Finders Keepers, Losers Weepers?*

The Distributional Effects of Privatization in IMF Programs

Merih Angin† and Natalya Naqvi‡

†*Department of International Relations at Koç University*

‡*Department of International Relations at London School of Economics and Political Science*

November 8, 2020

Abstract

Privatization of state-owned enterprises (SOEs) has been a defining feature of International Monetary Fund (IMF) programs since the 1980s, based on the expectation that the private sector increases the efficiency of production and reduces fiscal burdens. Since the borrowing countries have to implement the conditions attached to their IMF loans, privatization cases increase under IMF monitoring. Privatizations of SOEs are amongst the most important, and also politically contentious type of IMF conditionality as they not only require changes in the institutional framework of the recipient country, but also lead to major structural changes in the economy through the transfer of ownership and control. However, few studies to date have systematically investigated the distributive impact of privatization conditionalities of IMF programs.

This paper analyzes the effect of privatization conditionalities on labor share of income in order to see whether IMF programs can be linked to increasing inequality in a borrowing country. We first look at the causal mechanisms at work through case studies of privatizations in two key developing countries, namely Pakistan and Turkey, both of which implemented numerous IMF programs that required privatizing SOEs in strategic sectors. To test our theory in a large-N setting, we then employ regression analysis on all IMF programs from 1980 to 2015.

Keywords IMF · conditionality · SOE privatization · labor share of income

Introduction

International Monetary Fund (IMF) conditionality emerged as an operating principle in the 1950s, when it consisted of tests on fiscal conditions, credit expansion and the balance of payments (James 1996, p. 323). While IMF conditionality mainly included macroeconomic policies until the early 1980s, in later years they began to increase in complexity and scope.[1] The debt crisis of the 1980s forced the Global South to abandon import substitution industrialization (ISI) policies to implement IMF Structural Adjustment Programs (SAPs). As Rodrik (2006, p. 973) underscores, "[s]tabilize, privatize, and liberalize' became the mantra of a generation of technocrats who cut their teeth in the developing world and of the political leaders they counseled."

The list of the conditions set by the Bretton Woods institutions over the course of the 1980s and 1990s have been labeled as the "Washington Consensus," a term first coined by John Williamson. Chief among these was privatization of SOEs, which was promoted as a tool to combat poverty and inequality. It was argued that because SOEs were inherently less efficient than private enterprises, and suffered from soft budget constraints, they absorbed substantial government funds. Privatization would free up fiscal space for spending on basic social services (World Bank 1995).

In the developing world, the IMF is seen as instrumental in promoting the spread of the Washington Consensus set of policies. There is a rich body of literature examining the impact of IMF programs on its borrowing countries. Existing studies tend to focus on purely income based indicators of inequality, such as the Gini coefficient or redistributive indicators like welfare spending and outcomes. Nevertheless, Recent landmark studies suggest that patterns of asset ownership are just as, if not more important, for inequality than income and redistributive measures (Piketty 2013). A major consequence of privatization is change in capital ownership and control. Firm profits no longer remain in the public sector, but become the property of private shareholders. In order to gauge the

---

[1]See International Monetary Fund, "IMF Conditionality,"https://www.imf.org/external/np/exr/facts/conditio.htm.

distributional consequences privatization, focusing on interpersonal income inequality and redistribution is insufficient because this fails to capture inequality which results from asset ownership. These measures may therefore underestimate true inequality at the upper end of the distribution, as this accrues from asset ownership rather than wage income. The factor share of income compares returns to the activity of labor, which remains the primary source of income for the vast majority of the population, with returns to capital ownership, which is a more important source of income for the wealthy. It thus gives a better aggregate picture of how the benefits from economic growth or losses from stagnation are distributed between capital holders and workers (Rodriguez et al. 2010).

In this paper, we incorporate these new insights, and use a disaggregated approach to IMF programs to investigate the impact of privatization conditionalities on inequality in recipient countries.

We focus on privatization of SOEs primarily because they are amongst the most significant, and also most politically contentious types of IMF conditionality as they not only require changes in the institutional framework of the recipient country, but also lead to major structural changes in its economy through transferring ownership and control. Privatization of SOEs have been a defining feature of IMF programs since the 1980s, but remains relatively understudied.

In this context we first explore the causal mechanisms at work through case studies of privatizations in two key developing countries, namely Pakistan and Turkey, both of which implemented numerous IMF programs that required privatizing SOEs in strategic productive and utilities sectors. To test our theory in a large-N setting, we then employ regression analysis on a novel dataset including all IMF programs from 1980 to 2015, and assess whether the IMF's privatization conditionalities can be linked to changes in the functional distribution of income over time. This approach is better able to isolate a key mechanism through which IMF conditionality affects inequality than studies that rely on aggregate data and do not disentangle the effects of various conditionalities.

2

IMF Programs and Inequality

The existing literature on IMF programs' impact on borrowing countries' economies is far from scarce. Based on a cross-country analysis of 18 Latin American countries for the period 1965-1981, Pastor's works (1987a, 1987b) found that the program countries scored worse in the labor share of income than their pre-program levels and those with no programs. Pastor's work is followed by Garuda (2000), who explores the effects of IMF programs on income distribution and income shares of the poorest quintile drawing on a sample of 39 countries from 1975-1991. He finds that income distribution worsens in the countries facing severe balance of payment problems prior to the program, and improves in the countries facing less severe balance of payment problems prior to the program.

Vreeland (2003) confirms the overall findings of Pastor (1987a, 1987b) and Garuda (2000). Exploring no positive distributional effects for higher levels of per capita income, he suggests a contrary evidence to Garuda's finding that income distribution improves in countries with low propensity to participate in IMF programs. Vreeland's work reveals that if income distribution and economic growth deteriorate under IMF programs, labor share of income is definitely worse off while capital share of income is definitely better off. This means that despite lower rates of economic growth, the income of capital can increase, with labor bearing adverse distributional consequences. (Vreeland 2003)

More recently, Rickard and Caraway (2019) paid attention to the short and long-term effects of IMF programs on the public sector wage bill. Based on data derived from the Letters of Intent (LOI) and the Memorandum of Economic and Financial Policies (MEFP) for IMF loans over the period 1980-2014, they underline the importance of analyzing loan conditions separately due to variation in IMF programs and their effects. Addressing the public sector is particularly important because, they note, most IMF loans are not conditional on public sector cuts. Comparing IMF loans with public sector conditions and IMF loans without public sector conditions, they find that the cuts in government spending on the public sector wage bill is greater in the former. (Rickard and Caraway

2019).

All of the studies cited above are major contributions to the literature on IMF programs' impact on inequality in borrowing countries. Nevertheless, they fall short of explaining the exact causal mechanisms linking the relation between inequality and IMF programs. Our research aims to make a novel contribution to this literature by introducing a disaggregated approach using mixed methods, including case studies and statistical analysis. For this purpose, we analyze the distributional effects of privatization on the functional distribution of income, as explained in the next section.

Distributional Effects of Privatization on Labor vs Capital Shares

As mentioned previously, privatization of SOEs are one of the most politically contentious types of IMF conditionality, as not only they require major changes in the institutional and/or constitutional framework of a borrowing country, but also lead to major structural changes in its economy through the transfer ownership and control from the public to private sector. While a host of studies focus on the effects of privatization on firm level performance and efficiency,[2] fewer focus on its distributional impacts. Privatization can have significant distributional effects through numerous channels (Birdsall and Nellis 2003). In this paper, we focus on the short and long-term impacts of privatization on the functional distribution of income.

Earlier studies that looked directly at privatization's impact on labor focused mainly on employment and employee compensation, and had mixed results: based on a survey of 308 privatized firms (covering 84 countries) over the period 1982 to 2000, Chong and Lopez-de-Silanes (2002) show that employment was reduced by 78 percent post-privatization, whereas research by Gupta (2011) on privatization in India, covering the 20-year period

---

[2]See Estrin and Pelletier (2018) for a review.

of 1989 to 2009, shows that privatization increases employment significantly and is not associated with a decline in employee compensation. On the other hand, Azamat et al. (2012) find that privatization in OECD countries has led to a decline in labor share mainly through job shedding. This is because it shifts the incentives of senior managers towards maximizing shareholder value and away from other objectives such as job protection.

Existing studies on privatization and its effect on labor share of income focus mainly on advanced economies, making this paper the first study to systematically investigate the impacts of privatization on the labor share of income in developing countries to the best of our knowledge. In this regard, we first look at the causal mechanisms linking IMF privatization and labor share of income through case studies of privatizations in two key developing countries, namely Pakistan and Turkey, both of which implemented numerous IMF programs that required privatizing SOEs in strategic sectors. To test our theory in a large-N setting, we then employ regression analysis on all IMF programs from 1980 to 2015.

How IMF Privatization Conditions Affect Labor Share

We expect privatization to put downward pressure not only in the privatized firms and sectors, but also in non-privatized public sector firms, and firms and sectors that were already private through weakening of national labor power. We therefore expect privatization to cause a decline in economy wide/national labor share, and we expect these effects to persist in the long run. We surmise the following working hypotheses with respect to the channels through which IMF privatization could lead to a decline in the labor share:

H1: Privatization reduces national labor share through weakening labor's bargaining power over wages.

In developing countries, labor bargaining power has historically been strongest in the public sector. Public sector unions have been stronger than private sector unions. Privatization often resulted in the mass firing of unionized labor, meaning that key public sector unions in the most important sectors of the economy were dramatically weakened or even ceased to exist. This reduced labor bargaining power over wages within the privatized firms and sectors. Post-privatization weakening of public sector unions could then lead to a generalized decline in the strength of the national labor movement, putting further downward pressure on wages at the national level.

H2: Privatization reduces the national labor share through job shedding (increased unemployment).

This could be either due to shedding of excess workers due to shareholder value maximization objectives amongst managers, or the adoption of more capital-intensive production techniques. Even if wages of the remaining workers increase post-privatization, labor share might decrease. Increased unemployment or underemployment as a result of excess labor shedding after privatization creates a pool of unemployed labor, which then puts downward pressure on wages in other firms and sectors. These effects should be greater for unskilled labor, which is easily replaceable with workers from the surplus pool.

Alternative hypotheses:

Since left-out variables may threaten the validity of research design , we consider a set of alternative hypotheses to strengthen our main arguments:

1. Labor share could decline because of increasing capital intensity of production unrelated to privatization (Harrison 2002; Acemoglu 2003; Bentolila and Saint-Paul 2003).

2. Weakening of the organizational strength of unions and the decline of employment-protection policies for reasons unrelated to privatization e.g. IMF conditionalities on labor market deregulation or anti-union legislation (Blanchard and Giavazzi 2003; Bassanini and

Duval 2006; Annett 2006).

3. Globalization/financial liberalization: Harrison 2002; Lee and Jayadev 2005; Guscina 2006; Daudey and García-Penalosa 2007; Jayadev 2007; IMF 2007).

4. Fall in manufacturing share of value added for reasons unrelated to privatization could lead to fall in labor share.

5. Trade liberalization and deindustrialization/import competition for previously protected industries can lead to lower skill/lower productivity services jobs + weaker unions + unemployment.

6. Job loss can also occur in SOEs that are not privatized due to fiscal austerity/debt crisis.

Opposing views to be taken into consideration:

1. Privatization leads to product market deregulation, reduces barriers to entry, increases product market competition and thus increases labor share (even though this may not be enough to offset the negative effects on labor share via unemployment). (Kalecki, Torrini 2005; Blanchard and Giavazzi 2003, Azamat et al.).

2. Privatization leads to wage increases in some sectors (e.g. for managers or skilled labor), though the labor share might still decline via unemployment or only for unskilled workers.

3. If privatization increases profitability and reinvestment, employment and wages might rise in privatized industries, which may improve employment generating potential of the economy as a whole (Vuylsteke 1988, World Bank 1995).

4. Labor should be redeployed from low productivity (SOEs) to higher productivity (new or existing) sectors, increasing employment and wages. According to HOSS, new sectors should be labor intensive in developing countries (as opposed to capital intensive in OECD countries, as per Azamat et al.), which should increase employment and improve labor share.

Further discussion of the empirical strategies to test our hypotheses, and the precise

operationalization of our variables are explained in the empirics section.

Two Illustrative Cases: Pakistan and Turkey

We use two typical cases to probe the causal mechanisms by which privatization conditions attached to IMF loans can affect income distribution in borrowing countries. Turkey has been a member of the IMF since 1947, and it signed 19 stand-by agreements (SBAs) with the Fund in 47 years: it requested assistance in the form of SBAs for the first time in 1961, and became one of the most ardent borrowers of the IMF. Although in 2009 Turkey declared that it preferred to "manage without IMF support and interference,"[3] its long experience with the Fund is illuminating for this research. Pakistan is still borrowing from the IMF: its latest IMF arrangement, dated July 3rd 2019, will expire in October 2022. Whether Pakistan will negotiate another IMF loan remains to be seen, but it would not be surprising since Pakistan has become an ardent borrower of the Fund. Although they have different economic fundamentals, both countries followed a similar route in privatizating SOEs under IMF monitoring. This section aims to show the main causal mechanisms at play, linking IMF privatization conditions to increasing inequality in these two cases, one located in Southeast Europe/Middle East, the other in South Asia.

As in many Southern countries, privatization has been an indispensable component of the neoliberal transformation of the Turkish state. Although the 24 January 1980 measures had been a significant threshold in the neoliberal transformation, privatizing SOEs was not "among the priorities of the Turkish structural adjustment program"[4] in the 1980s. As a matter of fact, privatization of SOEs had not been on the agenda until 1985. The economic crisis faced during the mid-1990s was not sufficiently severe to engender a push to privatize large-scale SOEs[5] though Tansu Çiller, who was one of the most ardent

---

[3]See Allan Meltzer, "The IMF Returns," Review of International Organizations 6, no. 3 (2011): 445.

[4]See Galip L. Yalman, Transition to Neoliberalism: The Case of Turkey in the 1980s (Istanbul: Istanbul Bilgi University Press, 2009), 329.

[5]See Ziya Onis, "Beyond the 2001 Financial Crisis: The Political Economy of the New

supporters of privatization, brought it to the agenda during her term as the Prime Minister. Therefore, the privatization attempts between 1985 and 1998 was unsuccessful regarding the transfer of public ownership to the private sector, making the pace of the privatization program rather gradual until the 2000s.

Nonetheless, right after the Justice and Development Party (AKP) came to power, privatization gained a new momentum, and accordingly the five largest SOEs, namely Petrol Ofisi A.Ş. (POAŞ), Türk Telekomünikasyon A.Ş. (TTAŞ), Turkish Petroleum Refineries Corporation (TÜPRAŞ), Ereğli Demir ve Çelik Fabrikaları T.A.Ş (ERDEMİR), and Petrochemical Holding A.Ş. (PETKİM), which had been on the privatization agenda since the 1980s, were privatized one by one in the 2000s. These five SOEs had the capacity to turn their owners into powerful players in Turkish politics due to their profitability levels as well as strategic importance.

The reasons behind the failure to privatize large-scale SOEs until the 2000s were arguably the weak coalition governments of 1990s that did not have the power to implement structural reforms in a way that was recommended by the IMF and the lack of a severe economic crisis that could grant a great leverage to the international financial institutions: the AKP used the IMF as a significant anchor in this process. [6]

Tansel (1998) conducted the first study on the effects of privatization on workers in Turkey. Her study is based on interviews with cement and petrochemical workers who were removed from their positions post-privatization. She focused on the experiences of workers, and compared their previous and recent conditions in the labor market: lacking of the standards the public sector previously offered, the vast majority of the workers expressed their discontent and concerned that their severance pay was not enough to compensate for their loss. Tansel detailed the chances in the working conditions of the displaced employees, and compares their previous and current jobs providing data on

---

Phase of Neo-Liberal Restructuring in Turkey," Social Science Research Network, 2006 http://papers.ssrn.com/sol3/papers.cfm?abstract¡d = 924623.

[6]See Pınar Bedirhanoğlu, "Türkiye'de Neoliberal Otoriter Devletin AKP'li Yüzü," in AKP Kitabı: Bir Dönüşümün Bilançosu, ed. İlhan Uzgel and Bülent Duru (Ankara: Phoenix Yayınevi, 2009), 51.

wages, social benefits, job security and union membership. Some of the striking facts were the following: the union membership rate was 97 percent for the cement workers and 87 percent for the petrochemical workers. After dismissal, this rate dropped substantially: income losses from previous to current jobs were 61 percent for the cement workers and 57 percent for the petrochemical workers (p. 636). These losses were lower for self-employed, better educated, and younger workers. As a conclusion, Tansel's study contends that privatization has led most workers to precarious jobs with low wages, insecure conditions, no social security benefits, and limited access to union activity.

In this context, Cengiz (2018) explored the effects of privatization on employment, real sales, and profit with the case of Turkey. He analyzed the data on the top 500 manufacturing factories reported by the Istanbul Chamber of Industry for 1993-2015, and paid attention to the restructuring process both before and after privatization by providing data on the changes in employment, real sales, and profit margins. His study revealed that before the firm is fully privatized, the employment rate decreases by 28 percent and real sales drops by 30 percent. After privatization, the real sales recovered, but the employment rate continued to decrease. In the long run, he showed that employment rate decreased by 65 percent, profit margin increased by 18 percent, and real sales showed no significant difference at the firm level. He therefore argues that in the case of Turkey, privatization was not able to generate what it promised because rather than providing social benefits, it has resulted in a transfer of income from labor to capital.

Last but not least, Özmucur (1998) investigated the effects of privatization on the labor market, with a particular focus on the case of cement industry in Turkey. His main source of data is the Istanbul Chamber of Industry, the top 500 companies survey, 1981-1995 (41 cement plants are on the list). Exploring the changes in employment, he underlined the differences between private and privatized firms, taking into consideration the "structural break" which he defines as the change in ownership, (not necessarily due to privatization). He showed that following a structural break, employment decreased by 7.8 percent in

private firms and 15.5 percent in privatized firms. As he stated himself, his figures are lower than what other scholars have found (40-50 percent reductions). He argued that the decision of privatization itself, rather than the implementation of it, may create effects on the employment trends at the firms under privatization program. He nevertheless concluded that privatization led to a considerable decline in employment, and increase in labor productivity and capital/labor ratios.

In the case of Pakistan, until the 1990s, labor unions were strongest in the public sector, and public sector jobs were permanent, secure, and better paid, with all the attendant benefits such as paid leave. Over the course of the 1990s and 2000s, many of the SOEs, in sectors ranging from banks, large scale manufacturing, telecommunications and energy companies, were privatized under IMF/World Bank conditionality.

Given that one of the key criticisms on SOEs was overstaffing, significant job shedding occurred across sectors as a result of privatization. Between 1991 and 1998, employment in public sector corporations was halved.[7] Although unions in some sectors managed to put up resistance and extract better terms, such as more generous severance packages, they were too weak to prevent privatization (Munir et al. 2015). As a result of union pressure, many of the newly privatized firms were bound by an agreement with the government that workers could not be laid off in the first year, but significant amounts of jobs were still shed through 'golden handshake' schemes (Naqvi and Kemal 1994). For example, in the SOE Millat Tractors that had 830 employees at the time of privatization, approximately 250 employees were laid off through a golden handshake offer (Bhowmik, 1995, p. 932).

Many of these fired workers were re-hired by the same privatized firm, contributing to the phenomenon termed 'informalization of the formal sector'. Privatized firms began to hire workers on a contract rather than permanent basis in order to cut costs and to prevent workers from re-unionizing. Because subcontracting firms typically employed fewer than ten workers they were not subject to formal labor law (Munir et al. 2015). In a typical, large

---

[7]See (Sayeed, Pakistan: Country Background Paper on Trade Unions in Pakistan; PILER, Labour Rights in Pakistan: Expanding Informality and Diminishing Wages.)

factory, up to 85 percent of workers may be hired through as many as twenty different subcontractors (Interview with Karamat Ali, August 26, 2014). Naqvi and Kemal (1994, p.202) estimate that 40 percent of employees in privatized firms had previously been fired and re-hired.

In the longer-run, privatization served to weaken trade unions at the firm and national levels. Mass firing of unionized workers meant that these unions often ceased to exist. For example, prior to privatization Millat Tractors had two unions. All workers opting for golden handshakes came from one of those unions. Following the departure of these workers, the union ceased to exist, and only one union remained (Bhowmik, 1995, p. 932). By virtue of the fact that historically public sector unions were the strongest, the elimination of these unions meat that only weaker private sector unions remained, having knock on effects for the ability of the trade union movement to negotiate on national labor regulations.

The causal mechanisms explained above show how privatization of SOEs both in Pakistan and Turkey, all of which were implemented as part of their IMF programs, led to a substantial increase in functional inequality. In order to test whether our hypotheses hold beyond these two cases, we test a wide set of hypotheses together with alternative hypotheses, through statistical analyses, the results of which are presented in the following section.

Research Design

Due to the lack of a "comprehensive index" of the Fund's structural conditionality covering a long period of time, scholars used to rely on a set of statistics to measure conditionality (Goldstein 2000). However, in January 2009 a previously internal IMF database, the Monitoring of Fund Arrangements (MONA), was released upon recommendation by the Independent Evaluation Office of the IMF, approved by the Board. MONA is a collection

of comparable data on the economic objectives and results of arrangements supported by the IMF. As this used to be the only database providing a comprehensive view of all types of structural conditions by including prior actions, performance criteria, conditions for completion of program reviews and structural benchmarks, it has been widely used by scholars to analyze IMF conditionality quantitatively. However, the MONA database has a significant number of inconsistencies, which have been repaired by the novel data of Kentikelenis et al. (2016) Kentikelenis, Stubbs, and King (2016). To analyze the impact of IMF privatization conditions on labor share of income, we utilize this new data.

While this data contains observations for each individual policy condition across all IMF borrowing countries, we modify the dataset by treating IMF program as our unit of analysis. To do this, data on individual conditions are synthesized into a single observation for each IMF program. In some cases, a borrowing country enters simultaneously into two different lending arrangements that must be separately approved by the Fund's Executive Board. This typically includes situations where IMF beneficiaries enter into two different lending facilities (e.g., SBAs, EFFs, etc.), which are subject to different terms of access and repayment. We treat such co-existing arrangements as a single program since they are approved concomitantly. However, multiple IMF loan arrangements for the same country and within the same year are treated as separate observations, so long as such arrangements are approved by the Executive Board at different dates. Our conditionality sample spans from 1980 to 2015.

Dependent Variables

The empirical analysis focuses on one outcome of interest: our dependent variable is the labor share of income, a ratio that indicates the division of national income between labor and capital. For reasons mentioned in the previous section, this measure of the functional distribution of income has advantages over interpersonal income when looking at the effects of changes in ownership patterns. We define labor share as wages divided by value

13

added, the most widely used measure in the literature (Karabarbounis and Neiman 2013; Guerriero 2019; Rodrik 1999; Jayadev 2007). The data is available from the OECD. The capital share of national income is the inverse of the labor share.

Independent Variables

We use the disruptive capacity index from Usmani (2018) to proxy for labor power. The intuition is that labor's power depends on its ability to disrupt economic activity. Disruptive ability varies across sectors. The greater the percentage of workers that are employed in high disruptive capacity sectors, the greater overall labor power. Disruptive capacity is defined as the number of workers employed in manufacturing, mining, construction, or transport, all considered high disruptive capacity sectors, divided by the total working age population.

Common alternative proxies for labor power directly capture organization or mobilization through measures such as union density and number of strike days lost. Theoretically, we find disruptive capacity to be a more suitable proxy for labor power, because it better captures the underlying capacities of labor to bargain for larger shares of firm or sector profits, on which organizational and mobilizational capacities should depend. We will further test the effect of privatization on both disruptive capacity and direct organizational measures of labor power (in the next version of the paper).

The operationalization of the IMF condition variables are explained previously. We first use a 3 and then a 5-year lag since a borrowing country usually takes 3 years to implement a program, and the effect of a program on the labor share of income might take another 2 years. Even if the IMF attaches privatization conditions to a program, implementation is not guaranteed: structural benchmarks, i.e., soft conditions, take longer to be actualized as compared to hard conditions that do not require waivers if the borrowing country fails to implement, which are structural performance criteria in this context. Therefore, we also take into account privatization amounts (in million USD) instead of IMF privatization

14

condition numbers using the dataset of Estrin and Pelletier (2018) in a separate set of regressions.

Controls

Our models control for factors plausibly associated with labor share of income. Previous research shows that technological change and economic integration/globalization are determinants of labor share (Hutchinson and Persyn 2012). Therefore we added Chinn and Ito (2006), measuring a country's degree of capital account openness. [8] We also control for GDP growth in all models (using World Bank Data), as well as inflation and percentage change in current account balance, and finally percentage change in total factor productivity, which can shrink the labor share of income.

Our cross-country-panel-data analysis also control for the existence of an IMF program with a dummy variable to distinguish the cases where a country had no privatization condition under an IMF program from those who had no IMF program at all in a given year.

Preliminary Findings

Preliminary results are reported in the following tables. Our dataset provides information on 252 countries for the period 1973 to 2019, although not all of the observations are included in the regressions due to missing values in the dataset.

Table 1 provides two-staged least squares (2SLS) estimates for the relationship between labor share and IMF privatization conditions through labor power. The vector of controls include IMF conditions in other related policy areas (trade liberalization and labor-market conditions), GDP growth, IMF program participation, KOF Globalization Index and GINI index.

---

[8]We alternatively used KOF Globalization Index for economic in KOFGI from https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html

The dependent variable in Table 1 is the percentage change in the labor share of income where labor share is defined as salaries over value added from OECD. The instrumental variable is the cumulative number of IMF conditionalities on privatization. As seen in the first-stage results, IMF conditions on privatization (lagged 3 years) is negatively and statistically significantly correlated with %change in share of workers in high capacity industries. The second-stage results shown in Table 1 provides the relationship between the labor share of income and the share of workers in high disruptive capacity industries through a series of two-stage least squares regressions. The conjecture is that IMF conditions on privatization have an impact on labor bargaining power by decreasing the share of workers in high disruptive capacity industries which in turns affects the labor share of income.

As shown in the results, the % change in the share of workers in high capacity industries is negatively correlated with the labor share of income and the relation stays statistically significant in all models, only the magnitude of the effect diminishes as we add control variables. The existence of IMF program has a negative effect on the dependent variable in Model 2, but loses significance in other models. Moreover, the number of IMF conditions on labor market is positively correlated with the dependent variable (Model 2,4) while the number of IMF conditions on trade liberalization does not have a significant effect excluding Model 1. Lastly, as expected, GDP growth is positively correlated with the labor share of income (Model 3, 4).

Next, in Table 2, we analyze the relationship between the labor share of income and the share of workers in high capacity industries by using the cumulative privatization deals in millions US dollars normalized by GDP as the instrumental variable. The conjecture is that the actualization of SOE privatizations has an impact on the share of workers in high capacity industries which in turns affects the labor share of income.

The dependent variable in Table 2 is the percentage change in the labor share of income where labor share is defined as salaries over value added from OECD. The instrumental

16

variable is the cumulative SOE privatization deals in millions US dollars normalized by GDP.

In Table 2, we find that the share of workers in high capacity industries is negatively correlated with the labor share of income (Model 1). The effect of share of workers in high capacity industries on the dependent variable remains significant controlling for other factors (Model 2-9).

Conclusion

This research aims to shed light on the impact of IMF privatization conditions attached to IMF loans on borrowing countries' income distribution. In this context, focusing on two developing countries from different regions, namely Pakistan and Turkey, revealed the causal mechanisms at play. We then tested our hypotheses by running statistical regressions on a novel dataset, which gave us statistically significant results in the expected direction.

Both cases examined in this paper revealed an increase in unemployment in the privatized industries, and this effect was greatest in the sectors using unskilled labor. There is significant evidence suggesting that unemployment increased as a result of privatization in Turkey. On a macro level, a report by the Istanbul Chamber of Independent Public Accountants (ISMMMO) finds that 22,000 individuals became unemployed as a direct result of privatizations that occurred between 1986 and 2006 (ISMMMO, 2010, p. 369). At the firm level, Simga-Mugan and Yüce (2003) find that two years after privatization, privatized companies operated with approximately two thirds of the workforce that was employed before privatization (p. 105). This is supported by Cengiz (2018) who finds that the privatization process in Turkey has directly produced a sixty-five percent decline in the "firm-level workforce" (p. 700).

A similar trend was observed in the case of Pakistan. As Naqvi and Kemal (1994) illustrated, while government employed declined by almost one quarter due to the imple-

Table 1: Conditionality: Two-way Fixed Effect 2SLS Regressions for Labor Share

Dependent variable: % change in labor share of income (second-stage results)

	(1)	(2)	(3)	(4)
% Change in Share of Workers in High Capacity Industries	-7.916**	-5.852*	-5.725*	-5.070*
	(3.754)	(3.496)	(3.420)	(2.867)
IMF Conditions on Trade Liberalization (t-3)		0.006	0.011	0.005
		(0.016)	(0.013)	(0.012)
IMF Conditions on Trade Liberalization (t-5)	0.034**			
	(0.017)			
IMF Conditions on Labor Market (t-3)		0.006**	0.006	0.007*
		(0.003)	(0.004)	(0.004)
IMF Dummy		-0.089*	-0.051	-0.042
		(0.053)	(0.046)	(0.043)
GINI Index			0.001	-0.018
			(0.020)	(0.023)
% GDP Growth			0.611*	0.531*
			(0.321)	(0.271)
KOF Globalization Index				0.015
				(0.012)
Constant	-0.923***	-0.466*	-0.331	-0.281
	(0.294)	(0.260)	(0.794)	(0.694)
N	424	424	420	420

Dependent variable: % change in share of workers in high capacity industries (first-stage results)

	(1)	(2)	(3)	(4)
IMF Conditions on Trade Liberalization (t-3)		0.004**	0.003*	0.002
		(0.002)	(0.002)	(0.002)
IMF Conditions on Trade Liberalization (t-5)	0.005**			
	(0.002)			
IMF Conditions on Privatization (t-3)		-0.002	-0.002*	-0.003**
		(0.001)	(0.001)	(0.001)
IMF Conditions on Privatization (t-5)	-0.001			
	(0.001)			
IMF Conditions on Labor Market (t-3)		0.002	0.002	0.002
		(0.002)	(0.001)	(0.001)
IMF Dummy		-0.016**	-0.008	-0.007
		(0.007)	(0.007)	(0.007)
GINI Index			0.004	0.001
			(0.003)	(0.004)
% GDP Growth			0.088***	0.084***
			(0.026)	(0.026)
KOF Globalization Index				0.003
				(0.002)
Constant	-0.120***	-0.084***	-0.203	-0.221*
	(0.029)	((0.020)	(0.122)	(0.118)
N	424	424	420	420
R^2	0.121	0.129	0.145	0.155

Notes: These estimates are from two-stage least squares (2SLS) regression. The dependent variable is the percentage change in the labor share of income of borrowing country j in year t. The instrument variable is the cumulative number of IMF conditionalities on privatization of borrowing country j up to year $t-5$ for the (1)st column whereas it is up to year $t-3$ for the (2)nd to (4)th columns. All independent variables pertain to borrowing country j in year t unless a lag variable is used. The independent variable *IMF Dummy* is equal to 1 if an IMF programme is in place, 0 otherwise. The independent variable IMF conditions on labor market 3-year lagged is the cumulative number of conditions for country j up to year $t-3$ while IMF conditions on trade liberalization 3-year lagged and 5-year lagged are the cumulative number of conditions up to year $t-3$ and $t-5$ respectively. Year and country fixed effects are included in all models. Standard errors are clustered on borrowing country j and are shown in parentheses. *$p < .1$, ** $p < .05$, *** $p < .01$

Table 2: Actualization: Two-way Fixed Effect 2SLS Regressions for Labor Share

Dependent variable: % change in labor share of income (second-stage results)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
% Change in Share of Workers in High Capacity Industries	-4.850**	-4.968**	-4.369**	-4.902*	-4.733**	-5.491*	-3.541**	-3.767**	-4.275**
	(2.158)	(2.191)	(2.017)	(2.867)	(2.366)	(2.945)	(1.493)	(1.715)	(2.178)
IMF Dummy		-0.026	-0.001	0.003	0.019	0.005	0.008	-0.004	-0.041
		(0.054)	(0.048)	(0.053)	(0.053)	(0.060)	(0.050)	(0.047)	(0.070)
% GDP Growth			0.499**	0.544**	0.502**	0.533**	0.383**	0.433**	0.413**
			(0.223)	(0.260)	(0.229)	(0.269)	(0.188)	(0.190)	(0.195)
GINI Index				0.022	0.016	0.019	0.003	0.004	0.006
				(0.030)	(0.026)	(0.031)	(0.017)	(0.018)	(0.023)
Chinn-Ito index					0.041	0.046	0.031	0.026	0.036
					(0.038)	(0.043)	(0.031)	(0.043)	(0.041)
% Change in Current Account Balance						-0.005	-0.002	0.000	0.000
						(0.005)	(0.003)	(0.004)	(0.005)
% Growth of Total Factor Productivity							0.002	0.000	0.002
							(0.005)	(0.007)	(0.007)
Inflation								0.000	0.000
								(0.000)	(0.000)
Constant	-0.052	-0.046	-0.087	-0.912	-0.694	-0.790	-0.432	-0.444	-0.542
	(0.237)	(0.247)	(0.257)	(1.149)	(0.986)	(1.169)	(0.706)	(0.736)	(0.918)
N	186	186	185	185	183	183	178	168	158

Dependent variable: % change in share of workers in high capacity industries (first-stage results)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SOE privatization deals in millions US dollars normalized by GDP (t)	3.0e+05***	2.7e+05***	2.7e+05***	2.5e+05**	2.4e+05**	2.2e+05**	2.9e+05***	3.1e+05***	
	(9.6e+04)	(9.4e+04)	(9.9e+04)	(1.1e+05)	(9.9e+04)	(1.0e+05)	(8.8e+04)	(8.6e+04)	
SOE privatization deals in millions US dollars normalized by GDP (t-1)									2.6e+05
									(1.8e+05)
IMF Dummy		-0.018***	-0.016**	-0.014*	-0.013*	-0.013*	-0.015**	-0.016**	-0.020**
		((0.006)	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
% GDP Growth			0.059*	0.061*	0.056*	0.055*	0.043	0.043	0.039
			(0.033)	(0.032)	(0.029)	(0.028)	(0.034)	(0.035)	(0.035)
GINI Index				0.003	0.002	0.002	0.001	0.001	0.000
				(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Chinn-Ito index					0.006	0.006	0.006	0.006	0.008
					(0.007)	(0.007)	(0.006)	(0.007)	(0.008)
% Change in Current Account Balance						-0.000	-0.000	-0.000	-0.000
						(0.001)	(0.001)	(0.001)	(0.001)
% Growth of Total Factor Productivity							0.001	0.001	0.001
							(0.001)	(0.001)	(0.001)
Inflation								0.000	0.000
								(0.000)	(0.000)
Constant	-0.052*	-0.044*	-0.038	-0.146	-0.118	-0.119	-0.097	-0.095	-0.078
	(0.024)	(0.024)	(0.028)	(0.097)	(0.120)	(0.123)	(0.114)	(0.122)	(0.142)
N	186	186	185	185	183	183	178	168	158
R^2	0.224	0.247	0.252	0.257	0.286	0.287	0.327	0.328	0.318

Notes: These estimates are from two-stage least squares (2SLS) regression. The dependent variable is the percentage change in the labor share of income of borrowing country j in year t. The instrument variable is the cumulative SOE privatization deals in millions US dollars normalized by GDP of borrowing country j up to year $t-1$ for the (9)th column. All independent variables pertain to borrowing country j in year t. The independent variable *IMF Dummy* is equal to 1 if an IMF programme is in place, 0 otherwise. Year and country fixed effects are included in all models. Standard errors are clustered on borrowing country j and are shown in parentheses. $^* p < .1$, $^{**} p < .05$, $^{***} p < .01$

19

mentation of the privatization program in Pakistan in 1992, employment in the private sector did not increase in equal proportion, therefore suggesting "a net reduction in employment (of the white-collar workers) in Pakistan" (p. 199) as a result of privatization.

The comparative analysis offers insight into the short-run as well as long-run effects of privatization. While almost all of the workers reported "subsidized lunch, transportation, heating fuel and child support" (Tansel, 1998, p. 637) provided as benefits of their jobs in the state-sector, "more than half of the sample had no such payments in kind" (Tansel, 1998, p. 637) in their place of employment after leaving the state-owned enterprise. Tansel (1998) also finds that "cement workers lost an average of 61 percent and Petkim workers 57 percent of their pre-dismissal earnings." (p. 636) when privatization occurred. This suggests that employment after privatization was less formal and secure than employment in the state-owned enterprise. This is supported by evidence from Saygili and Taymaz (1996) who illustrate that "the share of subcontract labour increased dramatically in privatized plants immediately after their privatization" (p. 592). In the case of Pakistan, where trade unions were unable to resist privatization, workers were fired and later hired back through subcontractors at lower wages and with fewer rights. This resulted in a greater share of revenues being paid to foreign and domestic shareholders as dividends, less to workers as wages, and less invested back into production. Workers' reduced bargaining power led to reduced income.

As for the long-run effects, we observe that the depression of wages in key strategic industries put downward pressure on wages in related private industries through competition. New, higher productivity industries that were expected to emerge and absorb this surplus labor never materialized, resulting in a long-term reduction in the labor share.

Our study also reveals that the privatizations weakened trade union power. In the case of Turkey, in the state sector, "97% of the cement workers and 87% of the Petkim workers were union members" (Tansel, 1998, p. 637) whereas these figures fell to zero in the sample of workers interviewed after dismissal (p. 637). The analysis of the privatization of Millat

Tractors Limited shows that "the company had two trade-unions, and all those opting for the golden handshake were members of one of these unions" (Bhowmik, 1995, p. 932). This meant that "after their departure only one union remained" (Ibid.), which provides evidence for the argument that privatization weakens trade union movements.

What was left beyond the scope of this paper is to disaggregate our data further to look at sectoral differences in this context. A comparative analysis of the privatizations of Çitosan, a cement plant, and Petkim, a petrochemical firm, illustrates that there were sectoral differences in the impact of privatization on the labor share (Tansel, 1998). The unemployment rate and unemployment spells were higher among workers in the cement industry than Petkim workers (Tansel, 1998, p. 638). Tansel (1998) offers the lower educational attainment of the workers in the cement industry - "Petkim workers had one and one-half years more mean years of schooling than the cement workers" (p. 635) - as an explanation of these differences. This suggests that the effects of privatization were more severe in the sectors that use unskilled rather than skilled labor (p. 638). The analysis of the privatizations that took place within the cement sector in Pakistan show similar results. Khan and Hijazi (2003) show that "while the workers steadily lost their jobs, this has not been the case for managers despite some ups and downs in wages" (p. 525). Therefore, we may observe different results in the statistical analyses once we run regressions for each sector separately. The next iteration of the analysis may yield more statistically significant results, especially if we manage to gather data on missing values that limited our analysis in this version of the paper. We also would like to test alternative hypotheses, some of which we listed in the previous section. Nevertheless, it is important to note that as much as statistical analyses in a large-N context can make notable contributions to a literature due to their generalizable nature, only with case studies one can reveal the causal mechanisms that explain linkages between variables. In this regard, we use mixed methods in this research to benefit from the strengths of both methods to be able to make novel contributions to multiple literatures in political economy.

* Incomplete bibliography created by LaTeX due to a glitch in Overleaf: to be fixed later

References

Chinn, M. D. and Ito, H. (2006). What matters for financial development? capital controls, institutions and interactions. *Journal of Development Economics*, 81(1):163–192.

Estrin, S. and Pelletier, A. (2018). Privatization in Developing Countries: What Are the Lessons of Recent Experience? *The World Bank Research Observer*, 33(1):65–102.

Goldstein, M. (2000). Imf structural conditionality: How much is too much? *Peterson Institute for International Economics Working Paper Series*. `http://ww.petersoninstitute.org/publications/wp/01-4.pdf`.

Guerriero, M. (2019). The labor share of income around the world: Evidence from a panel dataset. In *Labor Income Share in Asia*, pages 39–79. Springer.

Hutchinson, J. and Persyn, D. (2012). Globalisation, concentration and footloose firms: in search of the main cause of the declining labour share. *Review of World Economics*, 148(1):17–43.

James, H. (1996). *International monetary cooperation since Bretton Woods*. New York: Oxford University Press. pp 323.

Jayadev, A. (2007). Capital account openness and the labour share of income. *Cambridge Journal of Economics*, 31(3):423–443.

Karabarbounis, L. and Neiman, B. (2013). Vthe global decline of the labor sharev. *NBER Working Paper*, 19136.

Kentikelenis, A. E., Stubbs, T. H., and King, L. P. (2016). Imf conditionality and development policy space, 1985–2014. *Review of International Political Economy*, 23(4):543–582.

Rickard, S. J. and Caraway, T. L. (2019). International demands for austerity: Examining the impact of the imf on the public sector. *The Review of International Organization*, 14(1):35–57.

Rodriguez, F., Jayadev, A., et al. (2010). The declining labor share of income. *Journal of Globalization and Development*, 3(2):1–18.

Rodrik, D. (1999). Democracies pay higher wages. *The Quarterly Journal of Economics*, 114(3):707–738.

Rodrik, D. (2006). Goodbye washington consensus, hello washington confusion? a review of the world bank's "economic growth in the 1990s: Learning from a decade of reform". *Journal of Economic Literature*, 44(4):973–987.

Usmani, A. (2018). Democracy and the class struggle. *American Journal of Sociology*, 124(3):664–704.

Vreeland, J. R. (2003). *The IMF and economic development*. Cambridge University Press.

Appendix

Table 3: Conditionality: Two-way Fixed Effect 2SLS Regressions for Labor Share

	(1)	(2)	(3)	(4)
% Change in Share of Workers in High Capacity Industries	-12.369	-6.099	-4.860	-4.633
	(14.677)	(5.284)	(3.198)	(2.931)
IMF Conditions on Trade Liberalization	0.037	0.016	0.009	0.006
	(0.040)	(0.016)	(0.008)	(0.006)
IMF Conditions on Labor Market		0.003	0.002	0.004
		(0.003)	(0.004)	(0.004)
IMF Dummy		-0.065	-0.023	-0.019
		(0.074)	(0.047)	(0.044)
GINI Index			0.005	-0.009
			(0.018)	(0.022)
% GDP Growth			0.528*	0.498*
			(0.301)	(0.269)
KOF Globalization Index				0.011
				(0.014)
Constant	-1.016	-0.541*	-0.515	-0.520
	(0.878)	(0.284)	(0.682)	(0.652)
N	424	424	420	420
R^2				

Notes: These estimates are from two-stage least squares (2SLS) regression. The dependent variable is the percentage change in the labor share of income of borrowing country j in year t. The instrument variable is the cumulative number of IMF conditionalities on privatization of borrowing country j up to year t. All independent variables pertain to borrowing country j in year t. The independent variable *IMF Dummy* is equal to 1 if an IMF programme is in place, 0 otherwise. Year and country fixed effects are included in all models. Standard errors are clustered on borrowing country j and are shown in parentheses. $*p < .1$, $**p < .05$, $***p < .01$