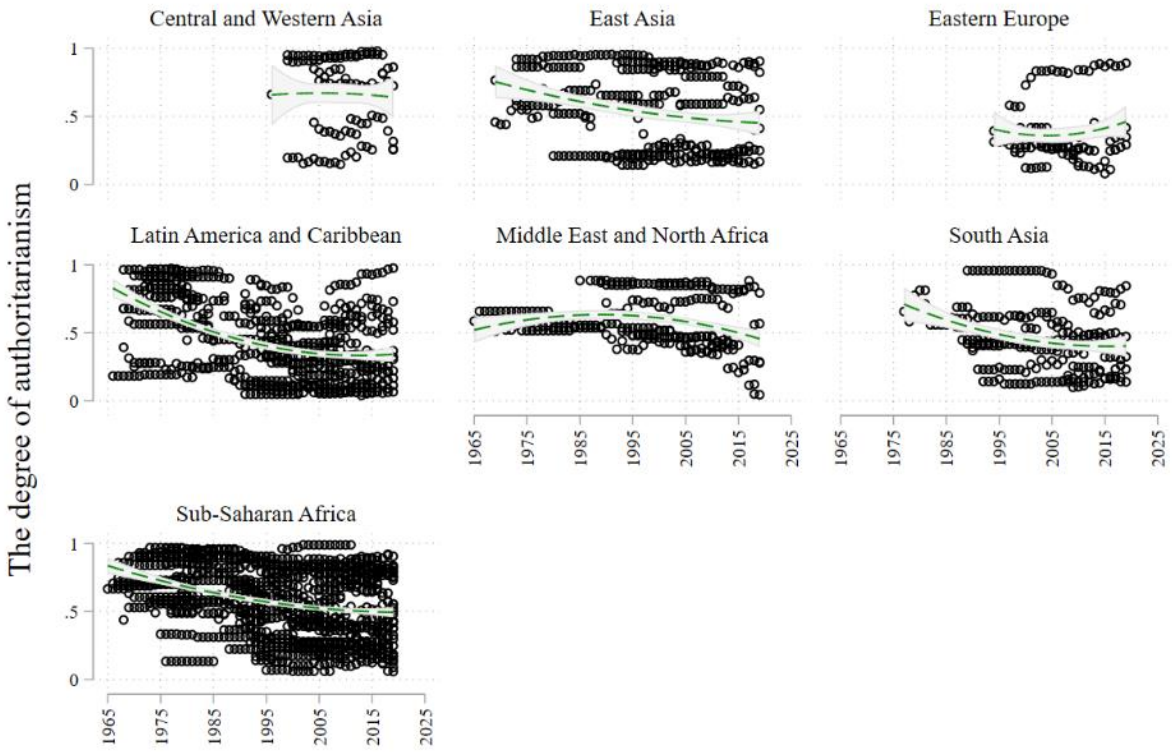
In this study, the main explanatory variable is regime type in terms of the degree of authoritarianism. This is to align with our theoretical motivation that the regime system is not a simple binary factor but a continuum. Moreover, since we are only focusing on LMICs, both historical and present, many of these countries began to effectively introduce electoral democracy, especially during the 1990s, also known as the third wave of democracy. Yet, democracy in many developing parts of the world is still characterised by defective democracy, semi-authoritarianism or even electoral authoritarianism (Bogaards 2009, Croissant 2004). This means the power is concentrated in the hands of a few and centralised in nature (Merkel and Croissant 2004).

Hence, the degree of authoritarianism[17] in this study measures the extent to which the chief executive of a country is free from constraints by institutions or actors internal to the nation (that

[17] Originally the variable is named as presidentialism, which means to what extent the power is concentrated in the hands of an individual, the head of the state. The variable does not indicate the degree of presidentialism or parliamentarianism, rather the degree of authoritarianism. For instance, India has a parliamentary democratic system according to the constitution. However, it has been reported as an electoral-autocracy due to crackdown on civil liberties, a sign of concentrating power in the hands of a few. See: Biswas, Soutik. 2021. '"Electoral Autocracy': The

is, not international organisations or actors). The more they are constraints-free the less democratic a country is. The variable is continuous where a greater value indicates more authoritarianism, and a lower value indicates more democracy. We use this variable from the varieties of democracy (V-Dem), which is widely used in political system and regime-type research (e.g., Lindberg et al. 2014, Lührmann, Marquardt and Mechkova 2020). V-Dem constructs the variable based on the following nine indicators taking the reverse points estimates from a Bayesian factor analysis model.

Figure 2. The degree of authoritarianism over time across seven regions, 1965-2019.



Notes: (a) In Y-axis, a higher value suggests more authoritarianism and a lower value indicates more democracy. (b) The observations for Turkey from 1990 until 1998 were dropped in the Central and Western Asia group to avoid the misleading fitted line in this graph since other sample countries in the region started

Downgrading of India's Democracy." in *BBC*. London.. Hence, *the degree of authoritarianism*, according to our measure, has increased from 0.16 in 2016 to 0.23 in 2017 and 0.26 in 2018.

receiving reforms from 1999. However, all other analyses (regression models) include Turkey for all years since 1990.
Source. Own calculations based on V-Dem (Coppedge et al. 2021).

The indicators are: (1) executive respect for the constitution; (2) whether there are mechanisms for executive oversight other than the legislative; (3) the autonomy of the legislature for controlling its own resources and (4) for investigating the executive in practice; (5) independence of the high court and (6) lower court; (7) compliance with high court and (8) judiciary; and (9) the autonomy of the electoral management entity (Coppedge et al. 2021).

These indicators suitably fit our research motivation as they measure whether a country's political power is controlled and influenced by a few or widely shared rather than simplistically looking at whether a system is democratic or autocratic. Figure 2 demonstrates that apart from the sample countries in Eastern Europe (EE) and Central and Western Asia (CWA), authoritarianism, on average, has been declining. However, in recent years, the trend has remained mostly steady. Additionally, there is a noticeable change in decreasing authoritarianism in some Middle East and North Africa (MENA) countries from the early 2010s, the beginning of the so-called Arab Spring.

Population size (log)

The size of the population is a longitudinal variable taken from the WB (World Bank n.d.-a). We log the variable to account for skewness. We add this variable to examine the alternative expectation about the size of a country's population being associated with the need for de-standardising institutions. This is with the logic that a larger population may necessitate to more de-standardise educational systems to serve better. We, however, do not consider the population size to be a confounder as existing evidence does not suggest a link between this and authoritarianism. We do not use cross-sectional data on the territory size since our empirical models utilise country and year fixed effects.

Share of ethnic groups

The longitudinal data on the sizes of ethnic groups as a share the total population come from Vogt et al. (2015). The variable includes politically relevant ethnic groups according to their access to central state power. This variable is used to investigate the ethnic diversity expectation that more diversity requires more de-standardisation of education. Some scholars suggest that a greater ethnic diversity may necessitate countries to de-standardise their educational systems to address the demands of heterogeneous populations. Western countries with increasing ethnic diversity may require this more (Clune 1993, Waks 2006). This variable is suitable to examine the de-standardisation of educational systems as it captures the political relevance of ethnic groups. Countries may start increasingly de-standardise once ethnic groups raise their voice through political representation in need of it. Furthermore, we do not assume ethnic diversity to be a confounder as existing evidence is limited linking ethnic diversity with authoritarianism. Some studies (e.g., Van Assche et al. 2019, Velez and Lavine 2017) suggest how authoritarians can be intolerant in diverse environment, but does not directly link these two variables.

GDP per capita (log)

We take the GDP per capita variable from the WB (World Bank n.d.-b). We log transform the variable to account for skewness. GDP per capita may impact the adoption of reforms as it determines countries' eligibility to receive aid. GDP may not also play a confounding role as evidence suggests democracy causes growth, not the other way around (Acemoglu et al. 2019).

Project education level

The internal control from WB projects includes three dummy variables on the educational level in which WB projects have been implemented, that is, primary, secondary or both primary

and secondary. We control for this as we consider both primary and secondary education levels for de-standardisation reforms implemented by the WB.

Modelling

To estimate the association between the degree of authoritarianism and de-standardisation reforms by the WB, we adopt two different strategies. At first, we fit equation 1, a two-way country and year fixed effects model. Doing this helps eliminate unobserved country characteristics. Since we have a large number of countries in the study, country heterogeneity due to unobserved factors would be a concern. As shown in equation 1,

$$D_{it} = \beta_0 + \beta_1 \mathrm{A}_{it} + \boldsymbol{\beta_2}\mathbf{X}'_i + a_i + u_{it} \quad (1)$$

D is the outcome variables about subnational or school-level de-standardisation in country $_i$ and time $_t$. β_0 is an intercept, β_1 is the coefficient for the degree of authoritarianism variable A, $\boldsymbol{\beta_2}$ is the vector of coefficients for the control variables $\mathbf{X}'$. a is country fixed effects and u is the country-year error term.

However, as indicated in the introduction and theoretical sections, we do not assume that the WB acts promptly to implement de-standardisation reforms at the subnational and school levels once a country changes its position about authoritarianism. In other words, the WB would be forward-looking and would take time to act upon implementing these reforms as shown in previous findings (Go 1994). This means fixed-effects models would not be enough to observe the effects of the past status of authoritarianism on the present level of de-standardisation projects. To capture this forward-looking behaviour, we fit equation 2 as part of our second strategy in which,

$$D_{i,t} = \beta_0 + \beta_1 \mathrm{A}_{i,t-h} + \boldsymbol{\beta_2}\mathbf{X}'_{i,t-h} + a_i + u_{i,t} \quad (2)$$

we lag the independent variables including the degree of authoritarianism. This model will show us how the WB acts in terms of implementing reforms once countries have passed a few years in

changing their position about authoritarianism. We primarily use 4 years of lag in the analysis since national elections are usually held in most constitutionally democratic countries (this does not indicate a country's true state of democracy) every 4-5 years (Scartascini, Cruz and Keefer 2020). This period may cover significant political events right before the election as fragile democracies and autocracies start repressing oppositions right before or during elections (Bhasin and Gandhi 2013). We also present results with other cut-off years, e.g., 5 years, as part of robustness checks (Table A1 in the appendix). Equation 2 remains quite similar to equation 1. The only parts that change here are lagged independent variables including authoritarianism.

However, our second strategy might be questioned as it does not include past experience in countries to explain its current action. In other words, the past activities regarding de-standardisation projects of the WB may be determining the present activities. To account for this, we fit equation 3,

$$D_{i,t} = \beta_0 + \beta_1 \mathrm{A}_{i,t-h} + \boldsymbol{\beta_2 X'}_{i,t-h} + \beta_3 \mathrm{D}^{\mathrm{a}}{}_{i,t-h} + a_i + u_{i,t} \quad (3)$$

which adds parameter β_3 containing the coefficient for the past activities of WB's de-standardisation projects D^{a}, for both subnational and school levels. Essentially, D^{a} is the past of outcome D for which we use lag 6. The reason for this is that the average years of implementing WB's de-standardisation projects in the sample is 6. We, nevertheless, conduct robustness checks using other cut-offs.[18]

Results: The effect of the degree of authoritarianism on de-standardisation

As illustrated in Table 2, our results correspond to initial expectations. We find that a greater degree of authoritarianism is associated with a higher adoption of de-standardisation at the subnational level. As shown in model 2 with all controls, with each point increase in

[18] Not shown in the paper as results are repetitive.

authoritarianism, subnational de-standardisation reforms by the WB are likely to increase by 13 percentage points (p<0.01). Model 1 shows a quite similar result without adjusting for the population size, share of ethnic groups and GDP per capita.

Table 2. The link between the degree of authoritarianism and sub-national and school-level de-standardisation reforms by the World Bank.

	Dependent variable: De-standardisation			
	Sub-national		School	
	(1)	(2)	(3)	(4)
	Two-way fixed effects			
Degree of authoritarianism	0.13**	0.13**	-0.12**	-0.12**
	(0.047)	(0.047)	(0.047)	(0.045)
Population size (log)		0.045		0.010
		(0.070)		(0.053)
Share of ethnic groups		-0.024		-0.053
		(0.044)		(0.030)
GDP per capita (log)		0.0074		0.016
		(0.023)		(0.019)
Year fixed effects	Yes	Yes	Yes	Yes
Other controls	Yes	Yes	Yes	Yes
Observations	2937			
Countries	99			

Notes: (a) The additional controls include the educational level in which WB projects have been implemented, that is, primary, secondary or both. (b) The coefficients can be explained as the changes in the proportion of WB project components on de-standardisation due to a change in the independent variables. (c) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001.

However, the opposite is observed in the case of school-level de-standardisation as expected. A point increase in authoritarianism is associated with a 13 percentage points decrease (p<0.01) in de-standardisation at the school level by the WB as shown in model 4 of Table 2. The unadjusted model for some relevant characteristics shows a very similar effect size, that is, 12 percentage points.

As mentioned in the methods section, the models in Table 2 do not address an important theoretical point. That is, the WB is not likely to act immediately once a country has changed its

position about being authoritarian. It is more likely that the WB would be forward-looking and wait to see what countries might do after a few years have passed. To capture this issue, we estimate equation 2 with the 4 years lag of the time-varying independent variables including the degree of authoritarianism. As presented in Table 4, even after accounting for the future prospects of the regime change, we find very similar results. We also run robustness checks on different cut-off points for lagging the explanatory variables and the dependent variables, the degree of de-standardisation reforms. As shown in Table A1 in the appendix, the coefficients remain quite similar when we use different cut-off values for lagged variables – lag 1-5 for the degree of authoritarianism.

Table 3. The link between the degree of authoritarianism and sub-national and school-level de-standardisation reforms by the World Bank, lagged regression.

	Dependent variable: De-standardisation			
	Sub-national		School	
	(5)	(6)	(7)	(8)
	Two-way fixed effects			
Degree of authoritarianism (lag 4)	0.16*	0.15*	-0.13*	-0.12+
	(0.066)	(0.066)	(0.063)	(0.061)
Population size (log and lag 4)		-0.00***		0.00**
		(0.00)		(0.00)
Share of ethnic groups (lag 4)		-0.033		-0.023
		(0.043)		(0.036)
GDP per capita (log and lag 4)		0.018		0.032
		(0.027)		(0.020)
Year fixed effects	Yes	Yes	Yes	Yes
Other controls	Yes	Yes	Yes	Yes
Observations	98			
Countries	2296			

Notes: (a) The additional controls include the lag of the educational level in which WB projects have been implemented, that is, primary, secondary or both. (b) The coefficients can be explained as the changes in the proportion of WB project components on de-standardisation due to a change in the independent variables. (c) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. + p<0.1 * p<0.05 ** p<0.01 *** p<0.001.

However, one may argue that the past experience of the WB can also determine their present activities in implementing de-standardisation reforms in addition to observing the status of authoritarianism. To capture WB's past work in implementing de-standardisation reforms, we estimate equation 3. As shown in Table 4, after controlling for the past project implementation status (lag 6), the results remain quite similar to the ones in Tables 2 and 3 in terms of effect size (although the coefficient for school-level de-standardisation is now significant at the 10 percent level). As expected in lagged models, coefficients in Tables 3 and 4 have larger standard errors.

Table 4. The link between the degree of authoritarianism and sub-national and school-level de-standardisation reforms by the World Bank, lagged regression.

	Dependent variable: De-standardisation	
	Sub-national	School
	(9)	(10)
	Two-way fixed effects	
Degree of authoritarianism (lag 4)	0.13*	-0.11+
	(0.066)	(0.062)
Population size (log and lag 4)	-0.00***	0.00**
	(0.00)	(0.00)
Share of ethnic groups (lag 4)	-0.057	-0.040
	(0.047)	(0.040)
GDP per capita (log and lag 4)	0.023	0.044*
	(0.030)	(0.022)
Past sub-national de-standardisation by WB (lag 6)	0.080	
	(0.063)	
Past school-level de-standardisation by WB (lag 6)		0.019
		(0.048)
Constant	-0.44	-0.82
	(0.62)	(0.45)
Observations	1975	
Countries	97	

Notes: (a) The additional controls include the lag of the educational level in which WB projects have been implemented, that is, primary, secondary or both. (b) The coefficients can be explained as the changes in the proportion of WB project components on de-standardisation due to a change in the independent variables. (c) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. + p<0.1 * p<0.05 ** p<0.01 *** p<0.001. (d) the variable 'past subnational and school-level de-standardisation by the WB' is the lag of the dependent variables.

All these results show us a coherent story providing robust evidence of WB's motive for implementing de-standardisation reforms based on countries' political characteristics, authoritarianism. This conforms to our expectations that WB's implementation of de-standardisation reforms in educational systems at the subnational level has likely taken place more in authoritarian regimes. However, our results suggest that school-level de-standardisation reforms have likely been implemented less in authoritarian countries. This could be because, as we assume, de-standardisation at the school level requires some degree of autonomy and independence in subnational agencies which are more likely to observe in democratic countries. We also find a positive correlation between subnational- and school-level de-standardisation reforms as shown in Figure A1 in the appendix. This may suggest that school-level de-standardisation is more likely to happen once subnational reforms are introduced. Moreover, our evidence does not support the theory that a large population and greater ethnic diversity may require countries to more devolve. Additionally, as pointed out, while we attempt to minimise the sources of bias in our analyses, our results are not causal, and may not apply to other institutional reforms carried out by IOs including the WB.

Robustness

We run three alternative specifications to check robustness of our findings. First, we argue that IOs are more likely to implement de-standardisation reforms in authoritarian countries as they tend to be more centralised and have standardised educational systems. One may contend that it might be centralisation that could be driving the WB to implement these reforms. However, as we point out in the theoretical section, the WB's position has been an ideological one. Hence, the main motivation has been to install institutional reforms in authoritarian regimes (such as the former Soviet Union and communist regimes) that may turn them more favourable to the US and western

allies, which has long been argued in the literature (Dobbin, Simmons and Garrett 2007, Owen 2002). So, we do not assume that centralisation has been the main motivating factor for the WB.

To test our assumption, we use three measures of de-centralisation (the opposite of centralisation) as the explanatory variable instead of authoritarianism. The first variable means the relative power of the elected and non-elected offices at the local level. The second variable is the local government index indicating if there are elected local governments in a country and if there are, how much they can autonomously operate without interference from an unelected body.[19] The third variable signifies how far regional governments (which are usually situated at a higher level than the local government entities and just below the central government) can operate without interference from the unelected bodies at the regional level (Coppedge et al. 2021). We use three measures to account for a set of comprehensive aspects of decentralisation. As shown in Table A2 in the appendix, all these three variables show no significant association with the implementation of de-standardisation reforms. Precisely, the WB does not tend to rely on whether a country has or has not decentralised its institutions to implement de-standardisation reforms. Similar to the main models in Table 3 for authoritarianism as the explanatory variable, we also use lag in these models. We get similar non-significant results when we enter both decentralisation and authoritarianism variables in the model. Nevertheless, we do not present here the model as these variables are highly

[19] The lowest score would be reserved for a country that has no elected local governments. A medium score would be accorded a country that has elected local governments but where those governments are subordinate to unelected officials at the local level perhaps appointed by a higher-level body. A high score would be accorded to a country in which local governments are elected and able to operate without restrictions from unelected actors at the local level with the exception of judicial bodies. Naturally, local governments remain subordinate to the regional and national governments.

correlated. Additionally, the results are quite similar when we check using lags 1 to 4 for the variables related to decentralisation and other independent variables in the models. That is, the association between decentralisation and de-standardisation reforms implemented by the WB remains non-significant (results are not presented here).

Second, Initial condition of authoritarianism may influence how much the WB diffuse de-standardisation reforms. As we have argued, during the late 1980s and the early 1990s, the WB was more likely to have implemented these reforms in authoritarian countries. Hence, the degree of authoritarianism at that 'initial' point may have played a key role in their diffusion. To address this concern, we run regression separately on countries initially high- and low-level of authoritarianism in before 1995. We take 1995 to define initial level because, as discussed in paper 1, the growth of de-standardisation reforms skyrocketed during the late 1980s and early 1990s. Many countries in the former Soviet Union also started receiving these reforms around that time. As presented in Table A3 in the appendix, countries with initially high-level of authoritarianism were more likely to have received de-standardisation reforms from the WB at the sub-national level while less so at the school level. This is consistent with the main results in Tables 2 through 4. However, the coefficients are not significant for countries with initially low-level of authoritarianism. This suggests that authoritarian regimes have been more likely to receive attention in implementing these reforms.

Third, since our main independent variable, the degree of authoritarianism, is a continuous measure, one may ask what happens when it decreases. This question may also arise since on average, authoritarianism has been declining across regions as Figure 2 suggests. To address this issue, we construct a categorical measure of authoritarianism indicating whether it has experienced: (1) a small decrease, (2) a large decrease, (3) no change, and (4) an increase,

compared to the starting year available in our dataset (against the last datapoint). We do not divide category 4 further due to a small number of countries, which has undergone a large increase in authoritarianism. As presented in Table A4 in the appendix, the results remain very similar to that of the main results. That is, the coefficients are significant, for both sub-national and school levels, for categories in which countries either have experienced no change in authoritarianism or an increase in authoritarianism.

Discussion and Conclusion

Past literature has broadly discussed why policies diffuse across boundaries by world society associations. Some of the reasons include diffusion by coercion to expand policy models from countries in the Global North to the South (Owen 2002), aid dependency and economic benefits (Steiner-Khamsi 2006), diffusion through coercion and through a common culture agreed upon worldwide led by world society (Dobbin, Simmons and Garrett 2007).

In educational systems across LMICs, IOs and predominantly the WB have implemented de-standardisation reforms at the subnational and school levels. This has likely led to divergent policy atmospheres within a country. This means local governments and schools in the same educational system may experience different learning experiences because of decreasing standardisation. However, the level of infiltration of these reforms has been unequal across countries. Exploiting this cross-country variation of WB's de-standardisation reforms, this study enquires why some nations have received more of these reforms than others. Since we are interested in exploring institutional reforms, rather than any type of policy diffusion, we expected that countries' political systems or the degree of authoritarianism would play a determinant role in promoting de-standardisation.

Our results suggest that it matters whether a country's political system is more or less authoritarian to receive the diffusion of these reforms. Specifically, we find a positive relationship between a greater level of authoritarianism and the adoption of de-standardisation reforms at the subnational level. We argue this is because the WB is likely to diffuse in countries that presumably have a more standardised educational system, which is more likely to exist in authoritarian states. For instance, in former Soviet countries, the public service provision system including education was somewhat uniform to maintain standards across regions in a country. As the descriptive trends show, the WB implemented many de-standardisation reforms in many of these countries after the collapse of the Soviet Union.

Contrarily, we find that an increase in authoritarianism is associated with less adoption of de-standardisation at the school level. We assume this could be because, in authoritarian countries, institutions are likely to be highly centralised. Hence, introducing de-standardisation reforms directly at the school level would not be an efficient strategy as the operation of schools may not be regularly monitored by local governments. Consequently, countries that have received some degrees of autonomy at the subnational level—for instance, by providing district education offices more decision-making power—are more likely to receive de-standardisation reforms in schools. We argue that less authoritarian or more democratic states are prone to have devolved subnational agencies in which school reforms are easier to take place.

Our study brings forth an issue that is often overlooked by scholars in the field of policy diffusion and comparative education. The transfer of policy models like de-standardisation reforms is frequently attributed to the characteristics of IOs with a single framework. However, while IOs do play a pivotal role in diffusing reforms, it also depends on country characteristics. Specifically, countries' politics may play a significant role since whether the WB and IOs can extend their

operation in a country partly depends on if the political regime allows them. This is even more crucial in the case of institutional reforms such as de-standardisation which is likely to be influenced by the type of regime a country has.

This study is not without limitations. First, the main limitation of the study is that it only analyses the case of the WB while there are many other development actors that might be simultaneously implementing de-standardisation reforms. Future research can explore whether the reasoning for adopting these reforms is similar when led by other donors. Second, we only focus on the education sector. Similar reforms may be happening in other sectors such as health and social security. Third, while we attempt to address endogeneity in our main predictor authoritarianism in a robust way, there may still be other sources of bias that our study could not tackle.

Appendix

Box A1. An example of World Bank's education project implemented in Honduras, 2008-2013

Component 1: Enhancing and Scaling-Up Interventions that Address the Needs of the Poor. This component would support pre-primary and primary school interventions focused on the poorest segments of the population. ...

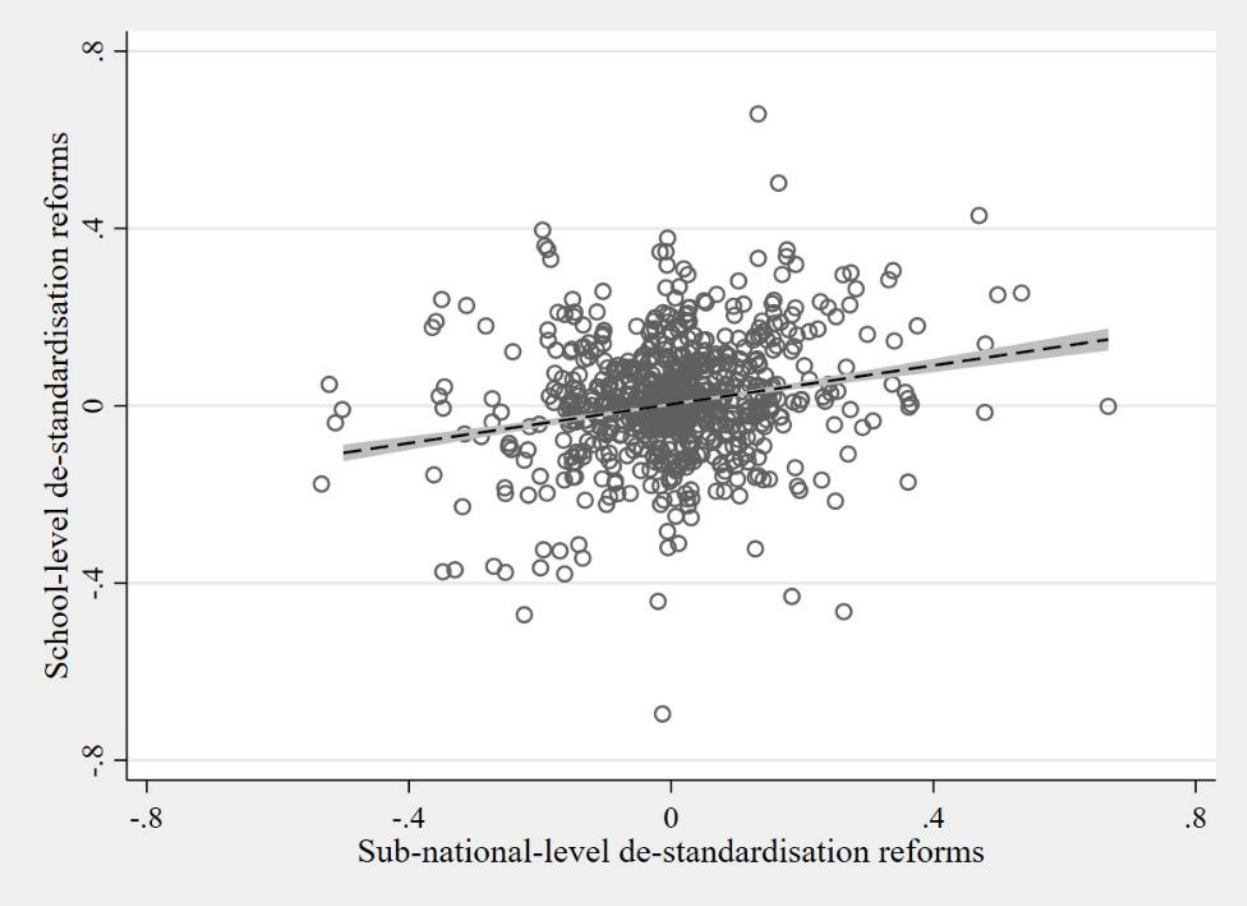
Component 2: Community Participation in School Management. This component would foster community participation within an Integrated School Management System. It had three subcomponents: (2.1) Consolidation and Institutionalization of the School Management System: This sub-component would finance analysis of existing school management modalities among traditional, … educational networks to develop consolidated policies for community participation, social management, school planning, school systems for information, monitoring and evaluation, and financial administration. (2.2) School Planning and Resources for Quality Education: This sub-component would finance the review and development of instruments to support school and network planning and resource management through cooperative school networks. (2.3) School Management and Education Performance Monitoring and Evaluation: This sub-component would finance the development and implementation of a participatory monitoring and evaluation system for school management.

Component 3: Governance and Institutional Strengthening of the Ministry of Education. The component would finance efforts to strengthen SEDUC [*Ministry of Education*], including improving governance and management capacity. The component was divided into three sub-components: (3.1) Information for improved performance and greater accountability: … expanding, strengthening, updating and maintaining the SIARHD [*Integrated System for the Administration of Teachers' Payroll*] at central and sub-national levels to provide reliable information on teachers at all levels…; and strengthening the capacity for educational planning and the use of information for decision-making at the central and departmental levels. (3.2) National System of Assessment of Learning Outcomes: … strengthen the institutional capacities of SEDUC to use the information for monitoring of learning outcomes and decision-making, and to increase overall transparency through dissemination of the results....

Component 4. Project Administration: This component would finance the cost of technical personnel (local consultants) and operating costs. …

Source. World Bank (2013:3-4)

Figure A1. The relationship between sub-national and school level de-standardisation reforms by the World Bank, first differences (1965-2019).



Note: (a) Both Y- and X-axis are originally measured as the proportion of WB's basic education project components on de-standardisation. (b) The correlation coefficient is r=0.22. (c) Since we have longitudinal data, the plot uses first differences (1965-2019).
Source. Own dataset.

Table A1: The effect of the degree of authoritarianism on sub-national de-standardisation reforms using different lags.

	Dependent variable: De-standardisation									
	Sub-national					School				
	(1A)	(2A)	(3A)	(4A)	(5A)	(1B)	(2B)	(3B)	(4B)	(5B)
Degree of authoritarianism	0.13**					-0.12*				
	(0.048)					(0.046)				
Degree of authoritarianism (lag 1)		0.13*					-0.12*			
		(0.052)					(0.052)			
Degree of authoritarianism (lag 2)			0.13*					-0.13*		
			(0.058)					(0.058)		
Degree of authoritarianism (lag 3)				0.15*					-0.12+	
				(0.063)					(0.061)	
Degree of authoritarianism (lag 4)					0.15*					-0.12+
					(0.067)					(0.061)
Controls with lags	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.23	-0.20	-0.19	-0.26	-0.36	-0.081	-0.22	-0.31	-0.45	-0.58
	(0.50)	(0.52)	(0.54)	(0.56)	(0.57)	(0.40)	(0.41)	(0.42)	(0.42)	(0.42)
Observations	2937	2737	2574	2431	2296	2937	2737	2574	2431	2296
Country	99	99	99	98	98	99	99	99	98	98

Notes: (a) Lags of all controls (as in the main models) included. (b) The coefficients can be explained as the changes in the proportion of WB project components on de-standardisation due to a change in the independent variables. (c) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. + p<0.1 * p<0.05 ** p<0.01 *** p<0.001.

Table A2. The link between the decentralisation and subnational and school-level de-standardisation reforms by the World Bank, lagged regression.

	Dependent variable: De-standardisation reforms implemented by the WB					
	Subnational	School	Subnational	School	Subnational	School
	Two-way fixed effects models					
	(1)	(2)	(3)	(4)	(5)	(6)
Local government relative power (lag 4)	-0.0073	0.013				
	(0.014)	(0.012)				
Local government index (lag 4)			-0.022	0.051		
			(0.070)	(0.035)		
Regional government index (lag 4)					-0.049	-0.013
					(0.056)	(0.040)
Population size (log and lag 4)	-0.00***	0.00***	-0.00**	0.00***	-0.00**	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Share of ethnic groups (lag 4)	0.0067	-0.0044	-0.044	-0.030	-0.034	-0.019
	(0.022)	(0.018)	(0.041)	(0.040)	(0.041)	(0.039)
GDP per capita (log and lag 4)	0.030	0.035	0.029	0.034	0.018	0.036
	(0.029)	(0.021)	(0.028)	(0.021)	(0.028)	(0.020)
Constant	-0.49	-0.70	-0.26	-0.70	-0.25	-0.73
	(0.59)	(0.43)	(0.58)	(0.41)	(0.58)	(0.42)
Observations	2232	2232	2288	2288	2284	2284
Countries	97	97	98	98	98	98

Notes: (a) The additional controls include the lag of the educational level in which WB projects have been implemented, that is, primary, secondary or both. (b) The coefficients can be explained as the changes in the proportion of WB project components on de-standardisation due to a change in the independent variables. (c) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001.

Table A3. The link between the degree of authoritarianism and sub-national and school-level de-standardisation reforms by the World Bank (by initially high- and low-degree of authoritarianism).

	Dependent variable: De-standardisation			
	(1)	(2)	(3)	(4)
	Two-way fixed effects models			
	Sub-national		School	
	Initial degree of authoritarianism…			
	High	Low	High	Low
Degree of authoritarianism	0.15*	0.15	-0.13*	0.10
	(0.062)	(0.12)	(0.061)	(0.087)
Population size (log)	-0.00*	-0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Share of ethnic groups	-0.11	0.16	-0.011	-0.042
	(0.083)	(0.085)	(0.077)	(0.062)
GDP per capita	0.031	-0.011	0.0058	-0.033
	(0.029)	(0.047)	(0.029)	(0.048)
Constant	-0.65	0.15	-0.038	0.66
	(0.62)	(0.97)	(0.60)	(1.02)
Observations	808	672	808	672
Countries	22	19	22	19

Notes: (a) The coefficients can be explained as the changes in the proportion of WB project components on de-standardisation due to a change in the independent variables. (b) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001. (c) The initial degree of authoritarianism is defined by countries' state of authoritarianism in and before 1995. (d) The number of observations decreased due to the selection of countries by the initial cutoff year of 1995.

Table A4. The link between the authoritarianism and sub-national and school-level de-standardisation reforms by the World Bank.

	Dependent variable: De-standardisation	
	Sub-national	School
	(1)	(2)
	OLS regression	
Authoritarianism (ref. A small decrease)		
A large decrease	-0.047	0.083
	(0.061)	(0.054)
No change	0.73***	-0.95***
	(0.19)	(0.17)
An increase	0.80***	-0.72***
	(0.16)	(0.15)
Country and year fixed effects	Yes	Yes
Controls	Yes	Yes
Constant	0.077	-0.27
	(0.26)	(0.23)
Observations	2937	2937
Country	99	99

Notes: (a) The additional controls include population size, the share of ethnic groups, GDP per capita in log, and the educational level in which WB projects have been implemented, that is, primary, secondary, or both. (b) Observations in each category include: (1) 458, a small decrease in authoritarianism; (2) 1580, a large decrease in authoritarianism; (3) 646, no change in authoritarianism; and (4) 253, an increase in authoritarianism. (c) The degree of authoritarianism is divided into four categories based on changes in authoritarianism relative to countries' starting years available in the dataset. Because of this categorisation, this independent variable now does not vary over time, for which we use OLS regression with country and year fixed effects. (d) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * $p<0.05$ ** $p<0.01$ *** $p<0.001$.

References

Abootalebi, Ali R. 1995. "Democratization in Developing Countries: 1980-1989." *The Journal of Developing Areas* 29(4):507-30.

Acemoglu, Daron, Suresh Naidu, Pascual Restrepo and James A Robinson. 2019. "Democracy Does Cause Growth." *Journal of Political Economy* 127(1):47-100.

Allmendinger, Jutta. 1989. "Educational Systems and Labor Market Outcomes." *European sociological review* 5(3):231-50.

Ball, Stephen J and Deborah Youdell. 2009. *Hidden Privatisation in Public Education*. Brussels: Education International.

Barrera-Osorio, Felipe, Tazeen Fasih and Harry Anthony Patrinos. 2009. *Decentralized Decision-Making in Schools: The Theory and Evidence on School-Based Management*. Washington, DC: World Bank.

Bhasin, Tavishi and Jennifer Gandhi. 2013. "Timing and Targeting of State Repression in Authoritarian Elections." *Electoral Studies* 32(4):620-31.

Biswas, Soutik. 2021. "'Electoral Autocracy': The Downgrading of India's Democracy." in *BBC*. London.

Bogaards, Matthijs. 2009. "How to Classify Hybrid Regimes? Defective Democracy and Electoral Authoritarianism." *Democratization* 16(2):399-423.

Boyle, Elizabeth H, Minzee Kim and Wesley Longhofer. 2015. "Abortion Liberalization in World Society, 1960–2009." *American Journal of Sociology* 121(3):882-913.

Brown, Daniel J. 1990. *Decentralization and School-Based Management*. London, New York, Philadelphia: The Falmer Press.

Bukodi, Erzsébet, Ferdinand Eibl, Sandra Buchholz, Sonia Marzadro, Alessandra Minello, Susanne Wahler, Hans-Peter Blossfeld, Robert Erikson and Antonio Schizzerotto. 2018. "Linking the Macro to the Micro: A Multidimensional Approach to Educational Inequalities in Four European Countries." *European societies* 20(1):26-64.

Clune, William H. 1993. "The Best Path to Systemic Educational Policy: Standard/Centralized or Differentiated/Decentralized?". *Educational evaluation and policy analysis* 15(3):233-54.

Coppedge, Michael, John Gerring, Staffan I Lindberg, Jan Teorell, David Altman, Michael Bernhard, M Steven Fish, Adam Glynn, Allen Hicken and Carl H Knutsen. 2021. "V-Dem Codebook V9." *Varieties of Democracy (V-Dem) Project*.

Croissant, Aurel. 2004. "From Transition to Defective Democracy: Mapping Asian Democratization." *Democratization* 11(5):156-78.

Dobbin, Frank, Beth Simmons and Geoffrey Garrett. 2007. "The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning?". *Annu. Rev. Sociol.* 33:449-72.

Dollar, David and Jakob Svensson. 2000. "What Explains the Success or Failure of Structural Adjustment Programmes?". *The Economic Journal* 110(466):894-917.

Essuman, Ato and Kwame Akyeampong. 2011. "Decentralisation Policy and Practice in Ghana: The Promise and Reality of Community Participation in Education in Rural Communities." *Journal of Education Policy* 26(4):513-27.

Faguet, Jean-Paul and Fabio Sanchez. 2008. "Decentralization's Effects on Educational Outcomes in Bolivia and Colombia." *World development* 36(7):1294-316.

Fiske, Edward B. 1996. *Decentralization of Education: Politics and Consensus*: The World Bank.

Galiani, Sebastian, Paul Gertler and Ernesto Schargrodsky. 2008. "School Decentralization: Helping the Good Get Better, but Leaving the Poor Behind." *Journal of Public Economics* 92(10-11):2106-20.

Gamoran, Adam. 1996. "Curriculum Standardization and Equality of Opportunity in Scottish Secondary Education: 1984-90." *Sociology of Education* 69(1):1-21.

Gelman, Vladimir. 2010. "The Dynamics of Subnational Authoritarianism: (Russia in Comparative Perspective)." *Russian politics & law* 48(2):7-26.

Go, Delfin S. 1994. "External Shocks, Adjustment Policies and Investment in a Developing Economy: Illustrations from a Forward-Looking Cge Model of the Philippines." *Journal of Development Economics* 44(2):229-61.

Harvey, David. 2006. "Neo-Liberalism as Creative Destruction." *Geografiska Annaler: Series B, Human Geography* 88(2):145-58.

Hinchliffe, Keith. 1980. "Conflicts between National Aims in Papua New Guinea: The Case of Decentralization and Equality." *Economic Development and Cultural Change* 28(4):819-38.

Hossain, Mobarak. 2022. "Diffusing “Destandardization” Reforms across Educational Systems in Low- and Middle-Income Countries: The Case of the World Bank, 1965 to 2020." *Sociology of Education* 95(4):320–39.

Jütting, Johannes, Elena Corsi, Celine Kauffmann, Ida McDonnell, Holger Osterrieder, Nicolas Pinaud and Lucia Wegner. 2005. "What Makes Decentralisation in Developing Countries Pro-Poor?". *The European Journal of Development Research* 17(4):626-48.

Kentikelenis, Alexander E, Thomas H Stubbs and Lawrence P King. 2016. "Imf Conditionality and Development Policy Space, 1985–2014." *Review of International Political Economy* 23(4):543-82.

Kentikelenis, Alexander E and Sarah Babb. 2019. "The Making of Neoliberal Globalization: Norm Substitution and the Politics of Clandestine Institutional Change." *American Journal of Sociology* 124(6):1720-62.

Kerckhoff, Alan C. 2001. "Education and Social Stratification Processes in Comparative Perspective." *Sociology of Education* 74:3-18.

Ladner, Andreas, Nicolas Keuffer and Harald Baldersheim. 2016. "Measuring Local Autonomy in 39 Countries (1990–2014)." *Regional & Federal Studies* 26(3):321-57.

Levitsky, Steven and Lucan A Way. 2002. "Elections without Democracy: The Rise of Competitive Authoritarianism." *Journal of democracy* 13(2):51-65.

Lindberg, Staffan I, Michael Coppedge, John Gerring and Jan Teorell. 2014. "V-Dem: A New Way to Measure Democracy." *Journal of democracy* 25(3):159-69.

Lührmann, Anna, Kyle L Marquardt and Valeriya Mechkova. 2020. "Constraining Governments: New Indices of Vertical, Horizontal, and Diagonal Accountability." *American Political Science Review* 114(3):811-20.

Manor, James. 1999. *The Political Economy of Democratic Decentralization*: World Bank.

Mauceri, Philip. 1997. "Return of the Caudillo: Autocratic Democracy in Peru." *Third World Quarterly* 18(5):899-912.

McGinn, Noel and Thomas Welsh. 1999. *Decentralization of Education: Why, When, What and How?* Paris: UNESCO, International Institute for Educational Planning.

Merkel, Wolfgang and Aurel Croissant. 2004. "Conclusion: Good and Defective Democracies." *Democratization* 11(5):199-213.

Meyer, John W, John Boli, George M Thomas and Francisco O Ramirez. 1997. "World Society and the Nation-State." *American Journal of Sociology* 103(1):144-81.

Mundy, Karen and Antoni Verger. 2015. "The World Bank and the Global Governance of Education in a Changing World Order." *International journal of educational development* 40:9-18.

O'Driscoll, Dylan. 2017. "Autonomy Impaired: Centralisation, Authoritarianism and the Failing Iraqi State." *Ethnopolitics* 16(4):315-32.

Owen, John M. 2002. "The Foreign Imposition of Domestic Institutions." *International organization* 56(2):375-409.

Reimers, Fernando. 1994. "Education and Structural Adjustment in Latin America and Sub-Saharan Africa." *International journal of educational development* 14(2):119-29.

Reinsberg, Bernhard, Alexander Kentikelenis, Thomas Stubbs and Lawrence King. 2019. "The World System and the Hollowing out of State Capacity: How Structural Adjustment Programs Affect Bureaucratic Quality in Developing Countries." *American Journal of Sociology* 124(4):1222-57.

Rondinelli, Dennis A, James S McCullough and Ronald W Johnson. 1989. "Analysing Decentralization Policies in Developing Countries: A Political-Economy Framework." *Development and change* 20(1):57-87.

Scartascini, Carlos, Cesi Cruz and Philip Keefer. 2020. "The Database of Political Institutions 2020 (Dpi2020)." *Washington, Banco Interamericano de Desarrollo*.

Slater, Dan. 2003. "Iron Cage in an Iron Fist: Authoritarian Institutions and the Personalization of Power in Malaysia." *Comparative Politics*:81-101.

Steiner-Khamsi, Gita and Hubert O Quist. 2000. "The Politics of Educational Borrowing: Reopening the Case of Achimota in British Ghana." *Comparative Education Review* 44(3):272-99.

Steiner-Khamsi, Gita. 2006. "The Economics of Policy Borrowing and Lending: A Study of Late Adopters." *Oxford Review of Education* 32(5):665-78.

Svensson, Jakob. 2003. "Why Conditional Aid Does Not Work and What Can Be Done About It?". *Journal of Development Economics* 70(2):381-402.

Takala, Tuomas and Nelli Piattoeva. 2012. "Changing Conceptions of Development Assistance to Education in the International Discourse on Post-Soviet Countries." *International journal of educational development* 32(1):3-10.

Thimmaiah, G. 2000. "Decentralization and Economic Development: Indian Experience." *Hitotsubashi Journal of Economics* 41(2):123-36.

Van Assche, Jasper, Arne Roets, Alain Van Hiel and Kristof Dhont. 2019. "Diverse Reactions to Ethnic Diversity: The Role of Individual Differences in Authoritarianism." *Current Directions in Psychological Science* 28(6):523-27.

Van de Werfhorst, Herman G and Jonathan JB Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective." *Annual review of sociology* 36:407-28.

Vasilyeva, Olga and Alexander Libman. 2020. "Varieties of Authoritarianism Matter: Elite Fragmentation, Natural Resources and Economic Growth." *European Journal of Political Economy* 63:101869.

Velez, Yamil Ricardo and Howard Lavine. 2017. "Racial Diversity and the Dynamics of Authoritarianism." *The Journal of Politics* 79(2):519-33.

Vogt, Manuel, Nils-Christian Bormann, Seraina Rüegger, Lars-Erik Cederman, Philipp Hunziker and Luc Girardin. 2015. "Integrating Data on Ethnicity, Geography, and Conflict: The Ethnic Power Relations Data Set Family." *Journal of Conflict Resolution* 59(7):1327-42.

Waks, Leonard J. 2006. "Globalization, State Transformation, and Educational Re-Structuring: Why Postmodern Diversity Will Prevail over Standardization." *Studies in Philosophy and Education* 25(5):403-24.

Winkler, Donald R. 1989. *Decentralization in Education: An Economic Perspective*, Vol. 143. Washington, DC: World Bank.

World Bank. 2013. "Education Quality, Governance and Institutional Strengthening Project." Vol. *Implementation Completion and Results Report (IDA-43810).* Washington, DC: Author.

World Bank. n.d.-a. "Population." Washington, DC: World Bank.

World Bank. n.d.-b. "Gdp Per Capita (Current Us$)." Washington, DC: World Bank.

World Bank. n.d.-c, "Projects & Operations", Washington DC: World Bank. Retrieved 15 May 2021, 2020 (https://projects.worldbank.org/).

Paper 3

Blaming international organisations? The association between World Bank projects and changes in the standardisation of educational systems in 30 LMICs, 1990 to 2019

Mobarak Hossain

Abstract

An overwhelming body of research in social sciences has investigated the influence of international organisations (IOs) in reforming the institutions of low- and middle-income countries (LMICs). One of these frequently mentioned reform areas is the de-standardisation of educational systems by devolving educational responsibilities to local government and school levels primarily led by the World Bank (WB). However, there is little evidence investigating whether the efforts of the WB through different projects have changed the actual state of educational systems in LMICs. Our study is the first to provide evidence examining whether WB's implementation of projects to decrease the standardisation of educational systems is associated with changes in the actual state of de-standardisation. We utilise new and unique country-level panel data to investigate this puzzle, which we built through extensive archival research on 30 LMICs spanning 30 years from 1990 until 2019. Surprisingly, in contrast to decades-long claims in the literature, we find no evidence of the association between WB's efforts to de-standardise educational systems and actual changes on the ground across these LMICs. Our results also suggest that the higher number of ethnic groups is associated with the de-standardisation of educational systems at the school level. We argue that actual institutional changes in the education sector of LMICs may not result from a coercive approach of IOs due to aid dependency. It may rather be a constructivist mechanism, which means once world society associations adopt certain norms and practices they spread everywhere by construction, not by force. While the results are specifically related to the de-standardisation of educational systems, these may point towards considering other socioeconomic and political forces that are often overlooked but may be driving institutional reforms in LMICs.

Keywords: educational systems, de-standardisation, World Bank, international organisations, Global South

An enormous body of literature has studied how international organisations (IOs) promote reforms in political and social institutions in low- and middle-income countries (LMICs). The scale of reforms by IOs, especially by the World Bank (WB) and the International Monetary Fund (IMF), has been well researched with empirical data (e.g., Hossain 2022, Kentikelenis, Stubbs and King 2016, Steiner-Khamsi 2006). This is also known as policy diffusion by IOs from the Global North to the South (Steiner-Khamsi and Quist 2000). One of the frequently mentioned reforms by the WB is that the organisation has been implementing reforms to devolve educational responsibilities to the sub-national (e.g., regions and districts) and school levels. As demonstrated in the first paper of this dissertation, this process can be defined as de-standardisation. This is because by providing local institutions more managerial autonomy, by transferring responsibilities and establishing or strengthening the capacity of local institutions, educational systems in LMICs are less likely to maintain the same standards across a country (Hossain 2022, Kerckhoff 2001).

Existing research claims that these types of reforms have been diffused across LMICs primarily by the WB (Geo-Jaja 2004, Kristiansen 2006, Meade and Gershberg 2008, Naidoo 2005, Pritchett 2014)[20]. While very small, empirical evidence also suggests a steep increase in the growth of de-standardisation reforms in LMICs, especially since the late 1980s onwards. Hossain (2022) finds that 63 percent of WB project components in primary and secondary education have focused on de-standardisation reforms. A strand of research in this area is typically concerned with

[20] While the reforms are commonly termed as de-centralisation or devolution, Hossain (2022) explains why these should rather be called de-standardisation. In short, the main reason is that the purpose of these reforms is to encourage local participation in decision making processes with contextual and customised information. This means the policy formulation and implementation processes are likely to differ (not maintain the same standards) across local entities in a country.

assessing the impact of de-standardisation-like reforms on certain outcomes, such as learning outcomes or school quality (Elacqua et al. 2021). Nevertheless, there is limited research enquiring whether IOs-led projects have actually resulted in decreasing the standards of educational systems in the first place. For instance, research often examines the impact of school-based management (SBM), implemented by the WB as part of de-standardising educational systems, on learning outcomes. However, almost no focus is given on whether the WB-led SBM projects have changed school management systems and practices at all or if the SBM initiatives continue functioning. Additionally, past research offers limited explanations examining why WB-led de-standardisation reforms may or may not have led to any changes on the ground.

Our study is the first to examine the relationship between the implementation of WB-led de-standardisation reforms and factual changes in decreasing the standards of educational systems in 30 LMICs. To do this, our analysis is based on country level unique panel data between 1990 and 2019. As suggested in the introduction to the dissertation, this paper (paper 3) connects the previous two chapters by examining whether the activities of the WB are linked to factual changes. In doing so, the paper further examines whether school- and sub-national level de-standardisation reforms by the WB correspondingly predict decreasing the actual level of standardisation of educational systems in LMICs. The study also offers insights into potential mechanisms of the relationship between WB-led de-standardisation reforms and actual changes. By actual state of de-standardisation in the paper, we refer to the process of decreasing standards of educational systems. Hence, we use the terms, state and process of de-standardisation interchangeably.

To summarise, our study contributes to the current literature in three unique and original ways. First, this is the first study to examine how the WB-led projects may be linked to changing educational systems in LMICs. Second, the study contains 30 LMICs from all developing regions

of the world with over time data between 1990 and 2019. Existing research lacks cross-country analysis using such a sizeable sample. Third and most importantly, we utilise two unique and untapped datasets which we built through extensive archival research over a year. Specifically, our measures of the actual state of de-standardisation of educational systems are new and very comprehensive compared to what past research has used even from high-income countries. The measures on WB-led de-standardisation reforms are also unique and required half a year of coding historical WB project documents.

Mechanisms Linking World Bank Projects to Actual Changes in the De-standardisation of Educational Systems in LMICs

We discuss three theoretical mechanisms to understand how far the actions of the WB may bring changes in the actual state of educational systems: namely, (1) coercion and (2) constructivism arguments about why world society associations such as the WB diffuse policy reforms across countries, and (3) contextual hindrances in LMICs such as informal governance and corruption. While the first factor implies that WB-led projects may play a determinant role to change actual state of de-standardisation, the second and third factors signify that there are other factors than simply WB's actions that change educational systems in LMICs. We elaborate the three factors under two broad categories in the following.

In this study, we build some expectations based on existing theories about how policies diffuse. These expectations do not allow us to formally test hypotheses about whether the three mechanisms mentioned here can drive changes in the educational systems in LMICs. This is due to a lack of data on the respective mechanism, especially on coercion and constructivism arguments. Hence, our expectations and their reflections in the subsequent regression analyses are

descriptive in nature and do not refer to causality although we strive to minimise the sources of bias.

WB Projects and Actual Changes

The *coercion* theory posits that policy models are diffused forcibly by great powers. This is to expand their influence by promoting their institutions globally and to keep the party aligning with their ideological views as incumbent regime (Owen 2002). Coercion can also take place in many other ways such as by manipulating the market price and costs and benefits due to monopoly of powerful countries over global markets, information and expertise. It can also happen by relying on financial assistance of rich nations and IOs in the forms of aid and foreign direct investment (FDI) (Kentikelenis and Babb 2019, Mosley, Harrigan and Toye 1995, Reinsberg et al. 2019).

If the coercion mechanism maintains to be true to bring factual changes in the educational systems, we expect to see a significant positive association between the WB-led de-standardising reforms in LMICs and the process of the de-standardisation of educational systems. To elaborate, as the past literature suggests, institutional reforms by the WB come as condition to receive financial assistance (Kentikelenis, Stubbs and King 2016, Nanda 2006). This has increasingly been happening since the 1980s due to a shift in development actors' focus from merely financial assistance to policy reforms (Dollar and Svensson 2000) to make the public service delivery systems more efficient (Dollar and Easterly 1999). Donors have also made pronouncements to cut off aid should the receiving countries not adhere to these conditions (Robinson 1993). Similar reforms have taken place in de-standardising educational systems (Hossain 2022) as 80 percent developing and emerging economies in different regions were experimenting with devolving institutions in the late 1990s (Manor 1999). Institutional reforms in LMICs by IOs such as the WB and International Monetary Fund (IMF) come as a part of conditional assistance (Kentikelenis,

Stubbs and King 2016, Kentikelenis and Babb 2019). This suggests that de-standardisation reforms implemented by the WB through financial assistance meet the definition of the coercive approach of policy diffusion. This would qualify a significant association between WB projects and factual changes in decreasing the standards of educational systems to indicate a coercive approach to policy diffusion.

Nonetheless, an absence of any significant association between the WB-led projects and actual changes on the ground would only suggest that the coercive mechanisms may not have translated into bringing factual changes in the actual state of educational systems. This does not mean that no coercive actions by IOs have not been in play. Additionally, our assumptions about coercion mechanism would equally apply to both the sub-national and school level de-standardisation since the WB has increasingly implemented reforms at both levels as shown in papers 1 and 2.

WB Projects and No Actual Changes

Second, in contrast to coercion argument, *constructivists* contend that policy diffusion is a socially constructed issue in a global culture which is broadly agreed by a set of actors (Berger and Luckmann 1966, Meyer et al. 1997). Proponents of this view suggest that the diffused reforms are inherently accepted by receiving countries as because the models might have worked in exemplar countries, for instance high-income countries. In this way, it takes the direction of a 'follow-the-leader' approach (Dobbin, Simmons and Garrett 2007). Similarly, past research also argues that nation-states are usually willing to accept the diffused policy reforms, for instance, by the WB (March and Simon 1993). Dobbin, Simmons and Garrett (2007) suggest that policy models can also diffuse for learning purposes, that is, countries learn from each other the best models, which may not necessarily involve IOs' interventions. Countries can do it to increase economic

competition (Sinn and Ochel 2003). In short, this second mechanism contends that no matter if certain policy reforms by IOs are conditional on aid or even no matter who are promoting certain policy models, the reforms will get diffused in nation-states inevitably by construct. This is the inherent character of the globalised world.

For de-standardisation reforms, the constructivists' view would mean that de-standardisation reforms have been diffused to bring actual changes across LMICs somewhat without any force or coercive action. To elaborate, after the Cold War era in the late 1980s and the beginning of the 1990s, development actors including the WB and powerful states such as the US and allies promoted de-standardisation-like reforms. These reforms have been seen as recovery methods from ineffective centralised bureaucracy which could not provide public services effectively (Rondinelli, McCullough and Johnson 1989). Countries in the former Soviet Union were characterised by more authoritarian in nature and public services such as education were more standardised across a country. Therefore, if we follow the constructivists' argument, actual changes (not IOs' reforms) in the process of de-standardisation may have arguably taken place because countries willingly accepted these reforms to improve education service delivery system. This could be because these policy models were working better in exemplar countries. This means even had the WB and other IOs not promoted these reforms, LMICs would have implemented them by learning from other countries due to the effects of globalisation.

If this *second* view is to hold, we may not observe any association between the implementation of the WB-led de-standardisation projects and the actual state of the process of de-standardisation of educational systems in LMICs. In other words, it would mean that countries innately decrease the standardisation of educational systems, not necessarily by being pushed by the WB. Other sources such as globalisation and the diffusion of knowledge through different

media and global summits may help countries learn from each other and implement these reforms. Nevertheless, if an association between WB projects and factual changes is not found, it would not necessarily mean that no coercive actions have taken place. It would only mean that despite 'coercive mechanisms' have taken place such as conditional aid, factual changes do not seem to be associated with those actions. Thus, it is probably not the WB but other socioeconomic factors, which may have decreased the standards of educational systems.

We rely on the relationship between the WB-promoted de-standardisation and actual state of changes in the educational systems is because these institutional reforms from IOs often come with conditional aid, that is, the implementation of reforms is a condition to receive financial assistance, which we explain in the next point. Hence, an association between and changes on the ground would indicate that LMICs have brought changes in their educational systems by force – that is, by receiving WB's conditional assistance – but not by construction. Similar to coercive mechanism, our assumptions are the same for de-standardisation at the sub-national and school levels, both in terms of WB projects and factual changes.

The *third* mechanism is the weaknesses in the institutions of LMICs which may hinder the implementation process of WB's de-standardisation reforms. Precisely, past research expresses scepticism about the effective implementation of some of the de-standardisation reform elements in LMICs. This is mainly because of two factors, namely, the pervasive existence of clientelism and corruption in the public sector. The former refers to cleintelistic relationships between individuals for material goods, services or other benefits in exchange for political support (Hicken 2011). Corruption can be simply understood as the use of government property or public office for personal gain (Shleifer and Vishny 1993). For instance, research from Ghana suggests that de-standardisation-like reforms at the school level such as school-based management (SBM) and

more autonomy have been implemented by IOs in the country. However, even though some of these projects were implemented, schools' autonomy in formulating and implementing policies still remain a distant dream. This is because local political actors have occupied the power of school governance instead of transferring it to local communities and stakeholders. Although IOs including the WB advocate for these policies, they are not directly involved in implementing them and actual tasks are carried out by national and local agencies (Essuman and Akyeampong 2011). Hence, without addressing existing problems in institutions, the implementation of de-standardisation reforms may not come true. Similarly, Joshi (2014) documents the use of excessive power by local political actors in the newly reinforced school management committee in Nepal. Because of this, parents choose to send their children to private schools if they can afford. Similar instances have been observed in other LMICs (Kingdon et al. 2014, Nishimura 2017). Moreover, Hossain (2021) finds that some of the de-standardisation elements such as more community participation in managing school affairs, which have been promoted across LMICs, do not necessarily result in expected changes. Additionally, similar reforms in Indonesia has led to a lack of transparency and accountability in spending while increased education-related expenditure (Kristiansen 2006).

To sum up, if this mechanism comes into play, we may see that there is no relationship between WB reforms and actual changes in the process of de-standardisation. But the relationship between these two variables may appear when controlling for institutional weaknesses, i.e., clientelism and corruption. In other words, institutional weaknesses may play a mediating role given that the third mechanism is influencing how WB reforms bring actual changes in educational systems.

As explained, these theoretical expectations are explained to guide the empirical findings in the following section, but these do not allow us to draw causal conclusion. Table 1 summarises the potential direction of relationship between WB reforms and actual changes in the process of de-standardisation under three mechanisms.

Table 1. Potential direction of relationship between WB-led de-standardisation reforms and actual changes in educational system under the three mechanisms

Mechanism	Relationship between WB reforms and actual de-standardisation
1. Coercion	Positive association
2. Constructivism	No association
3. Institutional weaknesses	Positive association once institutional factors are held constant

To test these three potential diffusion mechanisms, we utilise two uniquely built datasets: the first dataset on WB-led de-standardisation projects and the second one on the actual state of the process of de-standardisation in 30 LMICs. We explain the data and variables in the following section, then present results followed by discussion and conclusion.

Methodology

Data and variables

To answer the research puzzle explained in the previous section, our outcome variables are the actual state of the process of the de-standardisation of educational systems at the (i) sub-national and (ii) school levels. These are time-varying measures for 30 years from 1990 until 2019. These measures come from an original dataset, which we construct on 30 countries by extensive archival research and coding documents from three different sources. We explain this more in the specific variable section below. The key explanatory variables are WB-led projects implemented to de-standardise educational systems across LMICs. Similar to the outcome variables, we also have two corresponding measures for this, that is, (i) sub-national- and (ii) school-level de-

standardisation reforms implemented by the WB. These measures are the same as used in papers 1 and 2. The dataset was built by archival research on all available WB projects (around 900) on primary and secondary education in 99 historical and present LMICs. While there are 99 countries in the previous two papers in this dissertation, our sample is limited to 30 countries in this paper corresponding to the outcome variables for the time span of 1990-2019. This is due to the lack of data on the actual state of de-standardisation on more countries. Despite this, our sample represents countries from all major developing regions where the WB has implemented de-standardisation reforms. The observation units in the study are country-years.

Actual state of de-standardisation

As stated, we construct the measures on the actual state of the de-standardisation of educational systems by archival research of over a year between January 2021 and February 2022. This variable observes the changes in the process of de-standardisation within countries from 1990 until 2019. The observation units are country-years. We code documents from three consistent sources: (1) the UNESCO Bureau of Education (IBE) (International Bureau of Education 2007, 2011), (2) the UNESCO right to education (RTE) database (UNESCO n.d.), and (3) national laws and policy documents. Approximately, we code about 75 percent of data from IBE, which provides information about educational systems worldwide using a uniform format for each country. Specifically, IBE prepared country reports on educational systems in 2007 and 2011. The reports have detailed information about historical changes in educational systems within each country in a standard format. This allowed us to construct these measures over time since 1990 from a systematically organised source (International Bureau of Education 2007, 2011). However, we do not go beyond this time as the information is not detailed for before 1990.

For the time points before 2011, when the latest reports were published by the IBE, we relied on the UNESCO right to education database and national education law or policy documents, the second and third sources listed above. We also used these two sources to code data before 2011 if some information was not available from the IBE reports. The UNESCO RTE database has gathered a comprehensive list of country-specific national education laws and policies including on educational systems over time. The collection includes countries' all relevant and available historical and present education documents (UNESCO n.d.). If some information was not available in this source, we searched on google or visited the website of the ministry of education for specific countries to look at the national education laws or policies. The use of multiple and extensive sources over time makes our dataset rigorous and the most comprehensive one to date in this field.

We coded 10 indicators of the actual state of de-standardisation for both school and sub-national levels. The indicators are de-standardisation of educational systems in deciding (1) curriculum, (2) textbook, (3) assessment or exit exam, (4) admission to school, (5) teacher recruitment, (6) teacher initial and (7) in-service training, (8) budget source and (9) implementation, and (10) inspection or supervision. We argue that the selected responsibilities can be de-standardised both at the sub-national and school levels. For instance, educational budget provision and allocation can largely be the responsibilities of the central and sub-national agencies. But some of these tasks can also be dislocated to the school level including, but are not limited to, collection of different fees and donations and the autonomy how to spend these. To the best of our knowledge, these are the most comprehensive measures up to now in a single study to capture the process of de-standardisation in LMICs, which existing literature lacks (e.g., Gamoran 1996, Van de Werfhorst and Mijs 2010). Nevertheless, the indicators are consistent with the relevant

literature. One or more of the indicators including curriculum, assessment, teacher recruitment and budget management have been used in past studies to measure how standardised educational systems are mainly from high-income contexts (Bishop 1997, Bukodi et al. 2018, Chmielewski and Reardon 2016, van Hek, Buchmann and Kraaykamp 2019). We follow a three-step process to construct the measure of the actual state of de-standardisation at both levels.

First, we create a dummy for each of the 10 indicators at both sub-national and school levels. The dummies indicate whether a responsibility is partly or fully performed by the respective level. To create the 10 dummies for sub-national level we code 1 when the selected responsibilities are either (1) solely performed by sub-national entities (districts, regions or other entities between schools and the central governments); or (b) shared by sub-national entities and the central government; or (c) shared by schools, sub-national entities and/or the central government. These conditions include points 2, 3 and 4 in Table A1 in the appendix. The remaining points (1, 5 and 6) are coded 0 meaning there is no de-standardisation at the sub-national level.

Similarly, to create the 10 dummies at the school level, we code 1 for school school-level de-standardisation when responsibilities are decided either (a) solely by school actors such as the school management committee (SMC), principals or teachers; or (b) shared between schools and the central government; or (c) shared between school actors, local governments and/or the central government. These conditions include points 4, 5 and 6 in Table A1 in the appendix. The other three conditions are coded 0 for school-level de-standardisation, or no de-standardisation at the school level.

In the second step, to simplify the information from 10 dummies at the sub-national and school levels, we employ item response theory (IRT). By doing so, we create two continuous indices for the (i) sub-national and (2) school levels. IRT is often used to create continuous indices

of observed outcomes from categorical responses of latent or unobserved characteristics (Fraley, Waller and Brennan 2000). IRT, also known as latent trait analysis, is useful in our case since we do not observe all aspects of de-standardisation of educational systems by the 10 indicators. This is also a major limitation in the existing literature that uses one or a few indicators to refer to how standardised a system is. IRT allows to produce a more robust measurement of de-standardisation as a latent concept.

Nonetheless, we also run robustness checks by creating de-standardisation indices at both levels using simple arithmetic mean of the 10 indicators and multiple correspondence analysis (MCA), which is a widely used technique to collapse a set of categorical variables into a few components. MCA is considered a special case of principal component analysis (PCA) applied directly to categorical variables (Di Franco 2016). As shown in Figures A1 and A2 in the appendix, there is a very strong correlation between the measures applying three approaches – IRT, arithmetic mean, and MCA – at both levels.

Finally, in the third step, we standardise the two de-standardisation indices with a mean of close to 0 and a standard deviation of 1. This is to help easily interpret the results. Figure 1 presents both indices in the findings section together with WB-led de-standardisation reforms.

WB-led de-standardisation reforms

WB-led de-standardisation reforms at the (i) sub-national and (ii) school levels are the continuous percentage variables ranging between 0 to 1. These are the same measures as used in papers 1 and 2. These measures denote the proportion of WB project components that have been implemented to de-standardise educational systems. Each WB project has a number of components. Hence, we calculate the proportion of components dedicated to these institutional reforms. We explain the construction of these measures in detail in papers 1 and 2 (Hossain 2022).

In this paper, to help aid the interpretation of results (alongside the measures of the actual state of de-standardisation), we also standardise both indices with a mean of close to 0 and a standard deviation of 1 (see Figure 1 for the indices along with the actual state of de-standardisation).

Other explanatory variables

Similar to the development and independent variables, the control variables in the analyses are also at the country-year level. First, 'global goals about education' is a categorical variable indicating (1) the period before the millennium development goals (MDGs) were declared or between 1990 and 1999; (2) the time between the declaration of the MDGs and the sustainable development goals (SDGs), that is, 2000-2014; and (3) the declaration of the SDGs in 2015 and onwards. De-standardising educational systems may have partly been steered by these global goals as countries learn from technical expertise of IOs resulting from global goals. These goals are unlikely to directly influence WB's de-standardisation reforms since the growth of WB reforms has not specifically followed these particular global goals (Hossain 2022).

Second, the log of GDP per capita of countries, which is a time-varying continuous variable (World Bank n.d.-a). Economic resources of countries may play a role of how far they would be able to de-standardise educational systems. However, we do not assume this variable as a confounder as paper 2 demonstrates that there is no significant correlation between the GDP per capita and WB's projects to de-standardise educational systems.

Third, the share of ethnic groups is a time-varying percentage variable, which means politically relevant ethnic groups that have access to central state power (Vogt et al. 2015). Ethnic groups having access to power to raise their voice may demand to de-standardise educational systems. Especially, existing literature suggests that countries with higher diversity may require de-standardising educational systems to accommodate the needs of heterogeneous populations

(Clune 1993, Waks 2006). Fourth, the population size is a time-varying continuous indicator (World Bank n.d.-b). The population size may drive countries to de-standardise educational systems to effectively serve a large population. Similar to the GDP per capita variable, the share of ethnic groups and population size are not expected to be confounders as paper 2 finds no such direct linkage with WB's de-standardisation projects.

Fifth, 'electoral decentralisation of local governments' is a composite index taken from V-Dem (Coppedge et al. 2021), where the lowest score means there are no elected local government bodies. A high score in the variable means that local governments are elected and can operate without being restricted by unelected local actors except for judicial bodies. This is proxy to how autonomous local governments are, which may influence a country's approach to de-standardising the educational systems. As we argue in paper 2, the decentralisation of educational systems would not be directly linked to WB's de-standardisation projects, but authoritarianism. Thus, we do not suppose this as a confounder.

Sixth, we control from two variables – clientelism and public sector corruption – indicating informal governance and institutional weaknesses, which may influence how far countries can de-standardise educational systems. As indicated in the theoretical section, past research finds these factors as common hindrances to implementing de-standardisation reforms despite frequently being suggested by IOs. Even when countries implement projects, these might not result in changing the degree of de-standardisation due to institutional weaknesses. This means the relationship between WB's de-standardisation projects and changes in actual de-standardisation may be mediated by these two variables.

Here, clientelism is a continuous measure which means clientelistic relationships for targeted and contingent distribution of resources such as goods, services, jobs and money in

exchange for political support. Corruption is also a continuous measure referring to the extent to which public sector employees grant favours in exchange for bribes, kickbacks, or other material inducements, and their propensity to steal, embezzle, or misappropriate public funds or other state resources for personal use or gain. Both variables come from V-Dem (Coppedge et al. 2021). Table A2 in the appendix provides summary statistics for all the variables.

Modelling

To investigate the association between the changes in the WB-led de-standardisation reforms and the changes in the actual state of de-standardisation of educational systems in LMICs, we employ two-way country and year fixed effects models. The year fixed effects help account for any secular trends in the actual state of de-standardisation across years. The country fixed effects help eliminate time-invariant country-specific unobservable characteristics. Since our sample includes LMICs from around the world, country heterogeneity due to unobserved factors would be a concern. As shown in equation 1,

$$\boldsymbol{A}_{it} = \beta_0 + \beta_1 \mathrm{D}_{it} + \boldsymbol{\beta}_2 \mathbf{V}'_{it} + a_i + u_{it} \quad (1)$$

$\boldsymbol{A}$ is the outcome variables about the actual state of the process of de-standardisation at the sub-national or school level in country $_i$ and time $_t$. β_0 is an intercept, β_1 is the coefficient for WB-led implementation of de-standardisation projects D and β_2 is the vector of coefficients for the control variables $\mathbf{V}'$ as listed in the variable section. a is country fixed effects and u is the country-year error term.

However, similar to the arguments we made in paper 2, one may contend that the effects of WB's actions may not be immediate to see actual changes in the degree of de-standardisation. It may take a considerable time to bring changes in the actual state of educational systems. To account for this factor, we fit equation 2 in which,

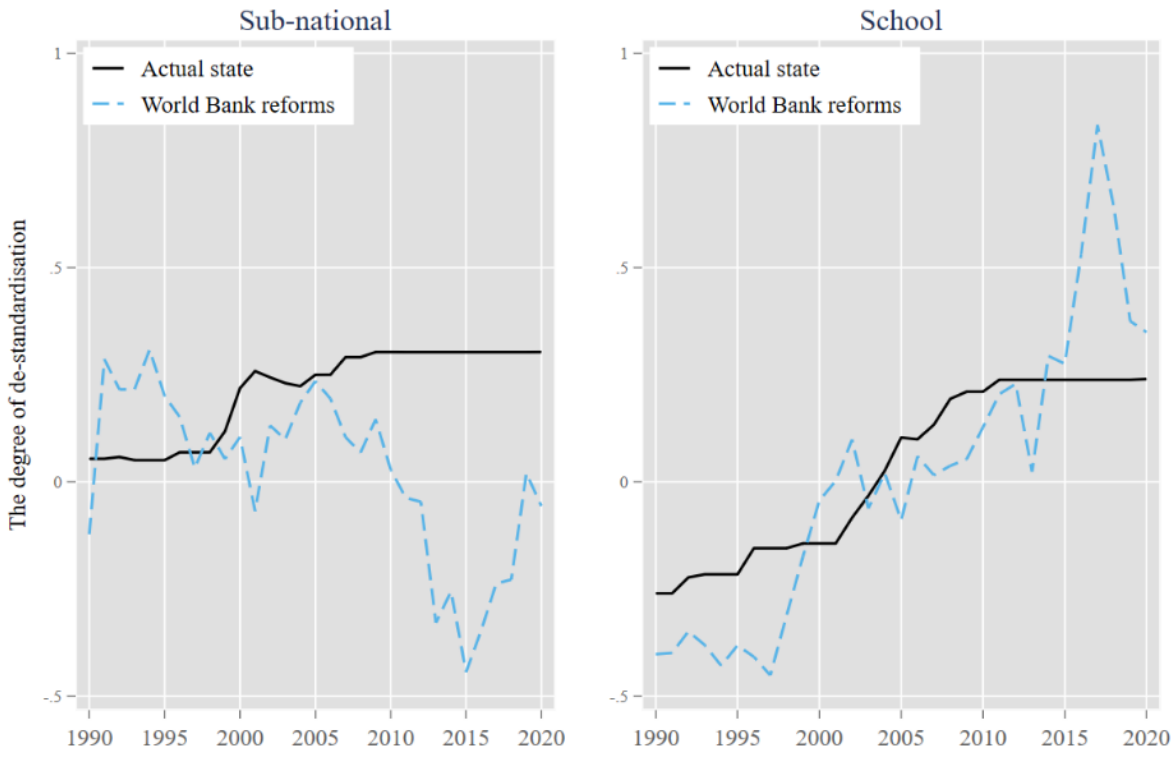
$$\boldsymbol{A}_{i,t} = \beta_0 + \beta_1 \mathrm{D}_{i,t-h} + \boldsymbol{\beta}_2 \mathbf{V}'_{i,t-h} + a_i + u_{i,t} \quad (2)$$

we lag the independent variables including the key variables – WB-led implementation of de-standardisation reforms at the sub-national and school levels. Equation 2 is quite similar to equation 1 except that the explanatory variables are lagged in the model. This model will demonstrate the effects of WB reforms on changing actual state of educational systems after a few years. We employ 4 years of lag in the explanatory variables since there are elections at the national and local levels in every 4 to 5 years in most countries that are constitutionally democratic (Scartascini, Cruz and Keefer 2020). To note a caveat, having an election does not necessarily indicate countries' true state of democracy. We lag on political aspects since national level adoption of large-scale public policies, such as de-standardisation-like reforms, is largely dependent on incumbent regimes as we show in paper 2. Hence, the 4-year lag would capture significant political events since election periods in LMICs, especially in fragile democracies, are often marked by controversies such as repressing opposition forces (Bhasin and Gandhi 2013). These events are likely to influence formulating and implementing new public policies and reforms such as de-standardisation. We present the results from lag 4 since more cut off points lead to losing considerable number of observations. We, nevertheless, run analysis on different cut-off points to lag variables for robustness checks and do not find very different results.

Finally, WB reforms may more likely lead to changes in countries with the low level of actual de-standardisation at the starting point. To account for this, we run the same models separately on countries with lower- and higher-level of actual de-standardisation in 1990 as presented in Table 4.

Findings

Figure 1. Descriptive trends in the actual state of de-standardisation and World Bank's reforms about this at the school and sub-national levels, 1990-2019.



Notes: The y-axis represents a standardised scale for both the actual state of de-standardisation and WB reforms with a mean of around 0 and a standard deviation of 1. The transformation to standardise the measures is explained in the variable section.

Figure 1 presents a descriptive overview of the process of the actual state of de-standardisation at the sub-national and school levels, as well as WB's corresponding reforms. The graph shows a steep growth in the process of actual de-standardisation at both levels, more so at the school level since changes also started earlier at this level. Moreover, we see a greater mismatch between the trend in WB reforms and actual changes at the sub-national level compared to that of school level. Precisely, while the trend in actual changes is going upward, the WB reform trend is downward after an increase in the early 1990s and then plummeting until 2015 before taking a

spike again. However, as shown in papers 1 and 3, there was a rise of WB reforms at the sub-national level throughout the 1980s. Unfortunately, for the actual state of de-standardisation, we do not observe the trend before 1990 due to a lack of data. This does not allow us to examine the extent to which countries changed their educational systems before 1990 compared to WB reforms. But the efforts of the WB in implementing these reforms at the sub-national level have not been absent. As we show in paper 1, the trend remains static after 1990, which could have happened as some countries may have reached maximum point in receiving reforms from the WB. Additionally, the trend in both actual changes and WB reforms has been upward, but the former has remained static after 2011 while the latter has risen. Overall, the descriptive trend shows a mismatch between the WB reforms and the actual state of de-standardisation. We formally test this in the following analyses.

Results from our regression models in Tables 2 and 3 demonstrate that there is no significant association between WB-led implementation of the de-standardisation reforms and changes in the actual state of the de-standardisation of educational systems. This holds the same for both sub-national level (Table 2) and school level (Table 3).

To elaborate, we employ equation 1 to estimate models 1 through 7 in Tables 2 and 3 considering two-way country and year fixed effects. Model 9 in both tables is estimated using equation 2 by lagging the independent variables in addition to two-way fixed effects. As illustrated in model 1 in Table 1, the association between the changes in WB-led implementation of de-standardisation reforms at the sub-national level and the changes in the actual state of de-standardisation at the corresponding level is not significant. Apart from statistical significance, the coefficient is also very small, that is, with an increase of one standard deviation in WB-led de-standardisation projects, the actual state of de-standardisation changes for .002 standard deviation.

Are WB-led Projects and the Actual State of De-standardisation Associated?

Table 2. The association between WB-led de-standardisation reforms and the actual de-standardisation of educational systems at the sub-national level, 1990-2019.

	Sub-national level actual de-standardisation							
	Two-way fixed effects models							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sub-national de-standardisation by WB	-0.0023	-0.0070	-0.0070	-0.0062	-0.0022	-0.0016	0.0017	
	(0.037)	(0.036)	(0.036)	(0.036)	(0.035)	(0.035)	(0.033)	
Sub-national de-standardisation by WB (lag 4)								0.014
								(0.027)
School de-standardisation by WB		0.040	0.040	0.041	0.046	0.047	0.024	
		(0.027)	(0.027)	(0.027)	(0.026)	(0.026)	(0.023)	
School de-standardisation by WB (lag 4)								0.031
								(0.022)
Global goals (ref. UN goals until MDGs in 2000)								
MDGs in 2020 until 2015			0.28*	0.38	0.30*	0.38	0.29	0.33
			(0.13)	(0.29)	(0.13)	(0.29)	(0.24)	(0.17)
SDGs in 2015			0.29*	0.39	0.30*	0.39	0.28	0.32
			(0.13)	(0.30)	(0.13)	(0.30)	(0.24)	(0.18)
GDP per capita (log)				-0.050		-0.043	-0.028	
				(0.12)		(0.12)	(0.11)	
GDP per capita (log) (lag 4)								-0.056
								(0.089)
Share of ethnic groups					0.37	0.36	0.36	
					(0.33)	(0.34)	(0.18)	
Share of ethnic groups (lag 4)								0.058
								(0.11)
Population size (in number)					-0.00	-0.00	-0.00	
					(0.00)	(0.00)	(0.00)	

Population size (in number) (lag 4)								-0.00
								(0.00)
Clientelism							-0.12	
							(0.53)	
Clientelism (lag 4)								-0.18
								(0.66)
Public sector corruption							-0.056	
							(0.060)	
Public sector corruption (lag 4)								-0.017
								(0.064)
Decentralisation of local government index							-0.11	
							(0.11)	
Decentralisation of local government index (lag 4)								-0.028
								(0.10)
Constant	-0.052	-0.032	-0.032	1.11	-0.17	0.81	0.97	1.72
	(0.082)	(0.083)	(0.083)	(2.74)	(0.22)	(2.78)	(2.55)	(2.16)
Observations	677	677	677	677	677	677	677	535
Country	30	30	30	30	30	30	30	29

Notes: (a) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001. (b) The lag of independent variables led to decreasing the number of observations in model 9.

Table 3. The association between WB-led de-standardisation reforms and the actual de-standardisation of educational system at the school level, 1990-2019.

	School level actual de-standardisation							
	Two-way fixed effects models							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School de-standardisation by WB	-0.025	-0.026	-0.026	-0.034	-0.013	-0.021	-0.024	
	(0.029)	(0.031)	(0.031)	(0.031)	(0.028)	(0.028)	(0.029)	
School de-standardisation by WB (lag 4)								-0.0063
								(0.031)
Sub-national de-standardisation by WB		0.011	0.011	0.0068	0.020	0.015	0.022	
		(0.045)	(0.045)	(0.038)	(0.042)	(0.035)	(0.037)	
Sub-national de-standardisation by WB (lag 4)								0.027
								(0.034)
Global goals (ref. UN goals until MDGs in 2000)								
MDGs in 2020 until 2015			0.37**	-0.22	0.41**	-0.21	-0.16	-0.014
			(0.12)	(0.37)	(0.12)	(0.36)	(0.32)	(0.16)
SDGs in 2015			0.42*	-0.19	0.44**	-0.19	-0.18	-0.083
			(0.16)	(0.45)	(0.16)	(0.44)	(0.37)	(0.21)
GDP per capita (log)				0.30		0.32	0.27	
				(0.19)		(0.19)	(0.19)	
GDP per capita (log) (lag 4)								0.21
								(0.12)
Share of ethnic groups					0.69***	0.71***	0.55***	
					(0.17)	(0.14)	(0.13)	
Share of ethnic groups (lag 4)								0.43*
								(0.17)
Population size (in number)					-0.00**	-0.00**	-0.00*	
					(0.00)	(0.00)	(0.00)	
Population size (in number) (lag 4)								-0.00**
								(0.00)

Clientelism							0.32	
							(0.24)	
Clientelism (lag 4)								0.75*
								(0.32)
Public sector corruption							0.14*	
							(0.055)	
Public sector corruption (lag 4)								0.17***
								(0.043)
Decentralisation of local government index							-0.011	
							(0.15)	
Decentralisation of local government index (lag 4)								-0.0060
								(0.18)
Constant	-0.12	-0.12	-0.12	-7.10	-0.36*	-7.70	-6.31	-5.21
	(0.081)	(0.081)	(0.081)	(4.45)	(0.14)	(4.43)	(4.56)	(2.88)
Observations	677	677	677	677	677	677	677	535
Country	30	30	30	30	30	30	30	29

Notes: (a) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001. (b) The lag of independent variables led to decreasing the number of observations in model 9.

The results remain quite similar when we add controls in the models in Table 2. These specifically include WB-led de-standardisation reforms at the school level in model 2, global goals by the UN in model 3, log of GDP per capita in model 4, and other controls in the subsequent models. We also find similar results in model 8 in Table 2 when we lag the independent variables. This further means that even when we consider that WB projects would take a substantial amount of time to influence the actual state of educational systems, it does not seem to be the case in our analysis. Nonetheless, we observe that the adoption of the UN global goals such as MDGs in 2000 and SDGs in 2015 is significantly associated with positive increases in the actual state of de-standardisation at the sub-national level in model 3 when we do not control for any country characteristics. Once the UN sets some global goals, countries tend to adopt more reforms to enhance educational outcomes aligning with the goals. For instance, education goals in the MDGs and the SDGs emphasised to increase enrolment rates in education and ensure equity and equality by closing the gaps in attainment and achievement between children from different socioeconomic groups, gender and ethnic backgrounds (Jolly 2004, United Nations 2016). Advocates for installing de-standardisation-like reforms in LMICs suggest that these will help achieve higher enrolment, attainment and achievement rates while addressing some of the equity and inequality-related issues (Barrera-Osorio, Fasih and Patrinos 2009).

Nonetheless, the statistical significance for global goals disappears when we control for GDP per capita as shown in model 4. The significance reappears when we remove GDP per capita from model 5 but again disappears in model 6 when we add the variable along with other country characteristics. This probably indicates that GDP per capita mediates how global goals influence the changes in the de-standardisation of educational systems at the sub-national level.

As explained in the theoretical section, these results correspond to our first assumption that de-standardisation reforms may not be a result of a coercion approach since WB-led reforms do not seem to be associated with actual changes on the ground. Even when we add clientelism and corruption in model 7 proxying for institutional weaknesses, the non-significant relationship remains stable. This also confirms that the third mechanism in the theoretical framework may not be in play. The actual changes in educational systems of LMICs might rather have been led by constructivism, which contends that countries implement new reforms or policy models inherently when global society associations diffuse them. De-standardisation-like reforms were diffused by IOs across the world during the 1980s as we argued in the introduction (Manor 1999). We take the results with caution as the findings would only apply to the case of de-standardisation reforms in education, which may not be the case for other systems reforms in LMICs.

We find similar results in the case of changing the actual state of de-standardisation process at the school level in Table 3. As models 1 through 7 in the table suggest, an increase in WB-led implementation of de-standardisation reforms at the school level is not significantly associated with changes in the actual state of de-standardisation process at the same level. Findings remain null in model 8 in Table 3 while adding the lag of independent variables. Additionally, even when we control for the variables referring to institutional weaknesses (clientelism and corruption), the results remain akin. Similar to the sub-national level, we also assume that the decreasing standardisation of systems at the school level, in actual terms, across LMICs might have happened by construct rather than by force due to aid conditionality.

Importantly, unlike sub-national-level de-standardisation, we observe that there is a strong association between the share of ethnic groups and an increase in the actual state of de-standardisation at the school level after adding controls to the models 5 through 8. This may

indicate that in a more diverse society, educational systems need to be more de-standardised as the past literature suggests (Clune 1993, Scheerens 2013, Waks 2006). Our results may mean schools aim to be more accommodative to the needs of diverse populations by de-standardising educational responsibilities and policies at the school level.

In addition, similar to Table 2, global goals by the UN seems to be significantly associated with increasing the process of actual de-standardisation at the school level in models 3 and 5 in Table 3 when we do not add GDP per capita. Once this variable is controlled for in model 4, the coefficients for the global goals variable appear insignificant. These scenarios indicate a mediating mechanism indicating how global goals may influence countries' actual changes in educational systems may be context dependent.

Robustness Checks

We run three robustness checks to see if our findings are sensitive to other specifications. First, it can be argued that the actual state of de-standardisation at the initial stage or in 1990 may influence how the WB's reforms may lead to changes in the actual state. Precisely, countries with low level of actual de-standardisation may see more changes in the educational systems due to WB's reforms. To address this issue, we run regressions separately on countries with higher- and lower-level of actual de-standardisation in 1990. We do not run pooled regression on all countries at the same time since the initial actual de-standardisation variable is time-invariant, created based on the value of the de-standardisation measures in 1990. This would not allow us to run two-way fixed effects regressions to examine the effect of this time-invariant variable. As presented in Table 4, even when we run models separately on both sets of countries, the results remain very similar to the ones presented in Tables 2 and 3.

Table 4. The association between WB-led de-standardisation reforms and the actual de-standardisation of educational system at the school level, 1990-2019.

	Dependent variables: Actual state of de-standardisation at…			
	Sub-national level		School level	
	Initial de-standardisation level in 1990			
	Low	High	Low	High
	(1)	(2)	(3)	(4)
Sub-national de-standardisation by WB	0.0062	-0.040	-0.0044	0.0074
	(0.057)	(0.036)	(0.029)	(0.035)
School de-standardisation by WB	0.031	0.050	-0.048	0.063
	(0.042)	(0.028)	(0.044)	(0.057)
Global goals (ref. UN goals until MDGs in 2000)				
MDGs in 2020 until 2015	0.92*	0.032	0.65	-0.55
	(0.40)	(0.23)	(0.47)	(0.34)
SDGs in 2015	0.87	-0.045	0.79	-0.65
	(0.41)	(0.24)	(0.52)	(0.38)
GDP per capita (log)	-0.18	0.040	-0.0026	0.43
	(0.17)	(0.13)	(0.22)	(0.24)
Share of ethnic groups	-0.36	0.23	0.68*	0.62*
	(0.33)	(0.17)	(0.24)	(0.23)
Population size (in number)	-0.00*	-0.00	-0.00**	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Clientelism	-0.73	0.52	0.52	0.99*
	(0.61)	(0.51)	(0.38)	(0.37)
Public sector corruption	-0.14	0.18*	0.15**	-0.038
	(0.072)	(0.077)	(0.048)	(0.17)
Decentralisation of local government index	-0.36	0.051	-0.31	0.19
	(0.24)	(0.12)	(0.26)	(0.17)
Constant	4.97	-0.76	-0.56	-10.2
	(3.90)	(3.17)	(4.89)	(5.85)
Observations	306	371	306	371
Country	15	15	15	15

Second, our measures of de-standardisation at both sub-national and school levels were created by aggregating 10 indicators for each. This may arguably mask up all the details. To address this concern, we also create three sub-indices of de-standardisation for each level, that is, sub-national and school levels, for robustness checks. These three sub-indices are (i) academic (composed of curriculum, textbook, assessment, and admission), (ii) personnel (comprised of

teacher recruitment, initial and in-service training, and supervision), and (iii) budget (source and allocation). As shown in Tables A3 and A4 in the appendix, findings remain unchanged even in the disaggregated analyses.

Third, we also check non-linear relationship between WB projects and actual changes in de-standardisation. As demonstrated in Table A5 in the appendix, the coefficients for the squared term of the WB-implemented de-standardisation variables are not significant.

Discussion and conclusion

In this study, we provide evidence about whether WB-led reforms to de-standardise educational systems in LMICs are associated with changes in the actual state of the de-standardisation at the sub-national and school levels. Using two original and unique datasets, we do not find any significant association between these two factors. Moreover, while we observe the global educational goals under the MDGs and the SDGs of the UN are positively associated with changes in the actual state of de-standardisation of educational systems. However, the significance of the coefficients for global goals goes away once we control for GDP per capita and other country characteristics.

In contrast to overwhelming literature in the field of international development and comparative education that suggests that IOs diffuse educational reforms by force, our findings do not suggest so as we do not see any significant association between WB reforms and changes on the ground. We assume that this null association is a sign that even though the WB implement reforms in LMICs, these may not result in actual changes. This may indicate that countries change their educational systems by construct, not necessarily by being forced due to aid conditionality or dependency on financial assistance. We highly emphasise that our results only apply to the case of the de-standardisation of educational systems in LMICs. We do not claim that the results would

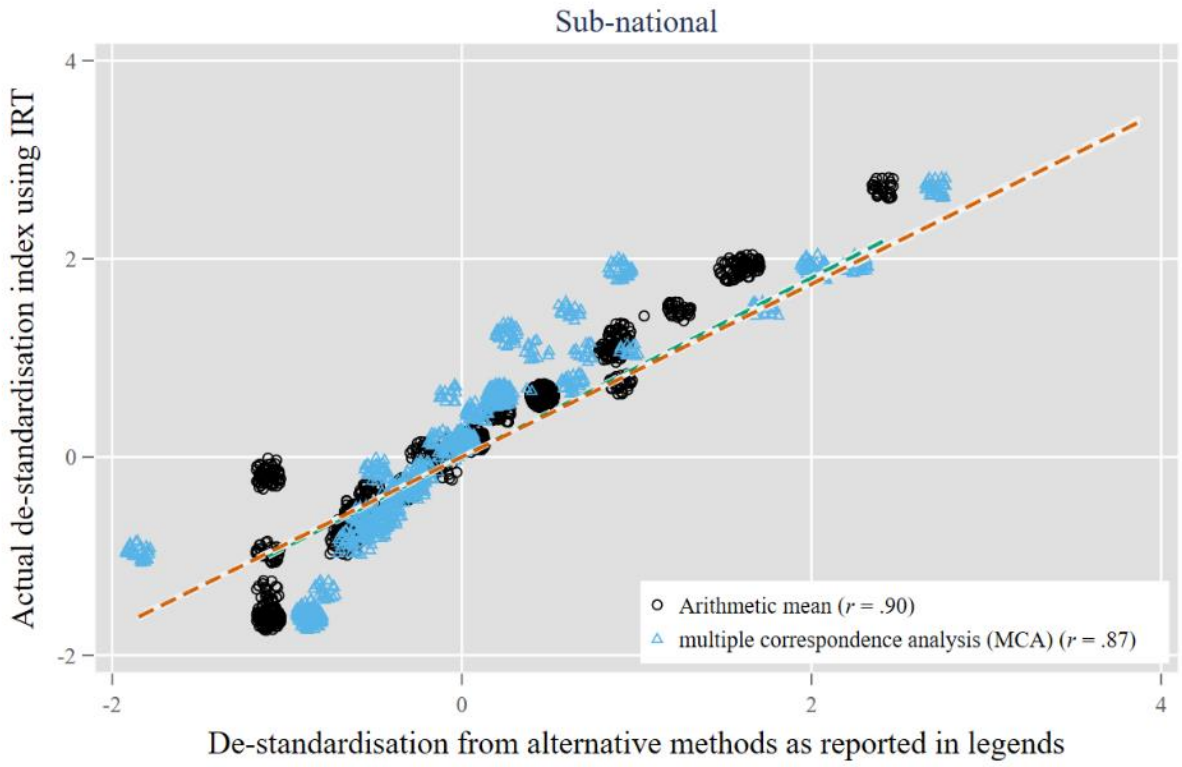
be the same for other reforms in LMICs by the WB or other IOs. In addition, our findings and interpretations are merely descriptive. A rigorous test of the three mechanisms explained in the theoretical section would require finer measures on coercion and constructivism. For instance, we do not have comprehensive data on what types of conditions WB projects included, which would allow us to test the effect of specific types of conditional aid (a coercive mechanism) on institutional changes.

While limited in scope, findings in our study question typical arguments such as 'taking conditional aid forces countries to change their institutions'. Nevertheless, there are many other socioeconomic and political forces that may drive countries to bring changes in social and political institutions. Our results suggest that countries with greater diversity tend to experience more de-standardisation reforms at the school level. Similar to this factor, the identification of other sociocultural issues would be paramount to understand why and how educational system reforms take place in LMICs. Otherwise, we could overlook bigger challenges in educational and other institutions which may not necessarily stem from IOs.

Our findings are consistent with some previous literature which suggests that WB projects may not have actually changed educational systems in LMICs. However, IOs' reforms may bring other consequences, which we do not examine in this study. While the intention is noble, due to weaknesses in existing institutions in many LMICs such as resource constraints and corruption in the forms of patron-client relations and presence of informal governance (Hossain 2018), among others, IOs-led projects do not often lead to targeted changes. Results from many countries including from EA, SSA and LAC suggest how existing institutional challenges impede WB-led projects to shape educational systems (Essuman and Akyeampong 2011, Kristiansen 2006, Meade and Gershberg 2008).

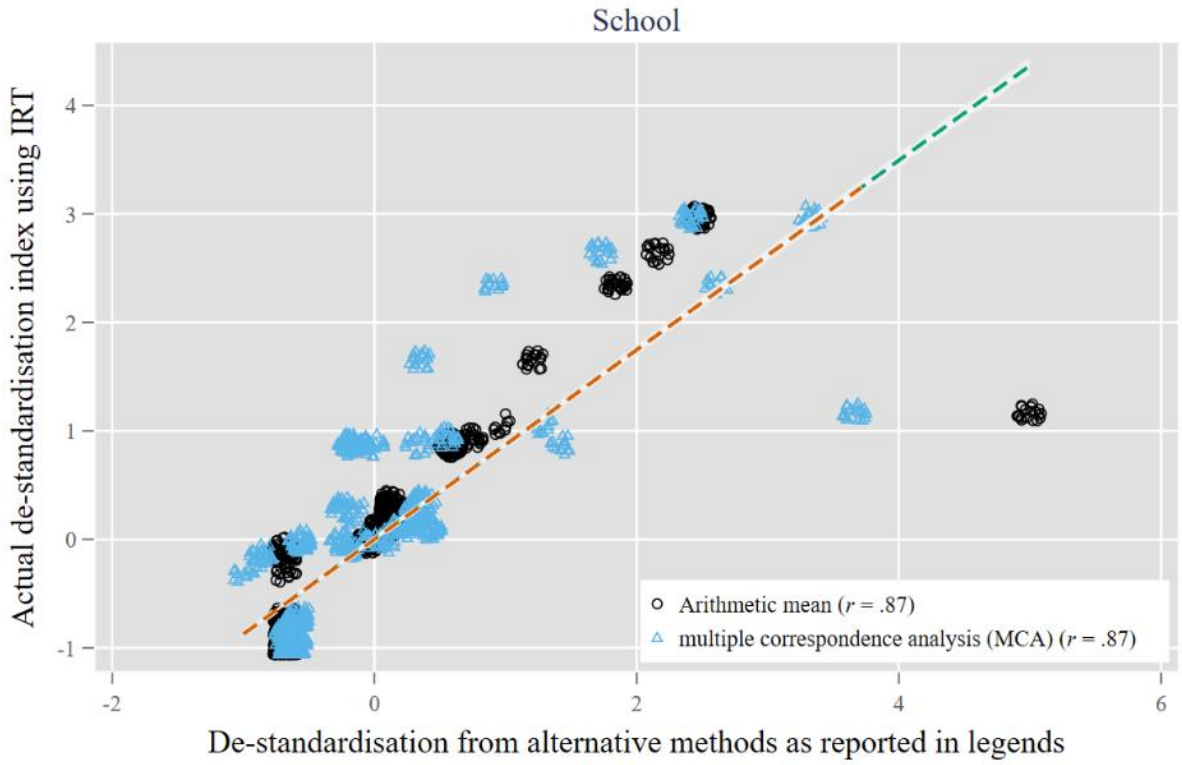
Appendix

Figure A1. The relationship between actual de-standardisation index at the sub-national level measured using IRT (y-axis) and arithmetic mean and MCA (x-axis)



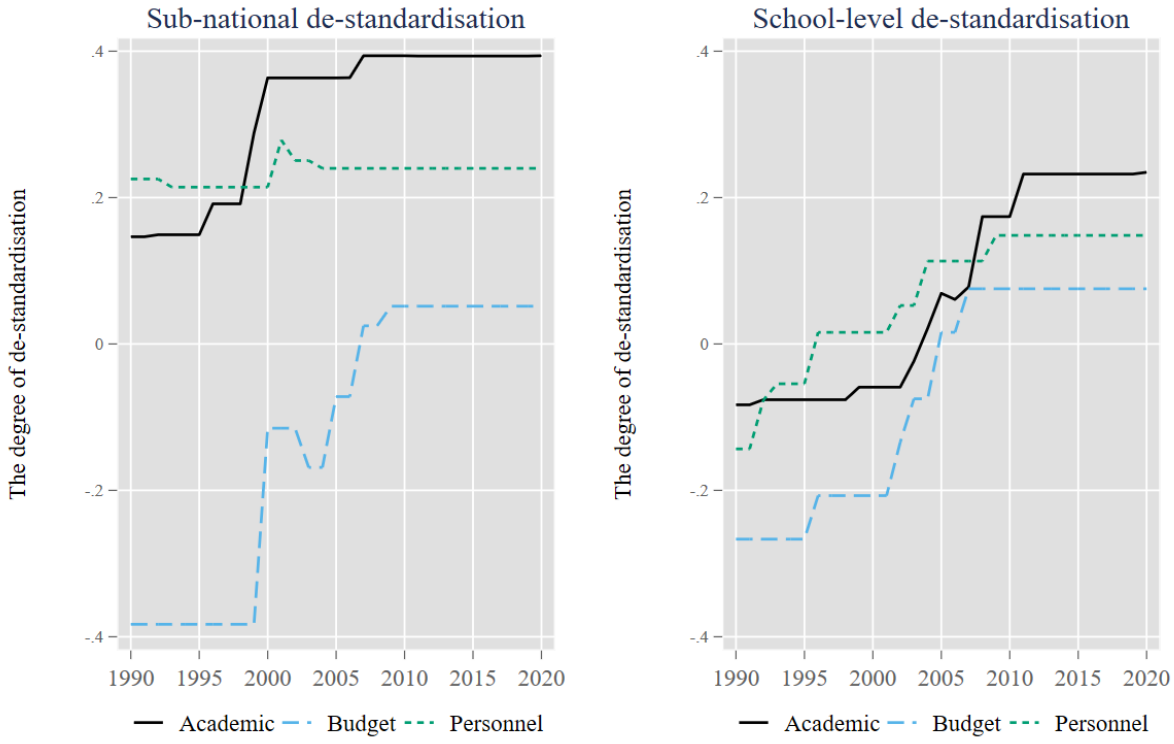
Notes: IRT, item response theory. Arithmetic mean refers to the average of 10 indicators. Similar to the IRT index, the arithmetic mean and MCA scores are also standardised with a mean of approximately 0 and a standard deviation of 1.

Figure A2. The relationship between actual de-standardisation index at the school level measured using IRT (y-axis) and simple row arithmetic and MCA (x-axis)



Notes: IRT, item response theory. Arithmetic mean refers to the average of 10 indicators. Similar to the IRT index, the arithmetic mean and MCA scores are also standardised with a mean of approximately 0 and a standard deviation of 1.

Figure A3. Descriptive trends in the actual state of de-standardisation at the school and sub-national levels, disaggregated by different elements, 1990-2019



Notes: The y-axis represents a standardised scale with a mean of around 0 and a standard deviation of 1. The transformation process to standardise the measures is the same as the one explained for the overall aggregated measure in the variable section.

Table A1. Coding scheme

Who decides [one of the 10 indicators listed in the variable section] at the secondary level?

Sub-national	School		Decision-making level
0	0	1	Central government
1	0	2	Combination of sub-national entities and the central government
1	0	3	Sub-national entities (i.e., region/directorate/district/sub-district)
1	1	4	Combination of schools, sub-national entities and/or the central government
0	1	5	Combination of schools and the central government
0	1	6	School actors (i.e., school management committee)

Source: Own coding scheme.

Table A2. Descriptive statistics.

Variable	Observations	Mean	St Dev	Min	Max
Sub-national level actual de-standardisation	677	.16	1.08	-1.66	2.49
School level actual de-standardisation	677	.06	1.05	-1.08	3.42
Sub-national level WB de-standardisation reforms	677	.03	1.06	-1.06	4.2
School level WB de-standardisation reforms	677	0	1.03	-1.08	4.44
GDP per capita (log)	677	23.98	2.03	19.19	28.63
Share of ethnic groups	677	.55	.39	.014	1
Population size (in number)	677	88,000,000	225,000,000	223158	1,350,000,000
Clientelism index	677	.54	.22	.03	.94
Public sector corruption index	677	-.75	1.31	-3.07	2.19
Decentralisation of local government index	677	.5	.35	0	.98
Global goals	677	.84	.65	0	2
UN goals until MDGs in 2000	205				
MDGs in 2020 until 2015	372				
SDGs in 2015	100				

Notes: Observations refer to country-year. St Dev, standard deviation; Min, Minimum; Max, maximum. Global goals variable is categorical; hence, a breakdown of observations by its categories is provided. The variable includes only three major breakthrough of UN goals since the number of observations are limited.

Table A3. The association between WB-led de-standardisation reforms and the actual de-standardisation of educational system at the sub-national level by three different elements, 1990-2019.

	Sub-national level actual de-standardisation in					
	Academic		Budget		Personnel	
	two-way fixed	lagged	two-way fixed	lagged	two-way fixed	lagged
	(1)	(2)	(3)	(4)	(5)	(6)
Sub-national de-standardisation by WB	0.0028		0.027		-0.0099	
	(0.034)		(0.064)		(0.020)	
Sub-national de-standardisation by WB (lag 4)		0.0057		0.070		-0.012
		(0.023)		(0.070)		(0.013)
School de-standardisation by WB	0.036		0.037		-0.0041	
	(0.036)		(0.043)		(0.016)	
School de-standardisation by WB (lag 4)		0.017		0.078		0.0012
		(0.032)		(0.059)		(0.012)
Global goals (ref. UN goals until MDGs in 2000)						
MDGs in 2020 until 2015	0.51	0.45*	0.31	0.20	0.039	0.18
	(0.32)	(0.21)	(0.52)	(0.33)	(0.17)	(0.17)
SDGs in 2015	0.52	0.43*	0.33	0.11	0.0063	0.23
	(0.31)	(0.20)	(0.61)	(0.40)	(0.19)	(0.19)
GDP per capita (log)	-0.054		0.071		-0.071	
	(0.10)		(0.25)		(0.095)	
GDP per capita (log) (lag 4)		-0.064		0.16		-0.15
		(0.061)		(0.19)		(0.094)
Share of ethnic groups	0.26		-0.069		0.42	
	(0.16)		(0.48)		(0.37)	
Share of ethnic groups (lag 4)		0.15		-0.23		0.066
		(0.15)		(0.49)		(0.18)
Population size (in number)	-0.00		-0.00		0.00	
	(0.00)		(0.00)		(0.00)	
Population size (in number) (lag 4)		-0.00		-0.00		0.00
		(0.00)		(0.00)		(0.00)
Clientelism	-1.06		-0.64		0.77*	

	(0.67)		(0.75)		(0.36)	
Clientelism (lag 4)		-1.40		0.096		0.56
		(0.85)		(0.98)		(0.33)
Public sector corruption	-0.057		-0.17		0.026	
	(0.067)		(0.13)		(0.029)	
Public sector corruption (lag 4)		-0.079		-0.090		0.067
		(0.070)		(0.11)		(0.060)
Decentralisation of local government index	-0.24*		-0.34		0.13	
	(0.11)		(0.28)		(0.082)	
Decentralisation of local government index (lag 4)		-0.11		-0.37		0.19
		(0.078)		(0.28)		(0.12)
Constant	1.75	2.19	-1.23	-3.51	1.67	3.58
	(2.42)	(1.56)	(5.84)	(4.58)	(2.24)	(2.21)
Observations	677	535	677	535	677	535
Country	30	29	30	29	30	29

Notes: (a) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001.

Table A4. The association between WB-led de-standardisation reforms and the actual de-standardisation of educational system at the school level by three different elements, 1990-2019.

	School-level actual de-standardisation in					
	Academic		Budget		Personnel	
	two-way fixed	lagged	two-way fixed	lagged	two-way fixed	lagged
	(1)	(2)	(3)	(4)	(5)	(6)
School de-standardisation by WB	0.013		-0.049		-0.0095	
	(0.025)		(0.037)		(0.016)	
School de-standardisation by WB (lag 4)		0.028		-0.032		-0.014
		(0.030)		(0.037)		(0.013)
Sub-national de-standardisation by WB	0.040		-0.040		0.021	
	(0.028)		(0.053)		(0.023)	
Sub-national de-standardisation by WB (lag 4)		0.061		-0.052		0.018
		(0.043)		(0.049)		(0.016)
Global goals (ref. UN goals until MDGs in 2000)						
MDGs in 2020 until 2015	0.27	0.14	-0.38	-0.067	-0.30	-0.14
	(0.39)	(0.20)	(0.34)	(0.17)	(0.20)	(0.11)
SDGs in 2015	0.33	0.14	-0.40	-0.13	-0.37	-0.20
	(0.48)	(0.25)	(0.37)	(0.22)	(0.23)	(0.15)
GDP per capita (log)	-0.046		0.40		0.21	
	(0.19)		(0.24)		(0.11)	
GDP per capita (log) (lag 4)		0.033		0.23		0.15
		(0.12)		(0.16)		(0.090)
Share of ethnic groups	0.35**		0.70*		0.079	
	(0.11)		(0.27)		(0.13)	
Share of ethnic groups (lag 4)		0.17		0.62*		0.041
		(0.11)		(0.29)		(0.091)
Population size (in number)	-0.00		-0.00*		-0.00	
	(0.00)		(0.00)		(0.00)	
Population size (in number) (lag 4)		-0.00		-0.00*		-0.00
		(0.00)		(0.00)		(0.00)
Clientelism	0.19		0.58		0.011	

	(0.26)		(0.33)		(0.15)	
Clientelism (lag 4)		0.80*		0.74*		-0.11
		(0.38)		(0.35)		(0.25)
Public sector corruption	0.024		0.28*		-0.068	
	(0.068)		(0.10)		(0.047)	
Public sector corruption (lag 4)		0.064		0.28***		-0.039
		(0.049)		(0.066)		(0.040)
Decentralisation of local government index	-0.093		-0.048		0.13	
	(0.14)		(0.18)		(0.14)	
Decentralisation of local government index (lag 4)		-0.016		0.031		-0.021
		(0.15)		(0.20)		(0.085)
Constant	1.18	-1.04	-9.77	-5.71	-4.60	-3.05
	(4.38)	(2.75)	(5.61)	(3.93)	(2.64)	(2.03)
Observations	677	535	677	535	677	535
Country	30	29	30	29	30	29

Notes: (a) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001.

Table A5. The association between WB-led de-standardisation reforms and the actual de-standardisation of educational system, 1990-2019.

	Actual de-standardisation at…	
	Sub-national	School
	Two-way fixed effects models	
	(1)	(2)
Sub-national de-standardisation by WB	0.019	0.059
	(0.038)	(0.054)
Sub-national de-standardisation by WB (squared)	-0.014	-0.030
	(0.017)	(0.018)
School de-standardisation by WB	0.014	-0.028
	(0.029)	(0.042)
School de-standardisation by WB (squared)	0.0077	0.0000098
	(0.0085)	(0.012)
Global goals (ref. UN goals until MDGs in 2000)		
MDGs in 2020 until 2015	0.32	-0.076
	(0.25)	(0.31)
SDGs in 2015	0.31	-0.10
	(0.25)	(0.36)
GDP per capita (log)	-0.046	0.23
	(0.11)	(0.18)
Share of ethnic groups	0.35	0.56***
	(0.18)	(0.12)
Population size (in number)	-0.00	-0.00**
	(0.00)	(0.00)
Clientelism	-0.100	0.35
	(0.51)	(0.25)
Public sector corruption	-0.062	0.13*
	(0.060)	(0.053)
Decentralisation of local government index	-0.12	-0.041
	(0.11)	(0.16)
Constant	1.40	-5.29
	(2.54)	(4.25)
Observations	677	677
Country	30	30

Notes: (a) Standard error in parentheses robust to heteroskedasticity and clustering at the country level. * p<0.05 ** p<0.01 *** p<0.001.

References

Barrera-Osorio, Felipe, Tazeen Fasih and Harry Anthony Patrinos. 2009. *Decentralized Decision-Making in Schools: The Theory and Evidence on School-Based Management*. Washington, DC: World Bank.

Berger, Peter and Thomas Luckmann. 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Garden City, NY: Anchor Books.

Bhasin, Tavishi and Jennifer Gandhi. 2013. "Timing and Targeting of State Repression in Authoritarian Elections." *Electoral Studies* 32(4):620-31.

Bishop, John H. 1997. "The Effect of National Standards and Curriculum-Based Exams on Achievement." *The American Economic Review* 87(2):260-64.

Bukodi, Erzsébet, Ferdinand Eibl, Sandra Buchholz, Sonia Marzadro, Alessandra Minello, Susanne Wahler, Hans-Peter Blossfeld, Robert Erikson and Antonio Schizzerotto. 2018. "Linking the Macro to the Micro: A Multidimensional Approach to Educational Inequalities in Four European Countries." *European societies* 20(1):26-64.

Chmielewski, Anna K and Sean F Reardon. 2016. "Patterns of Cross-National Variation in the Association between Income and Academic Achievement." *AERA Open* 2(3):2332858416649593.

Clune, William H. 1993. "The Best Path to Systemic Educational Policy: Standard/Centralized or Differentiated/Decentralized?". *Educational evaluation and policy analysis* 15(3):233-54.

Coppedge, Michael, John Gerring, Staffan I Lindberg, Jan Teorell, David Altman, Michael Bernhard, M Steven Fish, Adam Glynn, Allen Hicken and Carl H Knutsen. 2021. "V-Dem Codebook V9." *Varieties of Democracy (V-Dem) Project*.

Di Franco, Giovanni. 2016. "Multiple Correspondence Analysis: One Only or Several Techniques?". *Quality & Quantity* 50(3):1299-315.

Dobbin, Frank, Beth Simmons and Geoffrey Garrett. 2007. "The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning?". *Annu. Rev. Sociol.* 33:449-72.

Dollar, David and William Easterly. 1999. "The Search for the Key: Aid, Investment and Policies in Africa." *Journal of African Economies* 8(4):546-77.

Dollar, David and Jakob Svensson. 2000. "What Explains the Success or Failure of Structural Adjustment Programmes?". *The Economic Journal* 110(466):894-917.

Elacqua, Gregory, Isabela Munevar, Fabio Sanchez and Humberto Santos. 2021. "The Impact of Decentralized Decision-Making on Student Outcomes and Teacher Quality: Evidence from Colombia." *World development* 141:105378.

Essuman, Ato and Kwame Akyeampong. 2011. "Decentralisation Policy and Practice in Ghana: The Promise and Reality of Community Participation in Education in Rural Communities." *Journal of Education Policy* 26(4):513-27.

Fraley, R Chris, Niels G Waller and Kelly A Brennan. 2000. "An Item Response Theory Analysis of Self-Report Measures of Adult Attachment." *Journal of personality and social psychology* 78(2):350.

Gamoran, Adam. 1996. "Curriculum Standardization and Equality of Opportunity in Scottish Secondary Education: 1984-90." *Sociology of Education* 69(1):1-21.

Geo-Jaja, Macleans A. 2004. "Decentralisation and Privatisation of Education in Africa: Which Option for Nigeria?". *International Review of Education* 50(3):307-23.

Hicken, Allen. 2011. "Clientelism." *Annual review of political science* 14:289-310.

Hossain, Mobarak. 2018. "The Effects of Governance Reforms on School Supervision: An Analysis of Six Developing and Emerging Economies." in *Cross-Nationally Comparative, Evidence-Based Educational Policymaking and Reform*: Emerald Publishing Limited.

Hossain, Mobarak. 2021. "Does Greater Community Involvement Mean More Parent-Teacher Interaction? Evidence from Seven Developing Countries." *International journal of educational development* 83:102378.

Hossain, Mobarak. 2022. "Diffusing “Destandardization” Reforms across Educational Systems in Low- and Middle-Income Countries: The Case of the World Bank, 1965 to 2020." *Sociology of Education* 95(4):320–39.

International Bureau of Education. 2007, 2011. "World Data on Education." edited by U. I. B. o. E. (IBE). Geneva.

Jolly, Richard. 2004. "Global Development Goals: The United Nations Experience." *Journal of Human Development* 5(1):69-95.

Joshi, Priyadarshani. 2014. "Parent Decision-Making When Selecting Schools: The Case of Nepal." *Prospects* 44(3):411-28.

Kentikelenis, Alexander E, Thomas H Stubbs and Lawrence P King. 2016. "Imf Conditionality and Development Policy Space, 1985–2014." *Review of International Political Economy* 23(4):543-82.

Kentikelenis, Alexander E and Sarah Babb. 2019. "The Making of Neoliberal Globalization: Norm Substitution and the Politics of Clandestine Institutional Change." *American Journal of Sociology* 124(6):1720-62.

Kerckhoff, Alan C. 2001. "Education and Social Stratification Processes in Comparative Perspective." *Sociology of Education* 74:3-18.

Kingdon, Geeta Gandhi, Angela Little, Monazza Aslam, Shenila Rawal, Terry Moe, Harry Patrinos, Tara Beteille, Rukmini Banerji, Brent Parton and Shailendra K Sharma. 2014. "A Rigorous Review of the Political Economy of Education Systems in Developing Countries." Vol. *Final Report. Education Rigorous Literature Review. Department for International Development (UK).*

Kristiansen, Stein. 2006. "Decentralising Education in Indonesia." *International journal of educational development* 26(5):513-31.

Manor, James. 1999. *The Political Economy of Democratic Decentralization*: World Bank.

March, James G and Herbert A Simon. 1993. "Organizations Revisited." *Industrial and Corporate Change* 2(3):299-316.

Meade, Ben and Alec Ian Gershberg. 2008. "Making Education Reform Work for the Poor: Accountability and Decentralization in Latin America." *Journal of Education Policy* 23(3):299-322.

Meyer, John W, John Boli, George M Thomas and Francisco O Ramirez. 1997. "World Society and the Nation-State." *American Journal of Sociology* 103(1):144-81.

Mosley, Paul, Jane Harrigan and John FJ Toye. 1995. *Aid and Power: The World Bank and Policy-Based Lending*. London/New York: Routledge.

Naidoo, Jordan P. 2005. *Educational Decentralization and School Governance in South Africa: From Policy to Practice*. Paris: International Institute for Educational Planning (IIEP) UNESCO.

Nanda, Ved P. 2006. "The “Good Governance” Concept Revisited." *The ANNALS of the American academy of political and social science* 603(1):269-83.

Nishimura, Mikiko. 2017. "Community Participation in School Management in Developing Countries." *Oxford Research Encyclopedia of Education*. doi: https://doi.org/10.1093/acrefore/9780190264093.013.64.

Owen, John M. 2002. "The Foreign Imposition of Domestic Institutions." *International organization* 56(2):375-409.

Pritchett, Lant. 2014. "The Risks to Education Systems from Design Mismatch and Global Isomorphism: Concepts, with Examples from India." Vol. 9292307606. WIDER Working Paper.

Reinsberg, Bernhard, Alexander Kentikelenis, Thomas Stubbs and Lawrence King. 2019. "The World System and the Hollowing out of State Capacity: How Structural Adjustment Programs Affect Bureaucratic Quality in Developing Countries." *American Journal of Sociology* 124(4):1222-57.

Robinson, Mark. 1993. "Aid, Democracy and Political Conditionality in Sub-Saharan Africa." *The European Journal of Development Research* 5(1):85-99.

Rondinelli, Dennis A, James S McCullough and Ronald W Johnson. 1989. "Analysing Decentralization Policies in Developing Countries: A Political-Economy Framework." *Development and change* 20(1):57-87.

Scartascini, Carlos, Cesi Cruz and Philip Keefer. 2020. "The Database of Political Institutions 2020 (Dpi2020)." *Washington, Banco Interamericano de Desarrollo*.

Scheerens, Jaap. 2013. *What Is Effective Schooling? A Review of Current Thought and Practice*. Geneva: International Baccalaureate Organization.

Shleifer, Andrei and Robert W Vishny. 1993. "Corruption." *The Quarterly Journal of Economics* 108(3):599-617.

Sinn, Hans-Werner and Wolfgang Ochel. 2003. "Social Union, Convergence and Migration." *JCMS: Journal of Common Market Studies* 41(5):869-96.

Steiner-Khamsi, Gita and Hubert O Quist. 2000. "The Politics of Educational Borrowing: Reopening the Case of Achimota in British Ghana." *Comparative Education Review* 44(3):272-99.

Steiner-Khamsi, Gita. 2006. "The Economics of Policy Borrowing and Lending: A Study of Late Adopters." *Oxford Review of Education* 32(5):665-78.

UNESCO. n.d. "Observatory on the Right to Education." Paris.

United Nations. 2016. *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York, NY: United Nations.

Van de Werfhorst, Herman G and Jonathan JB Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective." *Annual review of sociology* 36:407-28.

van Hek, Margriet, Claudia Buchmann and Gerbert Kraaykamp. 2019. "Educational Systems and Gender Differences in Reading: A Comparative Multilevel Analysis." *European sociological review* 35(2):169-86.

Vogt, Manuel, Nils-Christian Bormann, Seraina Rüegger, Lars-Erik Cederman, Philipp Hunziker and Luc Girardin. 2015. "Integrating Data on Ethnicity, Geography, and Conflict: The Ethnic Power Relations Data Set Family." *Journal of Conflict Resolution* 59(7):1327-42.

Waks, Leonard J. 2006. "Globalization, State Transformation, and Educational Re-Structuring: Why Postmodern Diversity Will Prevail over Standardization." *Studies in Philosophy and Education* 25(5):403-24.

World Bank. n.d.-a. "Gdp Per Capita (Current Us$)." Washington, DC: World Bank.

World Bank. n.d.-b. "Population." Washington, DC: World Bank.

Paper 4

Educational systems and the inequality in attainment: Evidence from 27 LMICs over three decades

Mobarak Hossain

Nuffield College, University of Oxford

mobarak.hossain@nuffield.ox.ac.uk

Abstract

Do macro institutional characteristics matter for reducing or widening educational outcomes by social origins? Motivated by this long-debated question, we investigate the relationship between decreasing standardisation or de-standardisation of educational systems and the inequality in educational attainment by economic resources at the secondary level (lower and upper) in 27 low- and middle-income countries (LMICs). De-standardisation refers to the extent to which educational policies and responsibilities are not unified across (1) schools and/or (2) sub-national authorities in a country. We use country-level unique and novel de-standardisation measures and individual-level cross-sectional data containing nearly 2 million observations within 588 cohort-years from household surveys covering 1991 through 2017. Educational attainment means the cohorts of secondary education graduation age individuals who completed secondary education across these years. Using country and cohort fixed effects models, findings suggest that overall, de-standardisation at the sub-national level is not significantly associated with educational attainment. However, de-standardisation at the school level is negatively associated with overall attainment. When it comes to attainment inequality by social origins, we observe that the attainment gap between the poorest and richest individuals is 11 percentage points higher in highly de-standardised systems at the sub-national level compared to that of very weakly de-standardised systems. The gap is 14 percentage points when considering school-level de-standardisation. Finally, highly de-standardised systems, especially at the school level, continue demonstrating wider attainment gaps over time, which aligns with past research from

advanced economies. These results are not sensitive to different robustness checks. We suggest that macro-institutional elements may not compensate for underlying challenges of the educational systems in LMICs such as low investment and individual-level poverty.

Keywords: educational systems, de-standardisation, LMICs, social origins, inequality

To what extent do educational systems matter for reducing inequalities in educational outcomes? This question has been widely debated in the field of sociology of education, although mostly focusing on high-income countries. One of the major areas of educational system research includes standardisation or how uniform educational policies are across schools and sub-national authorities. Research points out that increasing standardisation may maintain equal standards and uniform quality of education across a country. This can arguably lead to more equal educational outcomes between pupils from different socioeconomic origins (Van de Werfhorst and Mijs 2010). However, the empirical literature has not drawn any conclusive evidence on this issue from high-income countries (Bukodi et al. 2018, Gamoran 1996).

We also know very little about this topic in the context of low- and middle-income countries (LMICs). Nonetheless, as pointed out in the introduction to the dissertation, international organisations (IOs) including the World Bank (WB) have been promoting reforms to devolve educational policies and responsibilities to sub-national authorities and schools (Barrera-Osorio, Fasih and Patrinos 2009). These neoliberal reforms are a policy borrowing phenomenon and have been vigorously exported from the Global North to the South (Ball and Youdell 2009, Hossain 2022, Steiner-Khamsi 2006). We argue that these reforms aim to decrease the standards or 'de-standardise' educational systems by localising policy formulation and implementation processes. In other words, this supposedly allows more people from grassroots level education stakeholders to participate in making actual policies. This way, marginalised parents and stakeholders can

arguably communicate with teachers better about children's learning. Advocates claim that this would eventually lead to creating more equitable educational outcomes (Barrera-Osorio, Fasih and Patrinos 2009). This logic is quite contrary to what the conventional argument posed in the sociological literature that more uniform educational systems would lead to more equal outcomes (Van de Werfhorst and Mijs 2010). Nevertheless, there is a paucity of research about the effects of these features of educational systems on inequality in educational outcomes in LMICs. As we posit, past research remains inconclusive about this even in the context of high-income countries, from where these reforms are being borrowed to LMICs.

Hence, in this paper, aiming to fill this research gap, we examine whether there is any relationship between the process of the de-standardisation of educational systems over time and changes in the inequality in educational attainment by economic resources proxied by wealth in 27 LMICs. Unlike the other three papers, here we focus on changes in the actual state of de-standardisation in educational systems rather than WB projects to implement de-standardisation reforms. In other words, we do not also evaluate the impact of policy reforms implemented by the WB as shown in papers 1 and 2. Our study covers country-level time-varying measures of the process of de-standardisation between 1990 and 2016, which we connect with individual-level microdata from household surveys for the same period.

De-standardisation reforms have drawn considerable criticism. For instance, critics argue that de-standardisation policies overlook the fact that family and socioeconomic background may hinder the participation of parents in making decisions in schools. Opponents argue that these neoliberal reforms have had no explicit agenda for reducing social inequality. Hence, the managerial, profit-driven and efficiency-oriented culture of these neoliberal reforms has often been argued to lack a focus on the social inequality it may induce (Andrews and Van de Walle 2013,

Vermeulen 2018). Considering people as 'customers' rather than 'citizens', these reforms lack a human face (Summers and Pritchett 1993).

We focus on the secondary level combining both lower- and upper-secondary education as this is a crucial phase of deciding the career path in terms of going for tertiary education, academic subject choice or even non-academic pathways. Similar to the previous three papers, this paper includes countries representing a wide regional diversity covering Latin America, sub-Saharan Africa, the Middle East and North Africa, Central Asia, and South and Southeast Asia. Besides, following the other papers, we also categorise the process of de-standardisation into (i) sub-national and (ii) school levels. The novelty of this study is that we use a uniquely built dataset on the process of de-standardisation of educational systems. We then link these macro measures with individual-level micro-data of educational attainment from demographic and health surveys (DHS) and multiple indicator cluster surveys (MICS) from UNICEF (IFC 1990-2020, UNICEF 2000-2020).

Furthermore, we take a comprehensive approach to defining de-standardisation since educational responsibilities can be multifaceted including academic issues such as curriculum and textbook decisions, school supervision, budget and personnel management. Past studies overlook this comprehensive view of de-standardisation and only used a limited number of indicators such as curriculum and exit exams (Bishop 1997, Gamoran 1996). De-standardisation of these wide-ranging issues can take place both at the sub-national and school levels. As we point out in paper 1, research from high-income countries has not viewed de-standardisation from a multidimensional perspective ignoring the fact that educational systems may involve multi-layered administrative tiers such as districts, regions and schools (Van de Werfhorst and Mijs 2010). Considering the significance of multidimensionality and complexity of educational systems,

similar to papers 1, 2 and 3, we also classify de-standardisation into sub-national and school levels in this paper. The comprehensiveness and multidimensionality of the definition of de-standardisation are the unique contributions of our study.

Additionally, past research finds that different dimensions of social origins have different effects on individuals' educational attainment. These dimensions include parents' class, status and education (Bukodi and Goldthorpe 2013). However, due to unavailability of data, our analyses are limited to a unidimensional measure of economic resources from DHS and MICS to examine the inequality in attainment. Class is arguably associated with economic advantages and disadvantages both in terms of individuals' income level and short- and long-term income stability and prospects (Bukodi and Goldthorpe 2013). While parents' educational and cultural resources are also assumed important to predict children's education, research from LMICs largely rely on economic resources indicators due to data limitations (Baker, Goesling and LeTendre 2002, Gruijters and Behrman 2020, Huang 2010). Our measure of 'economic resources' is interchangeably used for 'wealth' since it captures parents' 'wealth' proxied by household possessions.

Parents' economic resources can have an impact on the interplay between de-standardisation and educational outcomes. Depending on the degree of de-standardisation, especially the financial aspect, a greater gap in parental economic resources may lead to inequality in resources between schools or neighbourhoods. Thus, in addition to the effects of parental economic resources, this resource gap may potentially lead to attainment gaps. Moreover, unequal distribution of economic resources means wealthy parents would be able to send their children to a better-quality school to bypass the complex and informal systems triggered by de-standardisation. De-standardisation may make educational systems more complex as it leads to

non-uniform policies across schools in which educational institutions can choose their policies differently as they want.

To sum up, there are two research questions in this paper. First, how far is the process of de-standardisation of educational systems associated with closing or widening the attainment gap (or inequality) between individuals from lower- and higher-economic resources status at the secondary level? Second, does the association between de-standardisation and the inequality in attainment vary across the cohorts of secondary graduation age individuals between 1991 and 2017? We focus on attainment inequalities as, despite a notable increase in educational access and completion, inequalities by socioeconomic background remain high in LMICs (Torche 2019). We are interested in the early 1990s onwards since neoliberal reforms similar to de-standardisation have become more prominent in this time as we also discussed in the first three chapters. Besides, our choice of timeframe is also constrained by the lack of information publicly available about educational policies in LMICs before early 1990s.

In the following sections, we discuss the current debate in the literature on why de-standardisation may matter for inequality in attainment both in high-income countries and LMICs. We then provide some possible scenarios of how de-standardisation might be associated with inequality in attainment followed by data and methods, results, and a concluding discussion.

The Process of 'De-Standardising' Educational Systems and Inequality in Attainment

The last three decades have experienced a notable expansion of education in terms of enrolment and completion of basic education. Despite this, educational inequality through intergenerational persistence of advantages remains considerably high in LMICs (Filmer and Pritchett 2001, Lewin 2007, Torche 2019). Past research argues that the degree of standardisation of educational systems may play an influential role in reducing or widening educational outcomes

although evidence remains inconclusive (Allmendinger 1989, Van de Werfhorst and Mijs 2010). While not grounded on evidence, IOs often promote de-standardisation reforms in LMICs. The ambiguous stance of de-standardisation reforms for inequality effects is largely unexplored. There are, nonetheless, both supporting and opposing arguments about the effects of de-standardisation of educational systems on equality. We cluster these arguments into two broad categories. (1) The first set of claims support that de-standardisation may lead to equalising educational outcomes. (2) By contrast, the second set of arguments posit that increasing de-standardisation either may lead to no change in inequality in attainment or it may widen the gaps between different socioeconomic groups. Both positions are elaborated below.

De-standardisation and Equality in Attainment

The first position is that de-standardising educational systems would lead to more equality in educational outcomes. We provide three instances from the existing literature supporting this position. *First*, the 'equalisation' argument is based on the implicit assumption of this management paradigm that more autonomy would empower school administration and local stakeholders including parents and they would 'rationally' respond by participating in decision-making processes. However, advocates and critics of this model of educational system have different opinions about how it can be associated with minimising or worsening educational inequality, which we explain in the third argument. Arguably naïve, proponents for the equality argument conceive de-standardisation reforms as effective instruments to get closer to the grassroots population by delegating financial and management responsibilities to sub-national authorities and schools (McGinn and Street 1986). The reasoning by advocates is that devolving responsibilities to local authorities and encouraging participation in decision-making processes would empower people from all walks of life including the poorest and most marginalised. They emphasise that

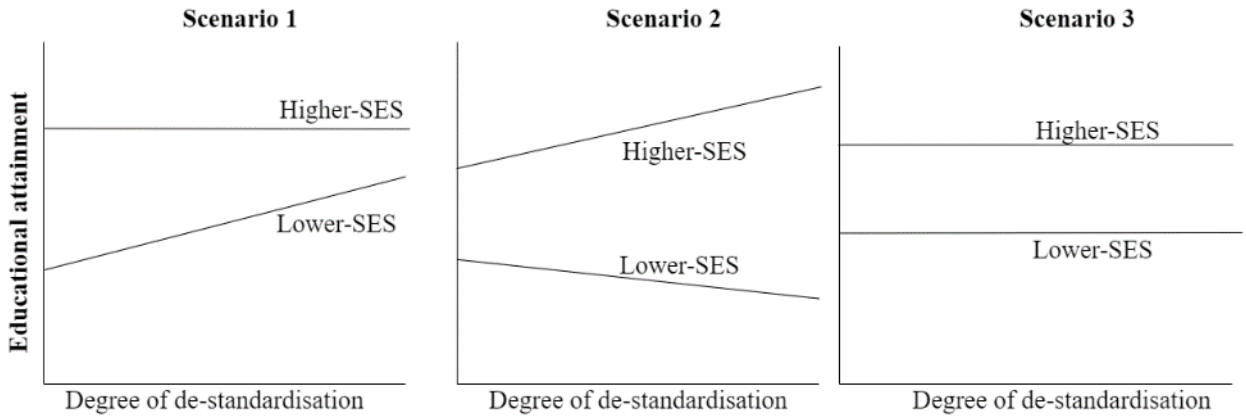
this ‘empowerment mechanism’ would presumably lead to reducing gaps in educational attainment and learning achievement (Barrera-Osorio, Fasih and Patrinos 2009).

Second, past research argues that increasing standardisation or homogenisation may deter creativity in certain educational systems. Excelling in exams may require imaginative practice and space to think, which structured curricula and lectures in a standardised system may not encourage (Martinez-Brawley and Zorita 2007).

Third, researchers also argue that more standardised educational systems in LMICs a carry colonial legacy, which had ignored socioeconomic background of people. This anti-colonial discourse maintains that standardisation of the education system is the creation of colonialism to firmly consolidate power disregarding the heterogeneous identities and knowledge systems of the population (Shahjahan 2011). For instance, American colonial education imposed English as the medium of instruction in the Philippines. The post-war nationalist movement has thus become to denounce the linguistic hegemony in the education system (Rafael 2015). A similar scenario was prevalent in the British Indian colony (Cohn 1996). According to this view, the dominance of the colonial language would clearly disadvantage underprivileged social cleavages that have limited resources to learn the language.

Hence, considering these points, more de-standardised educational systems could lead to greater equality in educational attainment by economic resources, as pointed out in scenario 1 in Figure 1. Put differently, conditional on lower-income parents are empowered and informed about their rights to participate in the decision-making processes, a de-standardised system may close the attainment gaps.

Figure 1: Possible directions of association between de-standardisation and educational attainment gaps



Notes: (a) The x-axis indicates the further points from the left to the right mean higher-level of de-standardisation. (b) These are schematic scenarios and only indicate some possible directions of reducing, widening or static attainment gaps by economic resources. They do not mean that the direction of attainment gaps exactly the same. For instance, the widening gap scenario (scenario 1) may involve a small increase in attainment of richer individuals but a much larger rise in the slope for poorer individuals.
Source: Own depiction

De-standardisation and Static or Widening Attainment Gaps

The second set of arguments take a critical stance about the de-standardisation of educational systems for which we assume that its effects may or may not widen the attainment gaps by economic resources. We narrate two major points in this regard from the existing literature.

First, why de-standardisation may matter for educational inequality is linked to the likelihood of contextual incompatibility between the institutions of reform exporters and receivers. To elaborate, de-standardisation reforms have arguably been exported from liberal institutions of the Global North (Maroy 2009, Steiner-Khamsi 2012). However, institutions in LMICs possess very different characteristics which often constitute informal governance within the formal institutional settings, the clientelist relationship between superiors and subordinates, and other forms of irregularities. Evidence from LMICs suggests that bringing bureaucracy to the local level to serve marginalised people may potentially worsen the service delivery processes, that is, to make educational systems more service friendly for recipients. Devolving educational systems may keep parents and local stakeholders aloof from decision making processes as it may

potentially strengthen informal relationships between local politicians, teachers and school administration. The widespread service irregularities in local governments including in education, thanks to patron-client relationships in LMICs, have been captured in the past literature (Baghdasaryan 2017, Beteille 2009, Jiang 2018, Kitschelt and Wilkinson 2007). All these points raise serious concerns that even if parents acted as rational actors, according to the proponents of de-standardisation-like reforms, these reforms would not result in declining educational inequalities since they could not have been implemented according to how IOs have envisioned due to contextual incompatibility.

To exemplify evidence regarding the effectiveness of de-standardisation-like reforms, Essuman and Akyeampong (2011) find that although IOs advocate for devolving educational systems to the school level, most implementation-related tasks are carried out by local or national agencies. Providing evidence from rural Ghana, they argue that new actors from the local politics now control decision-making processes in school management committees. This keeps little or no room for community participation in schools. Similarly, Joshi (2014) finds that parents prefer sending their children to private schools in Nepal as excessive political interference in the newly reinforced school management committees and negligence of teachers impede the learning environment in public schools. Local politicians also interfere in private schools, but it hinders schools' daily functioning far less. Similar scenarios have been observed in other LMICs (Kingdon et al. 2014, Nishimura 2017). Hossain (2021) also finds that more management of tasks at the school level through community engagement does not tend to increase greater interaction between parents and teachers in LMICs. Additionally, Kristiansen (2006) reveals that these reforms resulted in a lack of transparency and accountability in spending while increasing the costs of education. To sum, existing literature does not suggest that de-standardised systems can be more effective to

empower the marginalised population in LMICs, which is often considered a supposed mechanism for reducing educational inequalities.

Second, there is currently no literature analysing the association between de-standardisation and inequality in educational outcomes exclusively on LMICs. Many studies from high-income countries claim that increasing the standardisation of educational systems is associated with equalising learning attainment although findings in some other studies remain inconclusive. But the conventional view is that uniformity in educational systems would lead to equality in outcomes since everyone will have an equal opportunity to access schools of similar standards (Van de Werfhorst and Mijs 2010). For instance, English and Steffy (2001) argue that having a centralised curriculum and content would bring positive results by ensuring everyone has access to a sufficiently balanced curriculum regardless of the school they go to. It can also prevent any repetition of the curriculum between different grades (Vulliamy and Webb 1995). Similarly, Gamoran (1996) finds that reducing the degree of curriculum differentiation in Scotland was associated with decreasing socioeconomic inequality of learning achievement within schools. Chmielewski and Reardon (2016) also confirm that the standardisation of curriculum is associated with decreasing the income achievement gap. Bodovski et al. (2017) observe that having government prescribed textbooks in schools is associated with decreasing achievement gaps. Park (2005) also demonstrates that high standardisation is associated with low inequality of achievement within schools. Horn's (2009) study suggests similar results. Past research shows that students in a highly standardised education system have access to a similar curriculum and quality of teaching (Byun and Kim 2010). Variation in teaching quality is likely disadvantageous for low-socioeconomic status students (Chiu and Khoo 2005). This is quite opposite of the mechanisms explained by advocates for de-standardisation-like reforms in LMICs that giving more education

policy-related autonomy to lower authorities and schools would lead to equalising educational outcomes (Barrera-Osorio, Fasih and Patrinos 2009). Nevertheless, some studies also find no inequality effect of the standardisation of education (opposite to de-standardisation) (Bukodi et al. 2018, Montt 2011).

While not directly on de-standardisation, existing literature in the related field suggests that after devolving financial and other educational responsibilities to schools and local communities including sub-national agencies, the marginalised population in LMICs have not benefited much. For instance, Geo-Jaja (2004) argues that devolution of the financial system has increased educational costs in Nigeria creating more burden on low-income parents and it has not led to educational improvement. Similarly, in Argentina, Chile, Colombia and Mexico, the gaps in educational outcomes between rich and poor schools have widened after providing more financial autonomy to the local levels (Prawda 1993). In Mexico, more autonomy at the school level has led to widening teaching quality between rural and urban schools (Reimers and Cárdenas 2007). Similarly, discrepancies in distributing resources between regions and between states and schools in Brazil have resulted in unequal funding and quality (Meade and Gershberg 2008). Paes de Barros and Mendonca (1998) also find that underprivileged communities benefit less in academic issues from increased autonomy in the country. Akiba, LeTendre and Scribner (2007) observe that in less-standardised educational systems, students from the lower socioeconomic background are more likely to go to schools with poor resources and less prepared teachers.

Taken together all these points, we may see scenario 2 in which greater de-standardisation may lead to widening attainment inequality. It might also be the case that there is no significant association between de-standardisation and educational attainment at all, in which case we may see scenario 3. As we discussed, due to undue politicisation in school and local administration, it

may be the case that parents and local communities cannot participate in decision-making regardless of their socioeconomic position. This may lead to no change in inequality status at all.

Methodology

Data and Variables

Data for this paper come from multiple sources. For the outcome variable, educational attainment, we use household surveys from DHS and MICS covering 1991 through 2017 from 27 LMICs (IFC 1990-2020, UNICEF 2000-2020). Both these data sources provide nationally representative and comparative high-quality data from LMICs. DHS and MICS collaborate closely to ensure that survey tools are harmonised and similar as far as possible (Hancioglu and Arnold 2013). They can, thus, be combined in the same study (Ngandu et al. 2016). Data on 17 countries in our study are used from DHS and the remaining 10 are from MICS. Among 17 countries from DHS, 12 are pooled from the Integrated Public Use Microdata Series (IPUMS), which harmonised the DHS data. The harmonisation process includes making variables readily comparable across countries but does not mean that DHS data for other countries are not comparable. We do not combine both DHS and MICS for a single country and choose either of the surveys for a country depending on which one has more waves. We discuss in the specific variables how we combine the data to create different cohorts between 1991 and 2017. Additionally, for measuring country-level macro variables de-standardisation, we create a unique dataset as described below.

Dependent Variable – Micro-level: Educational Attainment

Table 1. Cohorts of 21-year-olds, who are within 3 years of their secondary education graduation age, and the corresponding birth year.

De-standardisation year	Within three years of secondary education graduation age		Birth year
1990	1991	→	1970
1991	1992	→	1971
1992	1993	→	1972
1993	1994	→	1973
1994	1995	→	1974
1995	1996	→	1975
1996	1997	→	1976
1997	1998	→	1977
1998	1999	→	1978
1999	2000	→	1979
2000	2001	→	1980
2001	2002	→	1981
2002	2003	→	1982
2003	2004	→	1983
2004	2005	→	1984
2005	2006	→	1985
2006	2007	→	1986
2007	2008	→	1987
2008	2009	→	1988
2009	2010	→	1989
2010	2011	→	1990
2011	2012	→	1991
2012	2013	→	1992
2013	2014	→	1993
2014	2015	→	1994
2015	2016	→	1995
2016	2017	→	1996

Notes: (a) There is a one-year gap between the timing of the de-standardisation variable and the secondary school graduation age cohort. This is to capture the effect of the de-standardisation process on individuals who attended school under this institutional feature at least one year. This is further explained below in the de-standardisation variable section.

The dependent variable in the study is the educational attainment of secondary education graduation age cohorts from 1991 through 2017, either lower- or upper-secondary. Educational

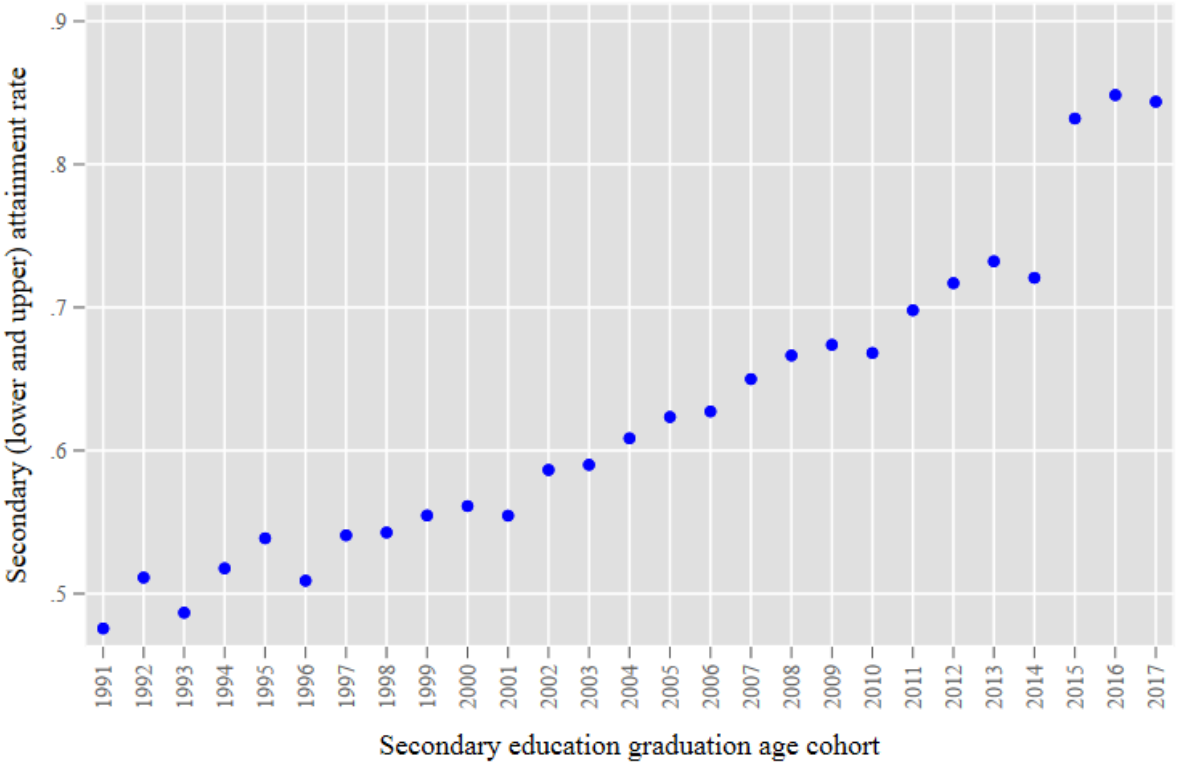
attainment means whether someone completed lower- or upper-secondary education within three years of completion age. We follow UNESCO Institute for Statistics (UIS) (the lower limit) to define the graduation age cohorts, which is the population within three to five years of their secondary education completion age. In most countries, the upper-secondary completion age is 18 years old. Hence, we set 21 as the secondary level graduation age for every year in our selected years. We could not separate lower- and upper-secondary levels since the educational attainment variable for some countries does not have separate categories for both levels. Indeed, in many countries, the educational systems are broadly divided into primary/basic and secondary education, with no separate category for lower secondary. This is a limitation in our analysis, which is unavoidable due to lack of national-level surveys on LMICs. Combining both lower- and upper-secondary levels was necessary to keep the analysis comparable.

Nonetheless, DHS and MICS surveys are cross-sectional. Since one of our research questions addresses the over time variation in the relationship between de-standardisation and attainment inequality, we create cross-sectional synthetic cohorts of secondary education graduation age population as defined. To create these cohorts, we combine all datasets which provide us with 27 cohorts from 1991 until 2017. Table 1 illustrates the selected cohorts of 21-year-olds and their corresponding birth year.

Figure 2 illustrates the attainment rate in 27 LMICs by cohort. There is a steep increase in the attainment rate of secondary education, both lower and upper. Our estimates are consistent with that of the World Bank (n.d.-a) about lower-secondary school completion rate in LMICs. However, considering that our sample size does not include all LMICs and also the secondary

education graduation age includes both lower- and upper-secondary in the same age range of 21 (that is, 2 years more for lower-secondary)[21], the estimates are likely to be slightly higher.

Figure 2. The trend in the rate of secondary education attainment in 27 LMICs, 1991-2017.



Notes: 95 percent confidence intervals are added but are noticeable due to very small upper and lower bounds.
Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020).

Key Explanatory Variables

Micro-level – Economic Resources. The main explanatory variable at the individual level is *economic resources* proxied by individual 'wealth'. This is a categorical variable provided in the surveys which is measured through principal component analysis (PCA) using possession of

[21] If the age range was only for lower-secondary, it would have been 19, that is, 3 years within the lower-secondary graduation age of 16.

observable indicators on individual assets, dwelling building materials, and access to utilities such as electricity, water and sanitation facilities (Martel 2016). These 'wealth' indicators can be good proxies for economic resources such as household expenditure or income in LMICs (Filmer and Pritchett 1999, Filmer and Pritchett 2001, Shaukat, Javed and Imran 2020). Among the five quintiles, the first quintile, consisting of approximately 20 percent of the population, signifies the poorest quintile by parents' economic resources while the fifth quintile indicates the richest 20 percent of the population.

Macro-level - De-standardisation Measures. To answer the research questions, we use a unique dataset that we built through extensive archival research for the years starting from 1990 through 2016. We start the measures of de-standardisation from 1990 (unlike 1991 for educational attainment) to ensure that the individuals went through the schooling system at least for one year. For instance, we seek to examine the 'effect' of de-standardisation process in 1990 on educational attainment of the secondary school graduation cohort after one year, or in 1991. Thus, de-standardisation measures from 1990 until 2016 corresponds to educational attainment from 1991 to 2017 as shown in Table 1.

We explain the variable construction process in detail in paper 3 and provide sufficient details here as well. To measure the process of de-standardisation of educational systems, we code numerous education policy documents from 27 countries. We code countries from three main source of documents: (a) the UNESCO Bureau of Education (IBE) (International Bureau of Education 2007, 2011), (b) the UNESCO right to education (RTE) database (UNESCO n.d.), and (c) national laws and policy documents. Approximately 75 percent data come from IBE and the remaining are derived from the latter two sources. IBE provides reports on each individual country about the educational system, which are available from 2007 and 2011. The reports, however,

include historical narrative, which allowed us to code data even before the report preparation points. But if any information was not available in these reports, we thoroughly researched sources and b and c as mentioned. In addition, since IBE reports do not have information after 2011, we also used UNESCO database and national policy documents (sources b and c) for data after 2011.

We construct 10 indicators of de-standardisation separately at the school and sub-national levels. The indicators are de-standardisation of educational systems in LMICs in deciding (1) curriculum, (2) textbook, (3) assessment or exit exam, (4) admission to school, (5) teacher recruitment, (6) teacher initial and (7) in-service training, (8) budget source and (9) implementation, and (10) inspection or supervision. We have comprehensively coded these countries to capture both sub-national and school level de-standardisation, which past literature overlooks. Nevertheless, the indicators broadly follow existing studies (Chmielewski and Reardon 2016, Gamoran 1996, van Hek, Buchmann and Kraaykamp 2019). We follow a three-step process to construct the indices of actual state of de-standardisation at both sub-national and school levels.

First, we transform the 10 indicators into 10 dummies at both levels. For the sub-national level indicators, we code 1 when any of the 10 responsibilities are carried out either (a) solely by sub-national entities; or (b) shared by both sub-national entities and the central government; or (c) shared by schools, sub-national entities and/or the central government. These are 2, 3, and 4 points in Table A1 in the appendix. Hence, 1 means the 10 responsibilities are de-standardised at the sub-national level. We code 0 for points 1, 5, and 6 in Table A1, which indicate that the tasks are not de-standardised at the sub-national level.

Similarly, we code 1 denoting each of the 10 responsibilities are de-standardised at the school level when these are administered either (a) solely by school actors such as the school management committee (SMC), principals, teachers, and local communities; or (b) shared between

schools and the central government; or (c) shared between school actors, local governments and/or the central government. These points are 4, 5, and 6 in Table A1 in the appendix. When 2, 3, and 6 points are true, we code school de-standardisation 0 indicating the 10 responsibilities are not de-standardised at the school level.

In the second stage, after creating the binary measures for all the 10 indicators, we create two indices of (a) sub-national, and (b) school-level de-standardisation by using item response theory (IRT). As explained in paper 3, IRT is often used to create continuous indices of observed outcomes from categorical responses of latent or unobserved characteristics (Fraley, Waller and Brennan 2000). As described in paper 3, when applying other methods to construct the indices including arithmetic mean and multiple correspondence analysis (MCA), the measures remain consistent. Finally, in the third step, to easily interpret the results, we standardise the two indices with a mean of 0 and standard deviation of 1. The indices are presented in Figure 3.

Control Variables

Micro level. We also control for gender, which is a binary measure indicating someone is male or female. Furthermore, our analysis accounts for location indicating whether someone lives in urban or rural areas.

Macro level. We include a number of variables at the country level for robustness checks. These variables include the level of authoritarianism in a country as it may influence how the educational systems should shape and its relationship with educational attainment. This is the same variable as used in paper 2 used from varieties of democracy (Coppedge et al. 2021). Moreover, we control for GDP per capita (World Bank n.d.-b) as higher GDP per capita may indicate more spending in education which may be associated with educational attainment. While it would be

more appropriate to control for educational expenditure as a proportion to GDP, such data are not available for all countries across all the selected years.

Analytical Strategy

To address the research puzzle explained in the theoretical section, we employ logistic regression models with country and cohort fixed effects. The cohorts in our sample are cross-sectional at the individual level. Specifically, to answer research question 1 investigating the relationship between the de-standardisation of educational systems and the inequality in attainment by economic resources at the secondary level, we fit equation 1. While equation 1 has interaction term to address the question of inequality, we first run main effects models to see whether there is any association between the process of de-standardisation and attainment. We then interact de-standardisation with economic resources to examine whether the effects of de-standardisation vary by economic resources level. In equation 1,

$$\text{logit}(\Pr(A_{ic} = 1)) = \beta_0 + \boldsymbol{\beta}_1\mathbf{D}_c + \beta_2 S_{ic} + \boldsymbol{\beta}_3(S_{ic} \times \mathbf{D}_c) + \psi\mathbf{X}'_{ic} + \delta\mathbf{Z}'_c + T_i + a + u_{ic} \quad (1)$$

A is the binary outcome variable signifying whether an individual $_i$ in cohort $_c$ attained secondary education or not. β_0 is an intercept while $\boldsymbol{\beta}_1$ is a vector of the coefficients for de-standardization $\mathbf{D}_c$ at the subnational and school levels, respectively. Both de-standardization variables are measured at the country level and do not vary by individuals $_i$. But they vary across the cross-sectional cohorts $_c$ of secondary graduation age individuals. As explained in the variable sections, there is a one-year difference between the measures of de-standardization and educational attainment cohorts. De-standardization measures start in 1990 and ends in 2016 while the secondary school graduation age cohorts start in 1991 with the ending year being 2017. I, however, use other cut-offs keeping the difference between de-standardization measures and

educational attainment 2 to 3 years apart. Despite losing many observations, the results remain largely similar (not reported).

I use the economic resources of individuals S_{ic} in which β_2 is the corresponding coefficient. Then, I use the interaction of economic resources and the two de-standardization variables ($S_{ic} \times \mathbf{D}_c$) where $\boldsymbol{\beta}_3$ is a corresponding vector of the coefficients. The relationship between educational attainment and economic resources represents attainment gaps between different economic resources quintiles. In this study, I am mainly interested in whether the relationship between attainment and economic resources differs by the degree of de-standardization at the country level. In other words, I use the interaction between economic resources and de-standardization to examine the heterogeneity of effect on attainment.

Additionally, ψ and δ are two vectors of the coefficients for control variables $\mathbf{X}'_{ic}$ at the individual and $\mathbf{Z}'_c$ country levels, respectively, as described in the variable section. I also use year/cohort fixed effects T_i as the data in the study come from 27 years (1991-2017) and are cross-sectional at the individual level. T_i also corresponds to the cohorts of secondary graduation age individuals. Since this study includes 27 countries, I use country-fixed effects to account for unobservable country-specific characteristics a. Finally, u_{ic} is an error term in the model.

To deal with research question 2 about whether the relationship between the de-standardization of educational systems and the inequality in attainment by economic resources varies by the selected cohorts, I fit equation 2. Here,

$$\text{logit}(\Pr(A_{ic} = 1)) = \beta_0 + \boldsymbol{\beta}_1\mathbf{D}_c + \beta_2 S_{ic} + \beta_3 Y_i + \boldsymbol{\beta}_4(S_{ic} \times \mathbf{D}_c \times Y_i) + \psi\mathbf{X}'_{ic} + \delta\mathbf{Z}'_c + a + u_{ic} \qquad (2)$$

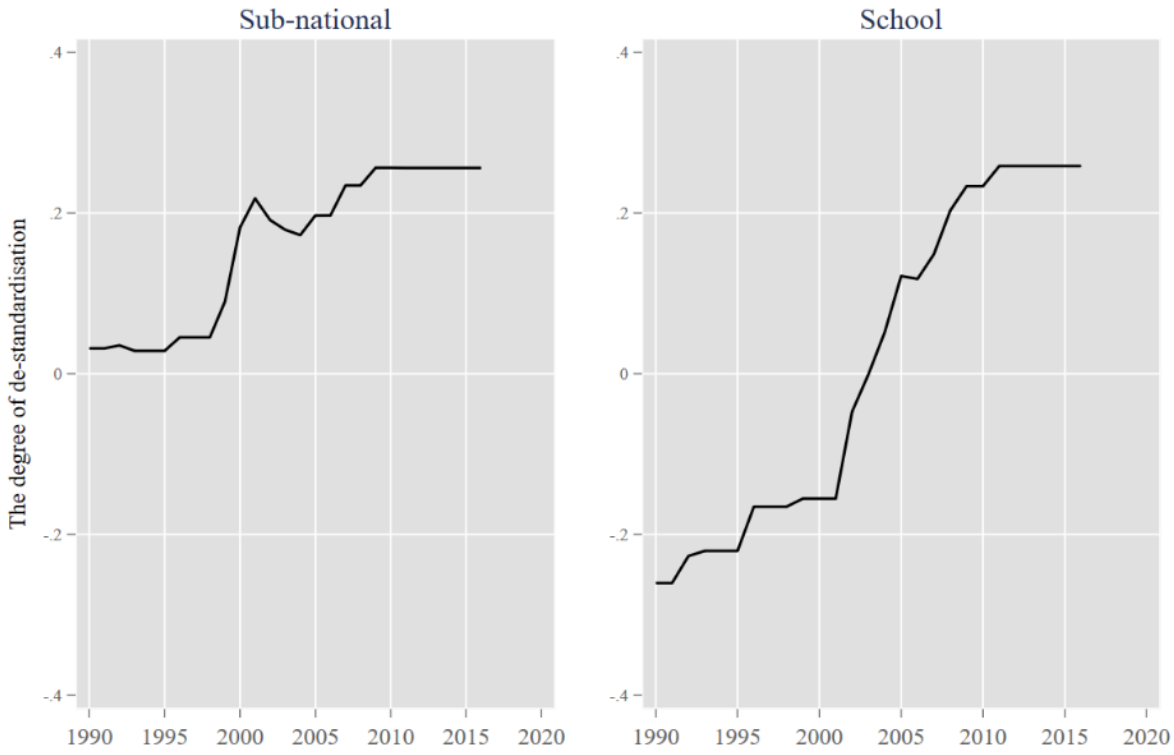
Instead of time T_i as in equation 1, here I create a dummy variable Y_i by dividing the cohorts into six major groups with different intervals of time between 1991 and 2017.[i] I do this as educational systems do not change very frequently. Hence, I do not expect that the association between de-

standardization and the inequality in attainment would change every year. In equation 2, I add the three-way interaction between economic resources, the two de-standardization variables, and the year corresponding to the secondary graduation age individuals ($S_{ic} \times \mathbf{D}_c \times Y_i$), where $\boldsymbol{\beta}_4$ is the related coefficient vector. All these models are estimated using individual survey weights.

FINDINGS

Descriptive Overview

Figure 3. Descriptive trend in the process of de-standardisation at the school and sub-national levels, 1990-2016.

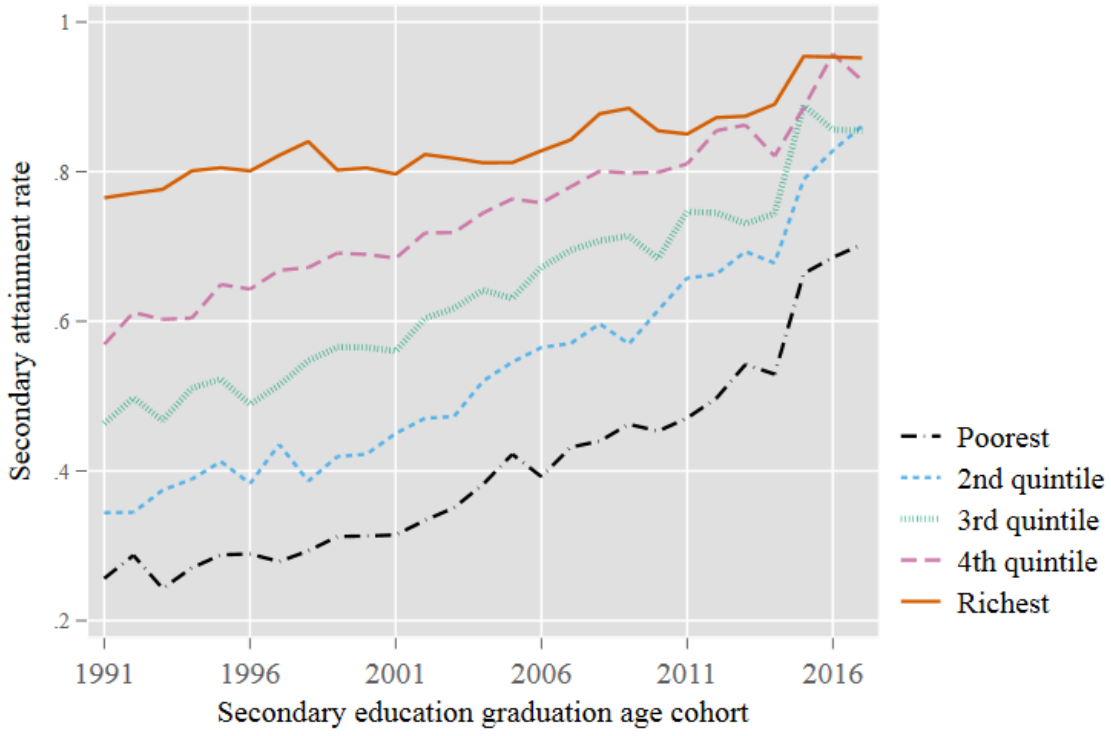


Notes: The y-axis represents a standardised scale with a mean of 0 and standard deviation of 1 as explained in the data and variables section.
Source: Own dataset.

Before going to address specific research questions using the described models, we provide here a descriptive overview of de-standardisation and attainment inequality. As illustrated in Figure 3, the process of de-standardisation of educational systems at both sub-national and school

levels has experienced an increasing growth since the beginning of the 1990s. However, the growth at the sub-national level started higher and remained also higher from 1990. The growth of school level de-standardisation has been steeper as it also started from a lower level. This aligns with the past literature that the relevant reforms have been pushed by IOs in this era, especially at the school level since sub-national level reforms took place much earlier (Hossain 2022). Figure A1 in the appendix shows regional variation in the growth, which is upward in most cases although the trend is steeper in some regions than others. Since we do not have the data before 1990, we could not show the growth earlier than that which might show when countries started increasingly de-standardising their educational systems. Despite this, our study provides unique and new insights into the changes in the educational systems over three decades.

Figure 4. The gaps between different economic resources quintiles are closing in terms of secondary school completion rate in 27 LMICs, 1991-2017.



Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020).

Nevertheless, similar to the growth of de-standardisation, the rate of secondary-level attainment has also noticeably increased over the same period, in particular for the poorer quintiles as shown in Figure 4. Yet, the gaps remain quite substantial. The crux of our paper is, thus, to investigate whether the growth in both elements is correlated, that is, if an increase in de-standardisation decision-making processes is associated with reducing attainment gaps.

The Link between De-standardisation and Attainment Inequality

We first discuss the linkage between de-standardisation and overall educational attainment at the secondary level although this is not our primary concern. As presented in Table 2, de-standardisation at the sub-national level is not significantly associated with educational attainment without any controls in model 1 apart from country and cohort fixed effects and with controls in model 4. This remains the same when we add also the school-level de-standardisation variable to models 3 and 6. However, school-level de-standardisation is negatively associated with attainment in model 2 without and model 5 with controls, as well as in models 3 and 6 when we add sub-national de-standardisation. This is statistically significant ($p<.001$) as model 7 or the final model in Table 2 suggests. Specifically, one standard deviation increase in de-standardisation at the school level is associated with a 17-percentage point decrease in the probability of attaining secondary education after adjusting for relevant controls (model 5 in Table A2 in the appendix for AMEs).

These results are consistent with the study of Hanushek, Link and Wöbmann (2013) where they conclude that autonomy at the school level (a trait of de-standardisation) to make educational policies tend to decrease learning achievement in LMICs but increase in high-income countries. Their study does not show the probability of attainment. More importantly, our standardisation measures are arguably more comprehensive while the sample size in our study in terms of the number of countries is much larger. In addition, we do not only provide evidence on school-level de-standardisation but also on sub-national level.

i. These are 1991-1995, 1996-1999, 2000-2003, 2004-2007, 2008-2011, 2012-2017.

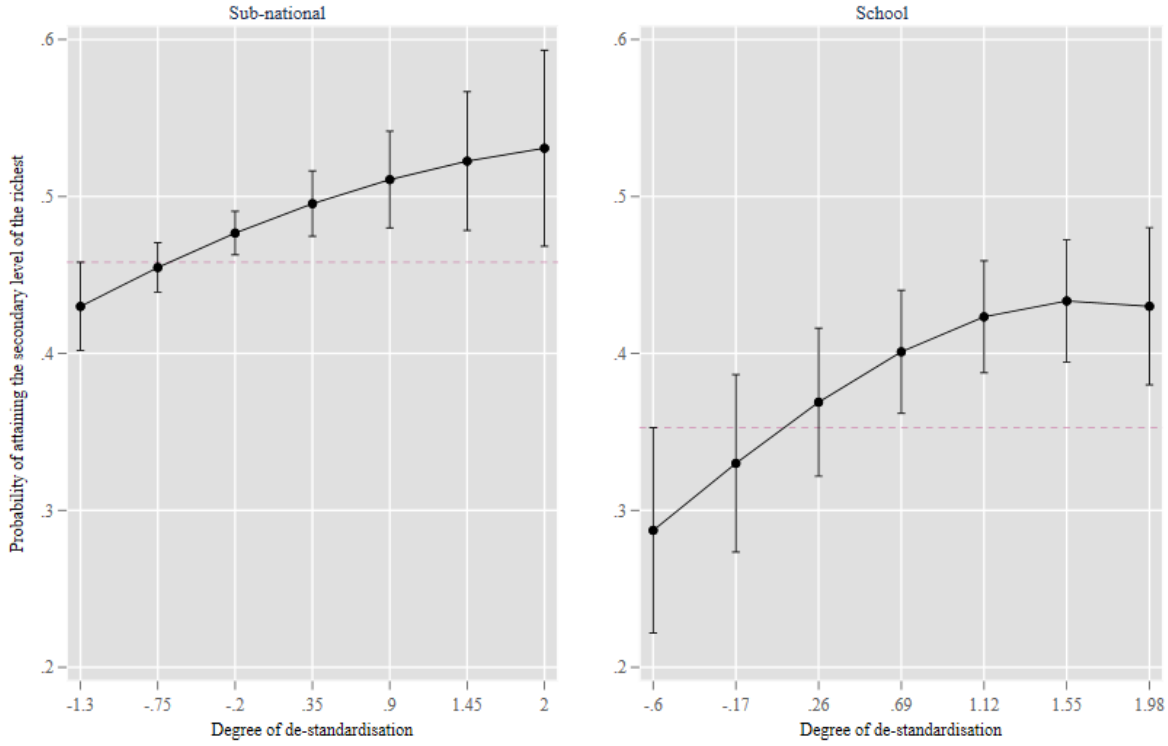
Table 2. The association between the de-standardisation of educational systems at sub-national and school levels and attainment including when interacting with economic resources, 1991-2017 (results from logistic regression with country and cohort fixed effects)

	Dependent variable: Probability of completing secondary level education									
	Logistic regression models									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
De-standardisation - sub-national level	-0.12		0.08	-0.12		0.11	-0.21	0.03	-0.04	-0.36*
	(0.08)		(0.06)	(0.09)		(0.07)	(0.14)	(0.31)	(0.08)	(0.14)
De-standardisation - school level		-0.77***	-0.85***		-0.89***	-0.99***	-0.90***	-0.97***	-1.03***	-0.97***
		(0.23)	(0.21)		(0.25)	(0.23)	(0.20)	(0.25)	(0.22)	(0.20)
De-standardisation - sub-national × school level								0.06		
								(0.23)		
Parents' economic resources (ref: poorest)										
Quintile 2				0.59***	0.59***	0.59***	0.59***	0.59***	0.62***	0.60***
				(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Quintile 3				1.10***	1.11***	1.11***	1.11***	1.11***	1.17***	1.12***
				(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Quintile 4				1.65***	1.65***	1.65***	1.65***	1.65***	1.76***	1.65***
				(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)
Richest				2.43***	2.43***	2.43***	2.44***	2.43***	2.58***	2.41***
				(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
De-standardisation × Parents' economic resources (ref: poorest)										
Sub-national × Quintile 2									0.16***	0.17***
									(0.03)	(0.03)
Sub-national × Quintile 3									0.24***	0.25***
									(0.03)	(0.03)
Sub-national × Quintile 4									0.24***	0.28***
									(0.04)	(0.04)
Sub-national × Richest									0.12	0.15*
									(0.06)	(0.06)

De-standardisation × Parents' economic resources (ref: poorest)										
School × Quintile 2									0.09***	0.07**
									(0.02)	(0.02)
School × Quintile 3									0.13***	0.11***
									(0.03)	(0.03)
School × Quintile 4									0.13***	0.15***
									(0.03)	(0.03)
School × Richest									0.07	0.11*
									(0.05)	(0.06)
Rural (ref: urban)				-0.28***	-0.28***	-0.28***	-0.28***	-0.28***		-0.29***
				(0.04)	(0.04)	(0.04)	(0.04)	(0.04)		(0.04)
Gender - female (ref: male)				-0.43***	-0.43***	-0.43***	-0.43***	-0.43***		-0.44***
				(0.03)	(0.03)	(0.03)	(0.03)	(0.03)		(0.03)
GDP per capita (log)							0.46**			0.46**
							(0.15)			(0.15)
Degree of authoritarianism							-0.56***			-0.56***
							(0.17)			(0.16)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-2.59***	-2.75***	-2.68***	-3.83***	-4.04***	-3.94***	-13.68***	-3.99***	-4.39***	-13.64***
	(0.18)	(0.15)	(0.18)	(0.19)	(0.16)	(0.19)	(3.23)	(0.23)	(0.18)	(3.18)
Observations	1981710	1981710	1981710	1981710	1981710	1981710	1981710	1981710	1981710	1981710
Country-cohort	588	588	588	588	588	588	588	588	588	588
Country	27	27	27	27	27	27	27	27	27	27

Notes: (a) The models are estimated following equation 1. (b) While the timeframe for the de-standardisation measures is 1990-2016, educational attainment and other data come from 1991-2017 as explained in the data and variables section and Table 1. (c) More country level controls (GDP per capita and regime system) are added to the models presented in Table A1 in the appendix. They are excluded here as those controls do not have information for some countries, but the results remain quite similar in both Tables. (d) Standard errors are clustered at both country and country-cohort levels. (d) * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$. (e) The results remain similar when we check using the quadratic terms of de-standardisation at the sub-national and school levels for potential effects of non-lineraity.
Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020) and other datasets as described in the *methodology* section.

Figure 5. Conditional average marginal effects (AMEs) of the probability of attaining secondary education by the richest quintile compared to the poorest quintile, for a given level of de-standardisation.



Notes: The degree of de-standardisation is a standardised scale with a mean of 0 and standard deviation of 1. The results can be explained as the association between the changes in the standard deviation of de-standardisation and the probability of attaining secondary education.
Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020).

We further interact sub-national and school-level de-standardisation variables in model 7 in Table 2. But the interaction effect is insignificant, meaning the interaction of both of these variables does not amplify the effect on the probability of educational attainment.

Next, we examine whether the association between de-standardisation and attainment varies by economic resources level using equation 1. We find that both at the sub-national and school levels, lower level of de-standardisation is linked to lower achievement gaps between the richest and poorest quintiles and vice versa. As the interaction coefficients in model 8 (without

controls) and 9 (with controls) suggest, individuals from higher economic resources quintiles tend to have a greater attainment level as the de-standardisation increases at both sub-national and school levels. This means the attainment gaps between the poorest and richest quintiles increase under the educational systems with a greater degree of de-standardisation. We further plot the interaction effects in Figure 5 to aid the interpretation. In Figure 5, we plot conditional marginal effects, which means the attainment probability of the richest quintile when the probability of the poorest quintile is zero. We compare two quintiles (out of five) to simplify the presentation of results, and also because the gap between the richest and poorest quintiles is the widest as the descriptive trend suggests in Figure 4.

Overall, we can see in the left panel that as the scale of de-standardisation (in terms of standard deviation) increases or moves from the left to the right, the attainment gaps between the poorest and richest quintiles tend to slightly increase. Specifically, the conditional marginal effects for the richest quintile show that they are 11 percentage points more likely to attain than the poorest quintile when compared between the lowest level (the furthest left side) and highest level (the furthest right side) of de-standardisation on the x-axis. Similarly, as the scale of de-standardisation at the school level increases, the attainment gaps between the poorest and richest quintiles increases by 14 percentage points (see Table A3 in the appendix for the full account of AMEs on the interaction coefficients from models 8 and 9 in Table 2. The AMEs are presented only for the poorest and richest quintiles to simplify the presentation of the results).

The results for both sub-national and school level de-standardisation align with scenario 2 in Figure 1 or an increase in attainment gaps. For the sub-national level, this may indicate that simply capacity building exercise by dislocating responsibilities from central to local offices may not be able to address the needs of the disadvantaged people. This could be because marginalised

individuals require economic empowerment first, which would enable them to concentrate on different forms of civic participation and being aware of their rights. Similarly, the results for school-level de-standardisation may indicate that more autonomous decision-making space in schools may not allow local stakeholders to participate more due to clientelist and informal governance as described in the theoretical sections (Essuman and Akyeampong 2011, Joshi 2014). This also means that the issues of poverty and social segregation in local communities should be emphasised more.

To address research question 2, we further examine the trend in the relationship between de-standardisation and attainment inequality using equation 2 with three-way interactions of de-standardisation, economic resources, and six cohort categories with time intervals. Here, we do not use cohort fixed effects as we are interested in the trend in attainment and inequality. We present the average marginal effects (AMEs) in Table 3 from three-way interactions of de-standardisation, economic resources, and cohort categories. To aid the interpretation of these coefficients we plot the AMEs in Figure 6 for sub-national and Figure 7 for the school level.

Table 3. Average marginal effects (AMEs) from three-way interaction between the process of de-standardisation (sub-national and school), economic resources quintiles, and cohort intervals to predict the probability of attaining secondary education, 1991-2017.

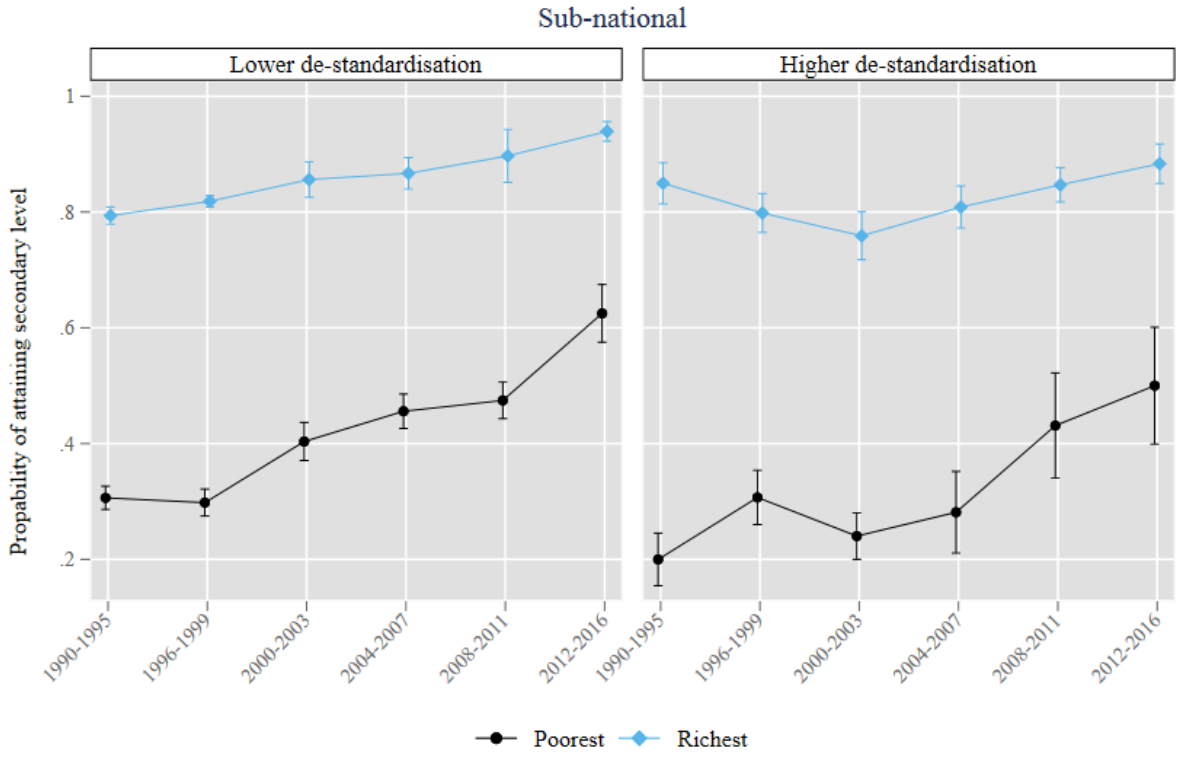
	Probability of attaining secondary level	
	Sub-national	Schools
Low de-standardisation × poor × cohort (1991-1995)	0.31***	0.16***
	(0.01)	(0.02)
Low de-standardisation × poor × cohort (1996-1999)	0.30***	0.15***
	(0.01)	(0.01)
Low de-standardisation × poor × cohort (2000-2003)	0.40***	0.36***
	(0.02)	(0.03)
Low de-standardisation × poor × cohort (2004-2007)	0.46***	0.53***
	(0.02)	(0.03)
Low de-standardisation × poor × cohort (2008-2011)	0.47***	0.72***
	(0.02)	(0.03)

Low de-standardisation × poor × cohort (2012-2017)	0.63***	0.77***
	(0.03)	(0.07)
Low de-standardisation × rich × cohort (1991-1995)	0.79***	0.51***
	(0.01)	(0.05)
Low de-standardisation × rich × cohort (1996-1999)	0.82***	0.60***
	(0.00)	(0.04)
Low de-standardisation × rich × cohort (2000-2003)	0.86***	0.81***
	(0.02)	(0.01)
Low de-standardisation × rich × cohort (2004-2007)	0.87***	0.88***
	(0.01)	(0.02)
Low de-standardisation × rich × cohort (2008-2011)	0.90***	0.84***
	(0.02)	(0.02)
Low de-standardisation × rich × cohort (2012-2017)	0.94***	0.99***
	(0.01)	(0.00)
High de-standardisation × poor × cohort (1991-1995)	0.20***	0.39***
	(0.02)	(0.02)
High de-standardisation × poor × cohort (1996-1999)	0.31***	0.43***
	(0.02)	(0.03)
High de-standardisation × poor × cohort (2000-2003)	0.24***	0.33***
	(0.02)	(0.02)
High de-standardisation × Rich × cohort (2004-2007)	0.28***	0.38***
	(0.04)	(0.01)
High de-standardisation × poor × cohort (2008-2011)	0.43***	0.46***
	(0.05)	(0.01)
High de-standardisation × poor × cohort (2012-2017)	0.50***	0.61***
	(0.05)	(0.02)
High de-standardisation × rich × cohort (1991-1995)	0.85***	0.86***
	(0.02)	(0.01)
High de-standardisation × rich × cohort (1996-1999)	0.80***	0.89***
	(0.02)	(0.01)
High de-standardisation × rich × cohort (2000-2003)	0.76***	0.81***
	(0.02)	(0.02)
High de-standardisation × rich × cohort (2004-2007)	0.81***	0.83***
	(0.02)	(0.01)
High de-standardisation × rich × cohort (2008-2011)	0.85***	0.87***
	(0.02)	(0.01)
High de-standardisation × rich × cohort (2012-2017)	0.88***	0.92***
	(0.02)	(0.00)

Notes: (a) In these models, de-standardisation is categories as low and high for simplicity in interpreting the interaction effects. (b) While the timeframe for the de-standardisation measures is 1990-2016, educational attainment and other data come from 1991-2017 as explained in the data and variables section and Table 1. (c) The AMEs in these models are from models 1 and 2 in Table 3 (or 'no controls' and 'controls' models in Table A4 in the appendix) on three-way interaction between de-standardisation, economic resources, and cohort categories with time intervals. (d) AMEs in the 'no controls' models (without gender and location) are from model 1 while AMEs in the 'controls' models come from model 2

in Table 3. (e) Individual N: 1981710, country cohorts: 588, and country: 27. (f) Standard errors are adjusted at both country-cohort and country levels. (f) * p < 0.05 ** p < 0.01 *** p < 0.001.

Figure 6. The association between the process of de-standardisation at the sub-national level and the probability of attaining secondary education by the richest and poorest quintiles, 1991-2017



Notes: (a) After running the three-way interaction model, we broadly categorise de-standardisation into higher and lower levels to make the interpretations easy. We divide the continuous variable by its mean, that is, higher-level de-standardisation if the value is above the mean of 0 (as the variable is standardised) and lower if below the mean of 0. (b) While the timeframe for the de-standardisation measures is 1990-2016, educational attainment and other data come from 1991-2017 as explained in the data and variables section and Table 1.
Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020).

As presented in Figures 7 and 8, the attainment gaps between the riches and poorest quintiles[22] are minimising over cohorts in both sets of countries with higher- and lower-levels of

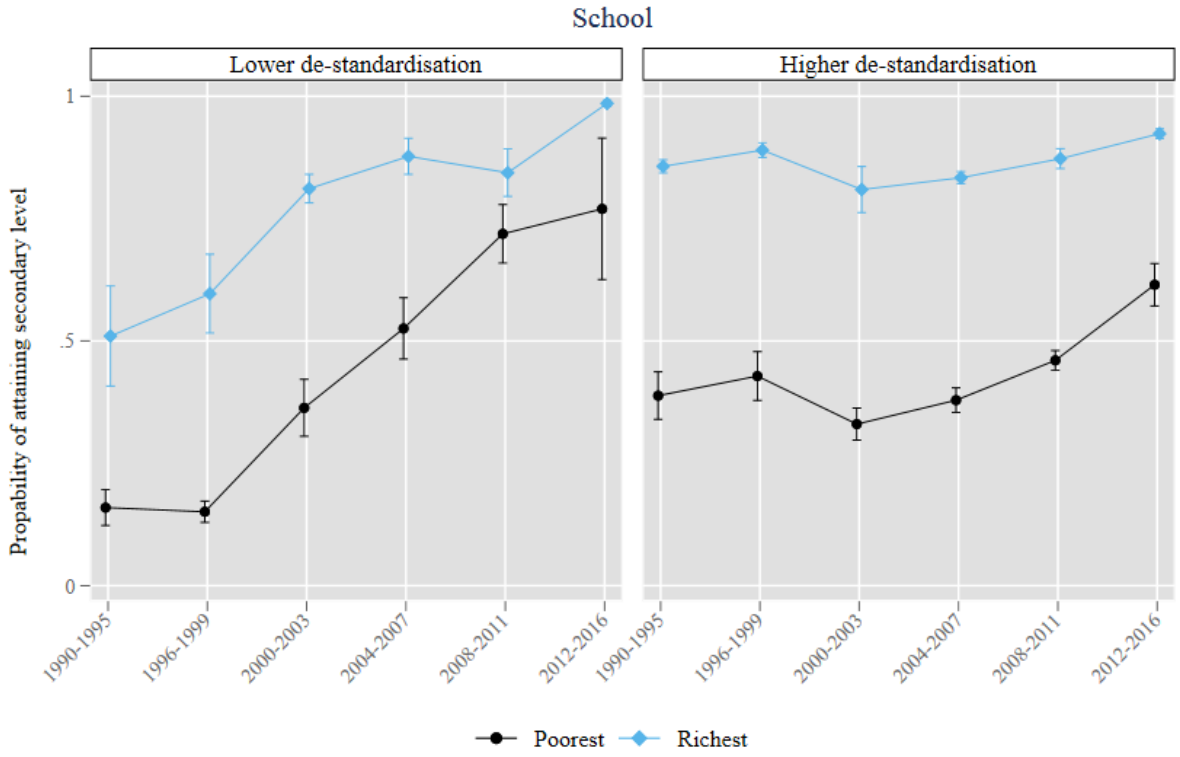
[22] Economic resources quintiles 1, 2, and 3 are collapsed as poor and 4 and 5 are collapsed into the rich category.

de-standardisation.[23] However, the gaps are decreasing more in countries with less de-standardised educational system, more so when it comes to school-level de-standardisation. To elaborate, as the left panel in Figure 6 illustrates, the attainment gap between the poor and rich is minimising for individuals in educational systems maintaining greater standards across sub-national entities. The right panel in Figure 6 shows less tendency to minimise the attainment gap.

Figure 7 demonstrates that the attainment gaps between the richest and poorest quintiles decreased less across cohorts in highly de-standardised educational systems at the school level compared to countries with lower school-level de-standardisation. Put simply, individuals within the lower level of de-standardised systems tend to experience less attainment gaps by economic resources over different cohorts. These results correspond to Figure 5 which suggest that more school-level de-standardisation is associated with higher-level attainment gaps between different quintiles of economic resources even after accounting for cohort and country fixed effects. These findings, including that of sub-national-level de-standardisation, also correspond to previous studies from high-income countries that decreasing the standards of educational systems may lead to more inequality in educational outcomes (Gamoran 1996, Van de Werfhorst and Mijs 2010). However, results from previous studies are not disaggregated by school and sub-national entities unlike this study.

[23] While de-standardisation is measured using a continuous scale, we divide it by its median (since the distribution of is slightly skewed) after estimating the models to present the results more clearly.

Figure 7. The association between the actual de-standardisation at the school level and the probability of attaining secondary education by the richest and poorest quintiles, 1991-2017.



Notes: (a) After running the three-way interaction model, we broadly categorise de-standardisation into higher and lower levels to make the interpretations easy. We divide the continuous variable by its mean, that is, higher-level de-standardisation if the value is above the mean of 0 (as the variable is standardised) and lower if below the mean of 0. (b) While the timeframe for the de-standardisation measures is 1990-2016, educational attainment and other data come from 1991-2017 as explained in the data and variables section and Table 1.
Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020).

DISCUSSION AND CONCLUSIONS

For the first time, we provide cross-country evidence from 27 LMICs linking the de-standardisation of educational systems and the inequality in learning attainment at the secondary level. We use unique de-standardisation measures for this using comprehensive indicators.

We find that overall, sub-national-level de-standardisation of educational systems is not significantly associated with attainment with and without controlling for relevant variables. But school-level de-standardisation is associated with decreasing attainment. Our findings correspond

to previous research that providing schools with more autonomy may not be as beneficial for LMICs in terms of learning achievement as it is for high-income countries (Hanushek, Link and Wöbmann 2013).

Notably, unlike the proponents suggest that de-standardisation-like reforms would benefit marginalised population, we do not find any such evidence. We rather find opposite results. Our analyses suggest that a greater de-standardisation at the sub-national and school levels is linked to widening attainment gaps between higher and lower economic resources quintiles. This also remains similar across cohorts, more so for school-level de-standardisation. Our results correspond to findings from past research in high-income countries that less standardised educational systems may have a higher level of inequality in educational outcomes (Van de Werfhorst and Mijs 2010). However, our unique contribution is that we consider sub-national and school levels theoretically different in almost unexplored contexts. Due to this distinction, we could now see at which institutional level de-standardisation may matter for educational inequalities. Future research can adopt this analytical framework to examine whether findings from this study also holds similar in other societies and time points.

These results raise the question whether investing substantial resources in this type of institutional reforms should receive closer attention so that other direct causes of attainment inequality can be addressed more effectively. These causes can range from poverty and social segregation to poorly resourced schools.

Appendix

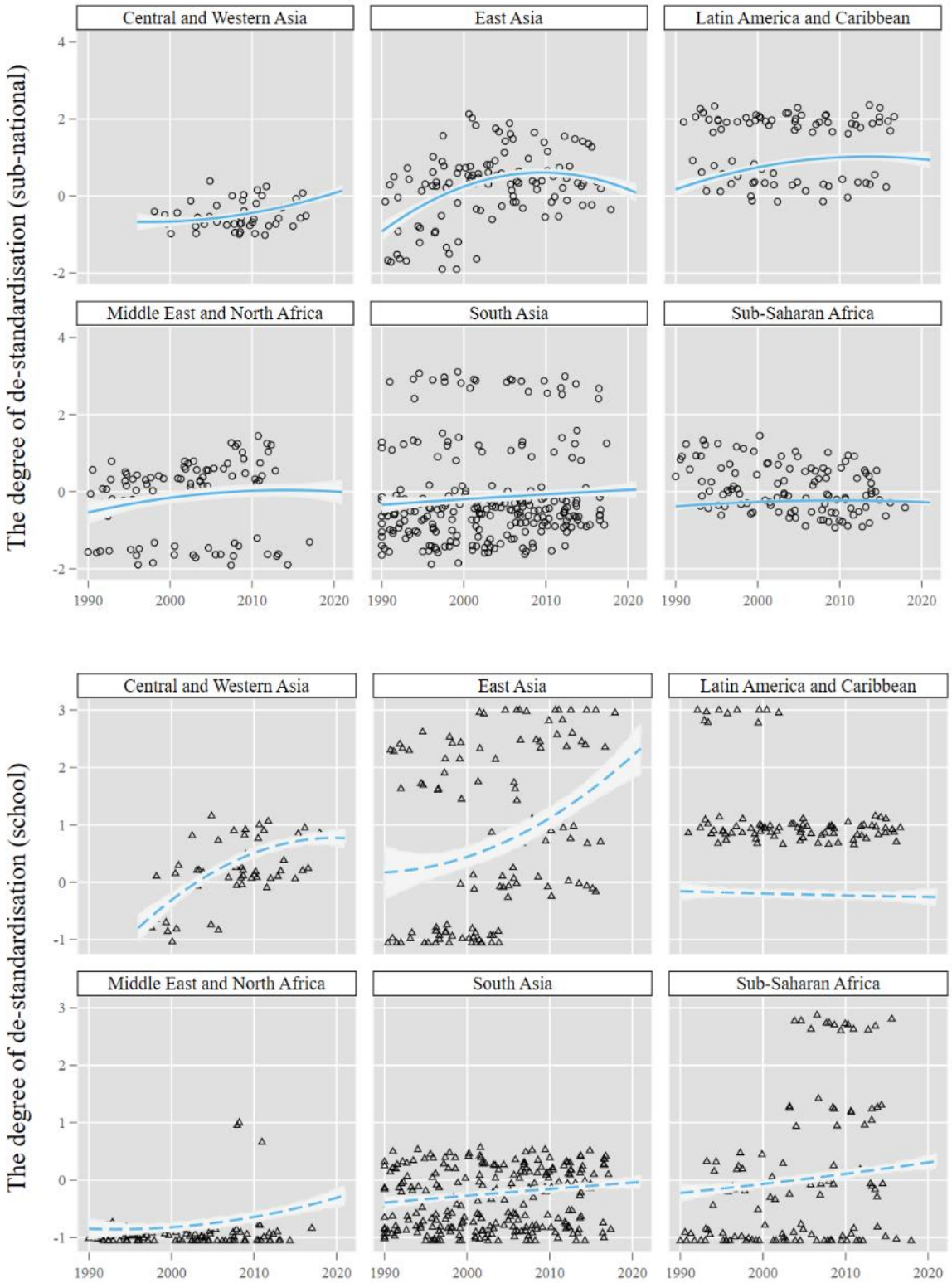
Table A1. Coding scheme

Who decides [one of the 10 indicators listed in the variable section] at the secondary level?

Sub-national	School		Decision-making level
0	0	1	Central government
1	0	2	Combination of sub-national entities and the central government
1	0	3	Sub-national entities (i.e., region/directorate/district/sub-district)
1	1	4	Combination of schools, sub-national entities and/or the central government
0	1	5	Combination of schools and the central government
0	1	6	School actors (i.e., school management committee)

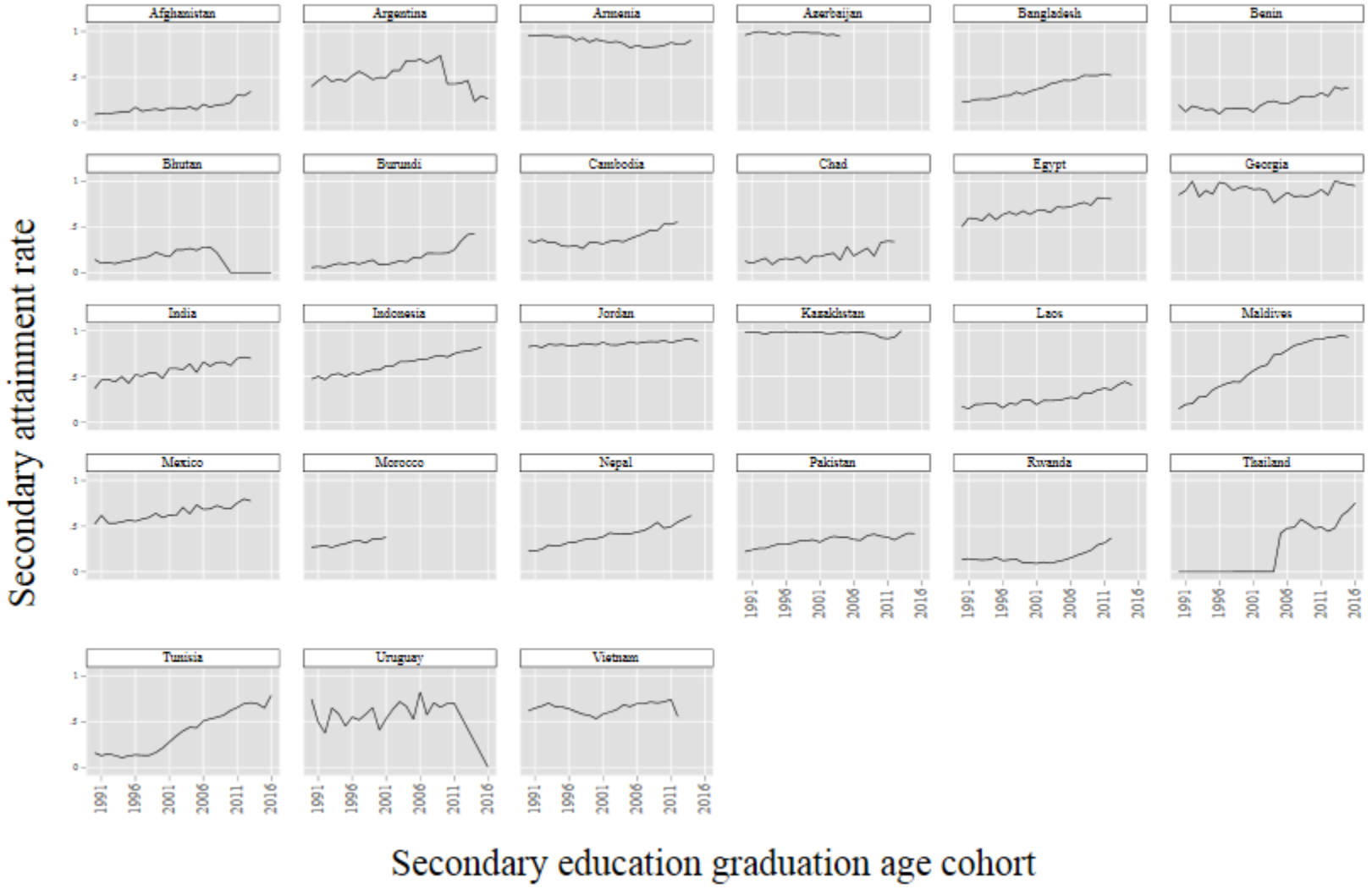
Source: Own coding scheme.

Figure A1. The degree of de-standardisation at sub-national (upper panel) and school levels (lower panel) over time, 1990-2016.



Notes: The remarks about y-scale in the notes of Figure 1 also applies to Figure 2.

Figure A3. Educational attainment at the secondary level by country, 1991-2017.



Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020).

Table A2. Average marginal effects (AMEs) of the association between the de-standardisation of educational systems and the probability of attaining secondary education, 1991-2017.

	Dependent variable: the probability of attaining secondary education						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
De-standardisation - sub-national level	-0.03		0.02	-0.02		0.02	-0.04
	(0.02)		(0.01)	(0.02)		(0.01)	(0.03)
De-standardisation - school level		-0.17***	-0.19***		-0.17***	-0.19***	-0.17***
		(0.05)	(0.05)		(0.05)	(0.04)	(0.04)
Parents' economic resources (ref: poorest)							
Quintile 2				0.12***	0.12***	0.12***	0.12***
				(0.01)	(0.01)	(0.01)	(0.01)
Quintile 3				0.23***	0.23***	0.23***	0.23***
				(0.01)	(0.01)	(0.01)	(0.01)
Quintile 4				0.34***	0.34***	0.34***	0.34***
				(0.01)	(0.01)	(0.01)	(0.01)
Richest				0.47***	0.47***	0.47***	0.47***
Rural (ref: urban)				(0.01)	(0.01)	(0.01)	(0.01)
				-0.05***	-0.05***	-0.05***	-0.05***
Gender - female (ref: male)				(0.01)	(0.01)	(0.01)	(0.01)
				-0.08***	-0.08***	-0.08***	-0.08***
				(0.01)	(0.01)	(0.01)	(0.01)
GDP per capita (log)							0.09**
							(0.03)
Degree of authoritarianism							-0.11***
							(0.03)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cohort fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1981710	1981710	1981710	1981710	1981710	1981710	1981710
Country-cohort	588	588	588	588	588	588	588
Country	27	27	27	27	27	27	27

Notes: (a) AMEs are estimated based on models in Table 1. Models 1-7 in Table A2 are the corresponding models of 1-7 in Table 2. (b) While the timeframe for the de-standardisation measures is 1990-2016, educational attainment and other data come from 1991-2017 as explained in the data and variables section and Table 1. (c) Controls include economic resources, gender and location (urban/rural). (d) Standard errors are adjusted at both country-cohort and country levels. (e) * p < 0.05 ** p < 0.01 *** p < 0.001.
Source: Own calculations based on IFC (1990-2020) and UNICEF (2000-2020) and other datasets as described in the *methodology* section.

Table A3. Average marginal effects (AMEs) from the interaction between the process of de-standardisation (sub-national and school) and economic resources quintiles[d] to predict the probability of attaining secondary education, 1991-2017.

	Dependent variable: The probability of attaining secondary education			
	De-standardisation of educational systems at…			
	Sub-national		School	
	No controls	Controls	No controls	Controls
Very low (level 1) de-standardisation × poorest quintile	0.34***	0.62***	0.41***	0.62***
	(0.01)	(0.05)	(0.03)	(0.04)
Very low (level 1) de-standardisation × richest quintile	0.82***	0.92***	0.84***	0.91***
	(0.01)	(0.01)	(0.02)	(0.01)
Level 2 de-standardisation × poorest quintile	0.34***	0.55***	0.37***	0.55***
	(0.01)	(0.04)	(0.01)	(0.03)
Level 2 de-standardisation × richest quintile	0.83***	0.89***	0.83***	0.88***
	(0.00)	(0.01)	(0.01)	(0.01)
Level 3 de-standardisation × poorest quintile	0.33***	0.47***	0.33***	0.47***
	(0.01)	(0.03)	(0.01)	(0.02)
Level 3 de-standardisation × richest quintile	0.83***	0.85***	0.81***	0.84***
	(0.00)	(0.00)	(0.01)	(0.00)
Level 4 de-standardisation × poorest quintile	0.33***	0.39***	0.30***	0.40***
	(0.01)	(0.01)	(0.02)	(0.01)
Level 4 de-standardisation × richest quintile	0.84***	0.80***	0.79***	0.80***
	(0.01)	(0.01)	(0.02)	(0.01)
Level 5 de-standardisation × poorest quintile	0.32***	0.31***	0.26***	0.32***

	(0.02)	(0.00)	(0.03)	(0.00)
Level 5 de-standardisation × richest quintile	0.84***	0.75***	0.78***	0.75***
	(0.01)	(0.02)	(0.03)	(0.02)
Level 6 de-standardisation × poorest quintile	0.32***	0.24***	0.23***	0.26***
	(0.03)	(0.01)	(0.04)	(0.01)
Level 6 de-standardisation × richest quintile	0.85***	0.69***	0.76***	0.69***
	(0.02)	(0.03)	(0.05)	(0.03)
Very high (level 7) de-standardisation × poorest quintile	0.32***	0.18***	0.21***	0.20***
	(0.04)	(0.02)	(0.04)	(0.02)
Very high (level 7) de-standardisation × richest quintile	0.85***	0.62***	0.74***	0.63***
	(0.02)	(0.05)	(0.07)	(0.04)

Notes: (a) The AMEs in these models are from models 8 and 9 in Table 2 on the interaction between de-standardisation and economic resources/wealth. AMEs in the 'no controls' models (without gender and location) are from model 9 while AMEs in the 'controls' models come from model 10 in Table 2. (b) While the timeframe for the de-standardisation measures is 1990-2016, educational attainment and other data come from 1991-2017 as explained in the data and variables section and Table 1. (c) The de-standardisation scale is broken into seven categories to aid the interpretation of the interaction with economic resources quintiles. While level/category 1 refers to very low de-standardisation, level/category 7 indicates very high de-standardisation. (d) Results are only displayed for the poorest and richest quintiles for analytical simplicity and also because the gaps between these two groups are most stark. (e) While Table A3 (this table) presents marginal effects for both the poorest and richest quintiles, Figure 5 plots conditional marginal effects of the richest quintile when the poorest quintile is zero. (f) Standard errors are adjusted at both country-cohort and country levels. (d) * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$.

References

Akiba, Motoko, Gerald K LeTendre and Jay P Scribner. 2007. "Teacher Quality, Opportunity Gap, and National Achievement in 46 Countries." *Educational researcher* 36(7):369-87.

Allmendinger, Jutta. 1989. "Educational Systems and Labor Market Outcomes." *European sociological review* 5(3):231-50.

Andrews, Rhys and Steven Van de Walle. 2013. "New Public Management and Citizens' Perceptions of Local Service Efficiency, Responsiveness, Equity and Effectiveness." *Public Management Review* 15(5):762-83.

Baghdasaryan, Milena. 2017. "The Practice of Political Rights and Patron–Client Relations: A Case Study of a Party in Armenia." *Citizenship studies* 21(8):1034-51.

Baker, David P, Brian Goesling and Gerald K LeTendre. 2002. "Socioeconomic Status, School Quality, and National Economic Development: A Cross-National Analysis of the "Heyneman-Loxley Effect" on Mathematics and Science Achievement." *Comparative Education Review* 46(3):291-312.

Ball, Stephen J and Deborah Youdell. 2009. *Hidden Privatisation in Public Education*. Brussels: Education International.

Barrera-Osorio, Felipe, Tazeen Fasih and Harry Anthony Patrinos. 2009. *Decentralized Decision-Making in Schools: The Theory and Evidence on School-Based Management*. Washington, DC: World Bank.

Beteille, Tara. 2009. *Absenteeism, Transfers and Patronage: The Political Economy of Teacher Labor Markets in India*: Stanford University.

Bishop, John H. 1997. "The Effect of National Standards and Curriculum-Based Exams on Achievement." *The American Economic Review* 87(2):260-64.

Bodovski, Katerina, Soo-yong Byun, Volha Chykina and Hee Jin Chung. 2017. "Searching for the Golden Model of Education: Cross-National Analysis of Math Achievement." *Compare: A Journal of Comparative and International Education* 47(5):722-41.

Bukodi, Erzsébet and John H Goldthorpe. 2013. "Decomposing 'Social Origins': The Effects of Parents' Class, Status, and Education on the Educational Attainment of Their Children." *European sociological review* 29(5):1024-39.

Bukodi, Erzsébet, Ferdinand Eibl, Sandra Buchholz, Sonia Marzadro, Alessandra Minello, Susanne Wahler, Hans-Peter Blossfeld, Robert Erikson and Antonio Schizzerotto. 2018. "Linking the Macro to the Micro: A Multidimensional Approach to Educational Inequalities in Four European Countries." *European societies* 20(1):26-64.

Byun, Soo-yong and Kyung-keun Kim. 2010. "Educational Inequality in South Korea: The Widening Socioeconomic Gap in Student Achievement." in *Globalization, Changing Demographics, and Educational Challenges in East Asia*: Emerald Group Publishing Limited.

Chiu, Ming Ming and Lawrence Khoo. 2005. "Effects of Resources, Inequality, and Privilege Bias on Achievement: Country, School, and Student Level Analyses." *American Educational Research Journal* 42(4):575-603.

Chmielewski, Anna K and Sean F Reardon. 2016. "Patterns of Cross-National Variation in the Association between Income and Academic Achievement." *AERA Open* 2(3):2332858416649593.

Cohn, Bernard. 1996. *Colonialism and Its Forms of Knowledge: The British in India*. Princeton, NJ: Princeton University Press.

Coppedge, Michael, John Gerring, Staffan I Lindberg, Jan Teorell, David Altman, Michael Bernhard, M Steven Fish, Adam Glynn, Allen Hicken and Carl H Knutsen. 2021. "V-Dem Codebook V9." *Varieties of Democracy (V-Dem) Project*.

English, Fenwick W and Betty E Steffy. 2001. *Deep Curriculum Alignment: Creating a Level Playing Field for All Children on High-Stakes Tests of Educational Accountability*: Scarecrow Press.

Essuman, Ato and Kwame Akyeampong. 2011. "Decentralisation Policy and Practice in Ghana: The Promise and Reality of Community Participation in Education in Rural Communities." *Journal of Education Policy* 26(4):513-27.

Filmer, Deon and Lant Pritchett. 1999. "The Effect of Household Wealth on Educational Attainment: Evidence from 35 Countries." *Population and Development Review* 25(1):85-120.

Filmer, Deon and Lant H Pritchett. 2001. "Estimating Wealth Effects without Expenditure Data—or Tears: An Application to Educational Enrollments in States of India." *Demography* 38(1):115-32.

Fraley, R Chris, Niels G Waller and Kelly A Brennan. 2000. "An Item Response Theory Analysis of Self-Report Measures of Adult Attachment." *Journal of personality and social psychology* 78(2):350.

Gamoran, Adam. 1996. "Curriculum Standardization and Equality of Opportunity in Scottish Secondary Education: 1984-90." *Sociology of Education* 69(1):1-21.

Geo-Jaja, Macleans A. 2004. "Decentralisation and Privatisation of Education in Africa: Which Option for Nigeria?". *International Review of Education* 50(3):307-23.

Gruijters, Rob J and Julia A Behrman. 2020. "Learning Inequality in Francophone Africa: School Quality and the Educational Achievement of Rich and Poor Children." *Sociology of Education*:0038040720919379.

Hancioglu, Attila and Fred Arnold. 2013. "Measuring Coverage in Mnch: Tracking Progress in Health for Women and Children Using Dhs and Mics Household Surveys." *PLoS medicine* 10(5):e1001391.

Hanushek, Eric A, Susanne Link and Ludger Wöbmann. 2013. "Does School Autonomy Make Sense Everywhere? Panel Estimates from Pisa." *Journal of Development Economics* 104:212-32.

Horn, Daniel. 2009. "Age of Selection Counts: A Cross-Country Analysis of Educational Institutions." *Educational research and evaluation* 15(4):343-66.

Hossain, Mobarak. 2021. "Does Greater Community Involvement Mean More Parent-Teacher Interaction? Evidence from Seven Developing Countries." *International journal of educational development* 83:102378.

Hossain, Mobarak. 2022. "Diffusing “Destandardization” Reforms across Educational Systems in Low- and Middle-Income Countries: The Case of the World Bank, 1965 to 2020." *Sociology of Education* 95(4):320–39.

Huang, Francis L. 2010. "The Role of Socioeconomic Status and School Quality in the Philippines: Revisiting the Heyneman–Loxley Effect." *International journal of educational development* 30(3):288-96.

IFC. 1990-2020. "Demographic and Health Surveys (Various). Funded by Usaid." Rockville, Maryland: ICF.

International Bureau of Education. 2007, 2011. "World Data on Education." edited by U. I. B. o. E. (IBE). Geneva.

Jiang, Junyan. 2018. "Making Bureaucracy Work: Patronage Networks, Performance Incentives, and Economic Development in China." *American Journal of Political Science* 62(4):982-99.

Joshi, Priyadarshani. 2014. "Parent Decision-Making When Selecting Schools: The Case of Nepal." *Prospects* 44(3):411-28.

Kingdon, Geeta Gandhi, Angela Little, Monazza Aslam, Shenila Rawal, Terry Moe, Harry Patrinos, Tara Beteille, Rukmini Banerji, Brent Parton and Shailendra K Sharma. 2014. "A Rigorous Review of the Political Economy of Education Systems in Developing Countries." Vol. *Final Report. Education Rigorous Literature Review. Department for International Development (UK).*

Kitschelt, Herbert and Steven I Wilkinson. 2007. "Citizen-Politician Linkages: An Introduction." *Patrons, clients, and policies: Patterns of democratic accountability and political competition* 2007:1-49.

Kristiansen, Stein. 2006. "Decentralising Education in Indonesia." *International journal of educational development* 26(5):513-31.

Lewin, Keith M. 2007. "Diversity in Convergence: Access to Education for All." *Compare* 37(5):577-99.

Maroy, Christian. 2009. "Convergences and Hybridization of Educational Policies around 'Post-Bureaucratic'models of Regulation." *Compare* 39(1):71-84.

Martel, P. 2016. "Review of Options for Reporting Water, Sanitation and Hygiene Coverage by Wealth Quintile, Mics Methodological Papers, No. 4, Data and Analytics Section, Division of Data." *Research and Policy, UNICEF New York*.

Martinez-Brawley, Emilia E and Paz MB Zorita. 2007. "Tacit and Codified Knowledge in Social Work: A Critique of Standardization in Education and Practice." *Families in Society* 88(4):534-42.

McGinn, Noel and Susan Street. 1986. "Educational Decentralization: Weak State or Strong State?". *Comparative Education Review* 30(4):471-90.

Meade, Ben and Alec Ian Gershberg. 2008. "Making Education Reform Work for the Poor: Accountability and Decentralization in Latin America." *Journal of Education Policy* 23(3):299-322.

Montt, Guillermo. 2011. "Cross-National Differences in Educational Achievement Inequality." *Sociology of Education* 84(1):49-68.

Ngandu, Nobubelo K, Samuel Manda, Donela Besada, Sarah Rohde, Nicholas P Oliphant and Tanya Doherty. 2016. "Does Adjusting for Recall in Trend Analysis Affect Coverage Estimates for Maternal and Child Health Indicators? An Analysis of Dhs and Mics Survey Data." *Global health action* 9(1):32408.

Nishimura, Mikiko. 2017. "Community Participation in School Management in Developing Countries." *Oxford Research Encyclopedia of Education*. doi: https://doi.org/10.1093/acrefore/9780190264093.013.64.

Paes de Barros, Ricardo and Rosane Mendonca. 1998. "The Impact of Three Institutional Innovations in Brazilian Education." Pp. 75-130 in *Organization Matters: Agency*

Problems in Health and Education in Latin America, edited by W. D. Savedoff. Washington, DC: Inter-American Development Bank.

Park, Hyunjoon. 2005. *Cross-National Variation in the Effects of Family Background and Schools on Student Achievement: The Relevance of Institutional and Policy Contexts*: The University of Wisconsin-Madison.

Prawda, Juan. 1993. "Educational Decentralization in Latin America: Lessons Learned." *International journal of educational development* 13(3):253-64.

Rafael, Vicente L. 2015. "The War of Translation: Colonial Education, American English, and Tagalog Slang in the Philippines." *The Journal of Asian Studies* 74(2):283-302.

Reimers, Fernando and Sergio Cárdenas. 2007. "Who Benefits from School-Based Management in Mexico?". *Prospects* 37(1):37-56.

Shahjahan, Riyad Ahmed. 2011. "Decolonizing the Evidence-Based Education and Policy Movement: Revealing the Colonial Vestiges in Educational Policy, Research, and Neoliberal Reform." *Journal of Education Policy* 26(2):181-206.

Shaukat, Badiea, Sajid Amin Javed and Waqas Imran. 2020. "Wealth Index as Substitute to Income and Consumption: Assessment of Household Poverty Determinants Using Demographic and Health Survey Data." *Journal of Poverty* 24(1):24-44.

Steiner-Khamsi, Gita. 2012. "Understanding Policy Borrowing and Lending: Building Comparative Policy Studies." Pp. 3-17 in *World Yearbook of Education 2012: Policy Borrowing and Lending in Education*, edited by G. Steiner-Khamsi and F. Waldow. Oxford, UK: Routledge.

Steiner-Khamsi, Gita. 2006. "The Economics of Policy Borrowing and Lending: A Study of Late Adopters." *Oxford Review of Education* 32(5):665-78.

Summers, Lawrence H and Lant H Pritchett. 1993. "The Structural-Adjustment Debate." *The American Economic Review* 83(2):383-89.

Torche, Florencia. 2019. *Educational Mobility in Developing Countries*: WIDER Working Paper.

UNESCO. n.d. "Observatory on the Right to Education." Paris.

UNICEF. 2000-2020. "Multiple Indicator Cluster Surveys (Mics)." New York, NY.

Van de Werfhorst, Herman G and Jonathan JB Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective." *Annual review of sociology* 36:407-28.

van Hek, Margriet, Claudia Buchmann and Gerbert Kraaykamp. 2019. "Educational Systems and Gender Differences in Reading: A Comparative Multilevel Analysis." *European sociological review* 35(2):169-86.

Vermeulen, Wouter. 2018. "Decentralised Funding and Inequality in Education." in *Fiscal Decentralisation and Inclusive Growth*, edited by J. Kim and S. Dougherty. Paris: OECD.

Vulliamy, Graham and Rosemary Webb. 1995. "The Implementation of the National Curriculum in Small Primary Schools." *Educational Review* 47(1):25-41.

World Bank. n.d.-a. "Lower Secondary Completion Rate, Total (% of Relevant Age Group) - Low & Middle Income."

World Bank. n.d.-b. "Gdp Per Capita (Current Us$)." Washington, DC: World Bank.

Conclusion

Educational systems in LMICs have gone through substantial reforms and transformative changes during the last three decades. De-standardisation of educational systems has been at the forefront of this significant shift aiming to create more managerial autonomy and limited intervention by the central government at the sub-national and school levels. However, little is known so far about this shift in educational systems in LMICs and how it may be associated with the inequality in educational outcomes. The overall aim of this dissertation is to contribute to this notable gap with unique data and renewed theoretical framework. In doing this, this dissertation examines four specific questions. The first question enquires about the trend and the types of de-standardisation reforms implemented across 99 LMICs by the WB, a pioneering IO to diffuse these reforms. The second question deals with the reasons why the WB has implemented more de-standardisation reforms in some countries compared to others. Specifically, this question explains WB's implementation of these reforms by the degree of authoritarianism in a country. The third question examines whether WB-implemented de-standardisation reforms are associated with factual changes in decreasing the standardisation of educational systems on the ground. Finally, the fourth paper investigates the association between the actual state of the de-standardisation of educational systems in LMICs and the inequality in attainment.

By focusing on these four research questions, this dissertation has addressed three largely overlooked areas in the fields of sociology of education and social inequalities and stratification. These include, first, how world society associations or IOs diffuse homogeneous policy models across educational systems of LMICs characterised by a great degree of heterogeneity. Second, the dissertation shows whether the actual changes in the educational systems of LMICs are due to the WB-led reform projects. In other words, it shows to what extent educational systems have

changed on the ground in LMICs over the last three decades and to what extent this is due to IOs' intervention. Third, while there is a long tradition of research in high-income contexts showing the association between the standardisation of educational systems and the inequality in educational outcomes, the literature is scant on LMICs. This dissertation brings this issue forth demonstrating how far recent substantial changes in decreasing the standardisation of educational systems on the ground are associated with inequality in attainment. By doing this, the dissertation paves the way forward for scholarly discussion in these three areas with empirical data, as well as new theoretical insights. In the following, we elaborate on the main findings from four articles. We then discuss how the results could have implications for three main areas and actors: (i) future research in these areas, (ii) policy implications for both IOs and (ii) nation-states in their education policymaking.

Summary of findings in reflection to expected contributions

Paper 1: As stated, paper 1 investigates the types of de-standardisation reforms in the educational systems implemented by the WB in 99 LMICs and their growth between 1965 and 2020. These reforms in education are part of a wider shift in development architecture from simply financing for reconstruction and the development of infrastructure in LMICs after the Second World War to reforming institutions and policies starting from the 1980s (Dollar and Svensson 2000). The paper argues that while there is overwhelming discussion in the scholarly literature in almost all disciplines that IOs have diffused de-standardisation-like reforms across LMICs (Geo-Jaja 2004, Kristiansen 2006, Meade and Gershberg 2008, Naidoo 2005, Pritchett 2014), there is currently no cross-country empirical evidence overtime providing evidence on this. While this is the overarching contribution of this paper, it has two major components. The first component is about theoretically distinguishing the types of de-standardisation into sub-national and school levels. Previous literature from high-income contexts did not recognise the complexity of

educational systems due to multiple layers of administrative structures across countries (e.g., Van de Werfhorst and Mijs 2010, van Hek, Buchmann and Kraaykamp 2019). The second substantial component in the paper is examining the trajectories of the growth of de-standardisation reforms implemented by the WB at the sub-national and school levels. We then qualitatively explain the trajectories illustrating major world events such as the end of the Cold War and UN global goals about education.

There are two major findings in paper 1. First, WB-implemented de-standardisation reforms have experienced notable growth since the late 1980s and early 1990s onwards. To be more specific, around 63 percent of WB project components in primary and secondary education focused on de-standardisation reforms. We argue that this could be led by the end of the Cold War which led to collapsing the Soviet Union. Consequently, de-standardisation-like reforms from countries with liberal democratic institutions travelled to LMICs. The reforms have diffused through different mechanisms including conditional aid and foreign direct investment. Scholars posit that these are coercive mechanisms to implement policy models in LMICs deemed to be successful in powerful states (Dobbin, Simmons and Garrett 2007, Owen 2002).

Second, the growth of de-standardisation reforms at the sub-national level slowed in the mid-1990s and early 2000s while it is still growing at the school level since the late 1980s. We argue that this difference is led by the fact that IOs including the WB moved their attention from sub-national to school level for better educational outcomes arguing that more autonomy at the micro-social units such as schools would lead to improving results. This could also be led by a more emphasis on diffusing democratic values at micro-social organisations such as schools. This is also suitable to spread democratic values at the grassroots levels when the regimes are authoritarian. These are suggestive interpretations of our findings about why the WB has

increasingly implemented de-standardisation-like reforms in LMICs. Future research may want to investigate further the reasoning. We, however, take forward this endeavour as part of the 'future' step in paper 2 explaining the variation in de-standardisation reforms as summarised below.

Paper 2: As suggested in the previous paragraph, paper 2 investigates the relationship between the degree of authoritarianism and the implementation of de-standardisation reforms by the WB. The number of countries and time remain almost similar as in paper 1, that is, 99 LMICs for the time range of 1965 until 2019.[24] The reason for expecting that the regime type or the degree of authoritarianism might be associated with the adoption of de-standardisation reforms includes the context of the end of the Cold War era and the demise of the Soviet Union. As we see in paper 1, the growth of de-standardisation reforms started during the same time or the late 1980s and early 1990s. Many countries were characterised by authoritarian regimes in the former Soviet Union. Hence, our argument is that the influence of the WB, the US and allies in former Soviet countries and Soviet-influenced countries around the world started taking place as the Cold War ended. This would be because authoritarian countries tend to have highly standardised educational systems which would lead IOs and western countries to implement de-standardisation reforms in these contexts.

To test our assumptions, we combine the data used in paper 1 with the country-level variables of the degree of authoritarianism and other characteristics from different sources. Employing country-level panel regression analyses, we find that there is a relationship between changes in the degree of authoritarianism or increasing authoritarianism and increasing implementation of WB-led de-standardisation reforms at the sub-national level. However, we find a reverse scenario when it comes to de-standardisation reforms at the school level. In other words,

[24] Year 2020 is removed in paper 2 as other country-level covariates are not available for this year.

the more authoritarian countries become the less likely to implement de-standardisation at the school level. We argue this could be because school-level autonomy may require substantial autonomy at the sub-national level first. This is why the more authoritarian regimes have been more likely to implement these reforms in sub-national entities at first while less likely to implement at the school level. We contend that past research has mostly analysed the implementation of reforms by IOs including the WB overlooking how countries' characteristics may influence this process. Research in the area of policy diffusion may take this bottom-up approach (country characteristics to explain IOs intervention rather than the other way around) accounting for country contexts.

Despite seeing a rise in de-standardisation reforms during the last three decades, we barely know anything whether these reforms implemented by the WB have actually brought any changes to educational systems in LMICs. In paper 3, we examine this issue.

Paper 3: Paper 3 investigates whether WB-implemented de-standardisation reforms have made any factual changes by decreasing the standardisation of educational systems in LMICs. A significant body of literature suggests that the institutions of LMICs have changed due to the intervention of IOs including the WB by implementing reforms through conditional aid. In other words, institutional reforms and resulting changes can be attributed to a coercive mechanism, that is, LMLCs implement reforms by force (e.g., Owen 2002). However, there is a scarcity of evidence of whether IOs' projects have changed the institutions on the ground. To examine this puzzle, we combine WB-project data used in papers 1 and 2 with newly collected data on the actual state of de-standardisation of educational systems in 30 countries between 1990 and 2019. Our sample size is smaller in this study due to limited data availability on the actual state of educational systems. Yet, our contribution is unique as the dataset is built uniquely for this dissertation. Our assumptions

are that if there is an association between WB-implemented projects and factual changes in the state of de-standardisation on the ground, it would suggest that a coercive mechanism is in play. If such association does not exist, it may mean that factual changes in the institutions of LMICs may rather be due to a constructivist mechanism. This means LMICs bring changes to institutions inherently as because certain institutional characteristics have become norms worldwide.

Employing country-level panel regression models, we find that there is no association between the increasing implementation of de-standardisation reforms by the WB and factual changes in the process of de-standardisation on the ground. We run regression models separately for sub-national- and school-level actual de-standardisation as outcome variables since WB-implemented projects at the respective levels may have separate effects. However, we find no such effects. We rather find that global goals such as UN's MDGs and SDGs are associated with increasing de-standardisation of the educational system on the ground. However, this also disappears once we control for country characteristics. We suggest that the null findings could be because LMICs bring changes in their institutions inherently as the de-standardisation of educational systems has become global norms. In other words, when countries around the world adopt such reforms and they become widespread through policy documents and suggestions by IOs, LMICs also accept de-standardisation reforms to stay 'relevant'. This follows a constructivist approach to policy diffusion. However, we caution to take our findings with a caveat as these are concentrated in a small area of policy diffusion. Diffusion of policy models in other fields in addition to the one we studied (de-standardisation) may show different patterns, such as a coercive mechanism. In other words, our result may not be generalisable to all types of reforms.

Paper 4: Finally, in paper 4, we investigate the relationship between the actual state of the de-standardisation of educational systems and the inequality in attainment. Our motivation for this

topic is that decreasing the standards of educational systems has drawn considerable criticism in both academic and policy communities. One of these critical views is that de-standardising educational systems may lead to creating more complex educational systems. Precisely, when educational systems do not maintain the same standards across schools and sub-national entities in a country, these lower entities may have more autonomy to decide how to formulate and implement policies such as collecting fees and deciding on curriculum. This would arguably disadvantage the marginalised and low-income families since they have less informational capital to navigate educational systems in general. De-standardisation would make educational systems more complex, which is more likely to make accessing information and decision-making harder for low-income parents. However, proponents for de-standardisation-like reforms argue that by providing more autonomy to local entities, marginalised communities will have more opportunities to participate in decision-making processes in schools and other local entities. Critics argue that these reforms do not have a humane side as they disregard the fact that marginalised parents may not be able to participate in decision-making processes due to economic and structural disadvantages. For instance, they may need to engage in more than one job and creating local autonomy is not likely to attract them to leave their job and participate in school decisions. While the arguments from both sides are contentious, there is limited evidence analysing the association between de-standardisation and inequality in educational outcomes.

We draw an analysis of 27 countries between 1991 and 2017 to investigate the association between de-standardisation and inequality in attainment at the secondary level. We use the country-level measure of the actual state of de-standardisation as the main explanatory variable. The outcome variable is educational attainment of secondary level (both lower and upper) graduation age individuals (whether they completed secondary education or not). This is an

individual-level variable involving 27 cohorts of secondary-level graduation age individuals. For inequality, we use the economic resources variable proxied by individual wealth. Findings from country and cohort fixed effects suggest that school-level de-standardisation is associated with decreasing the probability of secondary-level attainment. We find an overall null association between de-standardisation at the sub-national level and educational attainment. More importantly, we find that the attainment gap is higher between the poorest and richest individuals in highly de-standardised systems compared to that in very weakly de-standardised systems at both sub-national and school levels, but more so at the latter. The attainment gap is consistently higher over time in countries with a higher level of de-standardisation. This gap is starker when educational systems are more de-standardised at the school level. Our results provide contrasting evidence to what the proponents of this management paradigm suggest that de-standardisation-like reforms would likely be more beneficial for disadvantaged families and parents.

Contributions, implications and policy recommendations

In light of the above discussion, we highlight the implications of the findings in this dissertation for three different communities or audiences: namely, (A) the scholarly research community, (B) education policymakers in IOs, and (C) education policymakers and implementers in nation-states. In addition to pointing out the policy implications, we also suggest some policy recommendations according to our findings, in particular, for education communities in IOs and nation-states.

A. Scholarly community

1. *Overcoming data limitations for evidence-based research*

One of the major challenges in carrying out research in the areas of policy diffusion and institutional changes is the unavailability of data. A major contribution of this dissertation is the

use of unique data from unconventional sources. As we argued in the first three articles of the dissertation, there is limited evidence about to what extent de-standardisation reforms have been diffused by the WB despite frequent qualitative suggestions that these reforms have travelled across LMICs. This dissertation demonstrates how data limitations can be overcome to research the long-overlooked questions regarding policy diffusion. Evidence-based research has increasingly become easier than in earlier decades due to the availability of alternative forms of data such as textual data from large body documents, which we use throughout this dissertation.

Moreover, many studies from high-income contexts relied on surveys such as large-scale assessments including the Programme for International Student Assessment (PISA) to construct the measures of the actual level of the standardisation of educational systems (van Hek, Buchmann and Kraaykamp 2019, Witschge and van de Werfhorst 2016). However, very few LMICs are included in these surveys, and less so when it comes to the variables related to de-standardisation. Furthermore, the indicators in these surveys may be limited in terms of the time dimension and thematic scope. In this dissertation, we build a unique dataset on the de-standardisation of educational systems by analysing education policy documents. We illustrate how research in education policies and educational systems in LMICs, which remain typically under-investigated, can be addressed. Overall, these data sources are not only less time consuming as they do not require any human interaction and surveys but are also cost effective.

2. Theoretical contribution in the context of LMICs

Theoretical frameworks in educational system research have largely been borrowed from the literature based on high-income countries. However, considering that the sociocultural contexts of LMICs are drastically different from that of high-income countries, the theoretical framework

requires renewed attention. In this dissertation, the differentiation of de-standardisation at the sub-national and school levels is a new contribution. This is to recognise the complexities both levels have due to different sets of actors involved at each level. As we point out in paper 1, the differences in tasks and actors between both levels are starker in LMICs compared to that in high-income contexts. Hence, it would be paramount for future research to consider contextual differences between countries, especially across LMICs when it comes to research in educational systems.

3. Contextual elements may play a role

Since the focus of the dissertation is to provide cross-national evidence, a limited focus has been given to contextual factors that may play a role in how policy diffusion may take place or how the actual state of de-standardisation may affect inequality in educational attainment. While we control for some contextual characteristics and use country fixed effects to eliminate the effects of time-invariant unobservable factors, this does not fully rule out the contextual complexities the selected countries may have. Needless to mention, this is one of the first studies in this area and all limitations could not be addressed in the study. Thus, future research can focus on a smaller set of countries while analysing educational systems across LMICs more in-depth.

4. Application of the same approach to other related fields

We primarily focus on the diffusion of de-standardisation reforms in education by the WB in the first three chapters. However, this strand of research can be extended in a similar fashion to other fields such as health and social security. Like education, other social and political institutions have also received similar reforms; the health sector being a glaring example (Channa and Faguet 2012). The WB and other IOs have systematically archived historical data on their projects in health and other sectors. Therefore, the theoretical and analytical approaches applied in this study

can also be extended to other fields since changes in institutions are likely to affect how services are provided such as health insurance and health services in hard-to-reach areas. The data and theoretical framework used in this study can also be helpful in experimental design since system-level reform data are usually scarce, which makes it difficult to keep the track of implemented reforms both in present and historical eras.

B. International organisations

The importance of empirical evidence

Limited in scope, this study provides a detailed overview of a specific type of reforms, de-standardisation of educational systems, implemented across LMICs during the last half a century. While scholarly and policy discussions often suggest that the WB has changed educational systems in LMICs through extensive reforms, evidence has remained scarce to support this. This dissertation illustrates an example of how a specific type of reform can be tracked using the project information from the WB archive, which could be useful for researchers and development practitioners.

Tracking evidence of the growth of de-standardisation-like reforms has been helpful for this dissertation to examine whether WB reforms have any relationship with factual changes in the state of de-standardisation. Findings, especially from paper 3, suggest that there is no significant association between WB projects and actual changes. Past research frequently assesses the impact of reforms on outcomes directly without asking the question of whether the reform has changed what it was supposed to change. We posit that the systematic availability of data on the projects implemented by IOs can be helpful to having an evidence-based fruitful discussion among actors in the scholarly community.

Last, but not least, many educational reforms have been diffused across LMICs without any evidence that they would bring any positive results such as enhancing better educational outcomes and reducing gaps between disadvantaged and advantaged students. As we discussed, some of these reforms have taken place based on suggestive reference that they worked better in high-income contexts and would do the same in LMICs (Steiner-Khamsi 2006). Although evidence in the dissertation is descriptive in nature, analyses in paper 4 suggest that the WB-promoted reforms to create more autonomy or de-standardisation at the school level is associated with decreasing educational attainment, and both at school and sub-national levels with widening gaps between rich and poor students. It is high time that IOs and other relevant actors adopt and implement reforms based on evidence and/or contextualise reforms based on what might or might not work in some contexts. What we have seen so far in paper 1 is that a homogeneous set of reforms has been diffused across heterogeneous educational systems.

IOs have been increasingly focusing on ensuring the ownership of countries in adopting and implementing reforms so that these do not appear to be coercive in nature, which has been the highlight of the Paris agreement in 2005, later reaffirmed in Busan in 2008 and in Accra in 2011 (Booth 2012). Despite this increasing emphasis, country ownership and cooperation between IOs and nation-states to implement reforms have not seen expected progress (Chandy and Kharas 2011).

C. Nation-states

Similar to previous points raised in the case of IOs, we would like to emphasise that implementing reforms by IOs without evidence still remains a prevalent practice. This may derail the focus from issues and challenges that require more attention. For instance, one of the findings in this dissertation is that increasing the degree of de-standardisation, which has extensively been

promoted by the WB and other IOs, is associated with widening attainment gaps. It has also a negative association with the overall attainment when it takes place at the school level. Yet, these reforms are still being taken place across LMICs. Nation-states have now more scope for contextualising these reforms using the technical expertise from both themselves and from IOs thanks to ownership and cooperation elements installed in the global development architecture. Even though these elements have limitations, these could be a way to bargain why certain reforms should or should not be implemented, especially when the reforms are not founded on evidence. The emphasis on evidence is important since policy reforms such as de-standardisation have been increasingly taking place for over three decades. This substantial time span has provided IOs with abundant data to have a robust picture of what may or may not matter for better educational outcomes. Nation-states can play an active and effective role in this process.

Future research

We succinctly point out how future research can contribute to the areas this dissertation has studied, both theoretically and empirically. The first four points are theoretical and points 5 and 6 are about empirical contributions. *First*, the general policy diffusion framework adopted in this dissertation can be applied to other sectors beyond education. In other words, IOs including the WB may have implemented a similar set of neoliberal reforms in sectors such as health and social security, which remain equally under-researched. *Second*, as mentioned in the respective chapters, this dissertation focuses on the WB to study the policy diffusion of IOs. While this is a major multilateral organisation, there are many other similar IOs that are also diffusing similar norms and practices in LMICs. A diverse set of IOs needs to be researched in the future to have a deeper insight into global policy borrowing and lending phenomena. *Third*, this dissertation (in paper 2) focuses on countries' macro characteristics, specifically authoritarianism, to understand

the variation in receiving de-standardisation reforms. In doing so, we provide a bottom-up framework of why policies diffuse, that is, we concentrate on how country characteristics (i.e., authoritarianism) may matter rather than the traits of IOs. Future research can address other policies including in education that diffuse LMICs by IOs and explain them using a similar bottom-up approach. *Fourth*, paper 4 in the dissertation discusses the link between actual de-standardisation and the inequality in educational attainment by social origins. Future research can extend the outcome to be learning achievements such as achievement in different skill areas including maths and reading. Achievement provides more information about whether children learn although they attend and complete certain grade levels.

Fifth, in absence of systematic data, the fields of policy diffusion and education policy reforms remain understudied. This dissertation shows how future research can create datasets using archival documents beyond traditional surveys. *Sixth*, finally, this dissertation utilises household surveys for educational attainment in paper 4. However, there are large-scale assessment datasets from LMICs including the Programme for the Analysis of Education Systems (PASEC) on sub-Saharan Africa (SSA) and the Latin American Laboratory for the Evaluation of Educational Quality (LLECE) on Latin America and the Caribbean (LAC), which can be used to examine how educational systems affect learning achievement.

References

Booth, David. 2012. "Aid Effectiveness: Bringing Country Ownership (and Politics) Back In." *Conflict, Security & Development* 12(5):537-58.

Chandy, Laurence and Homi Kharas. 2011. "Why Can't We All Just Get Along? The Practical Limits to International Development Cooperation." *Journal of International Development* 23(5):739-51.

Channa, Anila and Jean-Paul Faguet. 2012. "Decentralization of Health and Education in Developing Countries: A Quality-Adjusted Review of the Empirical Literature." *The World Bank Research Observer* 31(2):199-241.

Dobbin, Frank, Beth Simmons and Geoffrey Garrett. 2007. "The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning?". *Annu. Rev. Sociol.* 33:449-72.

Dollar, David and Jakob Svensson. 2000. "What Explains the Success or Failure of Structural Adjustment Programmes?". *The Economic Journal* 110(466):894-917.

Geo-Jaja, Macleans A. 2004. "Decentralisation and Privatisation of Education in Africa: Which Option for Nigeria?". *International Review of Education* 50(3):307-23.

Kristiansen, Stein. 2006. "Decentralising Education in Indonesia." *International journal of educational development* 26(5):513-31.

Meade, Ben and Alec Ian Gershberg. 2008. "Making Education Reform Work for the Poor: Accountability and Decentralization in Latin America." *Journal of Education Policy* 23(3):299-322.

Naidoo, Jordan P. 2005. *Educational Decentralization and School Governance in South Africa: From Policy to Practice*. Paris: International Institute for Educational Planning (IIEP) UNESCO.

Owen, John M. 2002. "The Foreign Imposition of Domestic Institutions." *International organization* 56(2):375-409.

Pritchett, Lant. 2014. "The Risks to Education Systems from Design Mismatch and Global Isomorphism: Concepts, with Examples from India." Vol. 9292307606. WIDER Working Paper.

Steiner-Khamsi, Gita. 2006. "The Economics of Policy Borrowing and Lending: A Study of Late Adopters." *Oxford Review of Education* 32(5):665-78.

Van de Werfhorst, Herman G and Jonathan JB Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems: A Comparative Perspective." *Annual review of sociology* 36:407-28.

van Hek, Margriet, Claudia Buchmann and Gerbert Kraaykamp. 2019. "Educational Systems and Gender Differences in Reading: A Comparative Multilevel Analysis." *European sociological review* 35(2):169-86.

Witschge, Jacqueline and Herman G van de Werfhorst. 2016. "Standardization of Lower Secondary Civic Education and Inequality of the Civic and Political Engagement of Students." *School effectiveness and school improvement* 27(3):367-84.