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Capital Account Liberalisation Does Worsen Income Inequality

Abstract

This study examines the relationship between capital account liberalisation and income inequality. Adopting a novel identification strategy, namely a difference-in-difference estimation combined with propensity score matching between the liberalised and closed countries, we provide robust evidence that opening the capital account is associated with an adverse impact on income inequality in developing countries. The main findings are threefold. First, fully liberalising the capital account is associated with a small rise of 0.07-0.30 standard deviations in the Gini coefficient in the short-run and a rise as large as 0.32-0.62 standard deviations in the ten years after liberalisation, on average. Second, widening income inequality is the outcome of the growing income share of the rich at the cost of the poor. The long-term effect of capital account liberalisation includes a reduction in the income share of the poorest half by 2.66-3.79 percentage points and an increase in the income share of the richest 10% by 5.19-8.76 percentage points. Third, the directions and categories of capital account liberalisation matter. Inward capital account liberalisation is more detrimental to income equality than outward capital account liberalisation, and free access to the international equity market exacerbates income inequality the most, while foreign direct investment has an insignificant impact on inequality.

Keywords: capital account liberalisation, income inequality, Gini coefficient, income share

JEL classification: D63, F38

1 Introduction

For policymakers worldwide, one of the top concerns is the current debate on how and to what extend a country, especially a developing country, should liberalize its capital account. Therefore, a clear understanding of the impact is essential. Compared to the large body of studies investigating the consequences of capital account liberalization on economic growth and financial instability, the distributional consequences are much less studied. In recent decades, the simultaneous increase in income inequality and capital account liberalization has emerged as a significant phenomenon. A first glance at the trends of capital account openness and income inequality suggests a positive correlation. Figure 1 shows that income inequality moves in tandem with capital account openness during the period 1970-2015, with a significant correlation coefficient of 0.86.

This study quantifies the effect of capital account liberalization on income inequality. Specifically, the research question assesses whether and how domestic income inequality changes with the liberalization of cross-border capital flows. Hence, this study focuses on inequality within countries instead of between countries, even though global inequality (i.e., worldwide income distribution) is important.[1]The key findings are threefold. First, capital account liberalization is associated with a decline in income inequality in developing countries; however, the effect is insignificant in developed economies. Moreover, the long-term impact is stronger than the short-term effects: opening the capital account is associated with a short term rise of 0.07-0.30 standard deviations in the overall Gini coefficient and as large as 0.32-0.62 standard deviations in the following ten years. Second, the decline in income inequality is attributable to the considerable increase in income share of the rich groups after capital account liberalization at the cost of the poor groups. The magnitude of increase in the income share of rich groups is higher than the decrease seen among the poor groups: the income share of the poorest half tends to decrease by 2.66-3.79 percentage points, while that of the richest 10% increases by 5.19-8.76 percentage points in the long term. Third, in terms of the different dimensions of capital account liberalization, we find that both direction and category are significant. The detriment to income equality arises mainly from inward capital account liberalization rather than that from outward liberalization; moreover, liberalizing the equity market benefits the rich and harms the poor the most. Meanwhile, liberalizing foreign direct investment shows an insignificant effect on income inequality. All these findings do not depend on the choice of specific indicators of capital account liberalization or income inequality. We show the robustness of the findings

[1] Our choice of focus is based on two reasons.The first is the difficulty of constructing a global inequality index from representative worldwide income data and the second is that we are interested in the different effects of capital account liberalization due to heterogeneity among countries.

by using Gini coefficients and income shares from other databases and other capital account liberalization indicators. The results do not change qualitatively and are quantitatively even stronger in some specifications.

This study makes four substantive contributions to the literature that links external financial liberalization and income inequality. First, we provide evidence of the impact of opening the capital account on the income shares of different income groups. The dependent variable of previous studies is usually the nationwide Gini index. Specifically, the use of income share data in this study not only shows the impact on the overall distributional effect but also explains which group benefits or loses the most. Second, we construct a new capital account liberalization index based on the existing ones and identify the exact liberalizing years for each country based on various capital account openness indicators. By regressing on the other capital account openness indicators, we extend the data of Fernández et al. (2016), including the granular data for different directions and categories of capital account liberalization. Next, we date liberalization as the years that change an average negative value of capital account openness ten years prior to an average positive value of capital account openness ten years after, based on which we construct a dataset that complements a difference-in-difference (DID) analysis. Third, we employ the DID approach combined with propensity score matching (PSM) to estimate the impact of opening the capital account on income inequality in a 20-year window. Thus, we mitigate the endogeneity concern of the conventional panel fixed effects models as the DID method aims to construct a quasi-experiment by selecting two groups of similar countries and randomly liberalizing the capital account of the treated group while keeping that of the control group closed. Thus, we interpret the findings of this study one step closer to causality. Fourth, we distinguish the heterogeneous impact of various dimensions of capital account liberalization, and it can help narrow the discussion on specific opening policies.

The rest of the study is organized as follows. Section 2 reviews the relevant literature. Section 3 describes the data and variables used in this study. Section 4 describes the two empirical model specifications. Section 5 presents the estimation results. Section 6 concludes.

2 Literature Review

The interaction between finance and income distribution is necessary to understand the economic impact of financial policies and manage the social tension of inequality. Building on the literature, we first distinguish three nested key terms: financial development, financial liberalization, and capital account liberalization. We then discuss the possible transmission mechanism between capital account liberalization and income inequality and state our contributions by summarizing the relevant studies and novelty of this study.

First, the term "financial development" is a broad concept. It involves the establishment and expansion of financial institutions, instruments, and markets. Usually, studies on financial development focus on the domestic financial markets. Theoretically, Becker and Tomes (1979), Galor and Zeira (1993), and Banerjee and Newman (1993) show that financial market imperfections impede risk-sharing; thus, easing credit constraints and providing the poor access to financial markets can improve equalized distribution. By contrast, Greenwood and Jovanovic (1990) suggest a nonlinear relationship between finance and income inequality. In the early stage of financial development, inequality is likely to increase because the richer agents have less information friction on risky investments; however, as the financial sector matures and becomes extensive, inequality reduces because more number of participants have access to the financial market. Generally, empirical studies measure financial development by examining how efficiently the financial system fuels the economy. The most commonly used indicators of financial development in the literature are the gross domestic product (GDP) share of liquidity liabilities such as M2 (Li et al., 1998; Milanovic, 2005; Hamori and Hashiguchi, 2012), GDP share of credit to the nonfinancial sector (Clarke et al., 2006; Beck et al., 2007; Hamori and Hashiguchi, 2012), and stock market capitalization (Baiardi and Morana, 2018; Asteriou et al., 2014; Das and Mohapatra, 2003). However, financial development is not limited to the intensive dimension; its extensive dimension is also crucial. Hence, it is necessary to distinguish the intensive and extensive dimensions of financial development to investigate its income distributional consequences. Studies such as Mookerjee and Kalipioni (2010) and Neaime and Gaysset (2018) use the number of commercial bank branches per 100,000 inhabitants and barriers to financial inclusion as the proxies for financial access, finding that greater access to bank branches reduces income inequality.

Second, financial liberalization is defined as the various measures adopted to ease the constraints of financial development, and it is often used interactively with financial reform. Financial liberalization consists of internal policies to ease controls in domestic financial markets and external policies to allow the development of cross-border financial markets. Most empirical studies on financial liberalization use the index constructed by Abiad et al. (2010), which summarizes *de jure* changes in credit controls, interest rate controls, entry barriers for banks, regulation, privatization, and restrictions on international financial transactions. Using this index, Agnello et al. (2012), Delis et al. (2013), and Li and Yu (2014) find that financial liberalization reduces income inequality, but its composition matters, and different categories of financial liberalization can have a different impact. Jaumotte et al. (2013), however, compare the role of financial liberalization with that of trade liberalization and find that financial liberalization increases income inequality. Similarly, Ben Naceur and Zhang (2016) conclude that in contrast to financial access, efficiency, and stability, financial liberalization increases inequality.

Third, capital account liberalization is the external aspect of financial liberalization, and we use the term interchangeably with financial globalization. Compared with domestic financial liberalization such as lifting interest rate controls and credit controls, capital account liberalization specifically indicates a reduction in cross-border capital flow and investment constraints into or from foreign economies. As the global financial market has become more integrated in recent decades, studies on financial globalization have grown. The literature on the impact of financial globalization comprises economic growth (Bekaert et al., 2005; Prasad et al., 2005; Kose et al., 2009) and financial stability (Berger et al., 2016; Cubillas and González, 2014), and its distributional consequences have thus been under-investigated until recently.

Several channels could link capital account liberalization to income inequality. First, when international capital flows into high-skill industries, opening the capital account would increase the wages for high-skilled workers relative to low-skilled workers, thus raising income inequality. This contrasts with the implications of the Stolper-Samuelson theorem(Stolper and Samuelson, 1941), according to which low-skilled workers' wages would increase in developing countries after trade openness because these countries are relatively abundant in low-skilled workers. The Stolper-Samuelson theorem assumes that neither labor nor capital can flow freely across borders. When the movement of cross-border capital flows is allowed, the implication of a reduction in inequality weakens. Second, capital account liberalization can affect income inequality by changing access to financial resources and the depth of financial services for different income groups. These channels imply that the composition of capital flows matters. For instance, there is evidence that FDI is more inclined to flow into high-skilled sectors and this tends to increase inequality(Choi, 2006; Acharyya, 2011; Wu and Hsu, 2012; Jaumotte et al., 2013). Meanwhile, Herzer and Nunnenkamp (2013) find that FDI reduces income inequality in the long run but the short-run effect could be positive, and some studies show that foreign bank lending is likely to be associated with improving financial access for the poor, which reduces inequality(Fund, 2007).

In this study, the research question is whether and how capital account liberalization, which is distinguished by the direction and category of capital flows, is associated with income inequality. The relevant literature has ignored this issue until recently, and most existing studies find that greater capital account liberalization is associated with higher income inequality. Fund (2007) and Jaumotte et al. (2013)

(based on datasets of 51 countries from 1981 to 2003) and Asteriou et al. (2014) (based on the EU-27 data from 1995 to 2009) find that capital account openness is associated with increased inequality. They argue that the dis-equalizing impact increases the premium on high-skilled labor and possibly returns to capital, and this is more significant in developed countries. In contrast, Dorn et al. (2018) employ an instrumented variable approach and find a robust and positive link between globalization and the Gini coefficient in the case of transition economies versus advanced economies, but they measure globalization in terms of trade, FDI, and social and political globalization, and do not distinguish the external finance globalization. Both Jaumotte and Osorio (2015) and Ben Naceur and Zhang (2016) argue that external financial liberalization policies are related to higher inequality, based on the evidence of 20 advanced economies over the period 1980-2010 and 143 countries over 1961-2011, respectively. Das and Mohapatra (2003) use a sample of 11 emerging countries that experienced equity market liberalization between 1986 and 1995 and find that income inequality increases following equity market liberalization.

Other studies find that the inequality-widening impact of capital account liberalization is conditional. Furceri and Loungani (2018) use a panel of 149 countries for the period 1970-2010 and provide evidence that the positive impact of capital account liberalization on income inequality is larger for countries with weak financial institutions and low financial development and during the periods following financial turmoil. Furceri et al. (2019) use industry-level data for 23 advanced economies and find that capital account liberalization increases inequality by reducing the share of labor income, particularly for industries with greater dependence on external finance, higher natural layoff rates, and higher elasticity of substitution between capital and labor. De Haan and Sturm (2017) use a panel fixed effects model and a sample of 121 countries covering the period 1975-2005 to examine the impact of financial liberalization, the measure of which contains an indicator of currency convertibility on income inequality. They conclude that financial liberalization increases income inequality depending on financial development and political institutions. Similarly, using a dataset covering 106 countries from 1973 to 2008, Bumann and Lensink (2016) find that capital account liberalization lowers income inequality after a critical threshold in financial development is reached.

This study contributes to the literature in three ways. First, we adopt both the Gini coefficient and income share data of different groups to measure income inequality. The Gini coefficient is a broad indicator and provides little information on the structure of income inequality or the gap between different income groups; thus, measuring the income share with respect to the rank of income level is necessary (Piketty and Zucman, 2014). Most extant studies use the conventional Gini coefficient, although there are a few exceptions. For instance, Das and Mohapatra (2003), Jaumotte et al. (2013), Kim and Lin (2011), Han et al. (2012), Kirschenmann et al. (2016), Mah (2013) and Cabral et al. (2016) use the metric of quintile or decile income share and the income share of the poorest or richest group to measure income inequality. However, the datasets used in these studies lack international coverage or they are restricted to limited years. Using income share data with a broader coverage of countries and years, this study examines which income groups benefit the most from capital account liberalization and how the distributional impact affects each group.

Second, this study distinguishes the income-distributional effects of capital account liberalization from various perspectives. As stated in Asteriou et al. (2014), the composition of financial flows is significant for the net effect of globalization on inequality. Building on the new capital account liberalization measurement proposed by Fernández et al. (2016), we examine how the distributional effect differs between the liberalization of equities, bonds, FDI, and other capital. We also distinguish the impact of inward and outward capital account liberalization. This study is, therefore, the first to investigate the different categories of capital account liberalization and income inequality, thereby offering practical implications for policymakers in designing a roadmap of capital account opening.

Third, this study contributes by addressing the endogeneity concern in the relationship between capital account liberalization and income inequality, using a DID model. In addition to the generalized method of moments (GMM) estimation technique used in the panel data model to mitigate the endogeneity of the capital account openness variable, we construct a DID dataset by identifying the exact year of capital account liberalization if the country has experienced a substantial change from a closed capital account to a more liberalized one and by pairing the treated countries with control countries similar to the treated ones before liberalization. This methodology allows us to compare the change in income inequality between cases with capital account liberalization and those without liberalization based on a quasi-natural experiment. Similarly, the philosophy of identifying episodes of capital account liberalization and conducting DID analysis has also been applied in Larrain (2014) and Furceri et al. (2019), and our methods differ from those proposed by the authors in the following aspects. First, we use regressions to identify the liberalization years, which show a significant change in capital account liberalization from an average negative value of capital account openness ten years before to an average positive value of capital account openness ten years after, instead of simple criteria such as the differences bigger than two standard deviations in the annual capital account openness. Second, we are interested in the long-run effect, requiring capital account liberalization episodes lasting longer than ten years and compare the change in the average income inequality ten years before and after the liberalization; meanwhile, Larrain (2014) and Furceri et al. (2019) are interested in the short- to medium-term effects during each of the five years after the liberalization. Third, they do not match the treated groups with appropriate control groups during the twenty-year window, while we combine the DID setting with the propensity score matching method and construct a quasi-natural experiment of capital account liberalization. Fourth, they do not distinguish the direction and categories of capital account openness, but we document the impact of inward and outward liberalization, and liberalization of the equity market, bond market, FDI, and other investments.

3 Data

This section describes the datasets and the construction of key variables and control variables. The key variables are measures of income inequality and capital account liberalization. For income inequality, we use both the Gini coefficient and the income share of different groups. For capital account liberalization, we use the capital account openness indicators in the panel fixed effects model and the identified year of capital account liberalization in the DID model. Table 1 presents the data sources and summary statistics of the variables used in this study.

3.1 Income Inequality

The most conventional measurement of income inequality is the Gini coefficient. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini coefficient measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. A Gini coefficient ranges from 0 to 100, with 0 representing perfect equality and 100 representing perfect inequality.

The Gini coefficients in this study are from the Estimated Household Income Inequality (EHII) database, compiled by the University of Texas Inequality Project (UTIP). We choose the EHII dataset over other Gini coefficients datasets such as the World Income Inequality Database (WIID, maintained and updated by UNU-WIDER), the Standardized World Income Inequality Database (SWIID), and the World Bank's PovcalNet, because the latter are flawed. The WIID succeeds the dataset compiled by Deininger and Squire (1996) and is commonly used in empirical studies on income inequality, but it has mixed data types (i.e., gross versus net, household versus individual, income versus expenditure) and a low frequency of observations. As pointed out by Gimet and Lagoarde-Segot (2011), merely extrapolating values or extending the data interval based on Deininger and Squire (1996) would create serial dependencies in the measurement errors. The data in SWIID and the World Bank's PovcalNet lack consistency and comparability. The SWIID is a revision of the WIID; however, some studies, in particular Jenkins (2015), pose serious questions about the imputation model that underpins the SWIID and suggest that using SWIID data may result in bias despite its broad coverage. Similarly, the global coverage of PovcalNet is at the cost of lower comparability. As the World Bank warns, it was developed for the sole purpose of public replication of the World Bank's poverty measures, therefore, using PovcalNet to track income distribution can be challenging. [2]

The EHII dataset circumvents these problems by deriving the econometric relationship between the Deininger–Squire Gini coefficient and a Theil-index-based measure of the industrial sector pay dispersion[3], by controlling the manufacturing employment-to-total-population ratio and other variables. Thus, EHII data bridge the missing inequality observations by replicating the Deininger-Squire dataset with estimated measures of household income inequality. The construction process of the EHII Gini coefficient is described in detail in Galbraith and Kum (2005) and Gimet and Lagoarde-Segot (2011). The EHII dataset also has wide coverage in terms of both years and number of countries. The data were updated in September 2018 and have 4,550 non-missing observations of 153 countries covering the period 1963-2015. While EHII data have been widely used in other social sciences, it does not have much uptake in economics[4], but exceptions include Herzer and Nunnenkamp (2013), Herzer et al. (2014), and Figini and Görg (2011). Section A1 in the Appendix compares these databases and Table 2 shows the correlation between the Gini coefficients of various datasets. While each database has its advantages and disadvantages, to the best of our knowledge, the EHII database is the most comprehensive and a comparable source of income Gini coefficients; therefore, we employ it in the baseline analysis and use data from other sources in the robustness check.

The time series of the EHII Gini coefficient in Figure 2 shows that income inequality is higher in non-OECD countries than in OECD countries[5] and that their

[2]"*PovcalNet was developed for the sole purpose of public replication of the World Bank's poverty measures for its widely used international poverty lines, including $1.90 a day and $3.10 a day in 2011 PPP. The methods built into PovcalNet are considered reliable for that purpose. However, we cannot be confident that the methods work well for other purposes, including tracing out the entire distribution of income. We would especially warn that estimates of the densities near the bottom and top tails of the distribution could be quite unreliable, and no attempt has been made by the Bank's staff to validate the tool for such purposes.*" Source: http://iresearch.worldbank.org/PovcalNet/home.aspx

[3]The industrial sector pay dispersion data are from the UTIP-UNIDO (United Nations Industrial Development Organization).

[4]We thank the anonymous referees for this point.

[5]OECD stands for the Organisation for Economic Cooperation and Development. The OECD countries here does not include Lithuania, which became a member in 2018. Specifically, there are 35 OECD countries: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark,

trends differ by period. From 1970 to 1987, the Gini coefficients in non-OECD countries were declining, whereas those in OECD countries were rising, albeit from a much lower level. From 1987 to 1995, both groups of countries experienced a deterioration in income inequality; however, OECD countries remained stable from 1995, while non-OECD countries could not stabilize until the early 2000s. From 2007 to 2013, income inequality remained stable in non-OECD countries but increased steadily in OECD countries. After 2013, income inequality declined in both groups.

However, reducing the whole income distribution to a single number of the Gini index can be too simplified to capture the overall distribution structure (Piketty and Zucman, 2014). In addition to the Gini index, we use income share data from the World Inequality Database (WID), which was first developed by Piketty and Zucman (2014) and later expanded to include the evolution of the national income structure in the long run. Compared to the other income share database, namely the WIID, the WID data have a broader geographical and time coverage, especially for non-OECD countries. The WID data have 3,114 non-missing observations for 112 countries for the period 1970-2015, of the income share of the bottom 50%, middle 40%, and top 10%, while the WIID data have 1,371 non-missing observations for 93 countries for the same periods, although it has more granular data of the income share of the first to fifth quintile groups[6]. We also use the more granular but with smaller coverage income share data from the WIID in the robustness check.

Table 1 includes the summary statistics of the Gini coefficient and income share data. The number of countries in each year for the two variables is shown in Table A2.

3.2 Capital Account Liberalization

Capital account liberalization is the key explanatory variable in this study. We first describe the key databases for measurement and then document the process of identifying the exact year in which capital account openness increased significantly.

3.2.1 Capital Account Openness Data

We employ three different *de jure* capital account openness indicators from Chinn and Ito (2008) (Chinn-Ito hereafter), Quinn and Toyoda (2008) (Quinn-Toyoda hereafter), and Fernández et al. (2016) (FKRSU hereafter), respectively, to capture the

Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

[6]For multiple observations for the same country-year in the WIID, we follow De Haan and Sturm (2017) by first taking the averages of the country-year pairs that have the same quality label (high, average, low, and not known) and then taking the average of that which belongs to the highest quality to obtain a unique observation per country-year.

government's policy stance toward cross-border capital flows. All the indicators are constructed based on the International Monetary Fund's (IMF) *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER), which describes the legal restrictions on international capital transactions in each country. Each indicator has its pros and cons, as a measurement of capital account liberalization and for the purpose of identifying the liberalizing years in this study. We describe them below and use all three indicators in the baseline analysis to show that the results do not depend on a specific capital account liberalization indicator.

The $KAOPEN$ index from Chinn and Ito (2008) is constructed as the first standardized principal component of $k1$, $k2$, $SHAREk3$, and $k4$, where $k1$ is the variable reported in the IMF's AREAER indicating the absence of multiple exchange rates, $k2$ indicates the non-existence of restrictions on current account transactions, $SHAREk3$ stands for the share of a five-year window that capital controls were not in effect, and $k4$ indicates the non-existence of the requirement of the surrender of export proceeds. The advantage of Chinn-Ito is its comprehensive coverage of both countries and time period, that is, for 182 countries from 1970 to 2015; however, there are two concerns. First, three of the four components ($k1$, $k2$, and $k4$) are financial current account instead of capital account. However, as Chinn and Ito (2002) argue, the incorporation of $k1$, $k2$, and $k4$ is based on merit and can be interpreted as the intensity of capital controls because countries may still restrict the flow of capital by limiting transactions on current account restrictions or other systems such as multiple exchange rates and requirements to surrender export proceeds even when the capital transaction is not controlled, and restrictions on the financial current account ensure that the private sector does not circumvent the capital account restrictions. The second concern is that the five-year moving average of the $SHAREk3$ may subvert the procedure of accurately dating the capital account liberalization year. We mitigate the second concern by directly using the original $k3$ from the AREAER without smoothing over the years in the robustness check, and by showing that our findings are consistent when we use the Quinn-Toyoda and FKRSU indicators, which do not suffer from the moving average problem.

The Quinn-Toyoda index from Quinn and Toyoda (2008) is based on a simple form of textual analysis of the text published in the AREAER, which reports on the laws used to govern international financial transactions. This approach measures both the existence (or absence) of restrictions and the magnitude of those restrictions starting from the lowest level (in contrast, k_1 to k_4 in the Chinn-Ito index are dichotomous). The original Quinn-Toyoda index consists of CAP and CUR, which respectively represent the openness to capital flows and proceeds from the international trade of goods and services. We only use the CAP as we focus on the liberalization of capital transactions, and we already have the Chinn-Ito index to account for the possible capital transactions under the category of financial current account. As described in Quinn (1997), the coding rules for the restrictions of capital transactions are as follows. If approval is rare and surrender of receipts is required, then the index takes the value 0; if approval is required and sometimes granted, then it takes a value 0.5; if approval is required and frequently granted, or approval is not required and receipts are heavily taxed, then it takes the value 1; if approval is not required and receipts are taxed, then it takes a value 1.5; if approval is not required and receipts are not taxed, then it takes the value 2. The advantage of the Quinn-Toyoda CAP index is the simplicity and preciseness in capturing capital account openness (restrictions), which contributes to the dating of capital account liberalization years. The concerns are the smaller coverage of developing countries and the difficulty in updating, which results in worse availability for recent years, although the authors have made many efforts and expanded the coverage to 126 countries for the period 1970-2014[7].

The FKRSU datasets compiled by Fernández et al. (2016) provide more granularity by distinguishing the direction and category of capital flows compared to the other two indicators. The FKRSU datasets contain capital control information for ten categories of assets: money markets, bonds and other debt securities, equities, collective investments, financial credits, derivatives, commercial credit, guarantees, sureties and financial back-up facilities, real estate transactions, and direct investments. To distinguish the direction of capital flows, Fernández et al. (2016) use the buyers or sellers tax residence information and if the transaction represents a purchase, sale, or issuance. For instance, for the money market, there are two categories of controls on inflows: (i) *purchase locally by nonresidents*, and (ii) *sale or issue abroad by residents*. Similarly, there are two categories of controls on outflows: (i) *purchase abroad by residents*, and (ii) *sale or issue locally by nonresidents*. For some asset categories, there are broader classifications of inflow and outflow controls. At the most disaggregated level, the FKRSU dataset contains capital control information on 32 transaction categories, as summarized in Section A3 in the Appendix. Specifically, the FKRSU dataset translates the narrative information in the AREAER into quantitative indicators, according to a set of rules. The general rules are as follows (a detailed explanation can be found in Fernández et al. (2016)). The AREAER provides a YES-or-NO and/or narrative information for each of the 32 transaction categories. The YES-or-NO information is employed only when the narrative information is missing. For the narrative information, Fernández et al. (2016) identify the existence of capital controls and assign a value of 1 when it indicates that a transaction requires "authorization," "approval," "permission," or

[7]We thank Prof. Dennis Quinn for sharing the most updated data with us, which was not publicly available when we conduct this study.

"clearance" from a public institution, or has a quantity restriction such as a "ceiling"; otherwise, a control is not in place and the value is 0. The 32 data series, each with a value of either 1 or 0, can then be aggregated into broader categories by taking the average. In this study, we use the aggregated capital controls of each of the four kinds of assets, that is, equities, bonds, direct investments, and other investments which is the average of the remaining seven categories of assets[8], the aggregated capital controls for the overall capital outflow and inflow, and the most aggregated capital control of the entire capital account.

As the AREAER provides sub-categorical information instead of a single category of capital transactions since 1995, the original FKRSU dataset is only available for 100 countries for the period 1995-2015. As we can see later, a large proportion of capital account liberalization happened during the 1970s and 1980s; from 1995 onwards, the biggest disadvantage of the FKRSU index is in comparing the impact before and after liberalization. Thus, we follow Bekaert et al. (2016), to extend the data back to 1970 using the fitted values based on the estimates from a regression of the original FKRSU series on the Chinn-Ito index and the Quinn-Toyoda CAP and CUR indices[9]. We conduct the regressions separately for OECD countries and non-OECD countries, and country fixed effects are controlled in each regression. The regressions perform well in generating the pseudo-FKRSU indicators, as the adjusted R-square is 0.80 for the OECD samples and 0.91 for the non-OECD samples, and all the explanatory variables are statistically significant. The detailed estimates and the comparison between the series of original and pseudo data are presented in Appendix A2.

We use all the three measurements of capital account openness in the baseline analysis and transform the values between 0 and 1, with higher values representing more capital account openness to facilitate the interpretation of the results. Table 3 reports the pairwise correlations between each of the three capital account liberalization indicators as well as the original FKRSU index. It shows that they are significantly and positively correlated, with a correlation coefficient of at least 0.82

[8]We decide to use this classification because it is generally used in the national Balance of Payments Tables (BOP) and we do not use all of the ten categories to reduce the difficulty in deriving informational findings and avoids the possible multicollinearity problems in the regressions.

[9]The regression is specified as:

$$FKRSU^{j}_{i,t} = \alpha_{i,t} + \beta_1 \text{KA\_OPEN}_{it} + \beta_2 \text{CAP}_{i,t} + \beta_3 \text{CUR}_{i,t} + \epsilon_i + \varepsilon_{i,t}$$

where j is each of the 32 FKRSU data series. KA_OPEN is the Chinn-Ito index(Chinn and Ito (2008)), CAP and CUR comes from the Quinn-Toyoda index ((Quinn and Toyoda, 2008)) , all standardized to [0,1] with higher values indicating more liberalization. The equations are estimated separately for OECD and non-OECD samples to account for the different slope and coefficients in developed and developing economies. The original Chinn-Ito index covers 1970-2015, and the Quinn-Toyoda index covers 1970-2014, thus the constructed pseudo-FKRSU index covers 1970-2014.

between the Quinn-Toyoda and Chinn-Ito indices and as high as 0.96 between the Quinn-Toyoda and pseudo-FKRSU indices. Figure 3 displays the time series of average capital account openness for all the countries, OECD countries, and non-OECD countries captured by each of the three indices. A similar trend can be observed using different indicators: from 1970 to 1985, the OECD countries gradually liberalized their capital accounts, while the developing countries were strengthening capital controls. Both groups began a rapid process of capital account liberalization until the end of the 1990s, after which they slowed down the liberalization with some reversals and maintained a stable level of capital account openness after the recent global financial crisis. Although the liberalization trends are similar, the openness of capital accounts in OECD countries is much higher than that in non-OECD countries. Besides, Figure 4 presents the histogram and kernel density of capital account openness during the early, middle, and recent years[10]. Comparing the distributions in different periods, we can observe a noticeable trend in capital account liberalization. From the 1970s to the early 1980s, a large proportion of countries had relatively closed capital accounts and imposed legal restrictions on cross-border capital flows. During the middle period (1985-2000), many more countries opened their capital accounts and the distribution shifted to the more liberalized end and, in the recent years (2000-2015), density at the most liberalized end became more substantial than that in the least liberalized end.

We also employ the original AREAER dichotomous variable and a *de facto* indicator to measure capital account openness in the robustness check. The AREAER data are used to identify the liberalizing years, which show a change from the existence of capital controls to the absence of capital controls, without the statistical procedure to find a significant change in the degree of capital account openness. More details of the procedure and the problems with the AREAER data are described in Section 5.4. The *de facto* index gauges the actual scale of cross-border capital flows, which may present a different pattern from the *de jure* index, especially when the capital control policy is ineffective, or its implementation is weak. We use the *de facto* capital account liberalization measurement based on Lane and Milesi-Ferretti (2007). Specifically, we adopt the ratio of the sum of total external assets and total external liabilities to GDP and the components of the ratio of total equity flows, total debt flows, and total FDI flows to GDP. Table 3 shows that the correlation between each $dejure$ capital account openness measurement and the $defacto$ indicator is much lower than that between the $dejure$ measurements, but still significantly positive ranging from 0.17 to 0.31.

[10]This figure is plotted using the pseudo-FKRSU index only because its data values are more scattered while the other two indicators concentrate on several specific values and therefore not suitable for distributional descriptions. This aspect also reflects the advantage of the FKRSU dataset.

3.2.2 Identification of the Exact Capital Account Liberalization Year

Based on the *de jure* index of capital account liberalization, we can identify the exact year in which the country substantially liberalized its capital account (i.e., converted it from a closed account to a liberalized one). Admittedly, capital account liberalization is not a one-time event but rather a continuous process. However, during certain years, the government was determined to liberalize its capital account and removed many of the constraints on international capital flows. Specifically, these years mark a substantial change in capital account liberalization and can form strong before-and-after contrasts, which we see as a quasi-experiment that suits a DID analysis. Section 4 describes the details of the DID method, and we summarize below the various steps to identify the exact year of capital account liberalization.

We mainly follow Braun and Raddatz (2007) with some supplements and revisions. Consistent with Braun and Raddatz (2007), we first describe the steps taken to find the structural break year using Chinn and Ito (2008)'s original KAOPEN index[11]. We also conduct country-level identification using the Quinn-Toyoda and pseudo-FKRSU indicators. The following steps are conducted for each country.

- Determine the beginning and end years of the valid sample. The beginning year is the first year in which the $KAOPEN$ variable is not missing, and the end year is the last year of that period. The sample period can differ for each country.

- For each year t, create the variable $DUMMY_t$ and let it be 0 for the 10 years before year t (i.e., years $t-10$ to $t-1$) and 1 for the 10 years after year t (i.e., years t to $t+10$).

- Regress $KAOPEN$ on $DUMMY_t$ and obtain a coefficient for each year t. Store the value of the coefficient as well as its T-value for each year and generate two variables for them, $BETA_t$ and T_t. The period (years) two years after the sample starts or two years before the sample ends is called the edge years, and we replace their $BETA_t$ and T_t with missing values. In addition, if $BETA_t$ equals 0, we replace it and T_t with missing values as well.

- Generate the variable $MARK_t$, which is coded 1 if the average capital account openness in the 10-year period after year t changes significantly into positive from an average negative capital account openness in the 10-year period before year t, and -1 otherwise.

  Specifically, $MARK_t$ equals 1 if the following criteria are simultaneously satisfied: (i) the average value of $KAOPEN$ in years $[t, t+10)$ is positive, (ii)

[11] Note that here we use the original KAOPEN $\in [-4, 4]$ instead of the one standardized to [0,1] used in the panel fixed-effect model.

the average value of $KAOPEN$ in years $[t-10, t)$ is negative, (iii) T_t is higher than 1.96, and (iv) $BETA_t$ is not missing. Similarly, $MARK_t$ equals -1 if the following criteria are simultaneously satisfied: (i) the average value of $KAOPEN$ in years $[t, t+10)$ is negative, (ii) the average value of $KAOPEN$ in years $[t-10, t)$ is positive, (iii) T_t is lower than -1.96, and (iv) $BETA_t$ is not missing.

We temporarily replace the value of $MARK_t$ with 0 if it is not valued as 1 or -1 following the criteria described above, and t does not belong to the edge years.

- To deal with $MARK_t$ in the edge years based on the $KAOPEN$ values, specifically, we apply the following rules: (i) If the $KAOPEN$ value in the edge years is the same as that in the closest non-edge years, we let the $MARK_t$ variable take the same value as that of the closest non-edge years; (ii) If the $KAOPEN$ value in the edge years is even larger than that in the closest non-edge years with $MARK_t$ equaling 1, then their values of $MARK_t$ are also 1; and (iii) If the $KAOPEN$ value in the edge years is even smaller than that in the closest non-edge years with $MARK_t$ equaling -1, then their values of $MARK_t$ are also -1. For the remaining years, $MARK_t$ temporarily takes the value of 0. Hence, we replace them with the same value as the last non-missing $MARK_t$ values of either 1 or -1.

- Determine the exact year in which the country liberalized or closed its capital account. The beginning year of capital account liberalization is the first year in which the value of $MARK_t$ changed to 1 from -1, or the first non-edge year with $MARK_t$ equaling 1 and the value of $MARK_t$ in the closest edge year is missing. The end year of capital account liberalization is the first year in which the value of $MARK_t$ changed to -1 from 1, or the last non-edge year with $MARK_t$ equaling 1 and the value of $MARK_t$ in the closest edge year is missing. Thus, we identify the exact year of capital account liberalization as the beginning year and a liberalization period of [beginning year, end year][12].

- Finally, identify the countries for which the capital account is never or always liberalized. Specifically, for countries that always have negative values of $KAOPEN$, we see their capital account has never liberalized; for those countries that always have positive values of $KAOPEN$, we see their capital account as always liberalized. In addition, if $MARK_t$ is 0 for each year, and the average value of $KAOPEN$ in the sample period is negative, or $MARK_t$

[12]Using the Chinn-Ito dataset, we have identified at most two liberalization periods for each country. It the two liberalization periods has a gap larger than ten years, we see the two episodes for the same country as two independent observations.

is -1 for each year, we also identify that the country has never liberalized. If $MARK_t$ is 0 for all the years and the average value of $KAOPEN$ is positive, then we identify that the country has always liberalized.

Thus, we can construct a dataset documenting the capital account history of each country, that is, either its capital account has remained closed or liberalized during the entire sample period, or it has experienced change from a closed to an open capital account during a specific year. In addition to the $KAOPEN$ indicator, we use the Quinn-Toyoda and the pseudo-FKRSU indicator to determine the capital account liberalization years and periods for each country. Instead of using 0 as the critical point of the capital account openness indicator, as the $KAOPEN$ data lie in the range of $[-4, 4]$, we find the counterpart critical value in the Quinn-Toyoda and pseudo FKRSU indicator, which lies in the range of $[0, 1]$ by regressing Quinn-Toyoda (pseudo-FKRSU) on $KAOPEN$, and use the constant term as the equivalent to 0 in the KAOPEN dataset. We name the estimated constant $ZERO_{QuinnToyoda}(ZERO_{pseudo-FKRSU})$ and then replace the criteria of $KAOPEN$ being positive with a Quinn-Toyoda value larger than $ZERO_{QuinnToyoda}$ $(ZERO_{pseudo-FKRSU})$ and $KAOPEN$ being negative with a Quinn-Toyoda value smaller than $ZERO_{QuinnToyoda}$ $(ZERO_{pseudo-FKRSU})$. The remainder of the process is the same as described above. Table A3 shows the liberalization date results based on these three indices. [13]

3.3 Control Variables

Following the recent literature on finance and income inequality (Asteriou et al., 2014; Johansson and Wang, 2014; Seven and Coskun, 2016), we control for a set of conventional variables including GDP per capita, the square of GDP per capita, inflation, trade openness, education, age dependency ratio, government consumption, private credit, money supply, and unemployment.

The GDP per capita and its squared terms are related to income inequality. Further, inflation and money supply are controlled because a change in price level

[13] Larrain (2014) adopts an alternative way to decide the capital account liberalization year for each country. He defines the capital account opening year as the first year when there is a more than one-standard-deviation increase in the Chinn and Ito (2008) openness index.

Specifically, this method has the following steps for each country: (i) Calculate the standard deviation of $KAOPEN$ in the sample period, and for each year the change of $KAOPEN$. (ii) In those years in which the annual change of $KAOPEN$ is larger than the standard deviation, choose the earliest year as the capital account liberalization year. (3) When the annual change of $KAOPEN$ is always smaller than the standard deviation, identify the country as never liberalized if its $KAOPEN$ values are always negative, or always liberalized if its $KAOPEN$ values are always positive. Then leave the rest unidentified countries as uncertain.

We also use Larrain (2014)'s method to construct a third dataset of capital account liberalization year. The identification results and the results using this dataset in the empirical analysis are consistent with the results we present in this study. Results are available upon request.

can affect labor supply and harm those who are highly dependent on nominal income; trade openness is controlled to consider the relative change in labor income in the tradeable sector and mitigate the concern that external financial liberalization may be accompanied by trade liberalization; education as a proxy for human capital is controlled because it is relevant to the income level; age dependency ratio is controlled because the demographics are associated with the labor market structure; government consumption is controlled as it can be used to reduce inequality; private credit is controlled since financial constraints and financial depth are often related to income level; and unemployment is controlled because the lower-income group can be widely affected.

In addition, studies show that institutional quality and corruption are also useful determinants of income inequality (Lin and Fu, 2016; Chong and Gradstein, 2007; Li et al., 2000; Gupta et al., 2002). To measure institutional quality and corruption, we use the *polity*2 from the Polity IV datasets, with a higher value indicating a more democratic political regime and higher institutional quality, and the corruption index from International Country Risk Guide (ICRG) database published by the Political Risk Services (PRS) Group. However, the caveats of these two additional variables are that they start from a recent year (1984) and are not available for the 1970s and early 1980s, when many capital account liberalization happened. Including them in the regression, thus, results in much smaller observations and lowers the credibility of the estimates in the DID analysis, which requires ten years of data before and after liberalization. Therefore, we do not control them in the baseline analysis but use them in the robustness check.

4 Empirical Methodology

4.1 Panel Fixed Effects Model

We first apply the conventional panel fixed effects model with the following specification:

$$\begin{aligned} Inequality_{i,t} = \alpha_0 + \beta_0 Inequality_{i,t-1} + \beta_1 CapitalAccountLiberalization_{i,t} + \\ \beta_2 GDPpercapita_{i,t} + \beta_3 GDPpercapita_{i,t}^2 + \Gamma X_{i,t} + \phi_i + \epsilon_{i,t} \end{aligned} \tag{1}$$

where i indicates the country and t the year. For the dependent variable $Inequality_{i,t}$, we use both the Gini coefficient and the income share of different groups, and we control for its lagged term to account for possible persistence. In the panel fixed effects model, $CapitalAccountLiberalization_{i,t}$ represents the capital account openness indicators, as described in Subsection 3.2.1. We use the Chinn-Ito, Quinn-Toyoda, and pseudo FKRSU indicators in the baseline regression and the *de facto* openness indicators in the robustness check. We also employ the finer subcategory indicators of the pseudo FKRSU dataset to investigate the role of the different dimensions of capital account liberalization on income inequality. In $X_{i,t}$, we include additional control variables such as inflation, private credit, unemployment, money supply, education, government consumption, urbanization, age dependency ratio, and trade openness. Lastly, we control for the country fixed effects.

As it is a dynamic panel model, estimates using fixed effects can be biased. We thus estimate Equation (1) using the general method of moments (GMM) method proposed by Arellano and Bond (1991) and Blundell and Bond (1998). We treat the capital account openness indicator as endogenous and the lagged dependent variable ($Inequality_{i,t-1}$) as pre-determined, and we use their lagged terms as instrumental variables. In choosing between difference GMM and system GMM, we use the later in the baseline analysis because there could be weak instrument issues for difference equations when the lagged levels are only weakly correlated with the subsequent first differences, and this is more possible when the panel units are relatively large and the time periods are small, thus adding level equations can correct the possible bias using difference equations only. However, as pointed out by Roodman (2009), the problem of instrument proliferation is more serious for the system GMM. The increasing number of instruments may induce overfitted endogenous variables, imprecise estimates of the optimal weighting matrix, and bring downward bias in two-step standard errors and weaken the Hansen test of instrument validity. Thus, it is necessary to reduce the instrument count and carefully interpret the Hansen test results in the GMM practice. In this study, we acknowledge the dangerous statistics in GMM estimates and abide by the rules suggested in Roodman (2009): we conduct Windmeijer correction, collapse and limit the lag depth of the instruments, report the number of groups, number of instruments, the second-order serial correlation test, and the Sargan and Hansen test of joint validity of instruments. Detailed specifications and interpretations are described in the respective GMM estimations in Section 5.

The coefficient β_1 bears the highest interest. When the dependent variable is the Gini coefficient, a significantly positive β_1 indicates that capital account liberalization is associated with an increase in income inequality and vice versa. When the dependent variable is the income share, a significantly positive β_1 indicates that capital account liberalization is associated with an increase in the income share of a certain group and vice versa.

4.2 DID Model

Taking advantage of the identified year of capital account liberalization from Subsection 3.2.2, we can simulate a quasi-randomized experiment and conduct a DID analysis to investigate the possible causal effect of liberalizing the capital account on income inequality. The standard DID specification is as follows:

$$\begin{aligned} Inequality_{i,T} = \gamma_0 POST_T + \gamma_1 TREATED_i + \gamma_2 POST_T \times TREATED_i \\ + \Lambda X_{i,T} + \phi_i + \epsilon_{i,T} \end{aligned} \tag{2}$$

The coefficient of interest is γ_2 on the interaction term of $POST_T$ and $TREATED_{i,T}$. The vector $X_{i,t}$ contains a group of control variables, which are the same as that in the panel fixed effects model. ϕ_i is the country fixed effects, which can be used to control for a range of omitted variables.

We want to establish the long-term effects of opening the capital account, while reducing the influence of short-term dynamics in the estimation. Therefore, we use the 10-year average of all the variables before and after capital account liberalization. Specifically, for each treated country x that liberalized its capital account in year xt and each of its control countries $xj_1, xj_2, ..., xj_n$, we take the averages of two periods, $[xt-10, xt)$ and $[xt, xt+10)$. Thus, the value of the variable $POST_T$ is 0 for the average of period $[xt-10, xt)$ and 1 for the average of period $[xt, xt+10)$. We identify the treated countries as those having experienced a capital account liberalization event, and their value of $TREATED_i$ is 1. The key question is to find the best control groups for each treated country (i.e., the countries with $TREATED_i = 0$).

We pursue two approaches following Levchenko et al. (2009). First, we clean and select the treated countries. In the case that the countries have two periods of capital account liberalization (i.e., they have gone through a reversal after the first liberalization), we treat them as two separate observations if the gap between the two liberalization periods is more than ten years, and drop such cases if the reversal happened within ten years. We also require that the liberalization events last longer than ten years, implying that the capital account liberalization periods should be longer than ten years.

For instance, the result based on the Chinn-Ito KAOPEN variable in Table A3 shows that Bolivia experienced two capital account liberalization events. The first liberalization that happened in 1970 lasted for only five years (1970-1975), and the second liberalization event occurred in 1988 and lasted for 28 years (1988–2016). Hence, the end of the first liberalization event and the beginning of the second liberalization event were 13 years apart. However, as the first liberalization event was reversed within five years, we exclude the 1970-1975 occurrence and use only the second liberalization event of 1988-2016.

As the identification of a significant breakpoint near the edge years can be unstable, we drop the case if the identified liberalization year lies within the first two years of the country sample. For instance, the result based on the Chinn-Ito KAOPEN variable in Table A3 shows that Japan liberalized its capital account in 1972; however, because the sample for Japan starts in 1970, we excluded the case of Japan from the DID analysis. We also omitted cases in which the capital account is always open, leaving countries that have liberalized their capital accounts from a closed state and countries that retain a closed capital account throughout the sample period. We then generate the variable LIB, which takes the value of 1 for the former and 0 for the latter. We consider countries that experienced capital account liberalization as the treated countries, namely the variable $TREATED$ equals 1 if $LIB = 1$.

Second, we find the group of control countries for each treated country by adopting two approaches: the broad approach and the PSM approach. Under the former, for each treated country i that liberalized its capital account in year xt, we have two criteria to determine the control countries $xj1, xj2 \ldots xjn$. First, their capital accounts should be closed during the 20-year window [t-10, t+10), including countries whose capital accounts are always closed (i.e., $LIB = 0$) as well as countries that experienced capital account liberalization (i.e., $LIB = 1$) but with a year of liberalization jt later than $xt + 10$ or earlier than $xt - 10$. The second criterion is that they should be OECD countries if the treated country is an OECD country or non-OECD countries if the treated country is a non-OECD country. For instance, Bolivia liberalized its capital account in 1988 and remained open until 2016. Hence, Bolivia is a treated country, and we only use its sample during 1978-1998. Since Bolivia does not belong to the OECD group, we need to find its control groups from non-OECD countries that have a closed capital account during the period 1978-1998. The Dominican Republic opened its capital account in 1999 and had a closed capital account during 1978-1998. In this case, it is a treated country as it experienced capital account liberalization; however, the Dominican Republic is also one of the control countries for Bolivia because its capital account was closed during Bolivia's 20-year analysis period.

Under the broad approach, limiting the control countries to those with closed capital accounts during the same period and belonging to either the same OECD or non-OECD group of the treated countries can help to easily pair the treated country with many control countries. However, the control country can still be different from the treated one. For example, one of the control countries for Bolivia, whose capital account was liberalized in 1988, is Barbados according to the broad approach. Nonetheless, Barbados and Bolivia have more differences than similarities. For instance, Bolivia's GDP per capita was around $1,300 in 1988, while that of Barbados was \$14,105. Bolivia is a unitary presidential constitutional republic with an area of about 1 million km^2, while Barbados is a unitary parliamentary constitutional monarchy with an area of only 439 km^2. Thus, it is difficult to argue that comparing Bolivia with Barbados to investigate the impact of capital account liberalization is convincing. The PSM method thus allows us to select the most similar countries from the control groups drawn from the above broad approach.

Specifically, we use the following steps to conduct PSM. First, we estimate the propensity score defined as the conditional probability of receiving the capital account liberalization treatment for each country i in year t, given the characteristics Y from a logit model:

$$pscore_{i,t} = Pr(OPEN_{i,t} = 1|Y) \tag{3}$$

where $OPEN_{i,t}$ equals 1 if the capital account of country i is open during year t. For those countries whose capital account has always been closed, $OPEN_{i,t}$ takes the value of 0. For those treated countries that have experienced a change from a closed capital account to a liberalized capital account, the value of $OPEN_{i,t}$ is 1 if t lies in the liberalization period, and 0 otherwise. Y represents a group of covariates. We follow Levchenko et al. (2009) and use the logarithm of GDP per capita ($LGDPPER$), standard deviation of GDP per capita growth in the past five years($VOLATILITY$), trade openness ($TRADE$), and the chief executive's number of years in office ($YRSOFFC$). [14]

These variables are significant determinants of capital account liberalization from the literature. We favor this parsimonious specification because the purpose of this step is not to predict liberalization as precisely as possible but to obtain a distribution of propensity scores that allows us to match the treated and potential control countries. Again, we estimate the OECD and non-OECD countries separately. Thus, we obtain the propensity scores of capital account liberalization for each country i in year t. To confirm the balancing hypothesis, we conduct a statistical test. The graphical comparison in Figure 5 shows that all the covariates are insignificantly different between the matched treated and control countries, and the standardized percentage bias across the four covariates is around 0 for the matched countries and much larger for the unmatched ones.

Next, we keep the propensity scores of the five years before capital account liberalization for each treated country and their potential control countries identified using the broad method. For instance, as Bolivia liberalized its capital account in 1988, we keep the propensity scores for Bolivia and its control countries, including

[14]The first three variables are from WDI, and $YRSOFFC$ comes from the World Bank's Databases of Political Institutions.

Barbados and all the other potential control countries, for each year between 1984 and 1988.

Next, we construct the control group for each treated country using a proximity measure based on the propensity score. Specifically, we compute the proximity between the liberalized country i and another potential control country j as the average of the squared difference between $pscore_{i,t}$ and $pscore_{j,t}$ for the five-year period before capital account liberalization.

$$proximity_{i,j} = \frac{1}{5}\Sigma_{t=t_i-4}^{t_i}(pscore_{j,t} - pscore_{i,t})^2 \tag{4}$$

where t_i is the liberalization year of treated country i.

Lastly, we order the control countries j according to their proximity to country i and use the five most proximate countries as the control countries for each treated country.[15] Table A4 presents the PSM matching results, showing that Barbados is not in the top five matched countries for Bolivia. In fact, it is the least proximate country of the 54 potential untreated countries for Bolivia.

However, it should be noted that we cannot say that the estimates based on PSM-DID dominate those based on broad matching DID. First, the restrictive requirement in the propensity score matching process substantially reduces the number of observations, which is only one-fifth of that in the broad matching. Second, although PSM does a good job of finding similar groups of treated and control groups, the long list of control variables in the regression is also effective in generating reliable results for the broad matching sample with the condition that other determinants are similar or remain unchanged. In the later estimations, we can observe that the control variables are all almost significant in the broad matching sample, while much more insignificant in the PSM sample. Therefore, it is useful to interpret the DID results using both broad matching and PSM samples.

5 Empirical Results

5.1 Capital Account Liberalization and the Gini Coefficient

We first discuss the short-term dynamics between capital account liberalization and the Gini coefficient with the estimates of the panel fixed effects model. Table 4 reports the results of estimating Equation (1) with the Gini coefficient as the dependent variable.

[15] Also, we can follow the *first neighbor* method by keeping the nearest country only such that each treated country has only one control country. The results using one-for-one method have much fewer observations but are robust with the five-for-one method, to save space we do not show the tables in the paper but they are available upon request.

The odd columns report the results from the fixed effects model and the even columns report those from the system-GMM model. We use all three capital account liberalization indices, namely the Chinn-Ito, Quinn-Toyoda, and pseudo-FKRSU as shown in the column titles, this is to show that the main findings do not depend on the choice of specific indicators. Moreover, we estimate separately for the subsamples of non-OECD and OECD countries, which are shown in the first and last six columns.

As stated in Section 4, the GMM estimation is criticized as having a strong issue of weak instrument variable problem (Roodman, 2009) and that the results can be sensitive. We apply the two-step system GMM estimation and conduct Windmeijer correction for the two-step standard errors. To better evaluate and interpret the results, we describe our criteria in generating the GMM estimates as following. First, the coefficients of the lagged dependent variable should lie between the coefficients from pooled OLS and fixed-effects models.[16] Second, the null hypothesis of second-order autocorrelation should be rejected. Third, the model should pass the Hansen and Sargan over-identification test. The Hansen test is robust but may be weakened by many instruments, so we also report the Sargan test, which is not robust but not weakened by many instruments. Fourth, we collapse the instruments to combine instruments through addition into smaller sets, and limit the lag depth amounts to avoid having too many instruments. We decided to limit the number of instruments to be less than or close to the number of groups (countries in this study) and take Hansen test statistics away from 1 but larger than 0.20 as a safe sign.

The impact of capital account liberalization differs between developed and developing economies. Liberalizing the capital account tends to increase income inequality only in developing economies, as the coefficients of capital account liberalization (KA Index) are positive and significant in both the fixed effects and the GMM estimates for the non-OECD subsample, but insignificant for the OECD subsample. This reiterates Eichengreen (2001), who argue that developing countries are more likely to suffer the negative effects of capital mobility on income distribution due to weak institutions or regulations. In addition, as seen in Figure 3 and the liberalizing years shown in Table A3, OECD countries had capital account openness for a longer period and experienced liberalization earlier than the non-OECD countries. In our sample period, that is, post-1970, it is more appropriate to use non-OECD countries to study the impact of capital account liberalization. Also, we have fewer observations for the developed economies. Thus, we focus on the non-OECD countries and only report their results in the following analysis.

Specifically, the results in Column (4) imply that a one standard deviation in-

[16] We do not report the pooled OLS results in the table to save space, but the coefficients of lagged dependent variable are usually larger in pooled OLS than that in fixed-effects models. Thus, the coefficients of lagged dependent variables from the fixed effect models are the lower bound, and the respective GMM estimates of serial correlation should be higher than that.

crease in capital account openness (0.37 for Chinn-Ito, 0.29 for Quinn-Toyoda, and 0.26 for pseudo-FKRSU) is associated with a rise of 0.03-0.09 standard deviations of the Gini coefficient in developing countries, while complete capital account liberalization (i.e., KA Index increases from 0 to 1) is associated with an increase of 0.07-0.30 standard deviations of the Gini coefficient in the short-term dynamics.

Among the other controls, the most significant are inflation and unemployment, which are significantly positive, and trade openness, which is significantly negative across all the specifications and subsamples. This finding suggests that economic development with a low unemployment rate, low inflation, and high trade openness reduces income inequality. Providing more credit to the private sector is associated with an increase in income inequality in developed economies. The remaining control variables, including GDP per capita and its square term, money supply, education, urbanization, government consumption, and age dependency, do not appear to be robustly significant determinants of Gini coefficients.

Next, we investigate the long-term impact of capital account liberalization on the Gini coefficient using the estimates from the DID model, which allows us to compare the average Gini coefficient ten years before and after financial liberalization for the paired treated and control countries with similar characteristics. Table 5 presents the DID estimates for the non-OECD countries. The odd and even columns differ in their matching methods: the odd columns report the results using the sample based on broad matching, and the even columns report the results using the sample based on PSM. Columns (1)-(2), (3)-(4), and (5)-(6) present the estimates using different capital account liberalization indices (Chinn-Ito, Quinn-Toyoda, and pseudo-FKRSU, respectively) to identify the treated countries and post-liberalization years.

Again, we find that widening inequality effects exist in developing economies, as the interaction terms of $POST$ and $TREATED$ are positive and significant across all the specifications and matching methods. We visualize the main message in the DID analysis in Figure 6, which shows the average marginal effects of liberalizing a country's capital account with 95% confidence intervals. First, it shows that our methods of matching the control groups and assigning the pseudo-post-treatment years work well because the falsified treatment shows an insignificant impact for the control groups; meanwhile, the real treatment shows a significant impact for the treated group. Second, the 95% confidence intervals are all above zero for the treated countries, indicating that liberalizing capital account is associated with higher inequality. Moreover, the economic significance of the impact is large: a capital account liberalization event is associated with an increase in the Gini coefficient by an average value ranging from 1.77 to 3.37 in 10 years, equivalent to 0.32 to 0.62 standard deviations of the Gini coefficient observed in the sample.

5.2 Capital Account Liberalization and Income Share

In addition to the increase in the Gini coefficient, we find that capital account liberalization is associated with a decrease in the income share of the poor and increase in the income share of the rich. We replace the dependent variable with income shares for the bottom 50%, the middle 40%, and the top 10% and rerun the analysis using the panel and DID models. We also estimate the specification using all three capital account liberalization indices and both the fixed effects model and the system GMM model, and the statistics to evaluate the GMM estimations are presented at the bottom of the table.

As shown in Table 6, the coefficients of capital account openness are significantly negative for the bottom 50%, insignificant for the middle 40%, and significantly positive for the richest 10%. An average liberalization (a one standard deviation increase in the respective indicator) is associated with a 0.04 to 0.30 standard deviations reduction in the income share of the bottom 50%, and a 0.05 to 0.18 standard deviations increase in the income share of the top 10%. A full liberalization tends to decrease the income share of the poorest half by 0.92 to 6.53 percentage points (equivalent to 0.15 to 1.08 standard deviations) and increase the income share of the richest 10% by 2.13 to 9.85 percentage points (equivalent to 0.18 to 0.82 standard deviations). Concerning the average income share of the bottom (50%) and the top (10%) income groups, which are 15.91% and 46.71%, respectively, the impact is a large one. These results imply that capital account liberalization tends to increase the income share of the rich at the cost of the poor in developing economies.

Next, we present the estimates of the long-term impact of capital account liberalization on the income share based on the DID model. Consistent with the findings using the panel fixed effects model, Table 7 shows that the findings from the DID model that are based on broad matching and propensity score matching (PSM) also suggest that capital account liberalization is associated with a decrease in the income share of the poorer groups and an increase in the income share of the richer groups, thus widening income inequality. Different from the results using the dynamic panel fixed effects model as shown in Table 6, the results using the DID model suggest that capital account liberalization also significantly reduces the income share of the middle group, and only the top 10% benefit from opening the capital account in the long run. Moreover, the opposite effects on the poor and rich groups are stronger. Figure 7 visualizes the marginal effect of capital account liberalization on income shares, with 95% confidence intervals, based on the estimates in Table 7. As a valid proof of classifying the treated and control groups, the post-liberalization effect is insignificant for the control groups and the 95% confidence intervals only lie in the same above-zero or below-zero region for the treated groups. Generally, the estimated effects using the sample based on PSM and that based on broad matching are similar, with the former slightly stronger. Specifically, Figure 7 suggests that a capital account liberalization event would reduce the income share of the poorest 50% group by 2.66 to 3.79 percentage points, equivalent to 0.44 to 0.63 standard deviations of the income share, and reduce the income share of the middle 40% group by 2.53 to 4.96 percentage points, equivalent to 0.40 to 0.78 standard deviations of the income share, but increase that of the richest 10% by 5.19 to 8.76 percentage points, equivalent to 0.43 to 0.73 standard deviations.

5.3 Discussion: Direction and Category of Capital Account Liberalization

Taking advantage of the disaggregated FKRSU indicators, we can distinguish the impact on income inequality from capital account liberalization for different categories of capital transactions as well as inward and outward capital flows. Using the same methodology for the aggregated FKRSU capital account liberalization index, we extend the indicators back to 1970 and then identify the breakthrough year for each specific subcategory of capital transactions. Specifically, we are interested in the different effects of inward and outward capital account liberalization, and erasing the transaction payment restrictions of equities, bonds, direct investments, and other investments[17]. Subsequently, we apply the DID estimation using the new $TREAT$ and $POST$ identified based on the capital account liberalization indicators of different dimensions. The dynamic panel model is not employed here to avoid the multicollinearity problem of controlling different dimensions of capital account openness at the same time.

Table 8 presents the estimates of the inward and outward capital account liberalization on the Gini coefficients, and the income share of different groups. To save space, we only present the difference-in-difference estimates based on broad matching, and the estimates combined with propensity score matching are shown in Appendix Table A5. We can see that the coefficients of the interaction term, are only significant in the odd columns of inward capital account liberalization, and they are significantly positive for the effect on the Gini coefficient and the income share of the top 10%, while significantly negative for the income share of the bottom 50% and middle 40%. Thus, the crucial finding is that the increase in income inequality, as reflected in the increase of the Gini coefficients and increase in the income share of

[17]Section A3 describes the full 32 different assets that are covered in the FKRSU dataset, in the discussion we use the kai and kao, which are the average value of all inward and outward liberalization indicators, and the eq, bo, di, which represents the liberalization of equity market, bond market and direct investment, and *other* which is the average value of the rest categories of transactions and represents all the other cross-border capital transactions.

the rich at the cost of the poor, is mainly due to the liberalization of inward capital flows; meanwhile, outward capital account openness has an insignificant impact on income inequality, suggesting that the allocation of foreign capital in the domestic economy exaggerates the inequality. Specifically, compared to similar countries that ban foreign capital inflows, the countries have a higher Gini coefficient by 1.04 points, lower income shares for the bottom 50% and middle 40% by 2.82 and 3.64 percentage points, and a higher income share for the top 10% by 6.46 percentage points in the ten years after allowing inward foreign capital inflows.

Similarly, Table 9 shows the impact of capital account liberalization in terms of the different transaction categories on income inequality based on broad matching, and the estimates based on PSM are shown in Appendix Table A6. The transaction category has an important role. First, within the four categories of capital transactions, liberalization of foreign direct investment shows no adverse impact on inequality, while liberalization of the equity market, bond market, and other investments are appear to be associated with increased inequality. In the estimates of FDI liberalization, the coefficients of interest are insignificant notwithstanding that the dependent variables are Gini coefficients or income shares. Second, the largest increase in Gini coefficients (1.09 points) is from the liberalization of the equity market, followed by the liberalization of other investments (0.94 points), and the bond market (0.92 points). Third, the most rich-biased effect is from the liberalization of the international equity market, which tends to widen the income share gap between the richest 10% and the remaining 90% by around 8.53 percentage points, while the impact of liberalizing the bond market and other investments are 6.95 and 5.71 percentage points, respectively. The insignificant impact of FDI seems to contrast with the findings of Choi (2006), Acharyya (2011), Wu and Hsu (2012), and Jaumotte et al. (2013) who suggest a significantly positive relationship between FDI and income inequality; however, it could be reconciled because we are using "de jure" measurements of FDI liberalization while these studies use the actual amount of FDI flows, which have more characteristics of portfolio capital, and "greenfield" investments have given way to "mergers and acquisitions", as argued in Mody and Murshid (2005). Besides, we are interested in the long-run effects while the other studies focus on the short-term effects, and Herzer and Nunnenkamp (2013) show that the relationship between FDI and income inequality could be positive in the short term and negative in the long run.

These results have three implications. First, increased income inequality from inward capital account liberalization reiterates the finding in the literature that international capital tends to flow into high-skilled labor or sectors, suggesting that policymakers should be cautious of the augmented skill-biased inequality from capital inflows. Second, liberalized international equity markets are less likely to expand financial access for the poor, but offer more intensive benefits for those who are already rich. Third, direct investments, which tend to be long-term and more stable compared to the rest, are more likely to display the benefits of financial integration, as predicted by the neoclassical economic growth theory, because they do not induce higher inequality.

5.4 Robustness Check

In this section, we demonstrate the robustness of the main findings in this study by implementing various checks. We show that the main results do not change when we use alternative capital account openness measurement, namely the original FKRSU index, $de facto$ measurements, and the original dichotomous measures of capital controls in the AREAER, when we use alternative measurements of the Gini coefficients and income shares, or when we add more control variables measuring institutional quality and corruption.

First, we use the original $de jure$ FKRSU, which starts in 1995, and a $de facto$ indicator that captures the actual cross-border capital flows as well as its disaggregation into three types of assets, namely equity, debt, and FDI from Lane and Milesi-Ferretti (2007) in the dynamic panel regressions. Table 10 reports the estimates when the dependent variable is the Gini coefficient. The coefficients of the original FKRSU indicators are both significantly positive in the first two columns, and their magnitudes are similar and even stronger than those in Table 4. Columns (3) and (4) show that the results using the overall $de facto$ indicator, which is the ratio of total external liabilities and total assets to GDP, but the coefficients are insignificant. However, we should be cautious in interpreting that actual cross-border capital flows do not affect income inequality. Although the actual debt and FDI have an insignificant impact on income inequality, Columns (5) and (6) show that the $de facto$ cross-border of equity assets are associated with widening income inequality. Moreover, to account for the possible multicollinearity issues of the $de facto$ openness of different categories, we include them in the same regression and show the results in Columns (11) and (12). In this case, it is necessary to conduct a Bonferroni correction for the p-values. The uncorrected p-values for the coefficients of the $de facto$ equity, debt, and FDI openness in the last two columns are 0.011, 0.163, and 0.098 and 0.001, 0.244, and 0.143, respectively. The equity market liberalization is still significantly and positively associated with the Gini coefficients after the Bonferroni correction, and liberalization of the bond market and FDI do not show a significant impact after correction. These results are consistent with the findings in the discussion and confirm the inequality-widening effect of liberalizing the international equity market.

Next, we date the capital account liberalization years using the simple on-off dummy in the AREAER, which is the original source of all three KA indices (Chinn-Ito, Quinn-Toyoda, and FKRSU). The AREAER provides information on the nature of the restrictions on countries' external accounts, with 1 indicating the existence of capital control, and 0 otherwise. Theoretically, it is possible to date the liberalizing year when the capital account control documented in AREAER changes from 1 to 0. However, there are two drawbacks in applying this method. On one hand, these dichotomous measures of capital controls do not capture the intensity of the controls, nor do they take into account their efficacy (Chinn and Ito, 2002), thereby this makes the measurements by Chinn and Ito (2008), Quinn and Toyoda (2008), and Fernández et al. (2016) valuable. On the other hand, the "on-off" clarification tends to be lagging, as they are more focused on the results instead of the procedure of liberalization. For instance, if a country rapidly removes most of the controls in a certain year but retains some restrictions, the year should be recognized as the liberalizing year in our study, but the AREAER dichotomous measures may not change from 1 to 0 until the remaining controls are completely lifted. Moreover, the indicator could frequently change from 0 to 1 when the country imposes marginal capital control, resulting in many jumps that are not actual consequences of substantial change. Thus, in the main analysis, we use the liberalizing years identified based on the significant break of various indicators that have incorporated the capital control intensity, and we use the simple AREAER dichotomous measures in the DID analysis[18] as a robustness check.

First, we manually record the AREAER information of payment restrictions on payments for capital transactions[19], then the values of the binary variables of the AREAER are reversed to make the value 1 indicating liberalized capital account (no capital control), and 0 indicating controlled capital account; next, we identify the liberalizing years when the capital transaction payment restrictions change from existence to non-existence. Moreover, the process to deal with multiple liberalizing years and matching control groups also applies here.

Table 11 present the results using the liberalizing year identified from the original AREAER data. The first two columns show that the coefficients of the interaction term between the control dummy and post-liberalization dummy are significantly positive, using both broad matching and PSM when the dependent variables are Gini coefficients, and the scale is similar to that in Table 5, implying that liberalizing

[18] Since the original AREAER measures are 0-1 dummies, we only use it to identify the liberalizing years and apply in the DID analysis.

[19] This is the k_3 in Chinn-Ito's terminology. We do not consider the existences of k_1, k_2 and k_4, i.e. multiple exchange rates, surrender or repatriation requirement for export proceeds, and the payments restrictions for current transactions here, because the Chinn-Ito index has incorporated them and there is no significant point in repeating a similar process, moreover, it makes sense to focus on the single capital account control measure and see how the results change.

capital account is associated with an increase in income inequality. When income shares are the dependent variables, the results based on broad matching (columns (3), (5), and (7)) show that liberalizing capital account is significantly associated with a 2.12 percentage points decrease in the income share of the bottom 50%, a 3.65 percentage points increase in the income share of the top10%, while the impact on the middle 40% is insignificant. Columns (4), (6), and (8) present the DID results combined with the PSM, and they are insignificant. However, the sign of the coefficients is consistent, and the insignificant results may result from the insufficient number of observations (under 50) when the control groups are paired under more restrictive criteria.

Second, we employ alternative measurements of the Gini coefficients and income share and show that the main findings do not depend on specific measurements of income inequality. Table 12 presents the DID estimates using other three Gini coefficients from the WDI, SWIID, and WIID as the dependent variables, and Table 13 presents the estimates using the more granular income share data, that is, the first 20% to the fifth 20% from the WIID, as the dependent variables. [20] The coefficients of the interaction term between the treated group and the post-liberalization dummies in Table 12 are all significantly positive when the dependent variables are the Gini coefficients from different databases, and the economic significance of using the WDI and WIID Gini coefficients is even larger than that in the baseline results: opening capital account is associated with an increase in Gini coefficients by 1.39 to 4.09 points. Although the results using the pseudo-FKRSU sample are insignificant for the richer income groups, Table 13 provides robust evidence that capital account liberalization is significantly associated with a decrease in the income share of the poorest 20% income group by 0.34 to 1.30 percentage points, of the second poorest 20% income group by 0.71 to 1.07 percentage points, and of the third poorest 20% income group by 0.44 to 1.42 percentage points, versus a significant increase of income share for the richest 20% by 4.11 to 4.12 percentage points. These granular results confirm the conclusion that only the richer groups benefited from capital account liberalization.

Third, we additionally control for the country's institutional quality and corruption. Studies have shown that institutional quality and corruption are associated with income inequality. Lin and Fu (2016) find that institutional quality plays an important role in the relationship between trade and income inequality. The inequality reducing effect of trade, as the Stolper-Samuelson theorem predicts, applies only to autocracies, and trade leads to a significant increase in income inequality

[20] To save space, the DID results based on propensity score matching for other Gini coefficients are shown in the appendix Table A7. Using the income share data from WIID results in a small number of observations (33) in the PSM estimates, so we do not use the results.

in democracies. Chong and Gradstein (2007) document that institutional quality and inequality reinforce each other and there exists a double causality between institutional strength and a more equalized distribution of income. Li et al. (2000) find that corruption affects income distribution in an inverted U-shaped way, and Gupta et al. (2002) show that corruption linearly increases income inequality. We use *Polity*2 from the Polity IV dataset, which captures the regime authority characteristics, and a higher value indicates a more democratic political regime and higher institutional quality, and the corruption index from the ICRG database published by the PRS Group[21]. The caveats of these two additional variables and the reason we do not control them in the baseline analysis are that they are only available for more recent years, that is, starting from 1984, while many capital account liberalizations happened during the 1970s and 1980s; therefore, we lost substantially valuable observations and are unable to use them in the DID estimation that requires ten years of data before and after liberalization.

Table 14 presents the results of estimating the dynamic panel fixed effects model, with measurements of institutional quality and corruption controlled. The dependent variables are the Gini coefficients, income share of the bottom 50%, middle 40%, and top 10%. We add the two control variables in a linear way and in a non-linear way to account for a possible U-shaped relationship, as shown in Li et al. (2000). Table 14 reports the results estimated using both fixed effects and the system GMM. To save space, we only show the results using the Chinn-Ito capital account openness index. For institutional quality and corruption, we find that democratic regimes seem to be associated with higher Gini coefficients, and corruption shows a U-shaped relationship with the Gini coefficients; meanwhile, they do not have a consistent impact on the income shares. More importantly, the main conclusions that capital account liberalization is associated with higher income inequality, specifically higher Gini coefficients, smaller income share for the bottom 50%, and a larger income share for the top 10%, do not change.

6 Conclusion

The impact of capital account liberalization on income inequality has been gaining increasing attention during recent years. This has opened a relatively new area of study in financial globalization, besides its relationship with economic growth and financial stability. However, the existing findings on the distributional consequences are inconclusive. This study, thus, uses two empirical strategies, a dynamic panel

[21] Besides the index from ICRG, there are two other datasets that are widely used to measure corruption, that is, the corruption perceptions index published by the Transparency International, and the control of corruption from the World Governance Indicators, but they start from more recent years (1995), so we use the ICRG corruption index, which starts from 1984.

fixed effects model, and a DID model, to provide robust evidence that capital account liberalization is associated with wider income inequality in developing economies.

First, we document that changing the capital account from fully closed to fully liberalized in developing countries is associated with a rise of 0.07-0.30 standard deviations of the Gini coefficients in the short term and a rise as large as 0.32-0.62 standard deviations of the Gini coefficients in the ten years after liberalization. Second, the widened income inequality is the outcome of the shrinking of the income share of the poor versus expansion of the rich. Comparing the ten years before capital account liberalization with ten years thereafter, we establish that the income share of the poorest 50% decreases by 2.66-3.79 percentage points, while that of the richest 10% increases by 5.19-8.76 percentage points. Third, we find that the direction and category of capital account liberalization is essentially important. Inward capital account liberalization impairs income equality more than outward liberalization, and equity market liberalization benefits the rich and harms the poor most; meanwhile, we do not find any significant impact on income inequality following liberalization of foreign direct investment.

The findings of this study contribute to the policy discussions on capital account liberalization. Especially in developing countries, a sound social safety net should be established before fully liberalizing the capital account to minimize the adverse impact on income inequality and help society reap the potential benefits of economic growth from international capital. We acknowledge that the mechanism of capital account liberalization affecting income inequality is important, but it lacks discussion in this study. To investigate this channel, we need more detailed micro-level data on household income, such as the wages and compensation of differently skilled workers. Such data are insufficient at this stage, especially for developing economies. Therefore, we leave this task for future studies.

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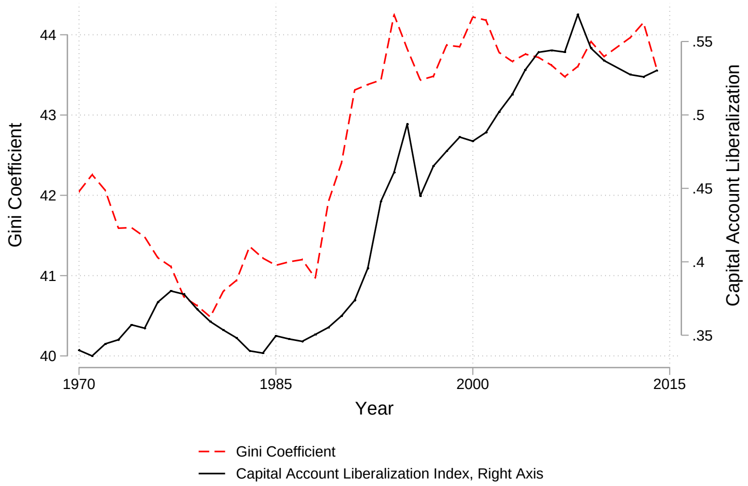
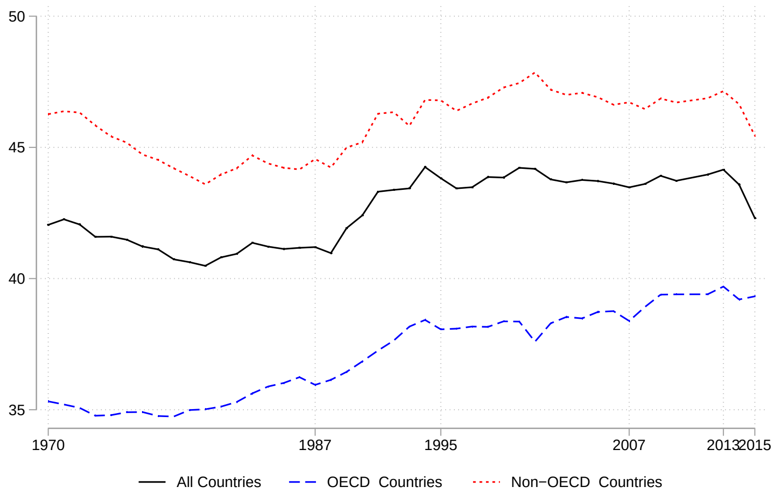
Figure 1: Simutaneous Increase in Income Inequality and Capital Account Liberalization



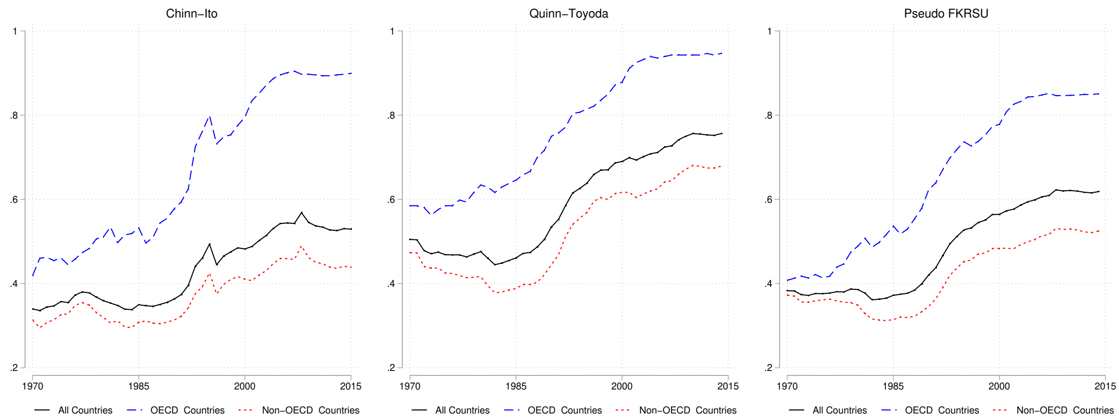
Notes: The correlation coefficient between the Gini index and capital account liberalization index is 0.857 and is statistically significant with a p-value of 0.000. Here the capital account liberalization is measured by the Chinn-Ito index and the Gini coefficient is from the EHII database. The data sources are described in Table 1.

Figure 2: Time Series of Gini Coefficient by Country Groups



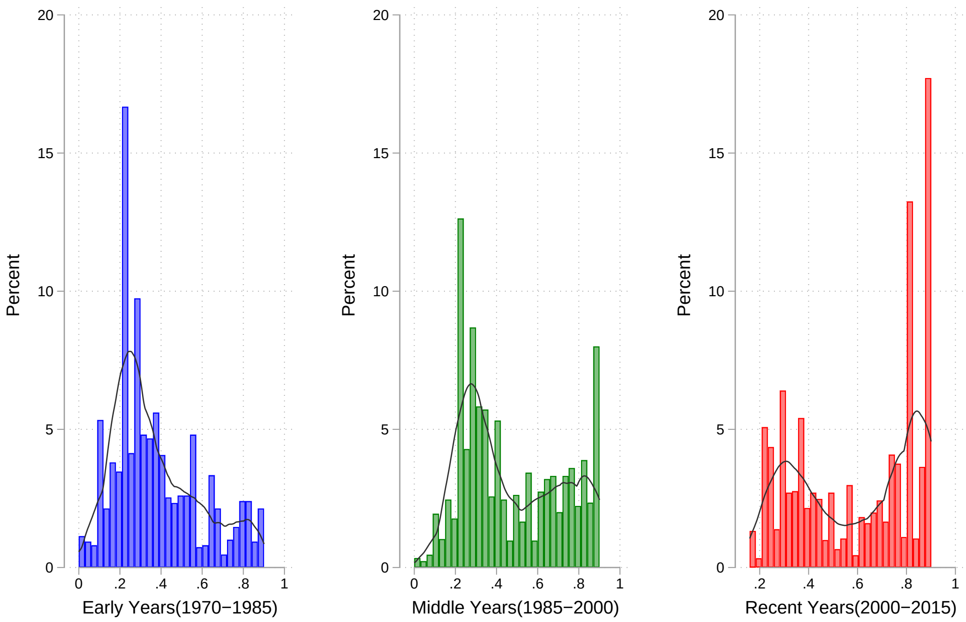
Notes: The Gini coefficient is from the EHII database. The OECD countries here does not include Lithuania which became a member in 2018. Specifically, there are 35 OECD countries: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

Figure 3: Time Series of Capital Account Openness by Country Groups



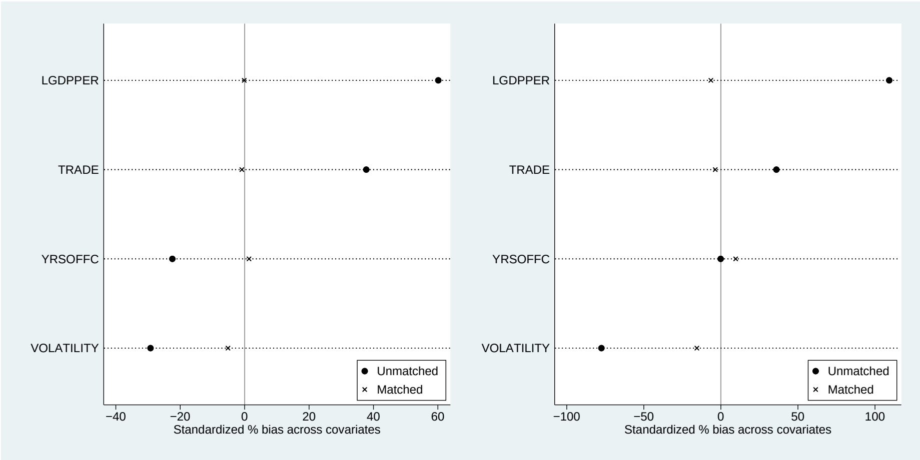
Notes: This figure shows the time series of three capital account liberalization measurements separately: the Chinn-Ito, the Quinn-Toyoda and the pseudo FKRSU from left to right. For each measurements, the dashed blue line represents the average value of OECD countries, the dotted red line represents that of non-OECD countries and the solid black line represents that of the full sample. A larger value indicates more openness towards cross-border capital transactions.

Figure 4: Distribution of Capital Account Openness in Different Periods



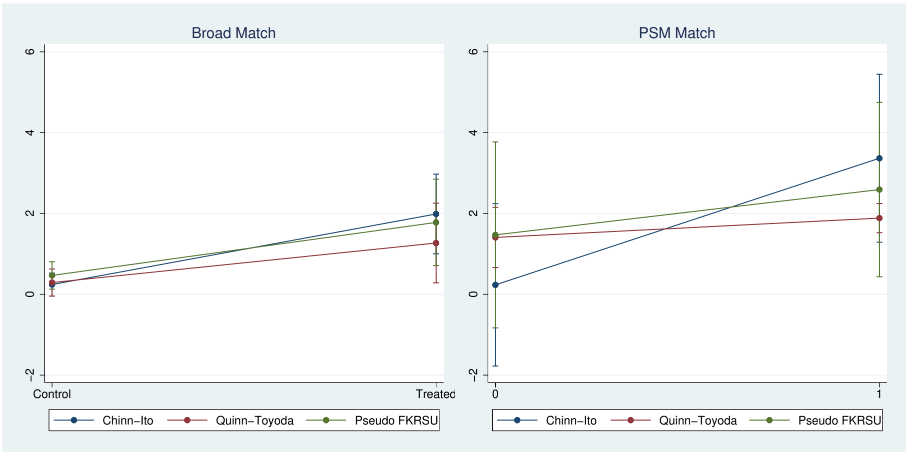
Notes: In this figure, the bars represent the histogram distribution (drew as percentages) and the lines represent the kernel density distribution. Here we only use the pseudo FKRSU index because its data values are more scattered while the Chinn-Ito and Quinn-Toyoda indicators concentrate on several specific values and therefore are not suitable for distributional descriptions. This also reflects the advantage of the FKRSU dataset.

Figure 5: Balancing Tests for the Covariates in Propensity Score Matching



Notes: This figure shows the balancing tests for the covariates in propensity score matching. The left one is the result for non-OECD countries and the right one is that for OECD countries. In this matching, the treatment variable is whether the country has an open capital account in year t, and the covariates in this matching are logarithm of GDP per capita (LGDPPER), trade openness (TRADE), years in office of the chief executive (YRSOFFC), and the standard deviation of GDP per capita growth in the past five years (VOLATILITY).

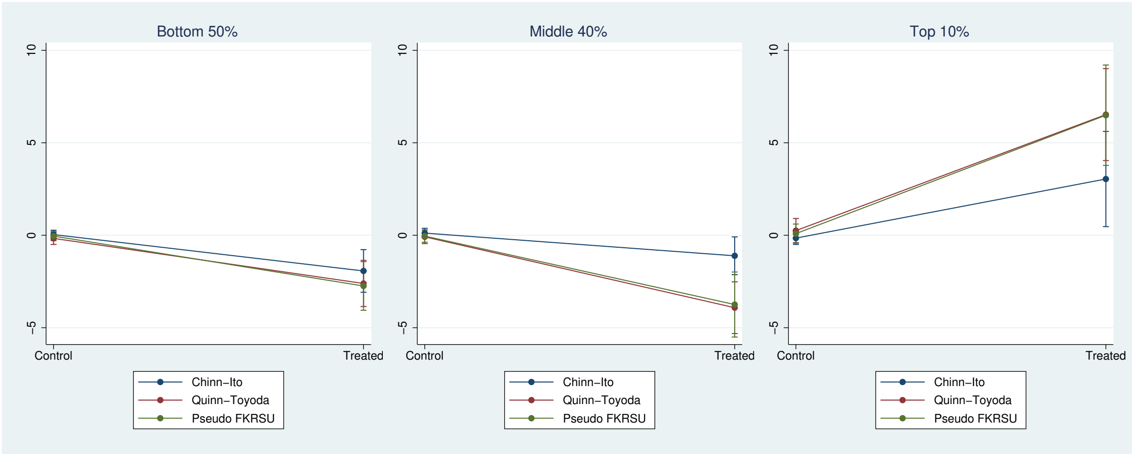
Figure 6: Marginal Plot for Gini Coefficient in DID Analysis



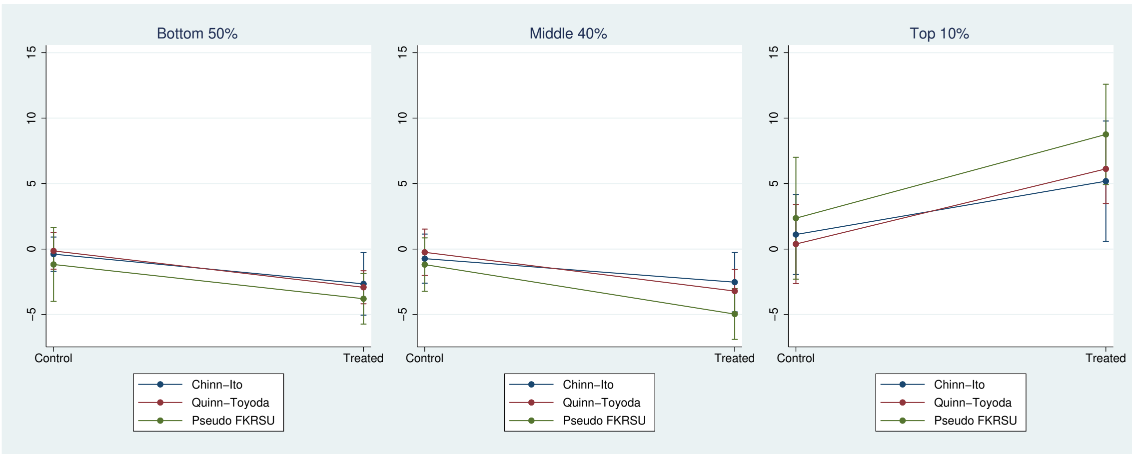
Notes: This figure shows the average marginal effects of liberalizing a country's capital account on Gini coefficient for control groups and treated groups. It presents the point estimates with 95% confidence intervals. Control groups are the countries that have never liberalized their capital account but are assigned falsified liberalization years of the treated groups. Treated groups are the countries that have experienced significant capital account liberalization and the liberalization periods satisfy the criteria in Section 3.2.2.

Figure 7: Marginal Plot for Income Shares in DID Analysis

(a) Broad Match



(b) PSM Match



Notes: This figure shows the average marginal effects of liberalizing a country's capital account on income shares of the bottom 50%, middle 40% and top 10% for control groups and treated groups. It presents the point estimates with 95% confidence intervals. The upper panel presents the estimates based on broad matching and the lower panel presents that based on propensity score matching. Control groups are the countries that have never liberalized their capital account but are assigned falsified liberalization years of the treated groups. Treated groups are the countries that have experienced significant capital account liberalization and the liberalization periods satisfy the criteria in Section 3.2.2.

Table 1: Variable Summary Statistics and Data Sources

	N	Mean	SD	Min	Max	Definition	Source
KA Chinn-Ito	6926	0.45	0.36	0.00	1.00	*De jure* overall capital account liberalization index	Chinn and Ito (2008)
KA Quinn-Toyoda	5134	0.60	0.30	0.00	1.00	*De jure* overall capital account liberalization index	Quinn and Toyoda (2008)
KA Original FKRSU	2100	0.63	0.34	0.00	1.00	*De jure* overall capital account liberalization index	Fernández et al. (2016)
KA Original FKRSU-Inward	2100	0.64	0.32	0.00	1.00	*De jure* inward capital account liberalization index	Fernández et al. (2016)
KA Original FKRSU-Outward	2098	0.61	0.39	0.00	1.00	*De jure* outward capital account liberalization index	Fernández et al. (2016)
KA Original FKRSU-Equity	2080	0.62	0.39	0.00	1.00	*De jure* capital account liberalization index of equity market	Fernández et al. (2016)
KA Original FKRSU-Bond	1833	0.62	0.39	0.00	1.00	*De jure* capital account liberalization index of bond market	Fernández et al. (2016)
KA Original FKRSU-Direct Investment	2099	0.61	0.40	0.00	1.00	*De jure* capital account liberalization index of direct investment	Fernández et al. (2016)
KA Original FKRSU-Other Investment	2097	0.63	0.34	0.00	1.00	*De jure* capital account liberalization index of other investment	Fernández et al. (2016)
KA Pseudo FKRSU	4837	0.49	0.25	0.00	0.90	*De jure* overall capital account liberalization index	Extension based on regressions using data from Fernández et al. (2016), Chinn and Ito (2008) and Quinn and Toyoda (2008)
KA Pseudo FKRSU-Inward	4837	0.51	0.24	0.00	0.91	*De jure* inward capital account liberalization index	Extension based on regressions using data from Fernández et al. (2016), Chinn and Ito (2008) and Quinn and Toyoda (2008)
KA Pseudo FKRSU-Outward	4837	0.47	0.27	0.00	0.89	*De jure* outward capital account liberalization index	Extension based on regressions using data from Fernández et al. (2016), Chinn and Ito (2008) and Quinn and Toyoda (2008)
KA Pseudo FKRSU-Equity	4837	0.51	0.24	0.06	0.90	*De jure* capital account liberalization index of equity market	Extension based on regressions using data from Fernández et al. (2016), Chinn and Ito (2008) and Quinn and Toyoda (2008)
KA Pseudo FKRSU-Bond	4837	0.48	0.26	0.02	0.93	*De jure* capital account liberalization index of bond market	Extension based on regressions using data from Fernández et al. (2016), Chinn and Ito (2008) and Quinn and Toyoda (2008)
KA Pseudo FKRSU-Direct Investment	4837	0.50	0.22	0.02	0.94	*De jure* capital account liberalization index of direct investment	Extension based on regressions using data from Fernández et al. (2016), Chinn and Ito (2008) and Quinn and Toyoda (2008)
KA Pseudo FKRSU-Other Investment	4837	0.49	0.26	0.08	0.90	*De jure* capital account liberalization index of other investment	Extension based on regressions using data from Fernández et al. (2016), Chinn and Ito (2008) and Quinn and Toyoda (2008)
KA De Facto	6492	2.38	10.66	0.05	240.75	(total external asset+total external liability)/GDP	Lane and Milesi-Ferretti (2007)
KA De Facto-Equity	6446	0.29	3.10	-0.01	82.39	(total external equity asset+total external equity liability)/GDP	Lane and Milesi-Ferretti (2007)
KA De Facto-Debt	6515	1.42	4.74	0.00	98.65	(total external debt asset+total external debt liability)/GDP	Lane and Milesi-Ferretti (2007)
KA De Facto-FDI	6526	0.53	3.15	-0.15	90.79	(total FDI asset+total FDI liability)/GDP	Lane and Milesi-Ferretti (2007)
Gini EHII	4074	42.57	7.29	20.58	62.85	Gini coefficient	Estimated Household Income Inequality (EHII)
Gini WIID	1594	36.99	8.98	19.40	73.25	Gini coefficient	World Income Inequality Database (WIID)
Gini SWIID	5092	45.20	6.65	22.68	69.84	Gini coefficient	Standardized World Income Inequality Database (SWIID)
Gini WDI	1404	39.26	9.56	21.00	65.80	Gini coefficient	World Development Indicators (WDI)
Income Share of the Bottom 50% (WID)	3114	18.22	7.45	3.71	45.24	Income share of the bottom 50% group	World Inequality Database (WID)
Income Share of the Middle 40% (WID)	3114	39.15	6.11	14.43	51.16	Income share of the middle 40% group	World Inequality Database (WID)
Income Share of the Top 10% (WID)	3126	42.67	13.05	13.28	79.87	Income share of the top 10% group	World Inequality Database (WID)
Income Share of the 1st Quintile Share (WIID)	1393	6.65	2.24	0.92	14.10	Income share of the 1st 20% group	World Income Inequality Database (WIID)
Income Share of the 2nd Quintile Share (WIID)	1373	11.52	2.48	2.27	17.20	Income share of the 2nd 20% group	World Income Inequality Database (WIID)
Income Share of the 3rd Quintile Share (WIID)	1371	15.92	2.25	5.18	20.20	Income share of the 3rd 20% group	World Income Inequality Database (WIID)
Income Share of the 4th Quintile Share (WIID)	1371	22.07	1.50	13.67	25.50	Income share of the 4th 20% group	World Income Inequality Database (WIID)
Income Share of the 5th Quintile Share (WIID)	1406	43.81	7.90	28.20	77.96	Income share of the 5th 20% group	World Income Inequality Database (WIID)
GDP per capita	7793	0.01	0.02	0.00	0.14	GDP per capita (constant 2010 million US$)	World Development Indicators (WDI)
Inflation	6759	0.36	5.02	-0.36	244.11	Inflation, consumer prices	World Development Indicators (WDI)
Private Credit	6939	0.40	0.37	0.00	3.12	Domestic credit to private sector/GDP	World Development Indicators (WDI)
Unemployment	4096	8.27	6.42	0.05	59.50	Unemployment, total (% of total labor force) (national estimate)	World Development Indicators (WDI)
Money Supply	6242	47.50	46.23	0.27	977.01	Broad money (% of GDP)	World Development Indicators (WDI)
Education	6956	96.82	23.04	2.83	221.99	School enrollment, primary (% gross)	World Development Indicators (WDI)
Government Consumption	7113	16.46	7.89	0.00	156.53	General government final consumption expenditure (% of GDP)	World Development Indicators (WDI)
Urbanization	10075	52.55	25.50	2.85	100.00	Urban population (% of total)	World Development Indicators (WDI)
Age Dependency	9113	70.29	20.35	16.45	120.75	Age dependency ratio (% of working-age population)	World Development Indicators (WDI)
Trade Openness	7422	82.49	54.16	0.02	860.80	Trade (% of GDP)	World Development Indicators (WDI)
Polity2	7139	1.23	7.36	-10.00	10.00	Institutional Quality	Polity IV
Corruption	4447	3.05	1.34	0.00	6.00	Corruption	International Country Risk Guide (ICRG)

Table 2: Pairwise Correlation Between Gini Indexes

	Gini EHII	Gini WIID	Gini SWIID	Gini WDI
Gini EHII	1			
Gini WIID	0.759***	1		
Gini SWIID	0.244***	0.564***	1	
Gini WDI	0.494***	0.955***	0.554***	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: This table shows the pairwise correlation between the Gini coefficients in 1970-2015 from different databases. The comparison between different data sources are described in Section A1.

Table 3: Pairwise Correlation Between Capital Account Liberalization Indices

	Chinn-Ito	Quinn-Toyoda	Pseudo FKRSU	Original FKRSU	De Facto
Chinn-Ito	1				
Quinn-Toyoda	0.815***	1			
Pseudo FKRSU	0.922***	0.957***	1		
Original FKRSU	0.821***	0.839***	0.846***	1	
De Facto	0.303***	0.170***	0.308***	0.252***	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: This table presents the pairwise correlation coefficients between the capital account openness measurements from different databases. Detailed description of the data sources can be found in Table 1.

Table 4: Capital Account Liberalization and Gini Coefficients: Panel Model

	Non-OECD Countries						OECD Countries					
	(1) Chinn-Ito	(2) Chinn-Ito	(3) Quinn-Toyoda	(4) Quinn-Toyoda	(5) Pseudo FKRSU	(6) Pseudo FKRSU	(7) Chinn-Ito	(8) Chinn-Ito	(9) Quinn-Toyoda	(10) Quinn-Toyoda	(11) Pseudo FKRSU	(12) Pseudo FKRSU
KA Index	0.63**	0.41***	0.83*	1.62**	1.23**	1.31**	-0.01	-0.06	0.54	0.26	0.36	0.08
	(0.292)	(0.100)	(0.493)	(0.633)	(0.556)	(0.579)	(0.183)	(0.360)	(0.334)	(0.862)	(0.303)	(0.603)
L.Gini-EHII	0.56***	0.87***	0.66***	0.88***	0.72***	0.92***	0.84***	0.95***	0.83***	0.93***	0.83***	0.93***
	(0.034)	(0.023)	(0.028)	(0.029)	(0.025)	(0.029)	(0.031)	(0.035)	(0.032)	(0.042)	(0.022)	(0.043)
GDP per capita	-0.25***	-0.01	-0.14	-0.17*	0.17	-0.10	0.04**	-0.01	0.03	-0.02	0.04*	-0.02
	(0.083)	(0.011)	(0.218)	(0.096)	(0.190)	(0.079)	(0.016)	(0.021)	(0.040)	(0.021)	(0.021)	(0.019)
GDP per capita Square	3.84***	0.43***	3.57	5.99	-14.38	2.66	-0.24**	0.13	-0.26	0.10	-0.29*	0.13
	(1.440)	(0.148)	(11.952)	(6.078)	(10.386)	(4.674)	(0.114)	(0.176)	(0.530)	(0.156)	(0.156)	(0.151)
Inflation	0.07**	0.12***	0.09**	0.15***	0.13***	0.15***	0.27**	0.43***	0.29*	0.47***	0.28***	0.50***
	(0.035)	(0.013)	(0.043)	(0.018)	(0.038)	(0.016)	(0.115)	(0.043)	(0.143)	(0.054)	(0.103)	(0.060)
Private Credit	-0.75	-0.13**	-0.73	-0.14	-1.60***	-0.13	0.51***	0.37**	0.57***	0.39**	0.53***	0.38**
	(0.619)	(0.056)	(0.707)	(0.250)	(0.615)	(0.184)	(0.144)	(0.140)	(0.174)	(0.144)	(0.188)	(0.135)
Unemployment	0.06***	0.02***	0.06***	0.04***	0.05***	0.03***	0.04*	0.02	0.03	0.02**	0.03**	0.03*
	(0.018)	(0.003)	(0.020)	(0.010)	(0.017)	(0.010)	(0.018)	(0.017)	(0.021)	(0.009)	(0.016)	(0.016)
Money Supply	0.02**	0.00	0.01	0.00	0.02***	0.00	-0.00*	0.00	-0.00	0.00	-0.00	0.00
	(0.008)	(0.001)	(0.009)	(0.003)	(0.008)	(0.003)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Education	0.01	-0.01***	0.02*	-0.00	0.01*	-0.00	0.00	0.01**	0.00	0.01**	0.00	0.02***
	(0.008)	(0.002)	(0.009)	(0.005)	(0.008)	(0.004)	(0.007)	(0.004)	(0.009)	(0.004)	(0.010)	(0.002)
Government Consumption	-0.06***	0.01*	-0.03	-0.00	-0.04	0.01	0.01	-0.00	0.01	-0.01	0.01	-0.00
	(0.023)	(0.004)	(0.030)	(0.014)	(0.025)	(0.009)	(0.018)	(0.017)	(0.021)	(0.017)	(0.016)	(0.018)
Urbanization	0.03*	-0.00**	-0.00	-0.01	0.02	-0.01*	-0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.020)	(0.001)	(0.022)	(0.006)	(0.019)	(0.004)	(0.011)	(0.008)	(0.020)	(0.006)	(0.015)	(0.007)
Age Dependency	-0.01	0.00**	-0.02	0.00	0.00	-0.00	0.01	0.01	0.02	0.01	0.02*	0.01
	(0.014)	(0.001)	(0.017)	(0.004)	(0.014)	(0.003)	(0.010)	(0.010)	(0.017)	(0.016)	(0.012)	(0.013)
Trade Openness	-0.01*	-0.00***	-0.01	-0.00**	-0.01	-0.00***	-0.01***	-0.00***	-0.01**	-0.00***	-0.01***	-0.00***
	(0.004)	(0.000)	(0.005)	(0.002)	(0.004)	(0.001)	(0.003)	(0.001)	(0.004)	(0.001)	(0.003)	(0.001)
Constant	13.56***	1.88***	15.51***	5.77***	9.63***	4.28***	4.37**	1.00	4.26	1.14	4.06**	0.71
	(2.466)	(0.633)	(2.793)	(1.399)	(2.472)	(1.482)	(1.685)	(0.987)	(2.723)	(0.697)	(1.842)	(0.771)
Observations	771	771	659	659	650	650	569	569	563	563	561	561
Number of Countries	71.00	71.00	44.00	44.00	44.00	44.00	21.00	21.00	21.00	21.00	21.00	21.00
Estimation Model	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM
R-Square	0.57		0.58		0.67		0.87		0.87		0.87	
Number of Instruments		69.00		29.00		32.00		20.00		20.00		20.00
AR(1)		0.01		0.01		0.01		0.00		0.00		0.00
AR(2)		0.27		0.26		0.13		0.65		0.72		0.60
Sargan Test		0.56		0.76		0.30		0.88		0.25		0.90
Hansen Test		0.48		0.45		0.42		0.45		0.39		0.81
Increase in # standard deviation of Gini associated with an one standard deviation increase in KA Index	0.04	0.03	0.04	0.09	0.06	0.06						
Increase in # standard deviation of Gini associated with a complete capital account liberalization	0.12	0.07	0.15	0.30	0.22	0.24						

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results estimating the dynamic panel model using fixed effects and system GMM. The dependent variable is the Gini coefficient from the EHII database. KA Index is one of the capital account liberalization index as indicated in the column title, L.Gini-EHII is the lagged term of Gini coefficient, and the definitions of the control variables are shown in the name. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 5: Capital Account Liberalization and Gini Coefficients: Difference-in-Difference Model

	Chinn-Ito		Quinn-Toyoda		Pseudo FKRSU	
	(1) Broad Match	(2) PSM Match	(3) Broad Match	(4) PSM Match	(5) Broad Match	(6) PSM Match
POST	0.241*	0.233	0.291*	1.407***	0.467***	1.470***
	(0.146)	(1.000)	(0.170)	(0.269)	(0.173)	(0.171)
TREATED	1.706***	-1.049	0.285	1.284	1.556***	0.280
	(0.532)	(1.515)	(0.475)	(2.199)	(0.538)	(2.397)
POST × TREATED	1.746***	3.133**	0.978*	0.478*	1.311**	1.121***
	(0.509)	(1.324)	(0.510)	(0.184)	(0.555)	(0.241)
GDP per capita	-2.309***	0.694	-1.677***	-0.419	-2.528***	-1.054***
	(0.332)	(0.684)	(0.386)	(0.297)	(0.351)	(0.016)
GDP per capita Square	96.290***	-13.715	38.821	4.695	57.499***	20.859**
	(23.266)	(26.107)	(26.277)	(6.008)	(21.302)	(6.271)
Inflation	-0.186***	-0.146	-0.155***	-0.057***	-0.159***	-0.105**
	(0.028)	(0.193)	(0.029)	(0.005)	(0.041)	(0.027)
Private Credit	-1.366	0.985	-1.610	-8.931	-1.856*	-5.575**
	(0.918)	(2.520)	(1.211)	(8.495)	(1.072)	(1.926)
Unemployment	0.082***	0.068	0.064	0.147	0.066**	0.053
	(0.026)	(0.101)	(0.039)	(0.113)	(0.033)	(0.047)
Liquidity	0.052***	-0.046	0.061***	0.056	0.058***	0.048*
	(0.010)	(0.029)	(0.011)	(0.071)	(0.012)	(0.020)
Education	0.031***	0.010	0.013	0.085	0.006	0.081**
	(0.007)	(0.033)	(0.010)	(0.043)	(0.011)	(0.026)
Government Consumption	-0.068*	0.026	-0.058	-0.199***	-0.183***	-0.116***
	(0.041)	(0.135)	(0.061)	(0.031)	(0.060)	(0.004)
Urbanization	0.366***	-0.093	0.204***	0.013	0.234***	0.013*
	(0.034)	(0.063)	(0.044)	(0.068)	(0.040)	(0.006)
Age Dependency	0.078***	0.039	-0.007	0.038	-0.020	0.036*
	(0.017)	(0.053)	(0.019)	(0.031)	(0.020)	(0.014)
Trade Openness	-0.072***	-0.023	-0.027***	-0.002	-0.055***	0.012**
	(0.008)	(0.017)	(0.010)	(0.006)	(0.009)	(0.003)
Constant	31.167***	46.770***	41.725***	36.857**	48.158***	37.809***
	(2.482)	(6.696)	(3.108)	(8.468)	(3.253)	(3.775)
Observations	744	96	494	84	497	91
R^2	0.886	0.725	0.898	0.955	0.884	0.953
Country-FE	YES	YES	YES	YES	YES	YES

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the broad matching and propensity score matching. The dependent variable is the Gini coefficient from the EHII database. POST is a dummy with 1 indicating the ten years after the capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced a capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 6: Capital Account Liberalization and Income Share: Panel FE and GMM Model

	Bottom 50%						Middle 40%						Top 10%					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Chinn-Ito	Chinn-Ito	Quinn-Toyoda	Quinn-Toyoda	Pseudo FKRSU	Pseudo FKRSU	Chinn-Ito	Chinn-Ito	Quinn-Toyoda	Quinn-Toyoda	Pseudo FKRSU	Pseudo FKRSU	Chinn-Ito	Chinn-Ito	Quinn-Toyoda	Quinn-Toyoda	Pseudo FKRSU	Pseudo FKRSU
KA Index	-1.36***	-1.43*	-0.92*	-6.53*	-2.02***	-3.34*	-0.35	-1.39*	-0.41	-2.39	-0.71	3.70	2.48***	3.08**	2.13**	7.60**	3.95***	9.85*
	(0.363)	(0.754)	(0.494)	(3.674)	(0.672)	(1.858)	(0.362)	(0.682)	(0.511)	(1.559)	(0.684)	(3.277)	(0.742)	(1.112)	(1.023)	(3.374)	(1.415)	(5.145)
L.DepVar	0.59***	0.67***	0.62***	0.67**	0.59***	0.75***	0.38***	0.69**	0.37***	0.39**	0.36***	0.62*	0.30***	0.56***	0.30***	0.75***	0.28***	0.41*
	(0.048)	(0.170)	(0.048)	(0.270)	(0.049)	(0.161)	(0.063)	(0.265)	(0.066)	(0.180)	(0.066)	(0.332)	(0.060)	(0.190)	(0.064)	(0.232)	(0.064)	(0.219)
GDP per capita	0.68**	1.88**	0.49*	2.66	0.64**	0.05	1.19***	1.81*	1.21***	4.34**	1.27***	-0.23	-2.29***	-2.28	-1.39**	-1.47	-1.71***	-5.42
	(0.273)	(0.715)	(0.284)	(1.619)	(0.288)	(0.622)	(0.322)	(1.016)	(0.331)	(1.546)	(0.341)	(1.669)	(0.609)	(1.418)	(0.598)	(3.243)	(0.617)	(3.162)
GDP per capita Square	-31.44**	-112.00***	-21.59*	-94.94	-28.83**	-5.52	-55.97***	-145.55***	-58.31***	-201.15**	-61.01***	45.39	105.56***	113.64*	62.77**	41.40	77.92***	295.93*
	(12.740)	(34.095)	(12.960)	(74.869)	(13.161)	(48.863)	(14.903)	(48.804)	(15.004)	(79.108)	(15.516)	(122.486)	(28.274)	(65.937)	(26.757)	(170.979)	(27.725)	(163.064)
Inflation	-0.36	-3.11	-0.27	-5.68	-0.36	0.38	-0.23	-8.17	-0.21	3.61	-0.23	0.80	0.59	2.32	0.69	-1.31	0.82	2.51
	(0.286)	(3.231)	(0.296)	(6.162)	(0.294)	(1.803)	(0.305)	(5.210)	(0.311)	(3.562)	(0.313)	(1.782)	(0.615)	(5.627)	(0.582)	(2.565)	(0.581)	(6.305)
Private Credit	-2.97***	-4.77*	-3.12***	-4.27	-2.99***	0.43	-2.31**	-1.91	-2.25**	-7.54**	-2.21**	-10.19	6.82***	3.87	3.28*	4.25	3.12	7.48
	(0.865)	(2.415)	(0.936)	(4.278)	(0.918)	(4.506)	(0.905)	(3.607)	(0.969)	(3.459)	(0.965)	(6.306)	(1.813)	(3.603)	(1.954)	(5.765)	(1.922)	(4.812)
Unemployment	-0.09***	-0.09	-0.09***	0.23	-0.09***	0.07	-0.06**	-0.28**	-0.09**	0.19	-0.09**	0.02	0.19***	0.23	0.21***	-0.18	0.20***	0.03
	(0.029)	(0.135)	(0.035)	(0.210)	(0.034)	(0.132)	(0.031)	(0.127)	(0.036)	(0.154)	(0.036)	(0.067)	(0.062)	(0.157)	(0.073)	(0.193)	(0.072)	(0.261)
Money Supply	0.01	0.04	0.01	0.03	0.01	-0.08	0.02	0.03	0.02	-0.08**	0.02	0.05	-0.04	-0.09*	0.00	0.02	0.00	-0.04
	(0.010)	(0.033)	(0.011)	(0.059)	(0.011)	(0.072)	(0.011)	(0.058)	(0.012)	(0.028)	(0.012)	(0.039)	(0.021)	(0.044)	(0.023)	(0.059)	(0.022)	(0.080)
Education	-0.03**	-0.04	-0.03**	-0.07	-0.04***	-0.01	-0.03**	-0.09	-0.04***	-0.04	-0.04***	-0.02	0.09***	0.07	0.08***	0.24***	0.09***	0.26
	(0.013)	(0.059)	(0.014)	(0.162)	(0.014)	(0.072)	(0.013)	(0.059)	(0.013)	(0.039)	(0.013)	(0.060)	(0.026)	(0.058)	(0.028)	(0.075)	(0.028)	(0.163)
Government Consumption	-0.07	0.11	-0.06	-0.11	-0.06	-0.04	0.04	0.42	0.07	0.19	0.07	-0.03	0.01	0.16	0.02	-0.03	0.02	-0.16
	(0.044)	(0.190)	(0.048)	(0.384)	(0.047)	(0.290)	(0.048)	(0.348)	(0.051)	(0.345)	(0.051)	(0.153)	(0.096)	(0.172)	(0.103)	(0.494)	(0.103)	(0.402)
Urbanization	-0.02	0.15	-0.03	-0.15	-0.02	-0.04	-0.14***	0.75*	-0.12***	-0.23*	-0.12**	-0.15	0.23***	0.09	0.17*	0.30*	0.16*	0.09
	(0.037)	(0.188)	(0.042)	(0.172)	(0.042)	(0.108)	(0.042)	(0.399)	(0.047)	(0.113)	(0.047)	(0.102)	(0.082)	(0.549)	(0.089)	(0.159)	(0.088)	(0.270)
Age Dependency	-0.07**	0.14	-0.07**	0.13	-0.06*	-0.25***	-0.08***	0.63**	-0.05	-0.29	-0.05	-0.13	0.20***	-0.09	0.13**	0.21*	0.11*	-0.11
	(0.027)	(0.147)	(0.032)	(0.189)	(0.032)	(0.049)	(0.029)	(0.302)	(0.033)	(0.174)	(0.033)	(0.081)	(0.058)	(0.309)	(0.065)	(0.117)	(0.065)	(0.285)
Trade Openness	-0.02***	0.01	-0.02**	-0.01	-0.02**	0.03	-0.01*	0.05	-0.01	-0.04	-0.01	-0.02	0.05***	0.04	0.04***	0.04	0.04***	0.03
	(0.007)	(0.016)	(0.007)	(0.028)	(0.007)	(0.024)	(0.007)	(0.047)	(0.007)	(0.038)	(0.007)	(0.017)	(0.014)	(0.029)	(0.015)	(0.028)	(0.015)	(0.039)
Constant	18.98***	-14.30	19.98***	11.60	19.97***	26.64	42.17***	-74.15	40.06***	53.73**	39.77***	36.99	-11.40	8.95	-13.48	-33.53	-10.70	5.83
	(4.586)	(16.439)	(5.221)	(22.030)	(5.137)	(17.695)	(5.517)	(49.611)	(6.097)	(19.161)	(6.066)	(22.780)	(8.233)	(44.058)	(8.878)	(20.480)	(8.843)	(36.886)
Observations	259	259	243	243	243	243	259	259	243	243	243	243	265	265	218	218	218	218
Number of Countries	26.00	26.00	24.00	24.00	24.00	24.00	26.00	26.00	24.00	24.00	24.00	24.00	27.00	27.00	24.00	24.00	24.00	24.00
Estimation Model	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM
R-Square	0.77		0.75		0.76		0.55		0.54		0.54		0.60		0.67		0.68	
Number of Instruments		26.00		23.00		24.00		26.00		24.00		24.00		27.00		24.00		23.00
AR(1)		0.01		0.11		0.01		0.08		0.06		0.06		0.05		0.03		0.18
AR(2)		0.33		0.18		0.26		0.34		0.33		0.54		0.25		0.62		0.15
Sargan Test		0.96		0.99		0.94		1.00		0.78		0.98		0.98		0.84		0.99
Hansen Test		0.88		0.74		0.94		0.99		0.91		0.90		0.96		0.39		0.42
Change in # standard deviations of income share associated with an one standard deviation increase in KA index	-0.08	-0.08	-0.04	-0.30	-0.07	-0.12							+0.07	+0.09	+0.05	+0.18	+0.07	+0.18
Change in # standard deviations of income share associated with a complete capital account liberalization	-0.23	-0.24	-0.15	-1.08	-0.33	-0.55							+0.21	+0.26	+0.18	+0.63	+0.33	+0.82

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results estimating the dynamic panel model using fixed effects and system GMM. The dependent variable is the income shares of the bottom 50%, middle 40% and top 10% from the WID database. KA Index is one of the capital account liberalization index as indicated in the column title, L.DepVar is the lagged term of the respective income shares, and the definitions of the control variables are shown in the name. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 7: Capital Account Liberalization and Income Share: Difference-in-Difference Model

	Bottom 50%			Middle 40%			Top 10%		
	(1) Chinn-Ito	(2) Quinn-Toyoda	(3) Pseudo FKRSU	(4) Chinn-Ito	(5) Quinn-Toyoda	(6) Pseudo FKRSU	(7) Chinn-Ito	(8) Quinn-Toyoda	(9) Pseudo FKRSU
Based on Broad Matching									
POST	0.037	-0.168	-0.045	0.117	-0.084	-0.044	-0.154	0.251	0.088
	(0.119)	(0.166)	(0.127)	(0.125)	(0.186)	(0.170)	(0.166)	(0.332)	(0.263)
TREATED	-3.020***	-1.927***	-4.565***	-2.247*	-1.395**	-2.632***	5.266***	3.322***	7.197***
	(0.532)	(0.555)	(0.552)	(1.097)	(0.622)	(0.738)	(1.883)	(1.106)	(1.140)
POST × TREATED	-1.967***	-2.439***	-2.698***	-1.227**	-3.833***	-3.702***	3.195**	6.272***	6.400***
	(0.593)	(0.642)	(0.671)	(0.504)	(0.719)	(0.898)	(1.236)	(1.279)	(1.387)
GDP per capita	0.749**	-1.105*	-0.138	1.657**	-2.284***	-1.824***	-2.405*	3.389***	1.963*
	(0.363)	(0.621)	(0.488)	(0.772)	(0.696)	(0.653)	(1.232)	(1.238)	(1.008)
GDP per capita Square	4.725	131.276**	45.010	-99.572*	134.586**	101.154**	94.811	-265.872**	-146.185**
	(24.534)	(53.439)	(34.443)	(56.822)	(59.862)	(46.075)	(92.767)	(106.500)	(71.167)
Inflation	0.141***	0.052*	0.091***	0.174***	0.055*	0.080***	-0.315***	-0.106*	-0.172***
	(0.025)	(0.029)	(0.022)	(0.033)	(0.033)	(0.030)	(0.063)	(0.058)	(0.046)
Private Credit	-3.668***	1.991*	-2.691***	-8.736***	-1.925	-7.232***	12.407***	-0.065	9.924***
	(0.968)	(1.193)	(1.035)	(0.775)	(1.336)	(1.384)	(1.206)	(2.377)	(2.138)
Unemployment	-0.058***	-0.133***	-0.114***	-0.005	-0.085**	-0.132***	0.063	0.219***	0.246***
	(0.017)	(0.035)	(0.022)	(0.023)	(0.039)	(0.030)	(0.038)	(0.069)	(0.046)
Liquidity	-0.056***	-0.079***	-0.058***	-0.007	-0.031**	0.015	0.063***	0.110***	0.044*
	(0.010)	(0.013)	(0.011)	(0.013)	(0.015)	(0.015)	(0.019)	(0.026)	(0.023)
Education	0.043***	-0.001	0.016*	0.065***	-0.051***	-0.016	-0.109***	0.052***	0.000
	(0.006)	(0.010)	(0.009)	(0.018)	(0.011)	(0.011)	(0.024)	(0.020)	(0.018)
Government Consumption	-0.019	-0.309***	-0.079	-0.077	-0.368***	-0.006	0.096	0.677***	0.085
	(0.033)	(0.109)	(0.072)	(0.088)	(0.122)	(0.096)	(0.130)	(0.218)	(0.148)
Urbanization	-0.029	0.062	-0.015	-0.065	0.414***	0.105**	0.093	-0.476***	-0.089
	(0.023)	(0.054)	(0.033)	(0.042)	(0.061)	(0.044)	(0.061)	(0.108)	(0.068)
Age Dependency	-0.038***	-0.050**	-0.073***	-0.026	0.026	-0.057***	0.064*	0.023	0.129***
	(0.012)	(0.022)	(0.015)	(0.022)	(0.024)	(0.020)	(0.036)	(0.043)	(0.031)
Trade Openness	-0.022***	-0.011	-0.023**	-0.026*	-0.046***	-0.038***	0.048**	0.058**	0.060***
	(0.007)	(0.013)	(0.009)	(0.014)	(0.014)	(0.012)	(0.020)	(0.026)	(0.018)
Constant	19.384***	27.983***	26.838***	39.497***	38.991***	48.170***	41.116***	33.024***	24.989***
	(1.694)	(3.273)	(2.276)	(2.849)	(3.667)	(3.044)	(4.146)	(6.523)	(4.702)
Observations	585	284	308	585	284	308	585	284	308
R^2	0.948	0.936	0.955	0.909	0.940	0.935	0.935	0.941	0.953
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Based on Propensity Score Matching									
POST	-0.385	-0.141	-1.174	-0.728	-0.245	-1.184	1.113	0.386	2.359
	(1.653)	(0.604)	(1.151)	(0.821)	(0.768)	(0.832)	(1.339)	(1.312)	(1.902)
TREATED	-6.157	5.933	-0.980	-7.851	-6.067	-4.674	14.007	0.130	5.650
	(5.503)	(6.017)	(3.346)	(7.318)	(3.274)	(3.328)	(12.564)	(7.057)	(6.485)
POST × TREATED	-2.273**	-2.779***	-2.617*	-1.800***	-2.962**	-3.780***	4.073**	5.740***	6.397**
	(1.035)	(0.750)	(1.124)	(0.173)	(0.915)	(0.752)	(0.929)	(1.551)	(1.778)
GDP per capita	4.252	-0.360	-0.395	4.445	-1.149	0.312	-8.699	1.507	0.085
	(3.862)	(1.264)	(2.864)	(5.769)	(1.322)	(3.276)	(10.440)	(2.443)	(6.106)
GDP per capita Square	-246.274	13.433	38.140	-284.060	53.638	-20.299	530.403	-66.941	-17.993
	(211.642)	(106.704)	(197.065)	(260.258)	(107.529)	(222.972)	(476.702)	(206.327)	(416.970)
Inflation	-3.026	-0.424	-0.273	-2.044**	-0.267	-0.496	5.070***	0.692	0.768
	(2.476)	(0.421)	(0.207)	(0.210)	(0.467)	(0.292)	(0.383)	(0.817)	(0.494)
Private Credit	3.876	-0.580	-2.973	-4.227	-0.400	-2.494	0.348	0.981	5.466
	(8.968)	(1.142)	(2.716)	(2.658)	(3.322)	(3.964)	(4.909)	(2.965)	(6.289)
Unemployment	-0.089	0.095	0.136*	-0.021	-0.053	0.160*	0.111	-0.042	-0.296*
	(0.181)	(0.113)	(0.065)	(0.021)	(0.055)	(0.075)	(0.045)	(0.155)	(0.135)
Liquidity	-0.146	-0.003	0.035	-0.064	0.050	0.032	0.209	-0.047	-0.066
	(0.122)	(0.065)	(0.063)	(0.045)	(0.043)	(0.063)	(0.079)	(0.088)	(0.122)
Education	0.066	0.032	0.013	0.093	0.054	0.035**	-0.159	-0.086	-0.048
	(0.082)	(0.043)	(0.023)	(0.066)	(0.045)	(0.014)	(0.113)	(0.086)	(0.032)
Government Consumption	-0.076	0.005	-0.034	-0.150**	-0.294	-0.380*	0.225*	0.289	0.414
	(0.145)	(0.299)	(0.122)	(0.027)	(0.286)	(0.167)	(0.059)	(0.505)	(0.260)
Urbanization	-0.003	0.042	0.038	-0.042	0.157**	0.039	0.045	-0.199	-0.077
	(0.240)	(0.097)	(0.076)	(0.088)	(0.048)	(0.107)	(0.163)	(0.125)	(0.180)
Age Dependency	0.063	-0.090	-0.120	0.079	0.005	-0.100	-0.141	0.085	0.220
	(0.227)	(0.138)	(0.119)	(0.349)	(0.095)	(0.132)	(0.626)	(0.205)	(0.241)
Trade Openness	0.039	-0.102***	-0.089**	0.061	-0.077**	-0.066**	-0.100	0.179***	0.156**
	(0.050)	(0.030)	(0.029)	(0.030)	(0.029)	(0.021)	(0.061)	(0.049)	(0.047)
Constant	2.396	21.734	27.344*	20.532	38.041***	49.575***	77.073	40.214	23.088
	(31.051)	(12.893)	(12.256)	(37.545)	(10.999)	(13.265)	(68.557)	(22.756)	(25.057)
Observations	70	50	57	70	50	57	70	50	57
R^2	0.981	0.934	0.892	0.983	0.923	0.887	0.983	0.938	0.902
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the broad matching (upper panel) and propensity score matching (lower panel). The dependent variable is the income shares of the bottom 50%, middle 40% and top 10% from the WID database. POST is a dummy with 1 indicating the ten years after the capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced a capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 8: Discussion: Inward and Outward Capital Account Liberalization (DID-Broad Matching)

	Gini		Bottom 50%		Middle 40%		Top 10%	
	(1) Inward	(2) Outward	(3) Inward	(4) Outward	(5) Inward	(6) Outward	(7) Inward	(8) Outward
POST	0.361**	0.402**	-0.040	-1.635***	-0.066	-1.821***	0.106	3.455***
	(0.169)	(0.175)	(0.120)	(0.335)	(0.158)	(0.383)	(0.246)	(0.638)
TREATED	1.947***	2.040***	-5.013***	3.393**	-2.902***	3.344**	7.914***	-6.738**
	(0.548)	(0.549)	(0.555)	(1.365)	(0.733)	(1.625)	(1.140)	(2.604)
POST $\times$ TREATED	1.038*	0.591	-2.824***	-1.164	-3.636***	-3.515	6.459***	4.680
	(0.558)	(0.553)	(0.672)	(1.499)	(0.888)	(2.226)	(1.380)	(2.859)
GDP per capita	-2.832***	-2.223***	0.204	-1.335***	-1.645***	-1.504***	1.442	2.838***
	(0.364)	(0.350)	(0.460)	(0.349)	(0.608)	(0.482)	(0.945)	(0.665)
GDP per capita Square	91.158***	88.374***	29.396	117.135***	90.101**	125.627***	-119.517*	-242.655***
	(26.055)	(22.474)	(32.358)	(27.025)	(42.728)	(36.136)	(66.435)	(51.560)
Inflation	-0.183***	-0.195***	0.097***	-0.003	0.081***	0.027	-0.178***	-0.024
	(0.042)	(0.042)	(0.020)	(0.059)	(0.027)	(0.080)	(0.042)	(0.112)
Private Credit	0.273	-0.324	-2.684***	-9.995***	-7.465***	-5.714***	10.151***	15.708***
	(1.115)	(1.205)	(0.973)	(1.153)	(1.285)	(1.363)	(1.998)	(2.199)
Unemployment	0.049	0.066	-0.111***	0.177***	-0.122***	0.121***	0.233***	-0.298***
	(0.032)	(0.044)	(0.020)	(0.033)	(0.027)	(0.030)	(0.041)	(0.063)
Liquidity	0.056***	0.049***	-0.063***	0.021*	0.015	0.021	0.049**	-0.041*
	(0.012)	(0.012)	(0.010)	(0.012)	(0.014)	(0.019)	(0.022)	(0.023)
Education	0.016	0.008	0.020**	0.019**	-0.012	0.017	-0.009	-0.036**
	(0.011)	(0.012)	(0.008)	(0.009)	(0.010)	(0.011)	(0.016)	(0.018)
Government Consumption	-0.211***	-0.217***	-0.086	-0.118**	-0.029	-0.283***	0.115	0.401***
	(0.060)	(0.056)	(0.067)	(0.047)	(0.088)	(0.060)	(0.137)	(0.090)
Urbanization	0.281***	0.319***	-0.024	-0.077***	0.091**	-0.017	-0.067	0.095**
	(0.039)	(0.039)	(0.031)	(0.020)	(0.040)	(0.025)	(0.063)	(0.038)
Age Dependency	0.024	0.023	-0.073***	-0.281***	-0.059***	-0.242***	0.132***	0.522***
	(0.020)	(0.020)	(0.014)	(0.015)	(0.018)	(0.022)	(0.029)	(0.029)
Trade Openness	-0.066***	-0.077***	-0.024***	-0.032***	-0.040***	-0.029**	0.063***	0.061***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.011)	(0.013)	(0.018)	(0.017)
Constant	42.730***	41.054***	26.358***	45.114***	48.598***	64.504***	25.041***	-9.620**
	(3.179)	(3.090)	(2.102)	(2.112)	(2.775)	(3.113)	(4.315)	(4.029)
Observations	539	536	353	342	353	342	353	342
R^2	0.886	0.892	0.952	0.729	0.929	0.693	0.949	0.742
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the broad matching. The dependent variables are the Gini coefficients, the income share of the bottom 50%, middle 40% and top 10%. The column titles "Inward" and "Outward" indicate that the POST and TREATED are constructed using the pseudo FKRSU inward or outward capital account openness index. POST is a dummy with 1 indicating the ten years after the inward or outward capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced an inward or outward capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 9: Discussion: Capital Account Liberalization of Different Categories of Capital Transactions (DID-Broad Matching)

	Gini				Bottom 50%				Middle 40%				Top 10%			
	(1) Equity	(2) Bond	(3) FDI	(4) Other	(5) Equity	(6) Bond	(7) FDI	(8) Other	(9) Equity	(10) Bond	(11) FDI	(12) Other	(13) Equity	(14) Bond	(15) FDI	(16) Other
POST	0.442**	0.389**	0.537***	0.373**	-0.095	-0.081	-1.343***	-0.061	0.208	-0.005	-1.861***	-0.032	-0.114	0.086	3.203***	0.093
	(0.207)	(0.172)	(0.186)	(0.170)	(0.153)	(0.124)	(0.357)	(0.127)	(0.193)	(0.169)	(0.383)	(0.168)	(0.303)	(0.264)	(0.685)	(0.263)
TREATED	1.939***	2.056***	2.662***	1.837***	-2.962***	-3.896***	-0.222	-4.380***	-1.936***	-2.457***	0.303	-2.540***	4.897***	6.353***	-0.082	6.920***
	(0.596)	(0.540)	(0.625)	(0.524)	(0.526)	(0.542)	(1.191)	(0.554)	(0.664)	(0.739)	(1.276)	(0.736)	(1.046)	(1.151)	(2.283)	(1.152)
POST × TREATED	1.080*	0.924*	0.434	0.935*	-4.957***	-3.486***	-0.758	-2.413***	-3.566***	-3.468***	-1.922	-3.297***	8.525***	6.954***	2.681	5.709***
	(0.586)	(0.539)	(0.551)	(0.529)	(0.680)	(0.708)	(1.317)	(0.681)	(0.859)	(0.966)	(1.410)	(0.904)	(1.353)	(1.505)	(2.524)	(1.415)
GDP per capita	-2.103***	-2.454***	-2.995***	-2.710***	-0.816*	0.988*	-0.733**	0.192	-1.162**	-1.314*	-1.045***	-1.474**	1.978**	0.326	1.777***	1.283
	(0.415)	(0.354)	(0.367)	(0.351)	(0.451)	(0.519)	(0.352)	(0.487)	(0.569)	(0.708)	(0.377)	(0.646)	(0.897)	(1.103)	(0.674)	(1.011)
GDP per capita Square	86.662***	86.767***	100.497***	91.366***	141.729***	-30.498	82.719***	20.509	103.166***	66.576	105.835***	71.280	-244.905***	-36.099	-188.471***	-91.811
	(26.913)	(25.268)	(23.174)	(24.843)	(29.344)	(36.324)	(29.133)	(34.441)	(37.043)	(49.549)	(31.210)	(45.746)	(58.374)	(77.215)	(55.848)	(71.562)
Inflation	-0.144***	-0.176***	-0.229***	-0.158***	0.086***	0.092***	0.015	0.090***	0.077**	0.072**	0.042	0.075**	-0.162***	-0.164***	-0.057	-0.166***
	(0.049)	(0.041)	(0.038)	(0.041)	(0.027)	(0.025)	(0.051)	(0.022)	(0.035)	(0.033)	(0.055)	(0.030)	(0.054)	(0.052)	(0.099)	(0.047)
Private Credit	0.206	-0.530	-0.462	-0.034	1.226	-1.034	-6.989***	-2.444**	-5.253***	-6.998***	-3.771***	-6.890***	4.029	8.032***	10.760***	9.335***
	(1.396)	(1.132)	(1.166)	(1.087)	(1.407)	(0.983)	(1.000)	(0.978)	(1.777)	(1.340)	(1.071)	(1.300)	(2.800)	(2.089)	(1.916)	(2.033)
Unemployment	0.063	0.045	0.003	0.048	-0.095***	-0.120***	0.199***	-0.116***	-0.118***	-0.123***	0.137***	-0.128***	0.213***	0.243***	-0.336***	0.245***
	(0.058)	(0.032)	(0.042)	(0.031)	(0.032)	(0.021)	(0.035)	(0.022)	(0.040)	(0.029)	(0.038)	(0.029)	(0.063)	(0.045)	(0.068)	(0.045)
Liquidity	0.044***	0.051***	0.067***	0.056***	-0.083***	-0.080***	-0.001	-0.061***	0.006	0.012	0.020	0.012	0.077***	0.068***	-0.019	0.049**
	(0.014)	(0.011)	(0.012)	(0.011)	(0.013)	(0.011)	(0.012)	(0.011)	(0.016)	(0.015)	(0.013)	(0.014)	(0.026)	(0.023)	(0.023)	(0.022)
Education	0.018	0.009	0.007	0.016	0.014	0.022**	0.012	0.014	-0.013	-0.017	0.008	-0.019*	-0.001	-0.004	-0.020	0.005
	(0.013)	(0.012)	(0.011)	(0.011)	(0.010)	(0.009)	(0.009)	(0.008)	(0.013)	(0.012)	(0.010)	(0.011)	(0.020)	(0.018)	(0.018)	(0.017)
Government Consumption	-0.223***	-0.162***	-0.411***	-0.198***	-0.054	-0.147**	-0.130***	-0.123*	-0.229**	-0.062	-0.333***	-0.073	0.284*	0.210	0.463***	0.195
	(0.066)	(0.058)	(0.068)	(0.058)	(0.086)	(0.070)	(0.049)	(0.071)	(0.109)	(0.095)	(0.053)	(0.094)	(0.171)	(0.148)	(0.094)	(0.147)
Urbanization	0.310***	0.288***	0.317***	0.269***	0.061*	-0.038	-0.095***	-0.029	0.084*	0.078*	-0.018	0.081*	-0.145**	-0.040	0.112**	-0.052
	(0.045)	(0.038)	(0.045)	(0.038)	(0.035)	(0.033)	(0.023)	(0.033)	(0.044)	(0.044)	(0.025)	(0.044)	(0.070)	(0.069)	(0.045)	(0.069)
Age Dependency	0.044*	0.013	0.010	0.017	-0.078***	-0.054***	-0.278***	-0.063***	-0.066***	-0.046**	-0.215***	-0.051**	0.144***	0.100***	0.493***	0.114***
	(0.023)	(0.020)	(0.021)	(0.020)	(0.019)	(0.015)	(0.018)	(0.015)	(0.024)	(0.020)	(0.019)	(0.020)	(0.039)	(0.032)	(0.034)	(0.031)
Trade Openness	-0.076***	-0.071***	-0.069***	-0.063***	-0.038***	-0.015*	-0.054***	-0.015*	-0.079***	-0.027**	-0.049***	-0.028**	0.116***	0.043**	0.103***	0.043**
	(0.011)	(0.009)	(0.009)	(0.009)	(0.013)	(0.008)	(0.009)	(0.009)	(0.017)	(0.011)	(0.009)	(0.011)	(0.026)	(0.018)	(0.017)	(0.018)
Constant	38.590***	43.099***	45.963***	43.212***	25.577***	24.937***	46.480***	26.613***	53.169***	47.901***	63.680***	48.811***	21.251***	27.160***	-10.164**	24.573***
	(3.643)	(3.177)	(3.371)	(3.135)	(2.885)	(2.286)	(2.248)	(2.237)	(3.642)	(3.118)	(2.408)	(2.972)	(5.739)	(4.859)	(4.310)	(4.649)
Observations	419	521	543	519	260	323	357	333	260	323	357	333	260	323	357	333
R^2	0.895	0.893	0.879	0.892	0.969	0.957	0.688	0.951	0.952	0.936	0.668	0.932	0.968	0.953	0.704	0.949
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the broad matching. The dependent variables are the Gini coefficients, the income share of the bottom 50%, middle 40% and top 10%. The column titles "Equity', "Bond", "FDI" and "Other" indicate that the POST and TREATED are constructed using the pseudo FKRSU capital account openness index of equity market, bond market, foreign direct investment or other investment. POST is a dummy with 1 indicating the ten years after the equity market, bond market, foreign direct investment or other investment capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced an equity market, bond market, foreign direct investment or other investment capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 10: Robustness Check: *DeFacto* Capital Account Liberalization and Original FKRSU Index

	De Jure Original FKRSU		De Facto Overall		De Facto Equity		De Facto Debt		De Facto FDI		De Facto All Three	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
De Jure Original FKRSU	1.50*	1.41*										
	(0.820)	(0.788)										
De Facto Overall			0.02	-0.09								
			(0.017)	(0.095)								
De Facto Equity					0.12**	0.05***					0.15**	0.10***
					(0.060)	(0.010)					(0.057)	(0.031)
De Facto Debt							0.02	-0.04			0.21	-0.06
							(0.061)	(0.055)			(0.150)	(0.051)
De Facto FDI									0.02	0.05	-0.10*	-0.03
									(0.031)	(0.053)	(0.061)	(0.019)
L.DepVar	0.68***	0.92***	0.62***	0.78***	0.61***	0.79***	0.63***	0.95***	0.62***	0.90***	0.61***	0.80***
	(0.036)	(0.027)	(0.028)	(0.115)	(0.029)	(0.012)	(0.028)	(0.035)	(0.028)	(0.008)	(0.064)	(0.021)
GDP per capita	-0.30**	-0.06*	-0.27***	0.20	-0.29***	-0.27***	-0.25***	-0.03	-0.27***	-0.03**	-0.29***	-0.11**
	(0.126)	(0.035)	(0.095)	(0.250)	(0.098)	(0.019)	(0.094)	(0.027)	(0.096)	(0.011)	(0.098)	(0.042)
GDP per capita Square	3.79**	1.22***	3.58**	-4.29	3.86**	3.45***	3.44**	1.09**	3.56**	1.03***	4.06**	4.46***
	(1.614)	(0.447)	(1.526)	(4.873)	(1.560)	(0.273)	(1.522)	(0.422)	(1.532)	(0.119)	(1.602)	(0.676)
Inflation	0.12	1.02***	0.04	0.11	-0.04	-0.02	0.04	0.11**	0.04	0.05***	-0.05	0.01
	(0.524)	(0.248)	(0.039)	(0.201)	(0.062)	(0.019)	(0.040)	(0.043)	(0.040)	(0.016)	(0.086)	(0.073)
Private Credit	-0.19	0.07	-0.83	-1.34	-0.88	-0.44**	-0.79	-0.07	-0.88	-0.47***	-0.86	0.45
	(0.820)	(0.216)	(0.696)	(2.517)	(0.716)	(0.210)	(0.696)	(0.308)	(0.706)	(0.110)	(0.583)	(0.434)
Unemployment	0.04	0.00	0.07***	0.05	0.07***	0.06***	0.07***	0.03*	0.07***	0.03***	0.07***	0.07***
	(0.030)	(0.015)	(0.020)	(0.069)	(0.021)	(0.005)	(0.020)	(0.015)	(0.020)	(0.004)	(0.021)	(0.019)
Money Supply	0.02*	0.01	0.01	0.01	0.01	0.01***	0.01	0.00	0.02*	0.00	0.01	-0.02***
	(0.011)	(0.004)	(0.009)	(0.026)	(0.009)	(0.002)	(0.009)	(0.004)	(0.009)	(0.001)	(0.010)	(0.005)
Education	0.02*	0.01	0.02*	-0.03	0.01	0.00	0.02*	-0.00	0.02*	-0.00**	0.01	0.03***
	(0.012)	(0.006)	(0.010)	(0.034)	(0.011)	(0.004)	(0.010)	(0.006)	(0.010)	(0.002)	(0.009)	(0.007)
Government Consumption	-0.08**	0.04**	-0.05**	-0.02	-0.06**	-0.02***	-0.05**	0.01	-0.05**	0.00	-0.05	-0.04**
	(0.035)	(0.015)	(0.027)	(0.118)	(0.027)	(0.005)	(0.027)	(0.016)	(0.027)	(0.005)	(0.032)	(0.017)
Urbanization	-0.00	-0.01	0.02	-0.06	0.04	0.03***	0.02	-0.00	0.03	-0.00***	0.04	-0.03**
	(0.043)	(0.007)	(0.024)	(0.076)	(0.025)	(0.006)	(0.024)	(0.003)	(0.024)	(0.001)	(0.024)	(0.010)
Age Dependency	-0.01	0.01	-0.02	-0.07	-0.01	-0.00	-0.02	0.00	-0.02	0.01***	-0.00	-0.03***
	(0.026)	(0.007)	(0.016)	(0.059)	(0.017)	(0.003)	(0.016)	(0.005)	(0.016)	(0.001)	(0.013)	(0.008)
Trade Openness	-0.01*	-0.01***	-0.00	-0.03*	-0.00	-0.00***	-0.00	-0.00	-0.00	-0.00***	-0.00	-0.02***
	(0.006)	(0.002)	(0.005)	(0.019)	(0.006)	(0.001)	(0.005)	(0.002)	(0.005)	(0.001)	(0.006)	(0.005)
Constant	15.24***	1.80	16.74***	22.68**	16.71***		16.72***	2.48	16.66***	5.17***	16.43***	11.50***
	(4.328)	(1.133)	(2.719)	(10.886)	(2.798)		(2.722)	(1.658)	(2.732)	(0.512)	(3.960)	(1.712)
Observations	410	410	764	764	727	658	764	764	755	755	727	727
Number of Countries	42.00	42.00	69.00	69.00	69.00	62.00	69.00	69.00	69.00	69.00		69.00
Estimation Model	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM
R-Square	0.54		0.50		0.48		0.50		0.51		0.90	
Number of Instruments		39.00		67.00		61.00		65.00		64.00		65.00
AR(1)		0.03		0.00		0.00		0.00		0.00		0.00
AR(2)		0.24		0.19		0.21		0.32		0.30		0.21
Sargan Test		0.81		0.98		0.50		0.95		0.73		0.64
Hansen Test		0.88		0.30		0.40		0.22		0.50		0.83

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results estimating the dynamic panel model using fixed effects and system GMM. The dependent variable is the Gini coefficient from the EHII database. KA Index is one of the capital account liberalization index as indicated in the column title. The first eight columns show the results regressing on *defacto* capital account openness measurements from Lane and Milesi-Ferretti (2007) and the last two columns show the results regressing on the original *dejure* FKRSU indicator. L.Gini-EHII is the lagged term of Gini coefficient, and the definitions of the control variables are shown in the name. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 11: Robustness Check: Identifying Liberalization Years Based on Original AREAER

	Gini		Bottom 50%		Middle 40%		Top 10%	
	(1) Broad Matching	(2) PSM	(3) Broad Matching	(4) PSM	(5) Broad Matching	(6) PSM	(7) Broad Matching	(8) PSM
POST	0.212	-0.487	0.114	-2.406	0.256**	-2.387	-0.370**	4.793
	(0.152)	(1.217)	(0.149)	(1.571)	(0.082)	(1.807)	(0.129)	(3.194)
TREATED	0.554	-0.422	-0.693	2.926	-1.649	1.442	2.341	-4.368
	(0.596)	(1.295)	(0.775)	(2.607)	(1.739)	(2.999)	(1.916)	(5.300)
POST $\times$ TREATED	2.001***	1.721**	-2.121**	-3.188	-1.533	-2.581	3.653**	5.768
	(0.650)	(0.382)	(0.823)	(3.286)	(1.040)	(3.779)	(1.258)	(6.680)
GDP per capita	-2.852***	-0.749	-0.550	-7.419***	0.767	-9.341***	-0.217	16.758***
	(0.329)	(0.416)	(0.560)	(2.499)	(0.460)	(2.874)	(0.521)	(5.080)
GDP per capita Square	115.451***	37.515	39.939	893.653***	-39.703	1059.546***	-0.188	-1953.065***
	(22.747)	(48.870)	(53.271)	(308.276)	(83.119)	(354.534)	(55.861)	(626.656)
Inflation	-0.158***	-0.060	0.051**	-0.049	0.072***	-0.166	-0.123***	0.215
	(0.026)	(0.054)	(0.022)	(0.406)	(0.017)	(0.467)	(0.031)	(0.825)
Private Credit	-5.240***	-2.102	-0.964	-9.568**	-8.246***	-5.342	9.212***	14.909
	(0.964)	(3.954)	(1.032)	(4.624)	(0.986)	(5.317)	(1.573)	(9.399)
Unemployment	0.160***	0.249*	-0.149***	0.280*	0.010	0.408**	0.139*	-0.688**
	(0.027)	(0.090)	(0.019)	(0.145)	(0.034)	(0.166)	(0.066)	(0.294)
Liquidity	0.104***	0.085**	-0.072***	0.078	0.010	0.046	0.062*	-0.125
	(0.011)	(0.027)	(0.013)	(0.057)	(0.019)	(0.066)	(0.030)	(0.117)
Education	0.029***	0.026	0.051***	0.020	0.087***	0.016	-0.139***	-0.036
	(0.008)	(0.027)	(0.007)	(0.046)	(0.004)	(0.053)	(0.004)	(0.094)
Government Consumption	-0.116***	-0.139	-0.033	-0.555**	-0.569***	-0.767**	0.602***	1.322**
	(0.041)	(0.082)	(0.059)	(0.256)	(0.061)	(0.294)	(0.048)	(0.520)
Urbanization	0.206***	-0.139**	0.035	0.128*	-0.026	0.137*	-0.009	-0.265**
	(0.033)	(0.043)	(0.031)	(0.063)	(0.149)	(0.072)	(0.204)	(0.128)
Age Dependency	-0.011	-0.108	-0.055***	-0.195***	-0.032	-0.241***	0.087**	0.437***
	(0.016)	(0.106)	(0.014)	(0.058)	(0.018)	(0.067)	(0.030)	(0.118)
Trade Openness	-0.064***	0.010	0.001	-0.002	-0.072	0.006	0.071	-0.004
	(0.009)	(0.011)	(0.011)	(0.034)	(0.038)	(0.039)	(0.053)	(0.069)
Constant	44.501***	56.496***	20.062***	39.438***	48.141***	69.760***	31.795***	-9.199
	(2.531)	(8.158)	(2.118)	(7.424)	(3.328)	(8.538)	(5.619)	(15.092)
Observations	642	90	329	39	329	39	329	39
R^2	0.863	0.945	0.962	0.739	0.938	0.726	0.955	0.749
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the broad matching (odd columns) and propensity score matching (even columns). The dependent variables are the Gini coefficients from the EHII database, or the income shares of the bottom 50%, middle 40% and top 10% from the WID database. Here we use the "on-off" dichotomous measurements in the original AREAER to determine the liberalization year. POST is a dummy with 1 indicating the ten years after the capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced a capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 12: Robustness Check: Other Gini Measurements

	Gini-WDI			Gini-SWIID			Gini-WIID		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Chinn-Ito	Quinn-Toyoda	Pseudo FKRSU	Chinn-Ito	Quinn-Toyoda	Pseudo FKRSU	Chinn-Ito	Quinn-Toyoda	Pseudo FKRSU
POST	-0.214	0.210	1.540**	-0.083	0.009	0.020	0.087	2.166*	1.317**
	(0.244)	(0.309)	(0.679)	(0.085)	(0.118)	(0.107)	(1.212)	(0.271)	(0.043)
TREATED	-0.352	-0.717	2.053	0.878***	0.608*	0.927***	-2.945	-0.392	1.894
	(1.078)	(1.075)	(1.730)	(0.319)	(0.354)	(0.352)	(1.796)	(1.766)	(0.640)
POST $\times$ TREATED	2.123**	3.491***	2.502*	0.879***	0.769**	0.608*	4.087*	2.369*	1.385*
	(0.991)	(1.308)	(1.427)	(0.311)	(0.365)	(0.351)	(2.143)	(0.303)	(0.187)
GDP per capita	-2.433***	0.434	2.440***	-0.126	0.798***	0.304	0.381	2.500***	-0.620
	(0.738)	(1.059)	(0.478)	(0.152)	(0.260)	(0.216)	(0.644)	(0.015)	(0.309)
GDP per capita Square	100.411	-197.025**	-64.013**	-18.487**	-82.738***	-59.543***	-6.405	-47.028	50.590
	(62.486)	(92.946)	(29.072)	(9.285)	(15.399)	(13.033)	(21.760)	(8.457)	(8.419)
Inflation	0.105**	0.177***	0.150***	-0.049***	-0.027	-0.045**	0.254	0.487**	0.314***
	(0.052)	(0.064)	(0.025)	(0.014)	(0.017)	(0.019)	(0.195)	(0.011)	(0.002)
Private Credit	1.647	1.560	16.359***	-2.089***	-3.342***	-1.397**	24.335***	19.363**	26.514**
	(1.659)	(2.568)	(0.562)	(0.553)	(0.891)	(0.686)	(1.356)	(1.462)	(1.218)
Unemployment	0.058	0.103	0.029	0.066***	0.077***	0.071***	0.407***	0.284	0.209
	(0.038)	(0.069)	(0.023)	(0.013)	(0.026)	(0.019)	(0.114)	(0.103)	(0.071)
Liquidity	0.085***	0.069**	-0.099***	0.076***	0.093***	0.080***	-0.141***	-0.150*	-0.234*
	(0.019)	(0.027)	(0.017)	(0.006)	(0.009)	(0.008)	(0.014)	(0.020)	(0.019)
Education	-0.047***	0.001	0.052***	-0.018***	-0.001	-0.005	0.105***	0.072	0.085**
	(0.015)	(0.018)	(0.010)	(0.004)	(0.006)	(0.006)	(0.026)	(0.047)	(0.003)
Government Consumption	0.288***	1.293***	0.599***	0.066***	0.212***	0.057	-0.478***	-0.312	0.075
	(0.069)	(0.143)	(0.076)	(0.022)	(0.046)	(0.040)	(0.138)	(0.069)	(0.117)
Urbanization	0.245***	-0.018	-0.110***	0.064***	0.013	0.082***	0.220***	-0.230	-0.060
	(0.052)	(0.099)	(0.026)	(0.017)	(0.032)	(0.024)	(0.040)	(0.067)	(0.018)
Age Dependency	0.097***	-0.013	0.252***	0.027***	0.043***	0.052***	0.230***	0.193*	0.043
	(0.026)	(0.038)	(0.018)	(0.009)	(0.012)	(0.011)	(0.058)	(0.028)	(0.026)
Trade Openness	-0.024**	-0.001	-0.034***	-0.013***	0.003	-0.018***	-0.002	-0.090**	-0.078
	(0.012)	(0.025)	(0.010)	(0.004)	(0.008)	(0.006)	(0.014)	(0.004)	(0.015)
Constant	25.685***	17.899***	7.050***	39.425***	32.196***	34.345***	4.767	30.572	37.009**
	(3.572)	(5.971)	(1.833)	(1.197)	(1.980)	(1.749)	(4.585)	(6.843)	(1.495)
Observations	790	397	457	909	503	546	263	98	131
R^2	0.925	0.915	0.705	0.986	0.982	0.985	0.608	0.712	0.686
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the broad matching. The dependent variables are the alternative Gini coefficients from WDI, SWIID and WIID. The column titles "Chinn-Ito", "Quinn-Toyoda" and "Pseudo FKRSU" indicate that the POST and TREATED are constructed using the respective capital account openness indices. POST is a dummy with 1 indicating the ten years after the capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced a capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 13: Robustness Check: Other Income Share Measurements

	1st 20%			2nd 20%			3rd 20%			4th 20%			5th 20%		
	(1) Chinn-Ito	(2) Quinn-Toyoda	(3) Pseudo FKRSU	(4) Chinn-Ito	(5) Quinn-Toyoda	(6) Pseudo FKRSU	(7) Chinn-Ito	(8) Quinn-Toyoda	(9) Pseudo FKRSU	(10) Chinn-Ito	(11) Quinn-Toyoda	(12) Pseudo FKRSU	(13) Chinn-Ito	(14) Quinn-Toyoda	(15) Pseudo FKRSU
POST	0.162	-0.084***	0.037	0.054	-0.113**	0.062	-0.122	-0.147*	0.044	-0.389**	-0.272	-0.041	0.274	0.484*	1.014*
	(0.120)	(0.001)	(0.060)	(0.150)	(0.006)	(0.088)	(0.174)	(0.017)	(0.074)	(0.152)	(0.071)	(0.072)	(0.533)	(0.063)	(0.108)
TREATED	0.951*	0.065	0.288*	1.009**	0.209	0.458*	1.063**	0.337**	0.621	0.689**	0.496	0.373	-4.131**	-1.510	0.742
	(0.546)	(0.215)	(0.153)	(0.473)	(0.085)	(0.228)	(0.428)	(0.017)	(0.536)	(0.323)	(0.139)	(0.512)	(1.741)	(0.477)	(0.156)
POST $\times$ TREATED	-1.299***	-0.446*	-0.340**	-1.072***	-1.032**	-0.708*	-0.938**	-1.416**	-0.437	-0.229	-1.404**	0.377	4.110**	4.120**	0.734
	(0.441)	(0.051)	(0.145)	(0.385)	(0.074)	(0.385)	(0.448)	(0.063)	(0.510)	(0.425)	(0.056)	(0.415)	(1.787)	(0.289)	(0.118)
GDP per capita	0.114	-0.291**	0.209	0.051	-0.012	0.924***	0.132	0.164	1.020*	0.144	0.183	0.065	-0.480	0.260	0.291
	(0.174)	(0.006)	(0.179)	(0.189)	(0.008)	(0.268)	(0.184)	(0.056)	(0.528)	(0.154)	(0.123)	(0.462)	(0.681)	(0.137)	(0.055)
GDP per capita Square	-0.800	10.144*	25.102**	1.130	-2.130	5.108	-2.494	-10.558*	-3.185	-3.269	-11.083	22.023	5.868	0.489	-6.610
	(5.891)	(1.022)	(8.766)	(6.428)	(1.280)	(15.573)	(6.250)	(0.916)	(21.428)	(5.302)	(2.307)	(17.506)	(23.133)	(0.735)	(2.683)
Inflation	-0.003	-0.106***	-0.070**	-0.027	-0.082**	-0.099*	-0.020	-0.052*	-0.130	0.010	0.018	-0.095	-0.008	0.241**	0.263**
	(0.066)	(0.001)	(0.032)	(0.067)	(0.002)	(0.051)	(0.064)	(0.007)	(0.078)	(0.045)	(0.008)	(0.104)	(0.239)	(0.016)	(0.016)
Private Credit	-4.701***	-4.250***	-1.009**	-6.798***	-6.422***	-2.870***	-7.322***	-6.260**	-2.865*	-5.437***	-4.200	-1.312	24.100***	21.574**	21.731*
	(0.533)	(0.061)	(0.396)	(0.576)	(0.094)	(0.690)	(0.562)	(0.317)	(1.415)	(0.376)	(0.744)	(1.233)	(1.945)	(1.210)	(2.465)
Unemployment	0.022	-0.002**	0.094***	0.009	-0.043**	0.087***	-0.011	-0.069**	0.061**	-0.025*	-0.080	0.042	-0.007	0.169*	0.130**
	(0.015)	(0.000)	(0.012)	(0.017)	(0.003)	(0.014)	(0.019)	(0.004)	(0.022)	(0.013)	(0.018)	(0.044)	(0.063)	(0.014)	(0.005)
Liquidity	0.031***	0.030*	0.020**	0.059***	0.056**	0.036**	0.068***	0.061**	0.030	0.062***	0.056*	0.007	-0.196***	-0.190**	-0.188**
	(0.004)	(0.003)	(0.007)	(0.007)	(0.001)	(0.016)	(0.006)	(0.002)	(0.031)	(0.003)	(0.006)	(0.030)	(0.016)	(0.013)	(0.011)
Education	-0.007*	-0.013	0.031***	-0.005	-0.022	0.044***	-0.004	-0.025	0.047***	-0.002	-0.020	0.019*	0.020	0.074	0.055*
	(0.004)	(0.006)	(0.003)	(0.004)	(0.007)	(0.006)	(0.005)	(0.006)	(0.012)	(0.004)	(0.006)	(0.009)	(0.016)	(0.026)	(0.005)
Government Consumption	-0.011	0.007	0.072***	-0.028	-0.044	0.062	-0.066**	-0.097	0.082	-0.095***	-0.138	0.059	0.191**	0.254	0.234
	(0.020)	(0.014)	(0.023)	(0.027)	(0.030)	(0.037)	(0.027)	(0.032)	(0.079)	(0.025)	(0.023)	(0.057)	(0.091)	(0.104)	(0.081)
Urbanization	-0.042***	0.027	-0.056***	-0.022	0.035	-0.012	-0.010	0.043	-0.009	-0.010	0.036	-0.045	0.108**	-0.142	-0.115**
	(0.013)	(0.011)	(0.017)	(0.013)	(0.008)	(0.029)	(0.013)	(0.010)	(0.045)	(0.010)	(0.019)	(0.049)	(0.051)	(0.048)	(0.008)
Age Dependency	-0.018	-0.016	0.043***	-0.010	-0.013	0.083***	0.003	-0.000	0.090***	0.006	0.011	0.036	0.052	0.035	0.028
	(0.013)	(0.007)	(0.013)	(0.014)	(0.004)	(0.021)	(0.014)	(0.005)	(0.027)	(0.009)	(0.008)	(0.021)	(0.047)	(0.022)	(0.014)
Trade Openness	0.016***	0.004***	0.006	0.019***	0.026***	-0.013**	0.023***	0.038***	-0.011	0.017***	0.037*	0.011	-0.076***	-0.092**	-0.061**
	(0.002)	(0.000)	(0.004)	(0.003)	(0.000)	(0.006)	(0.003)	(0.000)	(0.017)	(0.003)	(0.005)	(0.011)	(0.010)	(0.007)	(0.005)
Constant	7.964***	7.146*	-2.849*	10.254***	10.685*	-5.184*	12.951***	13.574*	-1.840	19.999***	19.730**	15.541***	44.595***	46.989*	46.934***
	(1.331)	(1.001)	(1.598)	(1.447)	(1.110)	(2.574)	(1.521)	(1.090)	(2.826)	(1.096)	(1.081)	(3.282)	(5.023)	(4.176)	(0.147)
Observations	202	119	149	202	119	149	202	119	149	202	119	149	202	119	149
R^2	0.642	0.604	0.950	0.694	0.642	0.944	0.711	0.649	0.948	0.746	0.699	0.949	0.730	0.661	0.705
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the broad matching. The dependent variables are the alternative income share measurements of the first to fifth 20% from the WIID. The column titles "Chinn-Ito", "Quinn-Toyoda" and "Pseudo FKRSU" indicate that the POST and TREATED are constructed using the respective capital account openness indices. POST is a dummy with 1 indicating the ten years after the capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced a capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table 14: Robustness Check: Additionally Control for Corruption and Institutional Quality

	Gini				Bottom 50%				Middle 40%				Top 10%			
	(1) Linear	(2) Linear	(3) Nonlinear	(4) Nonlinear	(5) Linear	(6) Linear	(7) Nonlinear	(8) Nonlinear	(9) Linear	(10) Linear	(11) Nonlinear	(12) Nonlinear	(13) Linear	(14) Linear	(15) Nonlinear	(16) Nonlinear
KA Index(Chinn-Ito)	0.83**	0.98*	0.80**	0.53*	-1.37***	-2.00*	-1.48***	-2.72*	-0.51	2.55	-0.58	1.14	2.66***	2.63*	2.80***	2.20*
	(0.355)	(0.535)	(0.355)	(0.306)	(0.373)	(0.977)	(0.371)	(1.552)	(0.376)	(1.916)	(0.374)	(2.390)	(0.768)	(1.472)	(0.765)	(1.220)
L.DepVar	0.53***	0.56***	0.53***	0.55***	0.57***	0.58***	0.56***	0.61**	0.34***	0.60*	0.33***	0.96*	0.29***	0.45**	0.27***	0.71***
	(0.040)	(0.086)	(0.040)	(0.051)	(0.049)	(0.177)	(0.049)	(0.283)	(0.066)	(0.296)	(0.066)	(0.504)	(0.060)	(0.167)	(0.060)	(0.085)
GDP per capita	-0.28***	0.28	-0.31***	-0.25**	0.75***	1.54	0.84***	1.80	1.36***	-0.91	1.46***	-0.58	-2.46***	-4.30**	-2.64***	-0.28
	(0.108)	(0.177)	(0.109)	(0.100)	(0.280)	(1.313)	(0.279)	(2.491)	(0.336)	(2.171)	(0.336)	(2.173)	(0.624)	(1.624)	(0.623)	(0.328)
GDP per capita Square	4.55***	-0.75	4.86***	5.95***	-34.60***	-91.26	-37.96***	-108.19	-63.38***	11.88	-67.80***	-8.68	112.17***	164.67*	119.50***	8.82
	(1.659)	(2.697)	(1.659)	(1.101)	(13.087)	(67.518)	(13.020)	(89.259)	(15.525)	(93.226)	(15.563)	(97.903)	(28.919)	(87.108)	(28.923)	(16.732)
Inflation	0.07*	0.05	0.07**	0.06	-0.34	-0.72	-0.30	0.47	-0.33	-0.17	-0.33	-2.25	0.71	-7.85	0.68	0.82
	(0.036)	(0.062)	(0.036)	(0.051)	(0.293)	(1.456)	(0.291)	(5.692)	(0.313)	(3.261)	(0.312)	(3.992)	(0.632)	(6.253)	(0.631)	(0.521)
Private Credit	-0.79	-2.63	-0.90	1.02	-2.98***	-2.48	-2.76***	-4.52	-2.27**	3.09	-1.95**	5.90	6.93***	3.80	6.41***	3.61
	(0.713)	(2.120)	(0.712)	(1.104)	(0.871)	(3.980)	(0.871)	(6.053)	(0.907)	(7.782)	(0.914)	(8.750)	(1.821)	(4.296)	(1.831)	(2.513)
Unemployment	0.05**	0.08	0.06**	0.03	-0.08***	-0.13	-0.07**	-0.13	-0.06*	-0.25	-0.04	-0.36	0.17***	0.05	0.15**	0.05
	(0.023)	(0.073)	(0.023)	(0.044)	(0.030)	(0.120)	(0.030)	(0.318)	(0.031)	(0.283)	(0.031)	(0.356)	(0.064)	(0.126)	(0.064)	(0.045)
Money Supply	0.01	-0.01	0.01	0.01	0.01	-0.00	0.00	0.01	0.02*	-0.05	0.02*	-0.02	-0.04*	-0.04	-0.04*	0.00
	(0.009)	(0.018)	(0.009)	(0.013)	(0.011)	(0.057)	(0.011)	(0.058)	(0.011)	(0.082)	(0.012)	(0.100)	(0.022)	(0.065)	(0.023)	(0.024)
Education	0.00	-0.04	0.00	-0.03**	-0.03***	-0.15**	-0.03**	-0.09	-0.03**	0.03	-0.02*	0.04	0.09***	0.05	0.08***	0.08**
	(0.010)	(0.025)	(0.010)	(0.014)	(0.013)	(0.059)	(0.013)	(0.062)	(0.013)	(0.068)	(0.013)	(0.070)	(0.027)	(0.078)	(0.028)	(0.027)
Government Consumption	-0.02	0.16**	-0.02	0.07*	-0.07	0.11	-0.06	-0.15	0.02	0.31	0.02	-0.12	0.04	0.34	0.03	0.03
	(0.032)	(0.066)	(0.032)	(0.044)	(0.046)	(0.194)	(0.045)	(0.223)	(0.049)	(0.350)	(0.048)	(0.618)	(0.098)	(0.366)	(0.098)	(0.080)
Urbanization	0.03	-0.00	0.04	0.07***	-0.02	-0.01	-0.02	-0.04	-0.12***	0.51**	-0.10**	0.32	0.20**	1.26*	0.18*	0.00
	(0.030)	(0.040)	(0.031)	(0.024)	(0.040)	(0.066)	(0.044)	(0.498)	(0.044)	(0.240)	(0.047)	(0.355)	(0.086)	(0.737)	(0.094)	(0.028)
Age Dependency	-0.01	0.02	-0.02	0.05**	-0.07***	0.07	-0.08***	-0.08	-0.08***	0.10	-0.08**	0.11	0.20***	0.58	0.20***	0.06*
	(0.021)	(0.037)	(0.021)	(0.021)	(0.028)	(0.075)	(0.029)	(0.316)	(0.029)	(0.221)	(0.030)	(0.226)	(0.059)	(0.454)	(0.061)	(0.031)
Trade Openness	-0.00	0.02	-0.00	0.00	-0.02***	-0.01	-0.02***	-0.01	-0.01*	0.01	-0.02**	-0.01	0.05***	0.06	0.05***	-0.01
	(0.005)	(0.013)	(0.005)	(0.007)	(0.007)	(0.028)	(0.007)	(0.037)	(0.007)	(0.071)	(0.007)	(0.084)	(0.015)	(0.043)	(0.015)	(0.012)
Institutional Quality	0.02	0.08**	-0.02	0.08**	-0.05	-0.01	0.12	-0.06	-0.03	0.50	0.11	0.59	0.05	0.11	-0.25	0.23
	(0.028)	(0.037)	(0.033)	(0.032)	(0.044)	(0.125)	(0.079)	(0.354)	(0.046)	(0.372)	(0.084)	(0.387)	(0.089)	(0.461)	(0.170)	(0.262)
Institutional Quality Squared			0.01**	-0.00			-0.02**	-0.02			-0.02*	-0.12			0.04*	-0.04
			(0.006)	(0.007)			(0.010)	(0.048)			(0.010)	(0.129)			(0.021)	(0.044)
Corruption	0.06	0.22	-0.43	-0.61**	-0.04	0.37	-0.83	2.08	-0.27*	-0.46	-1.39**	1.70	0.40	-1.22	2.42*	0.94
	(0.124)	(0.160)	(0.553)	(0.289)	(0.128)	(0.333)	(0.617)	(4.109)	(0.140)	(1.145)	(0.666)	(6.202)	(0.274)	(0.747)	(1.330)	(3.179)
Corruption Squared			0.07	0.15***			0.13	-0.32			0.18*	-0.37			-0.33	-0.19
			(0.077)	(0.046)			(0.096)	(0.613)			(0.102)	(0.888)			(0.205)	(0.557)
Constant	17.66***	3.05	18.42***	1.21	20.24***	18.19*	21.38***	23.42	42.77***	-26.72	42.40***	-21.50	-10.03	-93.18	-9.10	-3.60
	(3.690)	(7.567)	(3.696)	(3.887)	(4.794)	(10.173)	(4.997)	(51.905)	(5.609)	(31.880)	(5.732)	(33.281)	(8.560)	(75.717)	(9.187)	(2.840)
Observations	567	567	567	567	256	256	256	256	256	256	256	256	262	262	262	262
Number of Countries	59.00	59.00	59.00	59.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	26.00	26.00	26.00	26.00
Estimation Model	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM	FE	System GMM
R-Square	0.43		0.44		0.77		0.78		0.56		0.57		0.60		0.61	
Number of Instruments		45.00		54.00		26.00		24.00		23.00		23.00		28.00		26.00
AR(1)		0.06		0.05		0.10		0.24		0.13		0.02		0.06		0.06
AR(2)		0.17		0.17		0.33		0.49		0.90		0.95		0.22		0.17
Sargan Test		0.95		0.88		1.00		0.47		0.90		0.72		0.90		0.87
Hansen Test		0.72		0.25		0.99		0.74		0.24		0.14		0.84		0.61

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results estimating the dynamic panel model using fixed effects and system GMM. The dependent variables are the Gini coefficient from EHII database, or the income shares of the bottom 50%, middle 40% and top 10% from the WID database. The KA Index here is the Chinn-Ito capital account liberalization index, L.DepVar is the lagged term of the respective Gini coefficient or income shares, and the definitions of the control variables are shown in the name. The institutional quality is the *polity*2 from the Polity IV database, and corruption is the corruption measurement from ICRG database. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Appendix

A1 Description of Five Inequality Databases

1. Estimated Household Income Inequality (EHII)

    - Its Gini index is derived from the econometric relationship between the UTIP-UNIDO which calculates measures of industrial pay inequality based on United Nations Industrial Development Organization (UNIDO) data, other conditioning variables, and the World Bank's Deininger-Squire data set. Detailed descriptions can be found in Galbraith and Kum (2005).
    - Version: Updated in 2018 September
    - Coverage: 4,074 non-missing observations for 1970-2015, covering 153 countries. 4,550 non-missing observations for 1963-2015.
    - Note: This is the dataset we use in the baseline analysis for Gini coefficient. The databases listed below are used in the robustness checks.

2. World Income Inequality Database (WIID)

    - Multiple observations for every country-year using different welfare definitions,equivalence coverage, age coverage, area coverage, population coverage and data quality. In addition to Gini index, it also provides detailed income share data in deciles and quantiles, and we also use the data of income shares of the first to fifth quintiles in the robustness check.
    - Version: Updated in December 2019
    - Coverage: 1,594 non-missing observations unique in country-year for 1970-2015, covering 99 countries. 1,811 observations for 1944-2018.

3. Standardized World Income Inequality Database (SWIID)

    - A revision of the WIID by Frederick Solt. It tries to maximize the comparability of income inequality data while maintaining the widest possible coverage across countries and over time. Detailed description of SWIID can be found in Solt (2016).
    - Version: SWIID 8.2.
    - Coverage: 5,092 non-missing obvervations for Gini index of inequality in equivalized household market (pre-tax, pre-transfer) income, for 1970-2015, covering 195 countries. 5,448 observations for 1960-2018.

4. World Bank World Development Indicators (WDI)

    - The global coverage of PovcalNet comes at the cost of lower comparability, for example, it uses both income and consumption surveys. It is based on microdata for almost all countries. For many countries, the data is patchy.
    - Version: Updated in December 2019
    - Coverage: 1,404 non-missing observations for 1979-2015, covering 164 countries.

5. World Inequality Database (WID)

- The World Top Incomes Database (WTID) combines fiscal, survey, and national accounts data systematically to compute longer and more reliable top income shares series. Based on the WTID top-income shares series, WID included an extended version of the historical database on the long-run evolution of aggregate wealth-income ratios and the changing structure of national wealth and national income first developed by Piketty and Zucman (2014). It provides high-quality information of income shares for the bottom 50%, the middle 40% and the top 10%.
- Version: Updated in December 2018
- Coverage: for the pre-tax national income share of the bottom 50%, the middle 40% and the top 10%, it has 3,114 observations for 112 countries from 1970 to 2015.

A2 Constructing the Pseudo FKRSU Indicators

We follow Bekaert et al. (2016) to extend the original FKRSU indicators back to 1970 using the fitted values based on the estimates from a regression of original FKRSU series on the Chinn-Ito index as well as the Quinn-Toyoda CAP and CUR indices:

$$FKRSU^{j}_{i,t} = \alpha_{i,t} + \beta_1 \text{KA\_OPEN}_{it} + \beta_2 \text{CAP}_{i,t} + \beta_3 \text{CUR}_{i,t} + \epsilon_i + \varepsilon_{i,t}$$

where j is each of the 32 FKRSU data series. KA_OPEN is the Chinn-Ito index(Chinn and Ito (2008)), CAP and CUR comes from the Quinn-Toyoda index ((Quinn and Toyoda, 2008)) , all standardized to [0,1] with higher values indicating more liberalization. The equations are estimated separately for OECD and non-OECD samples to account for the different slope and coefficients in developed and developing economies. We replace the predicted value with 1 if it exceeds 1 and with 0 if it is lower than 0. The original Chinn-Ito index covers 1970-2015 and Quinn-Toyoda index covers 1970-2014, thus the constructed pseudo FKRSU index covers 1970-2014.

Table A1 reports the estimates and Figure A1 shows the time series of the most aggregated capital account openness index in the original FKRSU and pseudo FKRSU along with the Chinn-Ito and Quinn-Toyoda CAP series. We can see that the regressions perform well in generating the pseudo FKRSU indicators, as the adjusted R-square is 0.80 for OECD samples and as high as 0.91 for non-OECD samples, and all the explanatory variables are statistically significant. In addition, the correlation between the pseudo FKRSU and original FKRSU is estimated to be 0.85 and statistically significant at the 1% significance level. Figures A1 shows that for the whole sample and each of the subamples, the pseudo FKRSU shows consistent time trend as the original FKRSU during 1995-2014, and we find the movement of pseudo FKRSU is a good proxy for the original FKRSU.

Table A1: Regressions Imputing the FKRSU Back to 1970s

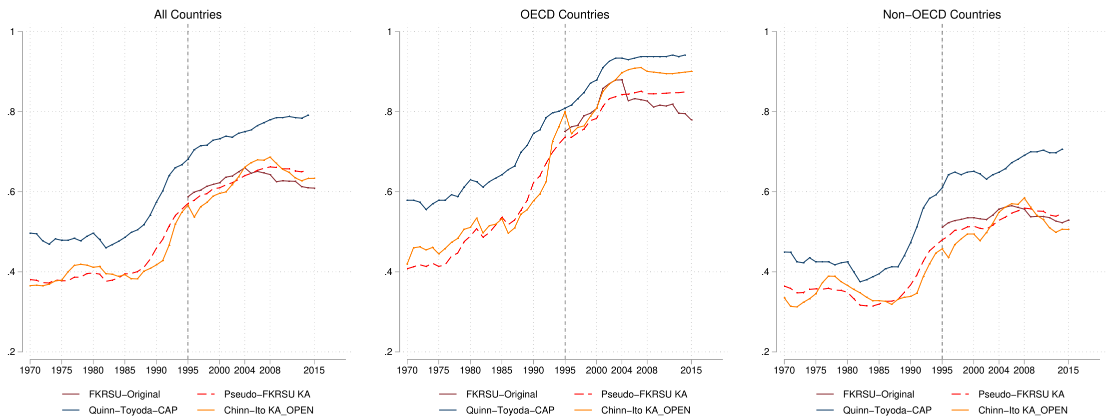
	(1) OECD	(2) Non-OECD
Chinn-Ito KA_OPEN	0.185***	0.229***
	(0.053)	(0.024)
Quinn-Toyoda CUR	0.545***	0.079*
	(0.100)	(0.045)
Quinn-Toyoda CAP	0.382***	0.467***
	(0.077)	(0.037)
Constant	-0.211***	0.043*
	(0.061)	(0.023)
Observations	636	1141
Adjusted R2	0.799	0.909
Country FE	YES	YES

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table presents the estimates of regressing the FKRSU *ka* index on the Chinn-Ito capital account openness index KA_OPEN, Quinn-Toyoda capital account openness index CAP and Quinn-Toyoda current account openness CUR. All the explained and explanatory variables are all standardized to [0,1]. The regression is separately done for OECD and non-OECD sample.

Figure A1: The Pseudo FKRSU Index and Original FKRSU index



Notes: This figure shows the time series of the constructed pseudo FKRSU index(dashed red line) and the original FKRSU index(solid maroon line). It also presents the Chinn-Ito(solid orange line) and Quinn-Toyoda CAP(solid blue line) measurements.

A3 32 Transaction Categories in Capital Account of the Fernández et al. (2016) Dataset

1. Money Market: Bonds with maturity of 1 year or less (4) (mm)
    - Inflow: purchase locally by non-residents; sale or issue abroad by residents (mmi)
    - Outflow: purchase abroad by residents; sale or issue locally by non-residents (mmo)
2. Bonds: Bonds with maturity of greater than 1 year (4) (bo)
    - Inflow: purchase locally by non-residents; sale or issue abroad by residents (boi)
    - Outflow: purchase abroad by residents; sale or issue locally by non-residents (boo)
3. Equities (4) (eq)
    - Inflow: purchase locally by non-residents; sale or issue abroad by residents (eqi)
    - Outflow: purchase abroad by residents; sale or issue locally by non-residents (eqo)
4. Collective Investments (4) (ci)
    - Inflow: purchase locally by non-residents; sale or issue abroad by residents (cii)
    - Outflow: purchase abroad by residents; sale or issue locally by non-residents (cio)
5. Derivatives (4) (de)
    - Inflow: purchase locally by non-residents; sale or issue abroad by residents (dei)
    - Outflow: purchase abroad by residents; sale or issue locally by non-residents (deo)
6. Guarantees, Sureties & Financial Backup Facilities (2) (gs)
    - Inflow (gsi)
    - Outflow (gso)
7. Financial Credits(2) (fc)
    - Inflow (fci)
    - Outflow (fco)
8. Commercial Credits(2) (cc)
    - Inflow (cci)
    - Outflow (cco)
9. Real Estate(3) (re)
    - Inflow: purchase locally by non-residents (rei)
    - Outflow: purchase abroad by residents; sale locally by non-residents (reo)
10. Direct Investment(3) (di)
    - Inflow (dii)
    - Outflow (dio)
    - Liquidation (ldi)

A4 Additional Tables

Table A2: Number of Countries By Year

	Gini-EHII		Income Share-WID	
Year	# OECD Countries	# Non-OECD Countries	# OECD Countries	# Non-OECD Countries
1970	29	53	2	1
1971	29	57	2	1
1972	29	55	2	2
1973	29	54	2	1
1974	29	60	2	1
1975	29	60	2	1
1976	29	61	2	2
1977	30	65	2	1
1978	30	64	2	2
1979	30	65	2	2
1980	29	66	16	5
1981	29	68	18	5
1982	29	66	18	5
1983	29	66	20	9
1984	29	66	20	11
1985	29	65	21	15
1986	29	66	21	15
1987	30	63	22	17
1988	29	59	24	21
1989	26	52	24	23
1990	25	56	26	74
1991	25	57	26	71
1992	25	54	27	71
1993	31	70	27	74
1994	30	72	27	72
1995	32	64	27	73
1996	34	62	27	74
1997	34	57	27	75
1998	33	63	27	76
1999	32	51	27	75
2000	33	60	27	75
2001	32	59	27	78
2002	33	55	27	80
2003	32	51	27	78
2004	32	52	28	79
2005	32	50	28	79
2006	32	51	28	79
2007	32	50	28	81
2008	31	50	28	81
2009	33	50	28	81
2010	33	48	28	80
2011	14	9	28	80
2012	31	48	28	80
2013	30	45	28	78
2014	27	40	28	80
2015	25	25	25	76

Notes: This table shows the coverage of country and year of non-missing values of Gini coefficient from EHII database and the income share data from the WID database. The data sources are described in Table 1.

Table A3: Identified Capital Account Liberalization Periods

Country	Chinn-Ito	Quinn-Toyoda	PseudoFKRSU	AREAER	Chinn-Ito Sample	Quinn-Toyoda Sample	PseudoFKRSU Sample	AREAER Sample
Afghanistan	Never			1966-1973;1996-2015	1970-2000			1966-2015
Albania	Never	2008-2014	2008-2014	2009-2015	1995-2016	1991-2014	1995-2014	1991-2015
Algeria	Never	Never	Never	Never	1970-2016	1963-2014	1970-2014	1966-2015
Angola	Never			Never	1993-2016			1989-2015
Antigua and Barbuda	Always			Always	1985-2009			1981-2015
Argentina	1988-1999	1985-1997	1985-1998	1967-1969;1993-1997	1970-2016	1950-2014	1970-2014	1966-2015
Armenia	Always			1996-2015	1996-2016			1992-2015
Aruba	Never			Never	1992-2016			1988-2015
Australia	1978-2014	1977-2014	1977-2012	1984-1998;2012-2015	1970-2016	1950-2014	1970-2014	1966-2015
Austria	Always	1970-2013	Always	1991-2004	1970-2016	1950-2014	1970-2014	1966-2015
Azerbaijan	2010-2016	2001-2014	2004-2014	1996-1997;2007-2015	1996-2016	1992-2014	1996-2014	1992-2015
Bahamas	Never	Never	Never	Never	1977-2016	1972-2007	1977-2007	1973-2015
Bahrain	Always	Always	Always	Always	1976-2016	1971-2007	1976-2007	1972-2015
Bangladesh	Never	Never	Never	Never	1976-2016	1971-2014	1976-2014	1972-2015
Barbados	Never	Never	Never	Never	1974-2016	1970-2014	1974-2014	1970-2015
Belarus	Never	2010-2013	Never	1996-1997	1996-2016	1992-2014	1996-2014	1992-2015
Belgium	Always	Always	Always	1996-2005	1970-2016	1950-2014	1970-2014	1996-2015
Belize	Never			1981-1985	1985-2016			1981-2015
Benin	Never			1967-1967	1979-2016			1966-2015
Bhutan	Never			Never	1985-2016			1981-2015
Bolivia	1970-1975;1988-2016	Always	1988-2014	1966-1980;1986-2015	1970-2016	1950-2014	1970-2014	1966-2015
Bosnia and Herzegovina	2001-2008			1997-2003;2010-2011	1999-2016			1995-2015
Botswana	1994-2016	Always	1989-2014	1998-2015	1972-2016	1967-2014	1972-2014	1968-2015
Brazil	2000-2011	2002-2013	2002-2012	2002-2006	1970-2016	1950-2014	1970-2014	1966-2015
Brunei				Always				1995-2015
Bulgaria	2000-2016	1995-2014	1998-2014	1996-1996;2003-2015	1994-2016	1990-2014	1994-2014	1990-2015
Burkina Faso	Never	Never	Never	1967-1968	1988-2016	1962-2014	1988-2014	1966-2015
Burundi	Never			Never	1970-2016			1966-2015
Cambodia	1999-2015	1998-2014	1998-2012	2001-2015	1973-2016	1955-2014	1973-2014	1969-2015
Cameroon	Never	1970-1996	Never	1967-1967	1970-2016	1962-2014	1970-2014	1966-2015
Canada	Always	Always	Always	Always	1970-2016	1950-2014	1970-2014	1966-2015
Cape Verde	Never			Never	1982-2016			1978-2015
Central African Republic	Never			1967-1967	1970-2016			1966-2015
Chad	Never			1967-1967	1970-2016			1966-2015
Chile	1995-2016	1992-2014	1992-2014	2001-2007	1970-2016	1950-2014	1970-2014	1966-2015
China	Never	Never	Never	Never	1984-2016	1950-2014	1984-2014	1966-2015
Colombia	Never	1988-2000	1991-2003	Never	1970-2016	1950-2014	1970-2014	1966-2015
Comoros	Never			Never	1981-2016			1977-2015
Congo	Never	Never	Never	1967-1967	1970-2016	1962-2014	1970-2014	1966-2015
Costa Rica	1990-2014	1988-2014	1988-2013	1966-1973;1980-1981;1995-2015	1970-2016	1950-2014	1970-2014	1966-2015
Cote d'Ivoire	Never	Never	Never	1967-1967	1970-2016	1961-2014	1970-2014	1966-2015

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Table A3 – *Continued from previous page*

Country	Chinn-Ito	Quinn-Toyoda	PseudoFKRSU	AREAER	Chinn-Ito Sample	Quinn-Toyoda Sample	PseudoFKRSU Sample	AREAER Sample
Croatia	1999-2016	Always	Always	2010-2015	1996-2016	1992-2014	1996-2014	1992-2015
Curacao				Never				2010-2015
Cyprus	1998-2016	1996-2012	1997-2012	2004-2011;2014-2015	1970-2016	1961-2014	1970-2014	1966-2015
Czech Republic	1996-2016	Always	1996-2014	1998-2004;2012-2012	1996-2016	1990-2014	1996-2014	1992-2015
Czechoslovakia				Never				1990-1991
Democratic Republic of Congo	Never			1997-1997	1970-2012			1966-2015
Denmark	1981-2016	Always	1970-2014	1988-2015	1970-2016	1950-2014	1970-2014	1966-2015
Djibouti	Always			1978-2008	1982-2016			1978-2015
Dominica	Never			Never	1982-2016			1978-2015
Dominican Republic	1999-2014	1982-2014	1997-2012	1998-1998;2006-2011	1970-2016	1950-2014	1970-2014	1966-2015
Ecuador	1971-1975;1994-2014	1985-2014	1986-2012	1966-1969;1971-1985;1988-1992;1997-2008	1970-2016	1950-2014	1970-2014	1966-2015
Egypt	1991-2008	1989-2014	1990-2012	1996-2015	1970-2016	1950-2014	1970-2014	1966-2015
El Salvador	1989-2016	1986-2014	1987-2012	1996-2015	1970-2016	1950-2014	1970-2014	1966-2015
Equatorial Guinea	Never			Never	1973-2016			1969-2015
Eritrea	Never			Never	1998-2016			1994-2015
Estonia	Always	Always	Always	1994-2015	1996-2016	1992-2014	1996-2014	1992-2015
Ethiopia	Never	Never	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
Fiji	Never	Never	Never	Never	1975-2016	1971-2007	1975-2007	1971-2015
Finland	1971-2016	1981-2014	1971-2014	1991-2004;2011-2012	1970-2016	1950-2014	1970-2014	1966-2015
France	1983-2016	Always	Always	1966-1967;1993-2015	1970-2016	1950-2014	1970-2014	1966-2015
Gabon	Never	1998-2014	Never	1967-1967	1970-2016	1963-2014	1970-2014	1966-2015
Gambia	1985-2016	Always	1985-2006	1991-2015	1971-2016	1967-2007	1971-2007	1967-2015
Georgia	Always	Always	Always	1996-2015	1996-2016	1992-2014	1996-2014	1992-2015
Germany	Always	Always	Always	1966-2004	1970-2016	1950-2014	1970-2014	1966-2015
Ghana	Never	2001-2014	Never	2006-2007	1970-2016	1957-2014	1970-2014	1966-2015
Greece	1990-2014	1980-2014	1987-2014	1996-2004	1970-2016	1950-2014	1970-2014	1966-2015
Grenada	Never			Never	1979-2016			1975-2015
Guatemala	1970-1978;1989-2016	1973-2014	1990-2014	1973-1979;1989-2015	1970-2016	1950-2014	1970-2014	1966-2015
Guinea	Never			1996-1996	1970-2016			1966-2015
Guinea-Bissau	Never			1996-1996	1981-2016			1977-2015
Guyana	1989-2016			1996-2015	1970-2016			1966-2015
Haiti	1971-1975;1991-2016	1991-2014	1990-2014	1966-1966;1996-2015	1970-2016	1950-2014	1970-2014	1966-2015
Honduras	1970-1975;1992-2003	1989-2014	1990-2014	1966-1979;1993-1995	1970-2016	1950-2014	1970-2014	1966-2015
Hong Kong	Always	Always	Always	Always	1970-2016	1950-2014	1970-2014	1966-2015
Hungary	1993-2016	1992-2014	1993-2014	2001-2004	1986-2016	1981-2014	1986-2014	1981-2015
Iceland	1988-2002	1992-2002	1989-2002	1996-1999	1970-2016	1950-2014	1970-2014	1966-2015
India	Never	Never	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
Indonesia	1972-2009	1970-1995;2008-2014	Always	1969-1995	1970-2016	1950-2014	1970-2014	1966-2015
Iran	2001-2016	Never	Never	1974-1977;1996-1996	1970-2016	1950-2014	1970-2014	1966-2015
Iraq	Never	Never	Never	2004-2011	1970-2002	1950-2014	1970-2002	1966-2015
Ireland	1983-2016	1970-2014	1973-2014	1992-2015	1970-2016	1950-2014	1970-2014	1966-2015

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Table A3 – *Continued from previous page*

Country	Chinn-Ito	Quinn-Toyoda	PseudoFKRSU	AREAER	Chinn-Ito Sample	Quinn-Toyoda Sample	PseudoFKRSU Sample	AREAER Sample
Israel	1992-2016	1991-2014	1991-2014	1998-1998;2000-2015	1970-2016	1950-2014	1970-2014	1966-2015
Italy	1982-2016	Always	1979-2014	1983-1985;1993-2015	1970-2016	1950-2014	1970-2014	1966-2015
Jamaica	1988-2016	1985-2014	1987-2012	1996-2006	1970-2016	1961-2014	1970-2014	1966-2015
Japan	1972-2016	1977-2014	1972-2014	1979-1994;1996-2004;2013-2015	1970-2016	1950-2014	1970-2014	1966-2015
Jordan	1992-2016	1992-2014	1991-2014	1997-2015	1970-2016	1950-2014	1970-2014	1966-2015
Kazakhstan	Never	2004-2014	Never	Never	1996-2016	1992-2014	1996-2014	1992-2015
Kenya	1992-2016	1990-2014	1991-2014	1996-2009	1970-2016	1963-2014	1970-2014	1966-2015
Kiribati	Always			1986-1999	1990-2005			1986-2015
Kosovo				Always				2009-2015
Kuwait	Always			1966-1995	1970-2016			1966-2015
Kyrgyz Republic	1997-2009	Always	Always	1996-2008	1997-2016	1992-2014	1997-2014	1992-2015
Laos	1970-1972	Never		1966-1973;1996-1997	1970-2016	1960-2007	1970-2007	1966-2015
Latvia	Always	Always	Always	1994-1997;1999-2015	1996-2016	1992-2014	1996-2014	1992-2015
Lebanon	Always	Always	Always	1966-1997	1970-2016	2000-2014	2000-2014	1966-2015
Lesotho	Never			Never	1972-2016			1968-2015
Liberia	1970-1985;1997-2015	Always	Always	1966-1984;1996-2015	1970-2016	1954-2014	1970-2014	1966-2015
Libya	Never	Never	Never	Never	1970-2016	1958-2014	1970-2014	1966-2015
Lithuania	Always	Always	Always	1993-1995;1997-2007;2015-2015	1996-2016	1992-2014	1996-2014	1992-2015
Luxembourg				1996-2005				1996-2015
Macedonia	2001-2016			Never	1997-2016			1993-2015
Madagascar	Never	Never	Never	1967-1967	1970-2016	1963-2014	1970-2014	1966-2015
Malawi	Never			Never	1970-2016			1966-2015
Malaysia	1970-1996	1985-1991;2009-2014	1970-1991	1973-1995	1970-2016	1957-2014	1970-2014	1966-2015
Maldives	Always			1978-1998;2002-2015	1982-2016			1978-2015
Mali	Never			Never	1970-2016			1966-2015
Malta	1998-2016	1996-2014	1997-2014	2004-2015	1972-2016	1968-2014	1972-2014	1968-2015
Marshall Islands	Always			Always	1996-2016			1992-2015
Mauritania	Never			1967-1967	1970-2016			1966-2015
Mauritius	1989-2016	1986-2014	1987-2012	1996-2011;2013-2015	1972-2016	1968-2014	1972-2014	1968-2015
Mexico	1970-1977;1990-2016	1988-2014	1989-2014	1966-1981	1970-2016	1950-2014	1970-2014	1966-2015
Micronesia	Always			Always	1996-2016			1992-2015
Moldova	Never			1994-1994	1996-2016			1992-2015
Mongolia	1996-2016			2008-2015	1995-2016			1991-2015
Montenegro				Always				2006-2015
Morocco	Never	Never	Never	Never	1970-2016	1958-2014	1970-2014	1966-2015
Mozambique	Never	Never	Never	Never	1988-2016	1983-2014	1988-2014	1984-2015
Myanmar	Never	Never	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
Namibia	Never			Never	1994-2016			1990-2015
Nauru				Always				2015-2015
Nepal	Never	Never	Never	1998-1998	1970-2016	1961-2014	1970-2014	1966-2015
Netherlands	Always	Always	Always		1970-2016	1950-2014	1970-2014	1966-2015

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Table A3 – *Continued from previous page*

Country	Chinn-Ito	Quinn-Toyoda	PseudoFKRSU	AREAER	Chinn-Ito Sample	Quinn-Toyoda Sample	PseudoFKRSU Sample	AREAER Sample
Netherlands Antilles	1970-1976;1995-2009			1966-1975	1970-2009			1966-2009
New Zealand	1975-2016	1975-2014	1976-2014	1984-2015	1970-2016	1950-2014	1970-2014	1966-2015
Nicaragua	1970-1973;1989-2016	1988-2014	1988-2014	1966-1977;1996-2015	1970-2016	1950-2014	1970-2014	1966-2015
Niger	Never			1967-1967;1995-1995	1970-2016			1966-2015
Nigeria	Never	2010-2014	Never	1997-1997;1999-2015	1970-2016	1960-2014	1970-2014	1966-2015
Norway	1986-2016	1979-2014	1980-2014	1995-2015	1970-2016	1950-2014	1970-2014	1966-2015
Oman	Always			Always	1977-2016			1973-2015
Pakistan	Never	Never	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
Palau				Always				1998-2015
Panama	Always	Always	Always	Always	1970-2016	1950-2014	1970-2014	1966-2015
Papua New Guinea	2002-2015			2007-2015	1979-2016			1975-2015
Paraguay	1990-2016	1986-2014	1986-2014	1982-1983;1996-2011;2013-2013	1970-2016	1950-2014	1970-2014	1966-2015
Peru	1989-2016	1986-2014	1986-2014	1966-1969;1978-1983;1993-2015	1970-2016	1950-2014	1970-2014	1966-2015
Philippines	1991-2001	1989-2012	1989-2012	1966-1968	1970-2016	1950-2014	1970-2014	1966-2015
Poland	2001-2014	1995-2014	1996-2014	Never	1986-2016	1985-2014	1986-2014	1986-2015
Portugal	1985-2016	1982-2014	1984-2014	1993-2004;2006-2015	1970-2016	1950-2014	1970-2014	1966-2015
Qatar	Always			Always	1976-2016			1972-2015
Romania	1997-2016	1995-2014	1996-2014	2003-2015	1976-2016	1972-2014	1976-2014	1972-2015
Russia	2002-2015	2000-2014	2001-2012	2009-2015	1996-2016	1992-2014	1996-2014	1992-2015
Rwanda	2006-2016	2004-2014	2004-2014	2010-2015	1970-2016	1960-2014	1970-2014	1966-2015
Saint Kitts and Nevis	Never			2013-2015	1988-2016			1986-2015
Saint Lucia	2003-2016			Never	1983-2016			1979-2015
Saint Vincent & Grenadines	Never			Never	1983-2016			1979-2015
Samoa	Never			Never	1975-2016			1971-2015
San Marino	Always			1992-1997	1996-2016			1992-2015
Sao Tome and Principe	1997-2014			1996-2015	1981-2016			1977-2015
Saudi Arabia	Always	Always	Always	1966-1995	1970-2016	1956-2014	1970-2014	1966-2015
Senegal	Never	1993-2014	Never	1967-1967	1970-2016	1961-2014	1970-2014	1966-2015
Serbia				Never				2006-2010
Seychelles	Always			1977-1995;1997-2003;2005-2015	1981-2016			1977-2015
Sierra Leone	Never	Never	Never	2000-2000	1970-2016	1961-2014	1970-2014	1966-2015
Singapore	1974-2016	Always	Always	1978-2015	1970-2016	1957-2014	1970-2014	1966-2015
Slovak Republic	2000-2016	Always	1998-2014	2002-2015	1996-2016	1990-2014	1996-2014	1992-2015
Slovenia	1997-2016	Always	Always	2003-2008	1996-2016	1992-2014	1996-2014	1992-2015
Solomon Islands	Never			1978-1979	1982-2016			1978-2015
Somalia	Never			2008-2015	1970-2007			1966-2015
South Africa	Never	2002-2014	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
South Korea	2000-2015	1988-2014	1995-2014	2007-2015	1970-2016	1954-2014	1970-2014	1966-2015
South Sudan								
Spain	1984-2016	1979-2014	1980-2014	1994-1996;1999-2004	1970-2016	1950-2014	1970-2014	1966-2015

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Table A3 – *Continued from previous page*

Country	Chinn-Ito	Quinn-Toyoda	PseudoFKRSU	AREAER	Chinn-Ito Sample	Quinn-Toyoda Sample	PseudoFKRSU Sample	AREAER Sample
Sri Lanka	1988-2002	Never	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
Sudan	Never	1994-2014	1998-2012	1999-2001;2010-2015	1970-2016	1955-2014	1970-2014	1966-2015
Suriname	Never	Never	Never	1996-1996;2001-2001	1970-2016	1960-2014	1970-2014	1966-2015
Swaziland	Never			Never	1973-2016			1969-2015
Sweden	Always	1972-2014	Always	1993-2004	1970-2016	1950-2014	1970-2014	1966-2015
Switzerland	Always	Always	Always	1992-2004	1996-2016	1950-2014	1996-2014	1992-2015
Syria	Never	1970-1970	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
Tajikistan	Never			Never	1997-2016			1993-2015
Tanzania	Never	Never	Never	Never	1970-2016	1961-2014	1970-2014	1966-2015
Thailand	Never	1986-1996;2012-2013	Never	Never	1970-2016	1950-2014	1970-2014	1966-2015
Timor				Always				2002-2015
Togo	Never			1967-1967	1970-2016			1966-2015
Tonga	2007-2016			1994-1994;1997-1999	1989-2016			1985-2015
Trinidad and Tobago	1988-2016	1988-2014	1988-2014	1994-2015	1970-2016	1962-2014	1970-2014	1966-2015
Tunisia	Never	Never	Never	Never	1970-2016	1956-2014	1970-2014	1966-2015
Turkey	2007-2016	1988-2012	1987-2012	Never	1970-2016	1950-2014	1970-2014	1966-2015
Turkmenistan	Never			Never	1996-2016			1992-2015
Tuvalu								
Uganda	1990-2016	1989-2014	1990-2014	1997-2015	1970-2016	1962-2014	1970-2014	1966-2015
Ukraine	Never	Never	Never	Never	1996-2016	1992-2014	1996-2014	1992-2015
United Arab Emirates	Always			Always	1976-2016			1972-2015
United Kingdom	1974-2016	1970-2014	1974-2014	1979-2015	1970-2016	1950-2014	1970-2014	1966-2015
United States	Always	Always	Always	1966-2007	1970-2016	1950-2014	1970-2014	1966-2015
Uruguay	1974-2016	Always	1973-2014	1966-1967;1978-1992;1996-2015	1970-2016	1950-2014	1970-2014	1966-2015
Uzbekistan	Never	Never	Never	Never	1996-2016	1992-2014	1996-2014	1992-2015
Vanuatu	Always			Always	1985-2000			1981-2015
Venezuela	1971-1978;1992-2001	1970-1977		1966-1983;1996-2001;2003-2005	1970-2016	1950-2014	1970-2014	1966-2015
Vietnam	Never	2012-2014	2012-2014	1996-1996	1970-2016	1956-2014	1970-2014	1966-2015
Yemen	Always			1996-2015	1995-2016			1990-2015
Yemen Arab Republic				1973-1989				1970-1989
Zambia	1991-2016	1988-2014	1989-2014	1996-2015	1970-2016	1963-2014	1970-2014	1966-2015
Zimbabwe	Never	Never	Never	Never	1984-2016	1979-2014	1984-2014	1980-2015

Note: This table presents the results of identifying the liberalizing years for each country, using the capital account openness measurements of Chinn-Ito, Quinn-Toyoda, pseudo FKRSU and the original AREAER. In the difference-in-difference analysis, we set several criteria in filtering the sample: (1) if the country has more than one period of liberalization, we treat them as separate observations if the second opening year is more than ten years after the first liberalization period ends, and we drop the countries when two periods happened within ten years; (2) we only keep the cases that the liberalization periods are longer than ten years; (3) we drop the cases where the opening year lies in the sample edge years (two years within the sample begin year); (4) we drop the always liberalized cases and we choose the control group in the countries that never liberalized their capital account.

Table A4: PSM Paired Control Countries

Treated Country	LIB Year	Control Country 1	Control Country 2	Control Country 3	Control Country 4	Control Country 5
				Chinn-Ito		
Argentina	1988	Mauritania	Comoros	Brazil	Papua New Guinea	Algeria
Australia	1978	Israel	Mexico	Greece	South Korea	Chile
Bolivia	1988	Comoros	Brazil	Papua New Guinea	Mauritania	Thailand
Botswana	1994	Samoa	Solomon Islands	Swaziland	Tunisia	Mauritania
Brazil	2000	Congo	South Africa	Fiji	Namibia	Suriname
Bulgaria	2000	Suriname	Namibia	Congo	Colombia	South Africa
Cambodia	1999	Bangladesh	Nepal	India	Pakistan	Tanzania
Costa Rica	1990	Colombia	South Africa	Swaziland	Thailand	Papua New Guinea
Croatia	1999	South Africa	Fiji	Grenada	Namibia	Suriname
Cyprus	1998	Bahamas	Barbados	Thailand	Grenada	Fiji
Denmark	1981	Israel	South Korea	Chile	Slovak Republic	Poland
Dominican Republic	1999	Gabon	Suriname	Namibia	Vietnam	Belize
Ecuador	1994	Fiji	Colombia	Namibia	South Africa	Thailand
Egypt	1991	Zimbabwe	Pakistan	Congo	Algeria	Mauritania
El Salvador	1989	Equatorial Guinea	Brazil	Tunisia	Fiji	Papua New Guinea
France	1983	South Korea	Chile	Poland	Slovak Republic	
Gambia	1985	Sierra Leone	Morocco	Bhutan	Benin	Central African Republic
Guatemala	1989	Equatorial Guinea	Papua New Guinea	Thailand	Brazil	Algeria
Guyana	1989	Brazil	Equatorial Guinea	Papua New Guinea	Thailand	Tunisia
Honduras	1992	Fiji	Algeria	Tunisia	Congo	Thailand
Iceland	1988	South Korea	Slovak Republic	Poland		
Iran	2001	Tunisia	Samoa	Algeria	Cape Verde	Vietnam
Ireland	1983	South Korea	Chile	Slovak Republic	Poland	
Italy	1982	South Korea	Chile	Slovak Republic	Hungary	Poland
Jamaica	1988	South Africa	Grenada	Colombia	Dominican Republic	Suriname
Jordan	1992	Gabon	Madagascar	Cameroon	Tanzania	India
Kenya	1992	Vietnam	Senegal	Ghana	Comoros	Guinea
Liberia	1997	Mozambique	Malawi	Morocco	Sierra Leone	Chad
Macedonia	2001	Namibia	Suriname	Congo	Belize	South Africa
Malta	1998	Bahamas	Barbados	Thailand	Grenada	Fiji
Mauritius	1989	Swaziland	Belize	South Africa	Colombia	Bahamas
Nicaragua	1989	Cape Verde	Guinea	Comoros	Pakistan	Vietnam
Norway	1986	South Korea	Poland	Slovak Republic		
Papua New Guinea	2002	China	Moldova	Cote d'Ivoire	Ukraine	Benin
Peru	1989	Guinea	Cape Verde	Comoros	Vietnam	Pakistan
Philippines	1991	Zimbabwe	Comoros	Pakistan	Cape Verde	Vietnam
Portugal	1985	South Korea	Slovak Republic	Poland		
Romania	1997	Samoa	Ukraine	Belarus	Vietnam	Solomon Islands
Russia	2002	Vietnam	Tunisia	Cape Verde	Nigeria	Cote d'Ivoire
Rwanda	2006	Niger	Burkina Faso	Malawi	Central African Republic	Burundi
Saint Lucia	2003	Belize	Swaziland	South Africa	Suriname	Namibia
Spain	1984	Chile	South Korea	Poland	Slovak Republic	

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Table A4 – *Continued from previous page*

Treated Country	LIB Year	Control Country 1	Control Country 2	Control Country 3	Control Country 4	Control Country 5
Sri Lanka	1988	Comoros	Brazil	Mauritania	Cape Verde	Papua New Guinea
Trinidad and Tobago	1988	Swaziland	Colombia	South Africa	Dominican Republic	Thailand
Uganda	1990	Benin	Burkina Faso	Sudan	Central African Republic	Rwanda
			Quinn-Toyoda			
Argentina	1985	Pakistan	Bangladesh	Morocco	Bahamas	Fiji
Australia	1977	Iceland	Mexico	Turkey	Israel	South Korea
Azerbaijan	2001	Morocco	Sierra Leone	Myanmar	Burkina Faso	Mozambique
Brazil	2002	Tunisia	Suriname	Algeria	Libya	Sri Lanka
Bulgaria	1995	Tunisia	Fiji	Sri Lanka	Cote d'Ivoire	Algeria
Cambodia	1998	Pakistan	Bangladesh	Nepal	Cote d'Ivoire	India
Colombia	1988	Algeria	South Africa	Sri Lanka	Tunisia	Suriname
Costa Rica	1988	Tunisia	Pakistan	Brazil	South Africa	Morocco
Cyprus	1996	Bahamas	Barbados	Congo	Sri Lanka	Algeria
Dominican Republic	1982	Sri Lanka	Tunisia	Brazil	Fiji	Algeria
Ecuador	1985	Sri Lanka	Algeria	South Africa	Tunisia	Suriname
Egypt	1989	Tunisia	Pakistan	Brazil	Cote d'Ivoire	Sri Lanka
El Salvador	1986	China	Bangladesh	Cote d'Ivoire	Rwanda	Congo
Finland	1981	Iceland	Chile	Hungary	Poland	
Gabon	1998	Barbados	Sri Lanka	Tunisia	Congo	Algeria
Ghana	2001	Tunisia	Sri Lanka	Algeria	Suriname	Congo
Greece	1980	Israel	Iceland	Chile	Poland	Hungary
Honduras	1989	Tunisia	Brazil	Pakistan	Sri Lanka	Algeria
Jamaica	1985	Sri Lanka	South Africa	Algeria	Tunisia	Suriname
Japan	1977	Mexico	Turkey	Iceland	Israel	South Korea
Jordan	1992	Tanzania	Madagascar	Bangladesh	Pakistan	China
Kazakhstan	2004	Cote d'Ivoire	Sri Lanka	Congo	Iran	China
Kenya	1990	Cote d'Ivoire	Pakistan	Brazil	Tunisia	Bangladesh
Malta	1996	Bahamas	Barbados	Congo	Sri Lanka	Algeria
Mauritius	1986	Pakistan	Bahamas	Brazil	Cote d'Ivoire	Morocco
Nicaragua	1988	India	Madagascar	Bangladesh	Fiji	Cote d'Ivoire
Norway	1979	Iceland	Israel	Chile	Hungary	Poland
Peru	1986	China	Sierra Leone	Zimbabwe	Morocco	Fiji
Philippines	1989	Sierra Leone	China	Burkina Faso	Rwanda	India
Romania	1995	Pakistan	Tanzania	Nepal	Bangladesh	Suriname
Russia	2000	Cote d'Ivoire	Bangladesh	Pakistan	China	Tanzania
Rwanda	2004	Mozambique	Myanmar	Sierra Leone	Burkina Faso	Zimbabwe
Senegal	1993	Bangladesh	Tanzania	Fiji	Pakistan	Cote d'Ivoire
South Africa	2002	Tunisia	Suriname	Algeria	Sri Lanka	Barbados
Spain	1979	Iceland	Israel	Chile	Hungary	Poland
Sudan	1994	Mozambique	Laos	Burkina Faso	Sierra Leone	Iran
Thailand	1986	Algeria	Suriname	Sri Lanka	South Africa	Tunisia
Trinidad and Tobago	1988	Tunisia	Pakistan	Brazil	South Africa	Sri Lanka
Uganda	1989	Burkina Faso	Rwanda	Nepal	Sierra Leone	China
			Pseudo FKRSU			

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Table A4 – *Continued from previous page*

Treated Country	**LIB Year**	**Control Country 1**	**Control Country 2**	**Control Country 3**	**Control Country 4**	**Control Country 5**
Argentina	1985	Pakistan	Bangladesh	Senegal	Congo	Morocco
Australia	1977	Iceland	Israel	Mexico	South Korea	Chile
Azerbaijan	2004	Belarus	Thailand	Uzbekistan	Morocco	China
Bolivia	1988	Sri Lanka	Algeria	South Africa	Brazil	Pakistan
Botswana	1989	Thailand	South Africa	Suriname	Algeria	Venezuela
Brazil	2002	Congo	South Africa	Suriname	Tunisia	Venezuela
Bulgaria	1998	Gabon	Tunisia	South Africa	Sri Lanka	Congo
Cambodia	1998	China	Pakistan	Nepal	Bangladesh	Cote d'Ivoire
Colombia	1991	South Africa	Bahamas	Sri Lanka	Thailand	Venezuela
Costa Rica	1988	Brazil	Tunisia	Sri Lanka	Pakistan	South Africa
Cyprus	1997	Bahamas	Thailand	Barbados	Fiji	Sri Lanka
Dominican Republic	1997	Nigeria	China	Bangladesh	Suriname	Laos
Ecuador	1986	South Africa	Sri Lanka	Algeria	Dominican Republic	Thailand
Egypt	1990	Pakistan	Brazil	Algeria	Sri Lanka	Tunisia
El Salvador	1987	Laos	Bangladesh	Pakistan	Brazil	Tunisia
Gambia	1985	Morocco	Senegal	Zimbabwe	Sierra Leone	Fiji
Guatemala	1990	Algeria	Sri Lanka	Thailand	Brazil	Pakistan
Honduras	1990	Sri Lanka	Brazil	Algeria	Pakistan	South Africa
Italy	1979	Israel	South Korea	Chile	Poland	Hungary
Jamaica	1987	Thailand	South Africa	Venezuela	Algeria	Suriname
Jordan	1991	Laos	Morocco	China	Sierra Leone	Burkina Faso
Kenya	1991	Zimbabwe	Bangladesh	Pakistan	India	Madagascar
Malta	1997	Bahamas	Thailand	Barbados	Congo	Fiji
Mauritius	1987	Brazil	Pakistan	Algeria	Laos	Sri Lanka
Nicaragua	1988	India	Madagascar	Laos	Bangladesh	Zimbabwe
Norway	1980	Israel	South Korea	Chile	Poland	Hungary
Peru	1986	China	Tunisia	Zimbabwe	Brazil	Sierra Leone
Philippines	1989	Morocco	China	Sierra Leone	Cote d'Ivoire	Nepal
Portugal	1984	South Korea	Poland			
Romania	1996	Uzbekistan	Cameroon	Ukraine	Pakistan	India
Russia	2001	India	Tanzania	Nepal	Pakistan	Madagascar
Rwanda	2004	Mozambique	Myanmar	Burkina Faso	Gabon	Libya
Spain	1980	Israel	South Korea	Chile	Poland	Hungary
Sudan	1998	Ukraine	Uzbekistan	Burkina Faso	China	Zimbabwe
Trinidad and Tobago	1988	Brazil	South Africa	Sri Lanka	Pakistan	Tunisia
Uganda	1990	Morocco	Sierra Leone	Burkina Faso	Rwanda	Nigeria
				AREAER		
Armenia	1996	Mali	India	Bangladesh	Bhutan	Tanzania
Australia	1984	Norway	Israel	Turkey	Slovak Republic	Poland
Austria	1991	Turkey	Slovak Republic	Poland		
Botswana	1998	Algeria	Ecuador	Colombia	Macedonia	Tunisia
Bulgaria	2003	Swaziland	Macedonia	Thailand	Namibia	Fiji
Cambodia	2001	India	Uzbekistan	Mali	Bangladesh	Tanzania
Costa Rica	1995	Saint Lucia	Grenada	Venezuela	Namibia	Kazakhstan

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Table A4 – *Continued from previous page*

Treated Country	LIB Year	Control Country 1	Control Country 2	Control Country 3	Control Country 4	Control Country 5
Denmark	1988	Israel	Turkey	Poland	Slovak Republic	Latvia
Ecuador	1997	Honduras	Venezuela			
Egypt	1996	Nicaragua	Zimbabwe	Eritrea	Cape Verde	Pakistan
El Salvador	1996	Tunisia	Ukraine	Honduras	Algeria	Samoa
Finland	1991	Turkey	Slovak Republic	Poland		
France	1993	Mexico	Turkey	Poland		
Gambia	1991	Bhutan	Bangladesh	Burundi	India	Morocco
Georgia	1996	Comoros	Pakistan	Zimbabwe	Eritrea	Nicaragua
Guatemala	1989	Angola	Thailand	Equatorial Guinea	Algeria	Sri Lanka
Guyana	1996	Venezuela	Barbados	Saint Lucia	Grenada	Kazakhstan
Ireland	1992	Mexico	Turkey	Poland		
Israel	2000	Poland	Mexico	Turkey		
Italy	1993	Mexico	Turkey	Poland		
Jamaica	1996	Venezuela	Saint Lucia	Grenada	Kazakhstan	Fiji
Japan	1979	Italy	Finland	Ireland	France	Israel
Jordan	1997	India	Tanzania	Mali	Uzbekistan	Bhutan
Kenya	1996	India	Mali	Tanzania	Comoros	Tajikistan
Kyrgyz Republic	1996	Tajikistan	Comoros	Uzbekistan	Mali	India
Latvia	1999	Turkey	Mexico	Poland		
Malta	2004	Bahamas	Barbados	Saint Lucia	Venezuela	Grenada
Mauritius	1996	Grenada	Saint Lucia	Thailand	Fiji	Venezuela
New Zealand	1984	Israel	Norway	Turkey	Latvia	Poland
Nicaragua	1996	Honduras	Venezuela			
Nigeria	1999	Nicaragua	Cape Verde	Zimbabwe	China	Ukraine
Norway	1995	Mexico	Turkey	Poland		
Paraguay	1996	Fiji	Thailand	South Africa	Kazakhstan	Namibia
Peru	1993	Sri Lanka	Nicaragua	Zimbabwe	Turkmenistan	Cape Verde
Portugal	1993	Mexico	Turkey	Poland		
Romania	2003	Thailand	Fiji	Swaziland	South Africa	Kazakhstan
Singapore	1978	Malta	Bahamas	Trinidad and Tobago	Costa Rica	South Africa
Slovak Republic	2002	Poland	Mexico	Turkey		
Sweden	1993	Mexico	Turkey	Poland		
Switzerland	1992	Mexico	Turkey	Poland		
Trinidad and Tobago	1994	Saint Lucia	Venezuela	Grenada	Macedonia	Kazakhstan
Uganda	1997	Burundi	Morocco	Liberia	Mozambique	Malawi
United Kingdom	1979	Italy	Ireland	Finland	Israel	France
Yemen	1996	Uzbekistan	Tajikistan	Eritrea	Comoros	China
Zambia	1996	Eritrea	Zimbabwe	Nicaragua	Pakistan	China

Note: This table shows the paired treated country and control countries in the difference-in-difference analysis using the propensity score matching. LIB Year is the identified liberalization year for the treated country. Country 1-5 are control countries ranked according to their proximity scores with the treated country. The first country is the one most similar to the treated country in the five years before the liberalization year.

Table A5: Discussion: Inward and Outward Capital Account Liberalization (DID-PSM)

	Gini		Bottom 50%		Middle 40%		Top 10%	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward
POST	2.585***	2.056***	-1.396***	-1.195	-1.654***	-1.701	3.049***	2.896**
	(0.050)	(0.589)	(0.275)	(0.755)	(0.329)	(1.173)	(0.496)	(1.254)
TREATED	2.585	-0.773	-0.697	2.398	-1.191	-2.847	1.888	0.442
	(1.982)	(0.844)	(2.680)	(4.424)	(1.658)	(5.999)	(3.955)	(9.848)
POST × TREATED	0.715***	0.006	-3.127**	-0.440	-3.540**	-1.337	6.667**	1.779
	(0.147)	(0.836)	(1.019)	(1.423)	(1.193)	(1.920)	(1.876)	(2.889)
GDP per capita	-0.185**	-0.133	-1.692*	1.682	-2.172*	1.684	3.864***	-3.365
	(0.040)	(0.413)	(0.705)	(2.691)	(1.092)	(2.504)	(0.915)	(5.030)
GDP per capita Square	-33.658***	12.664	123.482*	-103.750	152.777*	-102.485	-276.233***	206.224
	(1.929)	(12.211)	(59.963)	(178.264)	(70.813)	(171.422)	(60.911)	(341.972)
Inflation	-0.040	-0.180	-0.470	-0.237	-0.474	-0.414	0.944	0.651
	(0.026)	(0.147)	(0.559)	(0.204)	(0.452)	(0.285)	(0.987)	(0.440)
Private Credit	-1.052	-1.135	-2.880	-10.311	-2.579	-11.066	5.459	21.371
	(2.299)	(5.633)	(2.511)	(6.500)	(3.116)	(7.812)	(4.908)	(13.978)
Unemployment	-0.025	-0.060	0.146*	0.179	0.179*	0.243*	-0.325*	-0.422*
	(0.035)	(0.109)	(0.066)	(0.114)	(0.086)	(0.111)	(0.139)	(0.214)
Liquidity	0.028	-0.029	0.011	0.080	0.007	0.070	-0.017	-0.150
	(0.023)	(0.042)	(0.045)	(0.096)	(0.081)	(0.095)	(0.116)	(0.186)
Education	-0.012	-0.017	0.022	0.015	0.038	0.027	-0.060	-0.043
	(0.019)	(0.029)	(0.035)	(0.020)	(0.023)	(0.027)	(0.058)	(0.042)
Government Consumption	-0.104***	-0.065	0.069	-0.129	-0.415	-0.395	0.346	0.524
	(0.011)	(0.194)	(0.199)	(0.212)	(0.325)	(0.270)	(0.393)	(0.458)
Urbanization	0.047***	0.045	0.069	-0.169	0.130**	-0.195	-0.199**	0.364
	(0.005)	(0.042)	(0.068)	(0.134)	(0.038)	(0.120)	(0.060)	(0.244)
Age Dependency	0.151***	0.093	-0.149	-0.150	-0.115	-0.188	0.264**	0.338
	(0.004)	(0.067)	(0.082)	(0.097)	(0.065)	(0.119)	(0.102)	(0.213)
Trade Openness	-0.064***	0.005	-0.088**	-0.045	-0.063**	-0.018	0.151***	0.062
	(0.002)	(0.034)	(0.027)	(0.036)	(0.018)	(0.054)	(0.040)	(0.076)
Constant	38.805***	41.791***	28.881**	32.420***	50.930***	61.580***	20.189	6.007
	(1.975)	(5.987)	(10.755)	(9.002)	(8.252)	(11.791)	(17.087)	(20.601)
Observations	100	96	56	55	56	55	56	55
R^2	0.921	0.630	0.888	0.885	0.873	0.847	0.893	0.878
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the propensity score matching. The dependent variables are the Gini coefficients, the income share of the bottom 50%, middle 40% and top 10%. The column titles "Inward" and "Outward" indicate that the POST and TREATED are constructed using the pseudo FKRSU inward or outward capital account openness index. POST is a dummy with 1 indicating the ten years after the inward or outward capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced an inward or outward capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table A6: Discussion: Capital Account Liberalization of Different Categories of Capital Transactions (DID-PSM)

	Gini				Bottom 50%				Middle 40%				Top 10%			
	(1) Equity	(2) Bond	(3) FDI	(4) Other	(5) Equity	(6) Bond	(7) FDI	(8) Other	(9) Equity	(10) Bond	(11) FDI	(12) Other	(13) Equity	(14) Bond	(15) FDI	(16) Other
POST	1.028	1.269	2.564***	2.709***	-1.369	-0.166	-0.442	-1.021	-1.048	-0.838	-0.428	-0.812	2.416	1.004	0.869	1.834
	(0.594)	(0.302)	(0.088)	(0.045)	(0.976)	(0.859)	(1.295)	(1.105)	(1.209)	(1.034)	(1.527)	(0.727)	(1.951)	(1.726)	(2.596)	(1.700)
TREATED	-1.022	-2.465*	3.108	3.294**	-9.000**	12.202***	-2.511	6.594**	-7.924*	-0.407	-1.767	2.792	16.924**	-11.800	4.277	-9.386
	(0.900)	(0.302)	(1.692)	(1.139)	(3.244)	(4.318)	(2.284)	(2.330)	(4.019)	(5.200)	(2.692)	(3.104)	(6.484)	(8.680)	(4.578)	(5.397)
POST × TREATED	1.116*	0.499*	0.451	0.702***	-4.825**	-3.960*	-1.526	-2.397*	-2.158	-4.265*	-1.137	-3.670**	6.984*	8.225**	2.663	6.067**
	(0.565)	(0.050)	(0.257)	(0.107)	(1.808)	(1.972)	(1.217)	(1.013)	(2.240)	(2.375)	(1.434)	(1.068)	(3.613)	(3.965)	(2.439)	(1.952)
GDP per capita	-0.618	-0.525**	0.267	-0.188***	-2.052	-1.301	-3.349	0.733	-1.141	-0.948	-1.669	1.491	3.194	2.248	5.018	-2.222
	(0.398)	(0.032)	(0.162)	(0.014)	(2.407)	(0.991)	(2.113)	(3.056)	(2.982)	(1.194)	(2.491)	(3.681)	(4.811)	(1.993)	(4.236)	(6.698)
GDP per capita Square	27.482**	21.551	-38.499***	-36.146***	174.941	138.652	188.408	-32.776	57.472	78.879	60.510	-79.493	-232.383	-217.487	-248.902	112.147
	(11.881)	(3.757)	(3.992)	(3.198)	(110.212)	(83.776)	(115.875)	(207.053)	(136.563)	(100.891)	(136.564)	(250.778)	(220.309)	(168.423)	(232.219)	(456.293)
Inflation	-0.094	-0.058	-0.037	0.003	-0.555	-0.202	-0.259	-0.299	-0.278	-0.501	-0.035	-0.574	0.832	0.703	0.295	0.873
	(0.108)	(0.153)	(0.053)	(0.017)	(0.527)	(0.359)	(0.232)	(0.203)	(0.653)	(0.432)	(0.274)	(0.354)	(1.053)	(0.721)	(0.466)	(0.551)
Private Credit	-2.581	-2.228	-2.475	-2.786*	9.298	-4.939	5.828	-4.336	-4.851	-3.562	-3.209	-4.391	-4.444	8.500	-2.617	8.727
	(4.602)	(5.348)	(6.805)	(1.170)	(5.867)	(3.393)	(6.592)	(3.932)	(7.270)	(4.086)	(7.769)	(5.063)	(11.728)	(6.820)	(13.211)	(8.963)
Unemployment	-0.044	0.007	0.039	-0.002	0.039	0.085	-0.145	0.199**	0.006	0.099	-0.141	0.262**	-0.045	-0.183	0.286	-0.461**
	(0.067)	(0.011)	(0.047)	(0.019)	(0.151)	(0.098)	(0.114)	(0.067)	(0.187)	(0.118)	(0.135)	(0.084)	(0.302)	(0.197)	(0.229)	(0.151)
Liquidity	-0.029	-0.038	0.061	0.046**	-0.130*	0.011	-0.098	0.002	-0.008	0.032	-0.022	0.001	0.138	-0.043	0.120	-0.003
	(0.037)	(0.025)	(0.060)	(0.011)	(0.060)	(0.040)	(0.070)	(0.046)	(0.075)	(0.049)	(0.083)	(0.051)	(0.121)	(0.081)	(0.141)	(0.095)
Education	-0.030	-0.013	-0.006	0.024	0.034	-0.010	-0.087*	0.003	0.009	0.031	-0.057	0.027	-0.042	-0.021	0.145	-0.030
	(0.022)	(0.029)	(0.052)	(0.013)	(0.061)	(0.028)	(0.041)	(0.021)	(0.075)	(0.034)	(0.049)	(0.022)	(0.121)	(0.056)	(0.083)	(0.041)
Government Consumption	-0.107	-0.098	-0.268***	-0.090***	-0.049	0.177	-0.029	0.032	0.047	-0.220	-0.154	-0.415**	0.002	0.043	0.183	0.383
	(0.091)	(0.025)	(0.020)	(0.004)	(0.381)	(0.175)	(0.413)	(0.140)	(0.472)	(0.210)	(0.487)	(0.167)	(0.761)	(0.351)	(0.828)	(0.268)
Urbanization	0.093*	0.079**	0.017	0.045***	0.285*	-0.008	0.344*	-0.108	0.146	0.055	0.206	-0.142	-0.432	-0.047	-0.549	0.250
	(0.045)	(0.002)	(0.021)	(0.004)	(0.134)	(0.060)	(0.164)	(0.142)	(0.165)	(0.072)	(0.193)	(0.188)	(0.267)	(0.121)	(0.329)	(0.329)
Age Dependency	0.032	0.012	0.168***	0.180***	-0.039	-0.117	0.072	-0.176*	0.027	-0.105	0.146	-0.163*	0.012	0.221	-0.218	0.340*
	(0.066)	(0.047)	(0.013)	(0.004)	(0.106)	(0.070)	(0.094)	(0.079)	(0.132)	(0.084)	(0.111)	(0.079)	(0.212)	(0.140)	(0.189)	(0.154)
Trade Openness	0.031	0.014	-0.080***	-0.071***	0.025	-0.094***	0.097*	-0.074	0.101*	-0.067**	0.116*	-0.072**	-0.126	0.161***	-0.213*	0.145*
	(0.031)	(0.023)	(0.001)	(0.000)	(0.044)	(0.026)	(0.054)	(0.039)	(0.055)	(0.031)	(0.063)	(0.028)	(0.089)	(0.052)	(0.108)	(0.065)
Constant	45.983***	47.961*	38.578***	32.760***	12.603	27.363***	10.265	33.627***	28.876*	49.225***	27.041*	59.751***	58.510**	23.407	62.687**	6.630
	(6.792)	(5.890)	(3.178)	(1.490)	(12.154)	(6.817)	(12.642)	(8.380)	(15.060)	(8.210)	(14.899)	(8.486)	(24.296)	(13.705)	(25.335)	(16.629)
Observations	99	99	101	101	57	53	62	57	57	53	62	57	57	53	62	57
R^2	0.654	0.626	0.937	0.923	0.991	0.895	0.983	0.867	0.985	0.864	0.977	0.845	0.990	0.890	0.982	0.856
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the propensity score matching. The dependent variables are the Gini coefficients, the income share of the bottom 50%, middle 40% and top 10%. The column titles "Equity', "Bond", "FDI" and "Other" indicate that the POST and TREATED are constructed using the pseudo FKRSU capital account openness index of equity market, bond market, foreign direct investment or other investment. POST is a dummy with 1 indicating the ten years after the equity market, bond market, foreign direct investment or other investment capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced an equity market, bond market, foreign direct investment or other investment capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

Table A7: Robustness Check: Other Gini Measurements (DID-PSM)

	Gini-WDI			Gini-SWIID			Gini-WIID		
	(1) Chinn-Ito	(2) Quinn-Toyoda	(3) Pseudo FKRSU	(4) Chinn-Ito	(5) Quinn-Toyoda	(6) Pseudo FKRSU	(7) Chinn-Ito	(8) Quinn-Toyoda	(9) Pseudo FKRSU
POST	1.229	0.805**	1.009	-0.320	-0.068	-0.062	2.552	6.639	0.498
	(1.186)	(0.215)	(0.346)	(0.356)	(0.220)	(0.207)	(1.020)	(4.032)	(1.014)
TREATED	4.388*	2.773***	4.016***	0.544	1.077	1.375	0.819	9.514	5.741
	(2.418)	(0.509)	(0.026)	(2.029)	(0.885)	(1.081)	(2.159)	(6.280)	(3.289)
POST $\times$ TREATED	3.303*	2.143***		0.703**	0.820***		2.289**	-2.360	
	(1.569)	(0.232)		(0.225)	(0.116)		(0.115)	(6.107)	
GDP per capita	4.113**	1.155	-0.566**	0.324	1.097	-1.586*	-0.607	-0.391	-0.571
	(1.479)	(0.990)	(0.037)	(0.576)	(0.641)	(0.241)	(0.446)	(2.232)	(0.659)
GDP per capita Square	-407.726***	-140.119*	21.254	-14.203	-88.364*	96.165*	42.779	71.274	65.633
	(132.382)	(64.538)	(11.333)	(35.795)	(40.130)	(12.519)	(32.351)	(84.523)	(24.476)
Inflation	-0.537	1.211***	-0.040	0.034	0.166	-0.191*	0.052	0.125	0.262
	(0.471)	(0.133)	(0.272)	(0.034)	(0.105)	(0.028)	(0.032)	(0.307)	(0.156)
Private Credit	13.072***	-4.577*	15.308**	2.839***	0.756	7.822*	31.826*	24.907***	24.581
	(2.648)	(1.942)	(0.794)	(0.354)	(2.854)	(0.990)	(3.682)	(7.455)	(6.799)
Unemployment	-0.160	0.012	-0.172	0.007	-0.007	0.009**	0.356	0.476	0.184
	(0.140)	(0.110)	(0.181)	(0.028)	(0.018)	(0.001)	(0.129)	(0.337)	(0.169)
Liquidity	-0.142	0.062**	-0.101	-0.016	0.036	-0.081*	-0.300*	-0.230**	-0.240
	(0.095)	(0.021)	(0.033)	(0.008)	(0.029)	(0.011)	(0.034)	(0.098)	(0.051)
Education	0.128**	-0.069***	0.098	0.042	0.043	0.040	0.192	0.207*	0.165
	(0.047)	(0.013)	(0.036)	(0.020)	(0.042)	(0.015)	(0.041)	(0.106)	(0.227)
Government Consumption	0.651**	0.593**	0.655**	0.082**	0.035	-0.069*	0.059	0.184	0.064
	(0.225)	(0.150)	(0.023)	(0.029)	(0.101)	(0.008)	(0.294)	(0.510)	(0.245)
Urbanization	-0.063	0.094*	0.153	0.069***	0.098**	0.102*	0.105	-0.154	-0.073
	(0.051)	(0.041)	(0.025)	(0.011)	(0.028)	(0.015)	(0.090)	(0.158)	(0.060)
Age Dependency	0.283**	0.090***	0.270*	-0.006	0.084***	-0.052	0.236*	0.273*	0.167
	(0.121)	(0.018)	(0.038)	(0.054)	(0.005)	(0.035)	(0.034)	(0.142)	(0.059)
Trade Openness	-0.016	0.008	-0.004	0.001	-0.018***	-0.031	-0.015	-0.102	-0.015
	(0.026)	(0.012)	(0.004)	(0.004)	(0.003)	(0.006)	(0.088)	(0.070)	(0.036)
Constant	-0.959	23.346***	-3.275	37.186***	26.939***	46.522**	-0.824	0.618	14.949
	(12.916)	(4.399)	(5.336)	(3.313)	(5.712)	(1.102)	(10.887)	(12.765)	(30.681)
Observations	113	75	90	131	94	98	50	33	41
R^2	0.765	0.994	0.884	0.991	0.992	0.991	0.680	0.742	0.575
Country-FE	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the difference-in-difference results using the propensity score matching. The dependent variables are the alternative Gini coefficients from WDI, SWIID and WIID. The column titles "Chinn-Ito", "Quinn-Toyoda" and "Pseudo FKRSU" indicate that the POST and TREATED are constructed using the respective capital account openness indices. POST is a dummy with 1 indicating the ten years after the capital account liberalization and 0 the ten years before the liberalization. TREATED is a dummy indicating the country has experienced a capital account liberalization episode which is longer than ten years and satisfies the filtering criteria described in Section 3.2.2. The control variables are expressed as the average in the ten years before and after the liberalization. To have a concise expression, we multiple the GDP per capita and its squared term by 1000.

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