Domestic Inequality and Global Imbalances*

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Abstract

We document a robust positive relationship between income inequality and current account balances. In advanced economies, a one percentage point increase in the top 1 percent's income share is associated with a 0.8 percentage point higher current account balance. This relation is driven by inequality in permanent income and operates through higher private saving rather than reduced investment. We rationalize these findings using a tractable two-country heterogeneous agent model with non-homothetic preferences. The model predicts capital flows from unequal to equal countries and helps explain the observed co-movement between inequality and global imbalances since the 1980s.

Keywords: Inequality, Global imbalances, Capital flows

JEL Codes: F32, F41, F62, E21

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1 Introduction

Since the 1990s, the global economy has experienced a sharp rise in within-country income inequality and a widening of current account imbalances. The share of income held by the top 1 percent has increased by nearly 40 percent, while financial liberalization has coincided with external imbalances reaching levels unprecedented in modern international monetary history (Eichengreen, 2008).

Rising income inequality has been proposed as a key driver of major macro-financial trends, including the secular decline in interest rates, the accumulation of excess savings, and the heightened risk of financial crises (Straub, 2019; Mian et al., 2021a; Kumhof et al., 2015). According to the prevailing view in this literature, inequality affects macroeconomic aggregates by raising the domestic demand for savings. Yet this focus has largely excluded the open-economy dimension and remains silent on where these savings flow – domestically, or abroad. This gap raises a fundamental question: does domestic inequality help explain international capital flows?[1]

This paper answers affirmatively: income inequality plays a central role in shaping global capital flows. We document that higher income inequality is systematically associated with larger current account balances, particularly in advanced economies. This association reflects a simple pattern: greater inequality raises aggregate saving, which, in the absence of offsetting investment, produces external surpluses.

We formalize this mechanism in a tractable theoretical framework, characterized by heterogeneous households with non-homothetic preferences. The key feature of the model is that saving rates rise with permanent income, so that greater income concentration leads to higher aggregate saving and, under capital mobility, capital outflows. In this way, our framework extends existing theories on the macroeconomic consequences of inequality to an open-economy setting and highlights how income concentration shapes a country's external position. It also sheds light on a range of empirical patterns, such as the role of increased financial liberalisation in fostering cross-border capital flows, the decoupling of inequality and global imbalances after the Global Financial Crisis, and the apparent disconnect between income inequality and the current account in the United States.

The first contribution of the paper is empirical and consists of a set of new facts. The first fact we document is a positive co-movement between domestic income inequality and the current account. Using cross-country panel regressions, we find that a one percentage point increase in the share of income earned by the top 1 percent is associated with a 0.8 percentage point higher current account balance for advanced economies. We obtain qualitatively similar estimates using other measures of income inequality, such as the share of income accruing to the top 10 percent, or the Gini index. Quantitatively, however, it is primarily income concentration at the very top that matters for the current account balance.

To shed light on the channels through which income inequality affects current accounts,

[1] Or, put more provocatively: "Are trade wars class wars?" (Klein and Pettis, 2020).

we decompose the current account into domestic savings and investment and find that the correlation mainly operates through the saving rate. Investment, in contrast, does not show any comparable co-movement with the concentration of income. This evidence is in line with savings-driven theories of current account dynamics (Coeurdacier et al., 2015). We also document that it is primarily private as opposed to public savings that co-move with inequality.

Our first fact stands in contrast to the existing evidence on income inequality and current accounts. Previous studies find that rising income inequality induces current account deficits while we find that it prompts surpluses (Behringer and Van Treeck, 2018; De Ferra et al., 2021; Kumhof et al., 2024). In light of this difference, we conduct an extensive set of robustness checks and show that our results are largely unaffected by, amongst others, the choice of inequality measure, country sample, or the sample period. Methodologically, whereas previous studies relied largely on between-country variation, our analysis exploits within-country variation by controlling for unobserved, time-invariant country characteristics which turn out to be critical for the configuration of current accounts.

Our second empirical contribution examines the underlying sources of income inequality and their relevance for external imbalances. To this end, we perform a statistical decomposition of income inequality into its permanent and transitory component. In principle, rising inequality may reflect either changes in the distribution of permanent income – such as shifts in skills or returns to skills – or increases in income risk. Distinguishing between these two sources is important as they have different implications for household behavior and policy.[2] Estimating the dispersion of permanent and transitory income in a cross-country context is empirically challenging, however, as it requires dynamic panel data at the micro-level. We address this limitation by leveraging administrative earnings data from the Global Repository of Income Dynamics (GRID) database, which provides consistent measures for a subset of countries (Guvenen et al., 2022).

Our decomposition yields two main findings. First, we show that, in most countries, permanent income inequality has been the primary driver of overall income inequality. This finding complements existing evidence for individual countries such as the United States (Guvenen et al., 2021). Second, we document that only permanent income inequality co-moves with current accounts, while the transitory component shows no significant correlation. This distinction is important, as much of the existing literature interprets rising inequality as increasing income risk. Our results suggest instead that it is the distribution of permanent income, not transitory income risk, that matters for the configuration of global imbalances.

Guided by the empirical analysis, we develop a theoretical framework that rationalizes the link between income inequality and current accounts. At the core of our theory is the empirical observation that saving rates differ along the distribution of permanent income (Dynan et al., 2004; Straub, 2019; Mian et al., 2021b). We embed this feature into a tractable heterogeneous agent model with two countries, Equal (E) and Unequal (U). Each country is populated by a

[2] A rise in income risk may lead to greater precautionary savings, while an increase in permanent income inequality may not. From a policy perspective, the former calls for short-term consumption-smoothing instruments such as unemployment benefits or social insurance, while the latter may require more structural redistribution through taxation or transfers.

continuum of households split into two groups, representing the Top and the Bottom of the income distribution, respectively, who trade debt contracts. The countries are identical except for the distribution of domestic endowments: the share accruing to Top earners is higher in U. The key assumption of the model is that households have a non-homothetic preference for wealth, which implies that the marginal propensity to save rises with permanent income.[3] This mechanism gives the income distribution a central role in determining aggregate saving and, under financial integration, net capital flows. As such, our framework can be interpreted as an open-economy counterpart to the closed-economy model in Mian et al. (2021a).

Our main theoretical contribution consists in showing analytically that, all else equal, cross-country differences in the income distribution generate external imbalances. To understand the underlying intuition, it is helpful to start from a closed-economy benchmark. As in Mian et al. (2021a), top earners act as lenders to bottom earners. Since top earners in U have higher income than their counterparts in E, they are willing to lend more to Bottom earners, thereby depressing the interest rate. As a consequence, under financial autarky, the unequal country U features a lower equilibrium interest rate. Once capital is allowed to flow freely between countries, the interest rate on debt is equalized across countries, above the autarky interest rate in U and below the autarky interest rate in E. The higher return on lending incentivises Top earners in U to expand their lending beyond what can be absorbed domestically by Bottom earners. Top earners in E, in contrast, save less following the decrease in the interest rate. As a result, capital flows from U to E, generating a current account surplus in the unequal country and a deficit in the equal one.

Our model delivers several testable predictions that we validate in the data. The first set of predictions concerns the relationship between income inequality and current accounts. We illustrate that global imbalances are predominantly affected by (i) *differences* in inequality between countries and (ii) *changes* in inequality within countries, as opposed to the *absolute level* of inequality. Global imbalances are low in a world in which all countries are similarly unequal, and high in a world with relatively low overall inequality, but large differences in inequality across countries, or substantial movements in inequality over time. These predictions are supported by three empirical observations: (i) a tight co-movement between the level of global imbalances and the cross-country dispersion of income inequality, (ii) a positive co-movement between current account imbalances and changes in inequality at the country-level and (iii) the decoupling of the level of inequality and global imbalances after the Global Financial Crisis.[4]

The second set of predictions concerns the role of financial markets. We show that uniform financial liberalization – modeled as a loosening of borrowing constraints – amplifies the effect of income inequality on current accounts. However, when financial liberalization is asymmetric, the effect can weaken, or even reverse. In particular, a sufficiently loose borrowing constraint in U relative to E can offset the effect of inequality on current accounts and induce

[3]Preferences for wealth are a common assumption in the literature on inequality (Kumhof et al., 2015; Straub, 2019; Mian et al., 2021a).

[4]Jointly, these results bear another important implication. Even if income inequality within countries were lower than previously thought, as suggested by recent research (Auten and Splinter, 2024; Pinkovskiy et al., 2024), the relative variation of inequality within and across countries would remain critical to understanding current account imbalances.

a deficit in the unequal country. This mechanism provides a potential explanation for the experience of the United States, which – despite persistently high and rising income inequality – has run sustained current account deficits and accumulated a large negative net foreign asset position. Our model rationalizes this apparent exception as the result of the United States' high degree of financial liberalization relative to the rest of the world.

We complete the analysis with a quantitative extension of our analytical framework, featuring idiosyncratic income uncertainty and a production sector. Adding income risk allows us to compare the effects of permanent income inequality with those of income volatility. While increases in both raise aggregate savings, and consequently current account balances, the micro-level implications are different: higher permanent income inequality raises saving among high-income households and increases wealth concentration, whereas higher income risk primarily raises precautionary saving among lower-income households and *reduces* wealth inequality.[5] Endogenizing production, on the other hand, allows us to study the joint response of saving *and investment* to changes in income inequality. In line with the data, our model predicts that inequality-driven changes in saving vary systematically across countries, while investment remains unchanged.

Finally, we assess the quantitative relevance of our mechanism. Using the calibrated model, we simulate a panel of countries subjected to the observed evolution of income inequality and replicate our current account regressions on the simulated data. The resulting estimates closely approximate the empirical coefficients of income inequality on the current account, lending credibility to the model's empirical relevance. According to our estimates, differences in income inequality can explain around 35% of the overall current account imbalances among advanced economies over the period 1986–2019.

Literature. This paper is closely related to the empirical literature on the determinants of current accounts (Chinn and Prasad, 2003). We contribute by documenting a positive link between income inequality and current accounts in the data. Other studies, instead, find either a negative link or mixed evidence (Broer, 2014; Behringer and Van Treeck, 2018; De Ferra et al., 2021; Blomme and Héricourt, 2023; Kumhof et al., 2024). In contrast to these studies, we explicitly isolate the role of permanent income inequality from the role of income risk.

Our paper also contributes to an extensive theoretical literature on the determinants of current account imbalances. Caballero et al. (2008) and Coeurdacier et al. (2015) emphasize the role of savings for the configuration of global current accounts but remain agnostic on its underlying drivers. Several explanations for differences in saving rates have been put forward such as demographics (Auclert et al., 2021) or the distribution of firm productivity (Smitkova, 2022). Our analysis connects to the strand that links the aggregate saving rate to the distribution of permanent income through preferences for wealth (Grüning et al., 2015; Rannenberg et al., 2022; Kumhof et al., 2024). Our contribution lies in showing analytically through a tractable framework that cross-country differences in the permanent income distribution can generate current account imbalances. We also explicitly consider the role of financial frictions. Broer (2014) and De Ferra et al. (2021) illustrate how higher income inequality generated by

[5] We establish these results under exogenously incomplete markets with a fixed borrowing constraint.

income risk can induce current account deficits as opposed to surpluses, while Azzimonti et al. (2014) examines the role of income risk for public borrrowing.

A large literature studies the effects of inequality on interest rates, debt and more broadly secular stagnation in the context of a closed economy (Kumhof et al., 2015; Cairó and Sim, 2018; Rachel and Summers, 2019; Rannenberg, 2019; Straub, 2019; Mian et al., 2020, 2021a; Platzer and Peruffo, 2022). We extend these ideas to an open-economy setting and illustrate how income inequality not only lowers interest rates and increases debt, but also induces cross-border capital flows. Compared to the open-economy literature on secular stagnation (Eggertsson et al., 2016), we explicitly focus on the role of inequality in driving the dynamics of the external sector.

Finally, our theoretical framework connects to the literature emphasizing the role of financial integration for global capital flows (Caballero et al., 2008; Mendoza et al., 2009; Angeletos and Panousi, 2011; Coeurdacier et al., 2015) and relatedly, the exorbitant privilege of the United States (Maggiori, 2017; Kekre and Lenel, 2021). We integrate some of these insights into our model and show how financial forces shape global imbalances by mediating inequality-induced capital flows. We also illustrate that deep financial markets can offset the effects of inequality, as exemplified by the case of the United States.

2 Empirical analysis

The role of income inequality for global imbalances has not been settled by the empirical literature. In theory, income inequality can influence the current account through both savings and investment rates. Savings can increase due to a larger marginal propensity to save of the rich, or decrease due to consumption habits and relative income effects (Carroll, 1998; Dynan et al., 2004; Duesenberry et al., 1949; Bertrand and Morse, 2016). Similarly, a larger share of income accruing to the top of the distribution might spur investment, by relaxing borrowing constraints for entrepreneurs or by improving expected returns to investment, or depress it, through weaker aggregate demand and lower expected profits (Pettis, 2014). Establishing which forces dominate thus requires an econometric analysis of both components of current account balances.

We begin by studying the role of overall income inequality, for which data are widely available and which has been the focus of most of the existing literature (Behringer and Van Treeck, 2018; De Ferra et al., 2021; Kumhof et al., 2024). In Section 3, we separately examine measures of inequality in permanent income and income risk, which allow us to map our empirical analysis more clearly into a theoretical framework.

2.1 Data

Our empirical analysis draws on multiple data sources. For measures of income inequality, we rely on the World Inequality Database (WID). The WID provides a comprehensive range of indicators on income inequality across countries, including top shares, Gini indices, and

other measures. Compared to other popular datasets, it systematically combines national accounts and survey data with fiscal data sources, enabling comparisons across countries and over longer time periods. Other macroeconomic variables, including current account balances, are primarily sourced from the International Monetary Funds's (IMF) External Balance Assessment (EBA) dataset. We also include data from the OECD on national savings and investment rates and sectoral decompositions of the current account. Overall, our full panel dataset includes 52 countries, comprising 24 advanced and 28 emerging market economies, and spans the years 1986–2019. The large sample size allows us to capture external sector dynamics at a global level, along with potential heterogeneity across advanced and emerging economies. Appendix A.1 reports more details on the sample.

2.2 Empirical strategy

We base our empirical analysis on a variation of the EBA model developed by the IMF and described in Phillips et al. (2013). The baseline regression estimated by the IMF EBA employs the current account as a share of GDP as the dependent variable with a rich vector of covariates divided into three categories: (i) cyclical factors (estimated output gap, commodity terms-of-trade gap), (ii) fundamentals (lagged net foreign assets, lagged output per worker, 5-year-ahead forecasted real GDP growth, reserve currency status, population growth, old-age dependency ratio, share of prime-aged savers over total working age population, life expectancy of current prime-aged savers and its interaction with 20-year-aged old-age dependency ratio, institutional quality as proxied by the International Country Risk Guide, a combination of oil and natural gas balance over GDP, ratio of current extraction to estimated reserves), and (iii) policy variables (instrumented fiscal policy balance, lagged health spending, instrumented foreign exchange intervention interacted with the Quinn index of capital controls, private credit to GDP).

To analyse the relation between the current account and income inequality, we extend the EBA model with a measure of inequality. We also introduce country- and year-fixed effects to capture time-invariant country characteristics and time effects that are common across countries. In particular, we estimate the following regression:

$$ca_{it} = \alpha + \boldsymbol{\beta}\mathbf{X_{it}} + \gamma ineq_{it} + \delta_i + \psi_t + \epsilon_{it} \tag{1}$$

where ca_{it} denotes the current account balance over GDP for country i in year t, $\mathbf{X_{it}}$ refers to the vector of year-country-specific controls and δ_i and ψ_t denote country- and year-fixed effects, respectively. Finally, $ineq_{it}$ denotes our measure of income inequality, with γ being the coefficient of interest. We primarily focus on the share of disposable income accruing to the Top 1 percent of the distribution, but also report results for alternative measures and definitions of income inequality.

The current account balance is by nature measured relative to other countries and is jointly determined by a country's own characteristics and foreign ones. To ensure consistency between the left- and right-hand-side of our regression, we measure our independent variables

relative to other countries, unless the variable is already measured in relative terms, such as the net foreign asset position. In particular, for each variable we compute a GDP-weighted world average and include the variable as the deviation from the world average into our regression.[6]

2.3 Results

Table 1 reports the estimated coefficients from Equation 1 for various measures of income inequality. For expositional purposes, we only report the coefficient on income inequality and leave the remaining coefficient estimates for Appendix Table A1. Overall, we find a positive relation between income inequality and the current account balance. For the sample of advanced economies, the estimated coefficient is positive and statistically significant at the 1 percent level, independently of the specific measure of inequality (Columns 1–4). A one percentage point higher share of disposable income held by the Top 1 percent, our preferred measure, is associated with a 0.85 percentage point higher current account balance. As the share of disposable income held by the Top 1 percent shifted on average by 2 percentage points over the period 1986-2019, our estimates imply a change in the current account balance of 1.7 percentage points – i.e., almost half of the average current account balance across countries in absolute terms.

Table 1: Current accounts and income inequality

	Advanced economies				All			
	Top 1%	Top 10%	Top 0.1%	Gini	Top 1%	Top 10%	Top 0.1%	Gini
Income inequality	0.849***	0.475***	1.232***	0.392***	0.161**	0.096	0.246*	0.169**
	(0.234)	(0.131)	(0.360)	(0.081)	(0.076)	(0.068)	(0.141)	(0.067)
R-squared	0.49	0.48	0.47	0.49	0.40	0.40	0.40	0.41
Observations	749	749	749	749	1479	1479	1479	1479
Countries	24	24	24	24	52	52	52	52

Notes: This table reports the coefficient of disposable income inequality on the current account estimated in equation 1. Coefficients of other covariates are omitted from the regression table. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

When including emerging economies in the sample, the coefficient on income inequality remains positive, although smaller in magnitude and, depending on the specific measure of inequality, less precisely estimated (Columns 5-8).[7] One plausible explanation for this attenuation is the varying degree of capital account openness across advanced and emerging economies. When we split the sample based on the Chinn-Ito index (Chinn and Ito, 2008) – a commonly used proxy for capital account openness – we find that the positive association between inequality and current account balances is concentrated in the half of the sample with higher capital openness (Table A4).

[6] Year-fixed effects are in principle not necessary given that all variables are expressed relative to a world average. We include them nonetheless to account for the fact that our sample does not cover all countries and that the global current account does not necessarily balance due to statistical discrepancies. Results are very similar without year-fixed effects.

[7] Results for the subsample of emerging market economies are reported in Table A2. The estimated coefficients remain positive, but are less precisely estimated.

Several additional factors may also contribute to the weaker relationship observed in emerging markets. First, income inequality may influence current accounts differently across stages of economic development. Second, the effects of inequality may be non-linear or depend on the prevailing level of inequality.[8] Third, emerging markets may be more exposed to unobserved shocks, such as shifts in investor sentiment or capital flow volatility, that both correlate with income inequality and influence current accounts. Finally, inequality measures for emerging markets may suffer from greater measurement error (Balestra et al., 2018). Given these considerations, we focus our main analysis on the more homogeneous sample of advanced economies, while continuing to report results for the full sample for completeness.

Income inequality explains a fairly large share of the variation in current accounts. Compared to a regression without inequality variables, the within R-squared increases by almost 5 percentage points for the sample of advanced economies, or more than 10 percent. Considering the large set of control variables, this points to a significant role of inequality beyond the impact of other variables that are typically considered in the analysis of current accounts.

In Table 1, we also investigate the role of top-end income inequality for current accounts by including the shares of disposable income held by the Top 0.1%.[9] The coefficient estimates become larger as we move up the income distribution, suggesting that higher income segments play a more important role in the configuration of current accounts. For example, according to our estimates, a given percentage point increase in the Top 0.1% share implies an increase in the current account balance almost three times larger than if the same additional share of national income accrued to the Top 10%.

In Appendix A.2, we conduct several robustness checks. We show that our results also hold for alternative income concepts such as gross income, i.e. income before taxes and transfers (Table A5). They also remain unaffected if we include the domestic wage or profit share among the controls, pointing to separate roles for inequalities in personal and functional income (Table A6). We also experiment with using multi-year averages instead of annual data and lagged values of inequality, and obtain very similar results (Table A7). Applying the original EBA estimation method which relies on pooled GLS and panel-corrected standard errors decreases the precision of our estimates but does not impact their sign when income inequality is measured by the Top 1% share (Table A8). To detect the potential presence of structural breaks in the relationship between current accounts and domestic inequality, we perform rolling regressions and show that the estimated coefficients are positive over virtually the entire sample (Figure A1). Finally, we perform (unreported) 'leave-one-out' analysis in which we re-estimate our main equation leaving out one country at a time to investigate the role of outliers and find similar estimates across all samples.

[8] The average top 1% disposable income share is 16.2% in emerging economies, compared to 7.8% in advanced economies. When we include percentage changes in income inequality instead of levels, the difference in the magnitude and statistical significance of the estimated coefficients across samples shrinks substantially (Table A3).

[9] Results are also consistent if we consider the Top 0.01% share.

2.3.1 Channels

We now turn to exploring potential channels that underlie the relation between income inequality and current accounts. To this end, we quantify the contribution of the different components of the current account balance to our results.

In a first step, we decompose the current account into domestic savings and investment, and analyse them separately. In particular, we re-estimate Equation 1, but replace the current account by either the gross savings or gross investment rate. The left half of Table 2 reports the results of this exercise. We find a positive relation between income inequality and savings (Columns 1 and 3). A one percentage point increase in the share of income held by the Top 1 percent increases the saving rate by 0.85 percentage points in our sample of advanced economies. This coefficient is almost identical to the one estimated in the current account regression, but is not directly comparable as we lose a few observations due to the availability of data on saving and investment rates.

Next, we repeat the analysis for investment rates. For current account balances to be positively related to income inequality, we expect domestic investment to increase less with inequality than savings. Columns 2 and 4 of Table 2 lend support to this hypothesis. For advanced economies, investment and inequality move in opposite directions, although the coefficient on investment is small and statistically insignificant. In the full sample, the estimated relationship between inequality and investment turns positive, but not enough to offset the corresponding increase in savings. This differential effect of inequality on investment in emerging economies can be at least partly explained by their substantially lower degree of capital openness, which arguably constrains the possibility for domestic savings to be diverted elsewhere. The Chinn-Ito index of capital account openness, which ranges from 0 (no capital openness) to 1 (full capital openness), is on average 0.40 for emerging economies compared to 0.91 for advanced economies. Overall, the empirical evidence suggests that the link between inequality and current accounts is largely driven by a stronger response from savings than investment, especially where capital is allowed to flow more freely.

Table 2: Income inequality, savings, investment, and sectoral net lending

	Advanced economies		All		Advanced economies		All	
	Savings	Investment	Savings	Investment	Private S	Public S	Private S	Public S
Income inequality	0.848***	-0.226	0.295**	0.220**	0.878***	0.041	0.313**	0.163
	(0.260)	(0.138)	(0.114)	(0.093)	(0.211)	(0.197)	(0.152)	(0.097)
R-squared	0.65	0.69	0.38	0.52	0.59	0.62	0.53	0.57
Observations	666	666	1420	1420	605	605	763	763
Countries	24	24	52	52	23	23	32	32

Notes: This table reports the coefficient of disposable income inequality, measured as the share of disposable income held by the top 1 percent, on the saving rate and investment rate, and on private (Private S) and public (Public S) net lending, estimated in equation 1. Coefficients of other covariates are omitted from the regression table. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Second, we perform a sectoral decomposition of the current account and analyse private (household and corporate) and public net lending separately. The coefficient estimates in

Columns 5 and 7 of Table 2 suggest that income inequality primarily affects the current account through the private sector. Private net lending in advanced economy is strongly correlated with income inequality while the coefficient on public net lending is substantially smaller and statistically insignificant. We interpret this as consistent with inequality operating on current accounts mainly through decentralized saving-investment decisions rather than via public policies (Azzimonti et al., 2014). Adding emerging economies to the sample somewhat reduces the spread between the two sources of net lending.

2.3.2 Discussion

The reported evidence points cohesively to a positive co-movement between current account balances and disposable income inequality. The results are robust to various definitions of income inequality, sample splits across countries and time, and controlling for the distribution of functional income. Nevertheless, our findings stand, at first glance, in stark contrast to earlier studies reporting a negative relation between inequality and external imbalances (Behringer and Van Treeck, 2018; De Ferra et al., 2021; Kumhof et al., 2024). Appendix B provides a detailed discussion of how our findings compare with previous studies, and offers a reconciliation of the different results.

The key distinction lies in our identification strategy, which exploits within- rather than between-country variation. The inclusion of country-fixed effects enables us to absorb time-invariant country characteristics that are correlated with both inequality and current accounts, such as country-specific measurement error in inequality indicators, policies and institutional features (e.g., the design of pension systems), and persistent cultural norms or preferences (e.g., risk aversion) that affect both inequality and savings or investment. Absent fixed effects, any such omitted factor would produce biased estimates of the relationship between inequality and current accounts.[10] The relevance of such factors is perhaps best illustrated by the case of the United States, which holds a special position in the network of international capital flows, due to its "exorbitant privilege" and its capacity as global financial center. As shown in Table A9, a pooled OLS specification excluding the United States yields estimates that are much closer to those obtained when including fixed effects.

Importantly, our focus on within-country variation does not come at the expense of discarding all economically relevant variation. A variance decomposition shows that within-country fluctuations account for 46% of the overall variation in current account balances. Our identification strategy does not imply either that income inequality only explains the time-series dynamics of current accounts. Rather, by exploiting time-series dynamics, we obtain a tighter identification of the overall marginal effect of inequality on current account balances.

While fixed effects address possible endogeneity from time-invariant omitted variables, a remaining concern for the interpretation of our estimates could be reverse causality, if current account balances themselves affect income inequality. Much of the existing literature that stud-

[10] In our baseline regression, country fixed effects raise the share of explained overall variation in current account balances by 17 percentage points (35%).

ies this direction focuses on the relationship between the *level* of trade and income inequality.[11] Concerning the relationship between trade *imbalances* and inequality, Borjas and Ramey (1995) document a strong positive correlation between the US deficit in durable goods and the college wage premium, and Liu et al. (2023) find that capital inflows, i.e., current account deficits, increase income inequality. Both results suggest a negative co-movement between current accounts and income inequality, which would attenuate our estimates.[12] With respect to our own empirical strategy, we attempt to address reverse causality concerns by replacing income inequality levels with their lagged values. Doing so yields estimates that are comparable to those from our baseline specification, as reported in Table A7.

3 Decomposing income inequality

Measured income inequality can change over time due to different underlying trends. Increases in permanent income inequality, i.e. its long-term, predictable component and increases in income risk, i.e. the transitory, stochastic component of income, can both lead to higher observed inequality. Distinguishing between these two sources is important because they have different implications for household behaviour and policy design. A rise in income risk may induce more precautionary savings whereas a rise in permanent income inequality may not. From a policy perspective, higher income risk may warrant short-term, consumption-smoothing interventions, such as unemployment insurance or other forms of social protection, while higher permanent income inequality may call for longer-term redistribution through progressive taxation or social transfers.

Although evidence from individual countries, such as the United States, suggests that permanent income inequality has increased in recent decades (DeBacker et al., 2013; Guvenen et al., 2021), it remains unclear whether this pattern is widespread. In this section, we will use a cross-country dataset to decompose income inequality into its permanent and transitory components and assess their relevance for current account balances.

3.1 Income processes

We base our decomposition on two different income processes, each featuring a permanent and a transitory component. Across both specifications, we consider variations of the general income process for household i at time t:

$$y_{it} = x_{it} + \underbrace{s_i + z_{it}}_{\tilde{y}_{it}} \tag{2}$$

[11] Borusyak and Jaravel (2022) find that trade only increases vertical, but not horizontal earnings inequality. Most of the variation in response to an increase in trade exposure takes place within, not across, income quantiles, leaving the shape of the income distribution largely unchanged. Similarly, Galle et al. (2023) find strong heterogeneity on the welfare effect of trade shocks, but little impact on income inequality. Adao et al. (2022), instead, find an overall positive association between trade and inequality.

[12] Dix-Carneiro and Traiberman (2023) find an ambiguous relation between trade imbalances and inequality using a model with capital-skill complementarity and worker reallocation across sectors.

where y_{it} denotes the log of total labor income, x_{it} observable household characteristics that affect income, such as age, s_i the permanent component of income and z_{it} the transitory component.

Under the assumption that the individual components are uncorrelated, the cross-sectional dispersion of income can be decomposed as:

$$Var(y_{it}) = Var(x_{it}) + \underbrace{Var(s_i) + Var(z_{it})}_{Var(\tilde{y}_{it})} \tag{3}$$

Dispersion in the permanent component s_i can then be interpreted as the degree of ex-ante heterogeneity among households, due to education or innate ability, for example, whereas dispersion in the transitory component z_{it} reflects the degree of ex-post heterogeneity due to income risk.

Our focus is on separating changes in $Var(s_i)$ from changes in $Var(z_{it})$ within residual income dispersion $Var(\tilde{y}_{it})$. In particular, we allow the distributions from which s_i and z_{it} are drawn to evolve over time, while abstracting from changes in $Var(x_{it})$. The next section describes the models and identification of the income components under the assumption that $\tilde{y}_{it}$ is observed in the data.

Model 1: Permanent + iid. The first income process assumes a constant permanent income component s_i and a transitory component z_{it} that is iid. Both are drawn from time-varying normal distributions:

$$s_i \sim N(0, \sigma^2_{s,t}), \quad z_{it} \sim N(0, \sigma^2_{z,t}) \tag{4}$$

Because permanent income is constant at the individual level, the variance of income growth is informative about the variance of the transitory component: $Var(\Delta\tilde{y}_{it}) = Var(\tilde{y}_{it} - \tilde{y}_{it-1}) = Var(s_i + z_{it} - s_i - z_{it-1}) = \sigma^2_{z,t} + \sigma^2_{z,t-1}$. To identify $\sigma^2_{z,t}$ from $Var(\Delta\tilde{y}_{it})$, we need one more restriction. One possibility would be to select two consecutive years and assume that the variance of the transitory component remains constant over this period. To avoid having to make this arbitrary choice, we instead assume that the variance of transitory income changes slowly over time and that $\sigma^2_{z,t}$ is a good proxy of $\sigma^2_{z,t-1}$. This allows us to approximate $\sigma^2_{z,t}$ as half the variance of income growth and yields the following expressions for the variances of the permanent and transitory components:

$$Var(z_{it}) = \sigma^2_{z,t} \approx \frac{1}{2} Var(\Delta\tilde{y}_{it}), \qquad Var(s_{it}) = Var(\tilde{y}_{it}) - \sigma^2_{z,t} \tag{5}$$

Under these assumptions, the dispersion in permanent income is identified as the difference between the total residual income variance and the transitory variance inferred from income growth. Notably, even though the permanent income component is constant for each household, its cross-sectional variance can change over time due to entry and exit of cohorts.

Model 2: Permanent + transitory. Suppose we wish to avoid imposing specific assumptions on the structure of the transitory income component and allow, for example, for persistence. In this case, a simple alternative to approximate the variance of permanent income is to average

income over multiple periods and then compute the cross-sectional variance of this average:

$$Var(s_{it}) \approx Var\left(\frac{1}{2T+1}\sum_{k=-T}^{T}\tilde{y}_{it+k}\right) \tag{6}$$

The intuition is that transitory income shocks tend to average out over time, so the mean of income over a sufficiently long window provides a reasonable proxy for permanent income. Given this approximation, the variance of transitory income is then inferred as $Var(z_{it}) = Var(\tilde{y}_{it}) - Var(s_{it})$. In our empirical implementation, we set $T = 1$, using a three-year moving average to estimate the permanent income variance.

The main advantage of Model 2 over Model 1 is that it allows us to characterize the distribution of permanent income beyond its variance. Conditional on observing the proxy for permanent income, $\frac{1}{2T+1}\sum_{k=-T}^{T}\tilde{y}_{it+k}$, we can recover the entire cross-sectional distribution and thereby compute any inequality statistic of interest, including top income shares such as the top 1 percent.

3.2 Data

Estimating the variances of the permanent and transitory components of income is challenging, as it requires access to dynamic panel data at the individual or household level. This difficulty is compounded in a cross-country context, where data must also be comparable across countries. To address this, we use the Global Repository of Income Dynamics (GRID) dataset, which provides methodologically consistent estimates of income moments at the individual level using administrative data from several countries over recent decades (Guvenen et al., 2022). These moments allow us to separately identify the variances of the permanent and transitory components of income under the income processes described earlier.

The dataset also includes a proxy for permanent income, constructed as a three-year moving average of income, which we use to estimate Model 2. In particular, GRID reports percentiles of permanent income from the first percentile up to the 99.99th percentile. We use these percentiles to impute the full distribution of permanent income and compute top income shares.[13]

We conduct the variance decompositions and top income share calculations for the period 1986–2019 using an unbalanced panel of 9 advanced economies.[14] Estimates are computed separately for each year.

The comparison between income inequality measures derived from the GRID and WID datasets requires several caveats due to differences in their underlying methodologies. First, the income concept in GRID is based on labor income rather than total income, which includes capital income.[15] Second, GRID reports market income, while the WID focuses on disposable

[13] We observe 17 percentile points of permanent income: 1, 2.5, 5, 10, 12.5, 25, 37.5, 50, 62.5, 75, 87.5, 90, 95, 97.5, 99, 99.9, and 99.99. To impute the complete distribution, we linearly interpolate between these percentiles and apply bottom- and top-coding.

[14] Canada, Denmark, France, Germany, Italy, Norway, Spain, Sweden, and the United States.

[15] Income in GRID is defined as annual individual labor earnings – market income from employment services

income. Third, our analysis employs a residualized income measure in GRID, which controls for age-related income effects.

3.3 Results

Panel A of Figure 1 presents the variance of total, permanent, and transitory income for each country in our sample, estimated across the two decomposition models. As expected, the permanent component accounts for the majority of overall income dispersion, regardless of the model employed. The figure also highlights cross-country heterogeneity in the evolution of income inequality. While some countries – such as the United States and Italy – experienced an increase in income dispersion over time, others – notably France and Sweden – saw more moderate changes. Panel B, instead, zooms into the right tail of the income distribution and reports the total top 1 percent income share alongside the top 1 percent permanent income share based on Model 2. The patterns are broadly consistent with those observed for the variance: the permanent income component captures a substantial portion of overall top income shares.

We next quantify the relative contributions of permanent and transitory income components to changes in overall income dispersion. To do so, we estimate a series of univariate regressions in which the variance of total income is regressed separately on the variance of permanent and transitory income for each country. The first two panels of Figure 2 plot the resulting R-squared values: the explanatory power of the permanent component is shown on the vertical axis, and that of the transitory component on the horizontal axis. Points above the 45-degree line indicate a greater explanatory role for permanent income.

Overall, permanent income explains a larger share of the variation in total income variance than the transitory component. Under Model 1, this is the case for all countries, whereas under model 2, the explanatory power is more balanced across permanent and transitory income. Turning to top income shares, the right panel of Figure 2 plots the R-squared values from regressing the top 1 percent income share on the top 1 percent permanent income share. For nearly all countries, permanent income accounts for a substantial portion of the variation in top income shares over time.

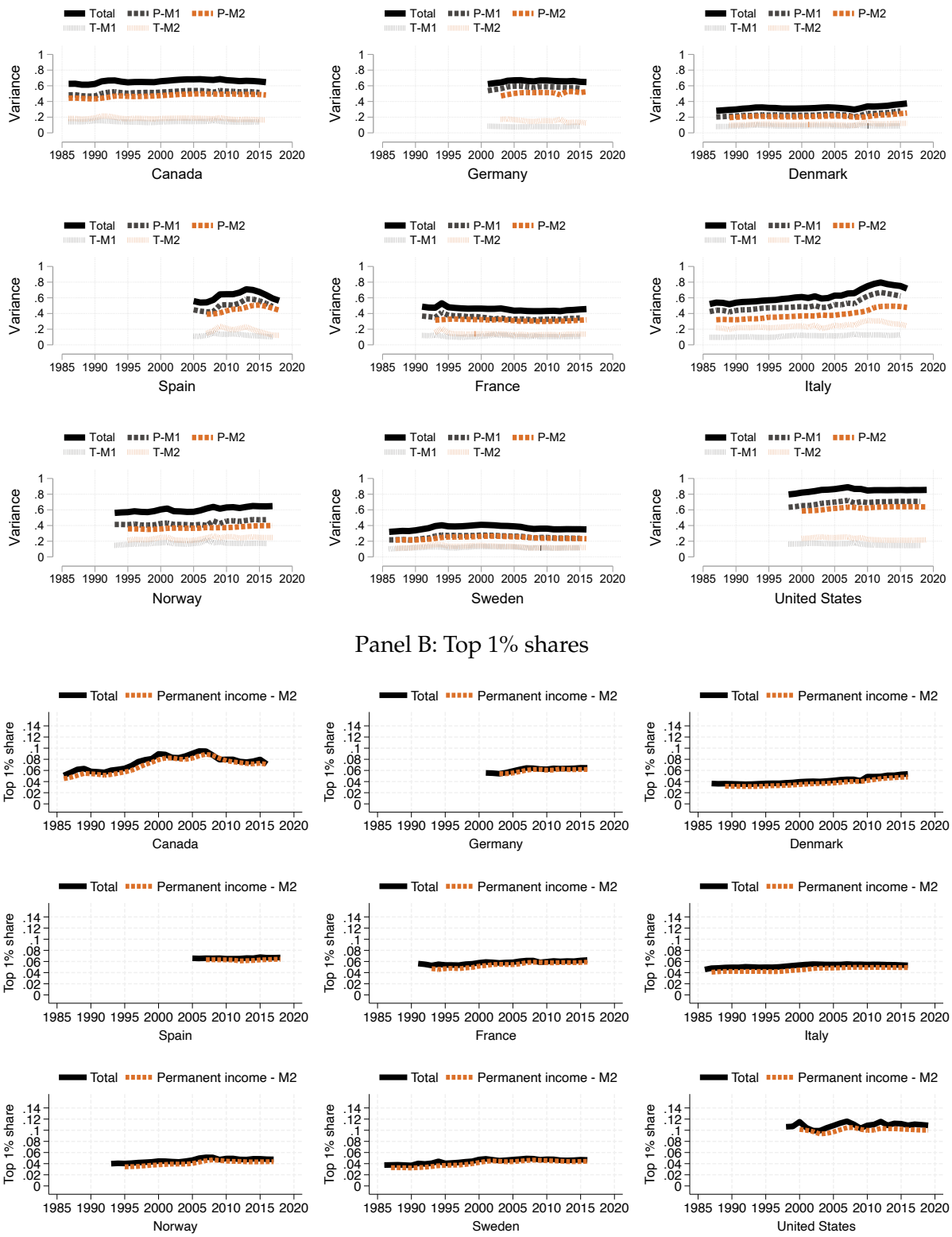
3.4 Permanent income inequality, income risk and the current account

Having shown that permanent income inequality accounts for a substantial share of cross-country variation in income inequality, we now study whether the co-movement between income inequality and current account balances is mostly due to changes in the distribution of permanent income, or in income risk. To this end, we re-estimate the regression in Equation 1 replacing overall inequality with our measures of permanent and transitory income inequality.

While the sample size is significantly smaller compared to the earlier regressions, Table 3 shows that current account balances tend to be higher in countries where *permanent* income

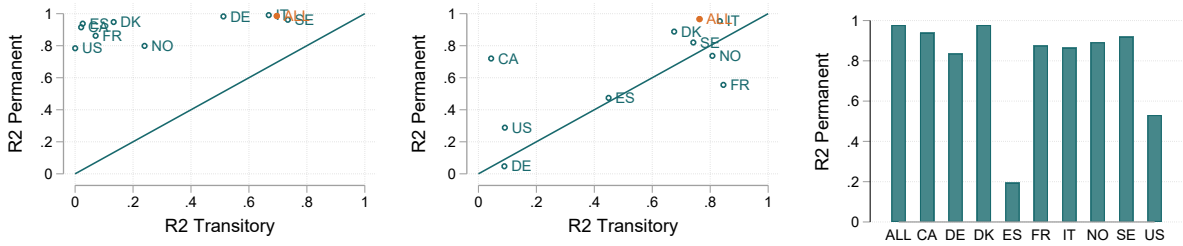
– including, where possible, bonuses, overtime pay, tips, and commissions from all jobs held during the calendar year, but excluding self-employment income.

Figure 1: Decomposition of income inequality over time



Notes: Panel A reports the variance of total, permanent (P) and transitory (T) income for each country in the sample. The variances of permanent and transitory income are computed under the two models described in 3.1. Panel B reports the total top 1% income share and the top 1% permanent income share based on Model 2. The decompositions are based on data from GRID.

Figure 2: Explanatory power of permanent and transitory income



Model 1: Variance | Model 2: Variance | Model 2: Top 1% share

Notes: The first two panels of this figure report the R2 of a univariate regression of the variance of income on the variance of permanent and transitory income, respectively, for each country in the sample. The variances of permanent and transitory income are computed under the two different models described in 3.1. The 45 degree line indicates equal explanatory power of both components. The datapoint "ALL" shows the R2 of a regression in which all countries are pooled together. The right panel reports the R-squared from regressing the top 1 percent income share on the top 1 percent permanent income share computed under Model 2. The decompositions are based on data from GRID.

inequality is larger. Across both models, a one unit increase in the cross-sectional variance of permanent income is associated with a 0.16–0.38 percentage point increase in the current account balance. Adding transitory income variance to the regression yields a small and imprecisely estimated coefficient and does not materially affect the coefficient on permanent income inequality.

When we replace the variance of permanent income with the top 1% permanent income share, our preferred measure of income inequality, we also find a significant positive association (Column 5). Compared to our baseline regression in Table 1, we find a coefficient that is roughly twice as large. In Columns 6 and 7, we again separately regress the current account components, savings and investment, on the top 1% permanent income share. The estimated coefficients confirm our earlier finding that the relationship between income inequality and the current account is primarily driven by changes in savings rather than investment. Overall, we interpret these findings as evidence that permanent income inequality, rather than income risk, primarily drives the relationship with the current account.

Taken together, our empirical results highlight two central findings that guide the modeling approach in the next section. First, income inequality is positively associated with the current account balance, operating primarily through increases in domestic savings rather than changes in investment. Second, this relationship is driven by inequality in permanent income rather than income risk. These patterns suggest a correspondence between the micro-level evidence linking higher savings rates to higher permanent income (Dynan et al., 2004; Straub, 2019), and macroeconomic aggregates: when the share of national income accruing to high-income households increases, the domestic saving rate follows suit, holding other determinants fixed.[16] The dominant role of inequality in permanent income suggests that structural differences in saving behavior across the permanent income distribution, rather than precautionary motives linked to income risk, are the primary driver. These findings motivate a the-

[16] For an older review of the relation between income inequality and the aggregate saving rate, see, for example, Schmidt-Hebbel and Serven (2000).

Table 3: Permanent income inequality, income risk and the current account

	CA					S	I
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Var. permanent income - M1	0.164	0.175*					
	(0.089)	(0.084)					
Var. transitory income - M1		-0.107					
		(0.194)					
Var. permanent income - M2			0.355**	0.377*			
			(0.123)	(0.165)			
Var. transitory income - M2				-0.048			
				(0.172)			
Top 1% permanent income share					1.632**	1.462***	-0.409
					(0.543)	(0.330)	(0.321)
R-squared	0.74	0.74	0.74	0.74	0.72	0.84	0.86
Observations	212	212	209	209	209	209	209
Countries	9	9	9	9	9	9	9

Notes: This table reports the coefficients of various measures of income inequality on the current account and its components estimated in equation 1. Columns 1-4 include the variances of permanent and transitory income computed under the two models described in 3.1. Column 5 includes the top 1% permanent income share from Model 2. Columns 6 and 7 replace the current account with the savings and investment rate as the outcome variable, respectively. The income decomposition is based on data from GRID. Coefficients of other covariates are omitted from the regression table. The reported R^2 is the within R^2. Standard errors are clustered at the country level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

oretical framework that embeds heterogeneity in permanent income and saving behavior to explain how income inequality can generate current account imbalances.

4 Theoretical framework

This section develops a parsimonious theoretical framework linking income inequality to current account imbalances. The setting is an open-economy variant of the closed-economy model developed in Mian et al. (2021a). We begin by showing how higher income inequality lowers the equilibrium interest rate in a closed economy. We then examine the open-economy case, and illustrate how cross-country differences in interest rates under autarky induce capital flows from more unequal to more equal economies.

Environment. There are two countries, Equal (E) and Unequal (U). Each country is a deterministic, infinite-horizon endowment economy, populated by two groups of households, representing the top (t) and the bottom (b) of the income distribution, respectively. Each household receives a fixed endowment per period, with a total endowment of Y, normalized to one, in each economy. The countries are identical except for the distribution of the endowment across household groups.

Households make a consumption-savings decision each period. Saving and borrowing is possible via debt contracts which can be traded between households within and across countries. To isolate the role of income inequality for current accounts, we abstract from uncertainty

and differences in aggregate endowments.

Household problem. We describe the household problem from the perspective of the unequal country to simplify notation. Households are indexed by i, where $i = \{t, b\}$ denotes the household type. The top earners constitute a fraction μ^t of the population, and the remaining fraction is given by $\mu^b \equiv 1-\mu^t$. Despite the focus of the empirical section on the Top 1 percent, we leave μ unspecified, as the implications of the model can be generalized to any specific segment at the top of the income distribution.

Each household maximizes utility over consumption and wealth, choosing how much to consume and how much to lend or borrow each period. Households can lend and borrow domestically or abroad, yielding the following maximization problem for household i in country U:

$$\max_{c^i, a^i_{t+1}} \sum_{t=0}^{\infty} \beta^t \left(u(c^i_t) + v(a^i_{t+1}) \right) \tag{7}$$

$$\text{s.t.} \quad c^i_t + a^i_{t+1} = y^i + (1 + r_t) a^i_t \tag{8}$$

Positive values of a^i_t denote lending while negative values denote borrowing. The resources of household i are given by the per-capita endowment y^i_t and savings remunerated at the world interest rate r_t. The per-capita endowment is determined by the share ω^i of the aggregate endowment held by each household type, scaled by their population share, i.e. $y^i = \frac{\omega^i}{\mu^i}$. We omit the time subscript since endowments are constant over time. Borrowing is allowed up to a borrowing limit:

$$r_{t+1} a^i_{t+1} \geq -\phi y^i \tag{9}$$

where ϕ denotes the share of endowment that can be borrowed against. Similarly to Caballero et al. (2008) and Mian et al. (2021a), this parameter captures the role of financial markets in a parsimonious way without further specifying the friction underlying the borrowing constraint.

Preferences. Households derive utility from consumption and wealth, captured by $u(c)$ and $v(a)$. While wealth might enter agents' utility for various reasons not explicitly modeled here, such as bequests, inter vivos transfers, out-of-pocket medical expenses in old age or utility over social status, we remain agnostic about the underlying microfoundation. In doing so, we build on a large literature that introduces wealth into the utility function to generate the empirically documented differences in saving rates across households (Carroll, 1998; Dynan et al., 2004; Fagereng et al., 2019; Straub, 2019) and subsequently study selected macroeconomic questions.[17] Recent contributions by Benhabib et al. (2019) and Gaillard et al. (2023)

[17] See, for example, Kumhof et al. (2015); Straub (2019); Mian et al. (2021a); Platzer and Peruffo (2022). Preferences for wealth have also been used in other contexts such as explaining the portfolio allocation of households (Carroll, 2000), matching intertemporal MPCs (Auclert et al., 2018), resolving anomalies in New-Keynesian models (Michaillat and Saez, 2021) and explaining the existence of rational bubbles (Michau et al., 2023). In the context of overlapping generations models, Lockwood (2018) and De Nardi et al. (2021) argue for including luxury bequest motives to match the savings behaviour of retirees.

further show that allowing for non-homothetic wealth preferences is crucial for reproducing the concentration of wealth observed in the data, even when accounting for other mechanisms such as return rate heterogeneity.

The homotheticity of preferences is determined by the choice of $v(a)$ relative to $u(c)$. If $\frac{v(a)}{u(c)}$ is homogenous of degree zero, preferences are homothetic; otherwise, they are non-homothetic. Under non-homothetic preferences, allocations are not scale-invariant. For this reason, we define preferences for wealth relative to the total endowment of the economy, which is 1, hence $v(\frac{a}{Y}) = v(a)$.

In the remainder of this section, we assume specific functional forms for the utilities from consumption and wealth that are consistent with wealth being a luxury good and allow us to derive analytical solutions. In particular,

$$u(c_t^i) = \log\big(c_t^i\big) \tag{10}$$

$$v(a_t^i) = \psi \log\big(\kappa + a_t^i\big) \tag{11}$$

The parameter ψ governs the strength of the wealth motive, whereas $\kappa > 0$ is a Stone-Geary shifter that determines the extent of non-homotheticity in preferences – the higher κ, the more wealth holdings represent a luxury good, whereas if $\kappa = 0$, preferences are homothetic and top and bottom earners wish to save and consume the same shares of endowment. Without loss of generality, we assume $\kappa = 1$. Importantly, our results do not hinge on these specific functional forms. In Appendix C, we show that the main features of our model are unchanged if we impose CRRA instead of logarithmic preferences.

Market clearing. Goods and asset markets clear globally and debt is in zero net supply:

$$\sum_i \mu^i \sum_j c_{j,t}^i = \sum_j Y_j, \qquad \sum_i \mu^i \sum_j a_{j,t}^i = 0 \tag{12}$$

where $j = \{E, U\}$ denotes the country. The debt market clearing condition can alternatively be interpreted as stating that the global net foreign asset position (NFA) is zero. The NFA and current account in country j are then given by:

$$NFA_{j,t} = \sum_i \mu^i a_{j,t}^i, \qquad CA_{j,t} = NFA_{j,t} - NFA_{j,t-1} \tag{13}$$

4.1 Financial autarky

We begin by characterizing the economy under financial autarky in which households can only trade debt domestically. This is equivalent to solving the closed-economy version of the model for each country separately. For readability, we drop the country-specific subscript j. The type-specific Euler equation is given by the following expression:

$$\frac{1}{c_t^i} \geq \frac{(1 + r_{t+1})\beta}{c_{t+1}^i} + \frac{\psi}{1 + a_{t+1}^i}$$

The equation does not necessarily hold with equality due to the presence of the borrowing constraint. Combining the Euler equation with the budget constraint yields the following expression in steady state:

$$1 \geq (1+r)\beta + \frac{\psi(y^i + ra^i)}{1+a^i} \tag{14}$$

Differently from a model without preferences for wealth, the Euler equation contains an additional term: the ratio of marginal utility of wealth relative to consumption. The interest rate is not only a function of the discount factor β, but also of the income share of household i. From Equation (14), we can back out the expression for the optimal level of debt:

$$a^i \geq \frac{\psi y^i + \beta(1+r) - 1}{1 - \beta(1+r) - \psi r} \tag{15}$$

where we again observe that the degree of income inequality affects optimal debt holdings.

We now turn to solving for the equilibra in this economy.[18] As the optimal level of debt is increasing in income, the high-endowment type is the lender while the low-endowment type is the borrower (i.e., $a^t > 0$ and $a^b < 0$).[19] Combining the type-specific equations for optimal debt holdings, which correspond to the supply and the demand of debt, yields the equilibrium interest rate in this economy. While the debt supply curve of savers is always given by Equation (15) holding with equality, we can distinguish between two cases for the debt demand by borrowers. Depending on the restrictiveness of the borrowing constraint, debt demand is given either by the Euler equation of the borrowers or by the borrowing limit itself. From Equation (9), the latter corresponds to:

$$a^b = -\phi \frac{y^b}{r} \tag{16}$$

Similarly to the model in Mian et al. (2021a), we will first focus on the case in which low-income households are at the borrowing constraint and discuss the alternative scenario afterwards.[20] Specifically,

Lemma 1. *Low-income households are constrained whenever their income per capita y^b is below a threshold $\underline{y}^b$, defined as:*

$$\underline{y}^b \equiv \frac{(1-\beta-\psi)}{(1-\phi)(1-\beta-\psi)+\phi\beta} > 0 \tag{17}$$

Proof. See Appendix C. □

We can now characterize the steady-state properties of our model in autarky, starting from

[18] We restrict our attention to equilibria in which debt is traded at a positive interest rate. For details, see Appendix C.1.

[19] This is consistent with recent empirical evidence provided in Mian et al. (2020, 2021a) who show that the secular rise in savings by the top 1 percent has been accompanied by dissaving of the bottom 90 percent.

[20] In Mian et al. (2021a) the borrowing constraint is always binding due to the way wealth preferences are specified. We introduce non-homothetic savings behaviour through the Stone-Geary shifter κ while they impose a different intertemporal elasticity of substitution of consumption and wealth.

the (dis-)saving schedule. Given our assumptions on the strength of the wealth motive ψ and Lemma 1, the debt supply curve is given by the Euler equation of the Top earners while the debt demand curve is given by the borrowing constraint of the Bottom earners. This yields the following Lemma.

Lemma 2. *Debt demand and supply are, respectively, decreasing and increasing in the interest rate.*

$$\frac{\partial d}{\partial r} < 0, \quad \frac{\partial s}{\partial r} > 0$$

where $d \equiv -\mu^b a^b$ and $s \equiv \mu^t a^t$.

Proof. See Appendix C.3. □

The economy can be represented by the debt supply-demand diagram in Figure 3 in which the aggregate debt supply (S) and demand (D) curves of U and E are given by the green and orange lines, respectively. They are pinned down by:

$$r = \frac{(1-\beta)(s+\mu^t) - \psi\omega^t}{\beta\mu^t + (\beta+\psi)s}, \quad r = \frac{\phi\omega^b}{d}$$

For both demand and supply, it is straightforward to appreciate the role of income inequality in shifting the respective curves and, as a consequence, the equilibrium interest rate. Figure 3 also provides a visual proof of our next result.

Proposition 1. *The closed-economy equilibrium interest rate is decreasing in income inequality (defined as the share of endowment accruing to the Top earners):*

$$\frac{\partial r^*}{\partial \omega^t} < 0$$

Proof. See Appendix C.3. □

The key result under autarky is that the interest rate is decreasing in the level of income inequality.[21] Figure 3 shows that higher inequality shifts the debt supply curve outwards as savers are willing to hold more debt for a given interest rate due to the non-homotheticity of preferences. At the same time, higher inequality also lowers debt demand due to a tighter borrowing constraint for borrowers. Jointly, these forces lower the interest rate. The effect of inequality on the level of debt, instead, is ambiguous and depends on the curvature of demand and supply.

To derive this result, we have assumed that low-income households are at the borrowing constraint, in accordance with Lemma 1. In an economy in which low-income households

[21] The non-negative solution for the interest rate is given by:

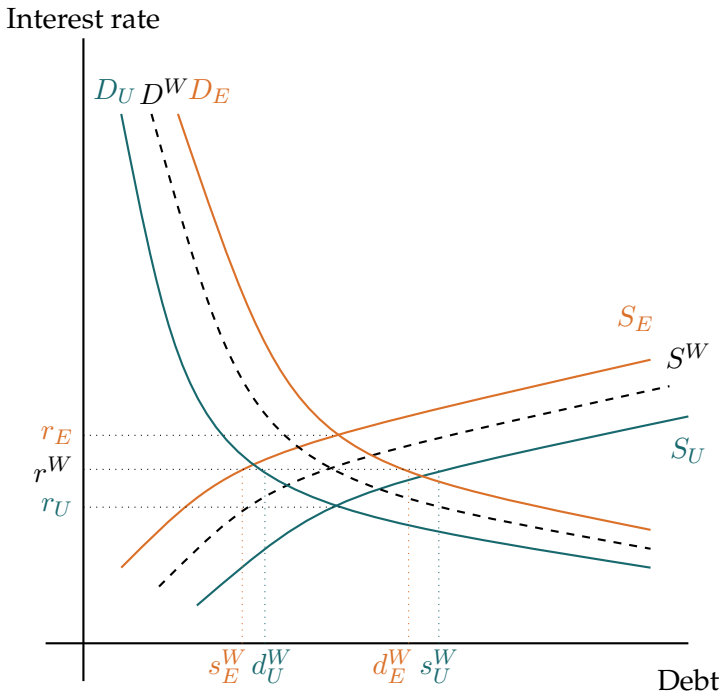
$$r^* = \frac{-\xi + \sqrt{\xi^2 + 4\beta(1-\beta)\mu^t\phi\omega^b}}{2\beta\mu^t}$$

where $\xi = (\beta+\psi)\phi\omega^b + \psi\omega^t - (1-\beta)\mu^t$.

are unconstrained, instead, the interest rate corresponds to $r = \frac{1-\beta-\psi}{\beta}$ and is therefore independent of the level of inequality. While, individually, both the demand and the supply for debt are affected by inequality, these forces have no effect on the interest rate in equilibrium as any increase in debt supply by savers is offset by an equivalent increase in debt demand by borrowers. However, for any wealth motive ψ compatible with our environment, i.e. an equilibrium with debt traded at a non-negative interest rate, there will always be a threshold level of income inequality beyond which the borrower is constrained, such that debt demand is pinned down by the borrowing constraint. The relationship between income inequality and the interest rate is therefore non-linear, but unambigously negative. Figure C1 in Appendix C illustrates this connection.

The idea that income inequality affects interest rates is well established, especially in the context of the literature on secular stagnation. Mian et al. (2021a) illustrates theoretically how higher levels of inequality depress the interest rate in an environment with indebted demand. Platzer and Peruffo (2022) shows in a quantitative exercise that around one third of the decrease in interest rates over the last decades is explained by increases in inequality. We introduce this result to serve as a building block for our open-economy analysis in the next section.

Figure 3: The Inequality Metzler diagram



Notes: This figure shows the debt supply and demand curves and resulting equilibrium interest rates and net foreign asset positions under autarky and financial integration.

4.2 Financial integration

We now allow households in E and U to trade both goods and debt across countries. Under full financial integration, capital flows freely and asset prices are equalized across countries.

As before, we consider a scenario in which the Bottom earners, now in both countries, are borrowing-constrained. In this case, debt supply is given by the Top earners in E and U, while debt demand is given by the Bottom earners. In steady-state, the former can be derived from the Euler equation of savers in each country:

$$1 = \beta(1+r) + \frac{\psi(y_j^t + ra_j^t)}{1+a_j^t} \quad \text{for} \quad j \in \{E, U\}$$

As with debt supply, aggregate debt demand is given by the sum of individual debt demands by the Bottom earners in each country:

$$d = \sum_j a_j^b = -\sum_j \frac{\phi y_j^b}{r}$$

We again combine debt supply with debt demand to find the equilibrium interest rate and debt level. This yields the main theoretical result of this paper, as described in the next proposition.

Proposition 2. *All else equal, the unequal country has a positive and the equal country a negative net foreign asset position.*

$$NFA_U^* > 0, \quad NFA_E^* < 0 \quad \textit{iff} \quad \omega_U^t > \omega_E^t$$

Proof. See Appendix C.3. □

Financial integration results in a positive net foreign asset position in U, mirrored by a negative net foreign asset position in E. To see why, it is helpful to return to Figure 3, which now presents an inequality-based variant of the Metzler diagram, and draw the comparison to the equilibrium under autarky. Without capital flows, the interest rate in U is lower than the interest rate in E. Once capital is allowed to flow freely, the international interest rate r_W stabilizes at a level that is between the autarkic interest rates in U and E. For savers in U, this higher interest rate relative to autarky encourages greater saving. In contrast, savers in E reduce their saving because the return on saving has declined. On the demand side, borrowers in E can now absorb more debt due to a relaxation of the borrowing constraint, while borrowers in U face a tighter borrowing constraint. This translates into a positive NFA in U and a negative NFA in E in equilibrium.

While the current account is zero in steady state by definition, the transition from autarky to financial integration generates temporary imbalances. Specifically, country U runs a current account surplus, while country E experiences a current account deficit.

We can analytically characterize each country's current account, by defining the latter as the change in aggregate debt flows across the two steady states:

$$\begin{aligned} CA_j &= \mu^t \Delta a_{ij}^t + \mu^b \Delta a_{ij}^b \\ &= \mu^t \left(\frac{\psi y_j^t - [1-\beta(1+r_W)]}{1-\beta(1+r_W)-\psi r_W} - \frac{\psi y_j^t - [1-\beta(1+r_j)]}{1-\beta(1+r_j)-\psi r_j} \right) + \mu^b \left(-\frac{\phi y_j^b}{r_W} + \frac{\phi y_j^b}{r_j} \right) \end{aligned} \tag{18}$$

where r_j denotes the equilibrium rate prevailing in country j under autarky. This expression allows us to analyze how global imbalances deteriorate or reverse, compared to their baseline level, in response to changes in the structural parameters characterizing the two economies in our environment.

4.3 Comparative statics

In this section, we analyze the role of income inequality and financial constraints for international capital flows. In particular, we perform a comparative statics exercise to analytically characterize the response of debt flows to changes in the relative level of income inequality (ω_j^t) and borrowing frictions (ϕ_j) across countries. To make the notation lighter, we rewrite the share of endowment of the Top earners in country j as $\omega_j^t \equiv \omega^j$, and their share in the total population as $\mu^t \equiv \mu$.

Higher income inequality dispersion. We first consider a case in which country U becomes more unequal: its Top earners' income share increases from ω_1^U to ω_2^U, with $\omega_2^U > \omega_1^U$. According to Proposition 1, this causes the autarkic interest rate in U to fall, $r_U^2 < r_U^1$, and consequently lowers the world interest rate under financial integration, $r_W^2 < r_W^1$. To assess the effect on external positions, we use the expression for the current account of E in Equation 18.

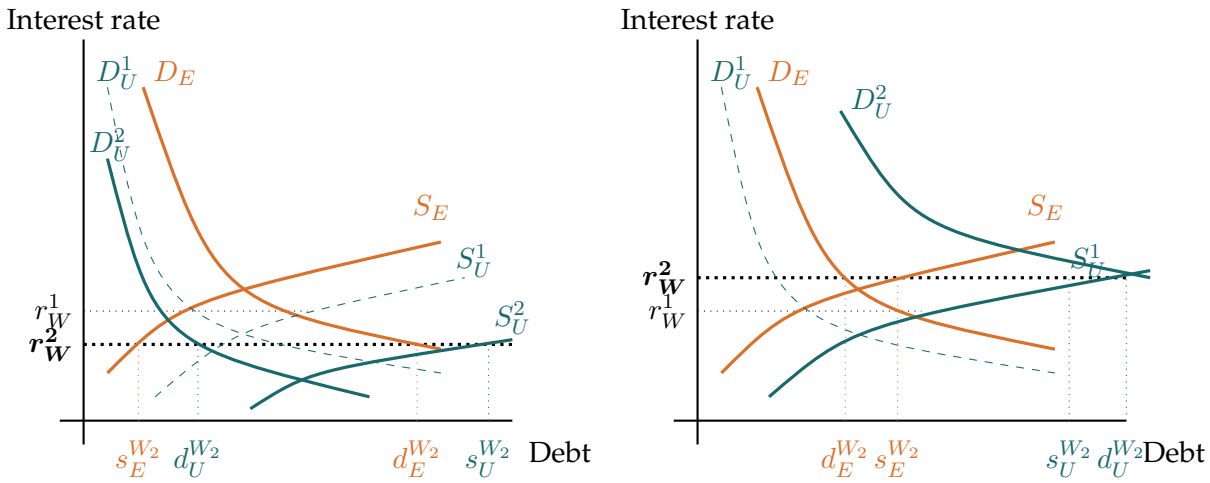
$$\begin{aligned} CA_E &= NFA_E(\omega_2^U) - NFA_E(\omega_1^U) \\ &= \frac{\psi\omega_E - \mu[1-\beta(1+r_W^2)]}{1-\beta-(\beta+\psi)r_W^2} - \frac{\psi\omega_E - \mu[1-\beta(1+r_W^1)]}{1-\beta-(\beta+\psi)r_W^1} + \frac{\phi(1-\omega^E)(r_W^2 - r_W^1)}{r_W^1 r_W^2} \end{aligned}$$

Given Lemma 2 and $r_W^2 < r_W^1$, this equation is always negative, implying that current account imbalances become larger when inequality dispersion increases. In E, where agents have unchanged endowments, the lower global interest rate reduces savings and raises demand for debt, amplifying the original deficit. A symmetric result holds if inequality dispersion increases due to lower inequality in E: a relatively higher global interest rate would simultaneously stimulate debt supply and dampen debt demand in U, giving rise to a larger current account surplus in U.

This result can again be illustrated using the inequality-based Metzler diagram in Figure 4. The left panel depicts the direction of capital flows following an increase in inequality in U. Higher inequality dispersion causes both debt supply and debt demand in U to shift downward: the supply curve moves from S_U^1 to S_U^2 due to a stronger demand for wealth among top earners, while the demand curve shifts from D_U^1 to D_U^2 as a result of a decline in pledgeable income among bottom earners. The resulting downward pressure on the international interest rate exacerbates the pre-existing levels of imbalances, as a higher excess supply of debt in U is matched by a larger demand for debt in E.

Asymmetric financial development. Next, we study a scenario in which borrowing constraints differ across countries. In particular, we focus on the case in which the unequal country has a looser borrowing constraint, i.e. $\phi_U > \phi_E$. A relaxation of the borrowing constraint in-

Figure 4: Comparative statics in the Inequality Metzler diagram



Notes: The left panel shows the case of an increase in income inequality dispersion ($\omega_U^t \uparrow$). The right panel shows a larger share of pleadgeable endowment in U ($\phi_U > \phi_E$).

creases debt demand, thereby raising the equilibrium interest rate in autarky.

Lemma 3. *The closed-economy equilibrium interest rate is increasing in the share of pleadgeable endowment:*

$$\frac{\partial r^*}{\partial \phi} > 0$$

Proof. See Appendix C.3. □

This results in the following proposition:

Proposition 3. *There exists a level of the borrowing constraint $\phi_U > \phi_E$ under which U's net foreign asset position is negative.*

$$NFA_U < 0 \quad \textit{if} \quad \phi_U > \tilde{\phi} > \phi_E$$
$$\textit{where} \quad \tilde{\phi} \quad \textit{s.t.} \quad r_U(\tilde{\phi}) = r_E(\phi_E)$$

Proof. Follows from Lemma 2 and 3. □

If domestic credit markets in U are liberalized to the extent that its autarkic interest rate exceeds that of E, then – despite higher income inequality – U ends up with a negative NFA position under financial integration. When international capital markets open, borrowing becomes cheaper and the return to lending lower for households in U.

Furthermore, regardless of the sign of the initial NFA position, an asymmetric liberalization in U under financial integration will lead to a current account *deficit*. As shown by the right panel of Figure 4, the upward shift in country U's debt demand curve increases the equilibrium interest rate. In response, households in E reduce their borrowing and increase their savings, generating capital outflows that are absorbed by the heightened borrowing by bottom earners in U. Compared to the baseline scenario, the direction of international capital flows reverses.

The role granted to financial markets can therefore provide one possible explanation for the experience of the United States over the last decades (see, for example, Caballero et al., 2008; Mendoza et al., 2009; Coeurdacier et al., 2015). Despite rising income inequality, the U.S. has run persistent current accounts deficits. Through its deep and liquid financial markets, it has accomodated the influx of overseas savings, especially from countries where lower levels of inequality have coexisted with less developed financial institutions.

5 Quantitative model

In this section, we extend our theoretical framework in several directions for a quantitative analysis. First, we depart from the simplifying two-household setting and introduce richer *ex-post* household heterogeneity through the addition of uninsurable, idiosyncratic income risk. This generates an additional source of income inequality and maps more closely into our empirical analysis. In particular, it allows us to causally determine and quantify the relative importance of permanent income inequality versus income risk for current accounts. Second, we introduce a production sector to study the joint response of savings *and* investment to changes in the income distribution. The combination of these elements lends itself more naturally to the study of transition dynamics across steady states, given the presence of realistic feedback effects across prices, distributions, and expectations. Analyzing the behavior of savings-investment imbalances out of steady-state is key to provide a clearer theoretical counterpart to our empirical findings.

5.1 Environment

Income process. Each household i in country j supplies one unit of labor inelastically. Labor income depends on the wage rate w_{jt} and households' labour productivity, which is given by a permanent and a transitory component.

$$y_{ijt} = w_{jt} s_{ij} z_{ijt} \tag{19}$$

The permanent component s_{ij} is drawn from from a three-point distribution which represents the *Bottom*, *Middle*, and *Top* of the income distribution, with cutoffs at the 90th and 99th percentiles. The transitory income component is stochastic and follows an AR(1) process with persistence ρ_z and normally distributed innovations with variance σ_{z_j}. Both the unconditional distribution of permanent and transitory income are allowed to differ across countries, as indicated by the subscript j. However, we assume that aggregate labour productivity is identical across countries to isolate distributional effects. The income process is nested by Model 2 of the income inequality decomposition in Section 3.4 and nests Model 1 when $\rho_z = 0$.

Households. We present the household problem from the perspective of an economy with perfect capital mobility in which the distinction between domestic and foreign assets is irrelevant. As before, households face an infinite horizon and have preferences over consumption

and wealth:

$$u(c_{ijt}) = \frac{c_{ijt}^{1-\gamma}}{1-\gamma} \tag{20}$$

$$v(a_{ijt+1}) = \psi \frac{(\kappa + a_{ijt+1})^{1-\gamma}}{1-\gamma} \tag{21}$$

where a now denotes assets. Unlike in the stylized theoretical framework, households in this economy save by supplying capital to firms instead of lending to each other. The household's dynamic optimization problem can be rewritten recursively as:

$$V(a_{ij}, s_{ij}, z_{ij}) = \max_{c_{ij}, a'_{ij}} u(c_{ij}) + v(a'_{ij}) + \beta E_{z'_{ij}||z_{ij}} V(a'_{ij}, s_{ij}, z'_{ij}) \tag{22}$$

such that

$$c_{ij} = y_{ij} + (1 + r_j)a_{ij} - a'_{ij}$$
$$a'_{ij} \geq -\phi_j f(y_{ij})$$

As indicated by the expectation operator, households now face uncertainy about their income. They are subject to two constraints, a budget and a borrowing constraint. The borrowing limit is income-dependent and is allowed to vary across countries.

Firms. We assume the presence of a representative firm in each economy. Under the assumption of no labour mobility and full capital mobility across countries, each firm hires labour domestically and rents capital domestically and abroad. It produces output according to a standard Cobb-Douglas technology:

$$Y_{jt} = A_{jt} K_{jt}^{\alpha} L_{jt}^{1-\alpha} \tag{23}$$

Each input is paid its marginal product, with factor prices determined in equilibrium.

Market clearing. The labour market clears in each country separately:

$$L_t = L_{jt} = \sum_s \sum_z \lambda_{jt}(s, z) \cdot s \cdot z \tag{24}$$

where $\lambda_{jt}(s, z)$ denotes the unconditional distribution of permanent and transitory labour productivity in country j. Aggregate labour is assumed to be identical across countries. Capital markets clear across both countries:

$$\sum_j K_{jt} = \sum_j \sum_s \sum_z \sum_a \mu_{jt}(s, z, a) \cdot g_{jt}(s, z, a) \tag{25}$$

where $\mu_{jt}(s, z, a)$ denotes the joint distribution of labour productivity and assets and $g_{jt}(s, z, a)$ denotes the optimal savings choice of a household in a given state.

Equilibrium. A stationary equilibrium in this environment is given by the policy functions $g_j(s, z, a)$, probability distributions $\mu_j(s, z, a)$ and factor prices r and w such that households

and firms optimize and labour and capital markets clear.

5.2 Calibration

Our calibration strategy proceeds in two stages. We begin by calibrating key model parameters using a single-country version of the economy. We then apply the estimated parameters to a multi-country setting, in which countries are allowed to differ in the degree of income inequality and the tightness of borrowing constraints.

We calibrate the one-country economy to the United States, both due to its economic relevance and wide availability of data. This procedure involves two steps. First, we assign values to a subset of parameters outside the model. Second, we calibrate the remaining parameters internally to match selected moments. Table 4 summarizes the resulting parameter values.

We choose a standard value for the elasticity of intertemporal substitution of consumption and set $\gamma = 2$. We specify the income-dependent borrowing constraint in terms of permanent income and allow households to borrow up to two months of permanent income scaled by the wage rate, based on the estimates in Kaplan and Violante (2014). On the production side, we choose an output elasticity of capital of 0.33 and a depreciation rate of 5 percent a year.

The calibration of the income process involves choosing parameters for the permanent and the transitory component of income. With regards to the former, we select permanent income levels for the *Bottom*, *Middle*, and *Top* of the distribution in order to match the share of aggregate disposable income held by each group in the respective percentile range.[22] The persistence and variance of the transitory income component are calibrated to the US economy based on household-level income data in the PSID. We directly take the estimates provided in Kaplan and Violante (2022) for the annual model with permanent heterogeneity and persistent-transitory shocks, but abstract from the fully transitory shock to keep the model tractable.

The remaining parameters β, ψ and κ are set to match the average long-term real interest rate (3%), the economy-wide ratio of wealth to income (4.5), and the share of wealth held by the top 1 percent of the distribution (32%). Jointly, these moments allow us to pin down the discount factor, as well as the strength and non-homotheticity of wealth preferences.

5.3 Validation

As reported in Table 4, the model approximates closely the targeted interest rate (2.9% in the model vs 3.0% in the data), the wealth-income ratio (4.2 vs 4.5), and the share of wealth held by the top 1 percent of the distribution (31.8% vs 32.0%). How well does it match other moments of the data?

Income and Wealth Distributions. We evaluate the model's ability to reproduce key distributional moments in the data. For income inequality, the model generates a Gini coefficient

[22] Note that the measure of disposable income in the data contains both labour and capital income, while we use it to calibrate labour income only. We tolerate this inconsistency in order to avoid matching total income shares which are endogenous in the model. Labour income shares, instead, are exogenous.

Table 4: Calibration

Parameter	Description	Value	Target/Source
Panel A: Externally calibrated			
Households			
γ	Curvature u(c) and v(a)	2.0	Standard
ϕ	Borrowing constraint	0.28	Two months of average income
Income			
s_j^1	Permanent income of bottom 90%	0.71	Income share of 64.0%
s_j^2	Permanent income of bottom 90-99%	2.54	Income share of 23.0%
s_j^3	Permanent income of top 1%	13.4	Income share of 13.0%
σ_z^2	Variance of AR-1 innovation	0.04	PSID
ρ_z	Persistence of AR-1 component	0.92	PSID
Production			
A	Productivity	1.0	Normalized
α	Output elasticity of capital	0.33	Standard
δ	Depreciation	0.05	Standard
Panel B: Internally calibrated			
β	Discount factor	0.93	Avg. long-term interest rate
ψ	Weight on v(a)	4.33	Wealth-to-income ratio
κ	Constant in v(a)	20.24	Share of wealth held by top 1%

Notes: This table reports the calibrated parameters of the quantitative model.

of 0.48, close to the empirical value of 0.46. Our simplified three-group permanent income classification therefore successfully captures the overall income distribution.

Turning to wealth inequality, the model yields a wealth Gini of 0.78. While this slightly underestimates the wealth inequality observed in the data (0.82), the model captures the key feature that wealth is significantly more concentrated than income.

Inequality and Current Accounts. We next consider how the model fares in open economy, even though none of the moments we target concern open-economy variables. In particular, we are interested in whether the model is able to quantitatively explain the relationship we observe in the data between domestic inequality and current account imbalances across countries.

To this end, we simulate a panel of 52 countries over 34 years, covering the same set of countries and years as in the empirical analysis. Countries are assumed to be identical except for the distribution of permanent income. The role of heterogeneous borrowing constraints and differences in income risk is analyzed in the next section.

Each country starts from the autarkic steady state, undergoes financial integration in the first period, and experiences the same evolution of the income distribution as in the data. To

Table 5: Targeted and Untargeted Moments

Moment	Data	Model
Panel A: Targeted moments		
Real interest rate (%)	3.0	2.9
Wealth-to-income ratio	4.5	4.2
Top 1% wealth share (%)	32.0	31.8
Panel B: Untargeted moments		
Domestic variables		
Income Gini	0.46	0.48
Wealth Gini	0.82	0.78
Open economy variables		
Avg. |NFA/Y|	35.4	28.4
Std. dev. NFA/Y	39.3	32.3
Avg. |CA/Y|	3.5	1.5
Std. dev. CA/Y	4.4	7.2

Notes: This table reports the targeted and untargeted moments in the data and in the model.

generate the latter, we introduce unanticipated shocks to the income shares accruing to the *Bottom*, *Middle*, and *Top* of the distribution each year by changing the distribution of permanent income s.[23] The market-clearing interest rate and resulting capital flows arise as an equilibrium outcome of each country's households and representative firms' optimization, given the estimated parameters and exogenous income allocations. This scenario is admittedly simplified, as the transition from autarky to capital mobility is immediate and frictionless, and heterogeneity across countries only stems from their income distributions over time. Nevertheless, it provides a useful benchmark to isolate the effect of inequality and assess its quantitative relevance relative to the data.

First, the average absolute value of current accounts and NFAs in our simulated panel are 1.5% and 28.4% over GDP, respectively, compared to 3.5% and 35.4% in the data. The cross-country distribution of current accounts and NFAs over time are also realistic, as they exhibit a standard deviation of 7.2 and 32.3, not too far from their data counterparts (4.4 and 39.3, respectively).

Second, the model reproduces, to a considerable degree, the empirical regression coefficients relating income inequality to the current account. To ensure comparability, we estimate the model regression including country and time-fixed effects, and report the results in Table 6. The first row displays regression coefficients of several measures of income inequality using the sample of advanced economies.[24] For instance, the estimated coefficient on the income

[23] A similar quantitative exercise in a closed-economy model is conducted in Mian et al. (2021a). We find overall similar results if we assume that agents, instead of facing a series of unanticipated shocks, know in advance the full path of permanent income allocations.

[24] We exclude emerging market economies from this comparison because our model does not distinguish between advanced and emerging economies. Table D1 in the appendix reports regression coefficients for the full sample.

Table 6: Current accounts and income inequality in data and model

	Top 1%		Top 10%		Top 0.1%		Gini	
	Data	Model	Data	Model	Data	Model	Data	Model
Income inequality	0.849***	0.333***	0.475***	0.193***	1.147***	1.503***	0.392***	0.253***
	(0.234)	(0.103)	(0.131)	(0.066)	(0.368)	(0.461)	(0.081)	(0.066)
Δ Income inequality	0.560***	0.225***	0.376***	0.172***	0.977***	0.949***	0.281***	0.186***
	(0.145)	(0.011)	(0.124)	(0.008)	(0.287)	(0.048)	(0.091)	(0.008)
Observations	749	792	749	792	749	792	749	792
Countries	24	24	24	24	24	24	24	24

Notes: This table reports regression coefficients from separate estimations of (i) income inequality levels and (ii) year-on-year percentage point changes on the current account described in Equation 1 using observed and model-generated data for the sample of advanced economies. The estimated coefficients on covariates from the data regressions are omitted. Standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

share of the top 1 percent is 0.333 in the model, compared to 0.849 in the data. The model also replicates the empirical pattern that the association between inequality and the current account becomes stronger as income becomes more concentrated at the very top: coefficients increase in magnitude moving from the top 10 percent to the top 1 percent and then to the top 0.1 percent. These patterns suggest that the model, despite being calibrated in a closed-economy setting, can also account for the relationship between income distributions and capital flows when countries interact in open economy. Quantitatively, according to our model estimates, income inequality differentials across countries can account for more than a third (35.2%) of the observed level of current accounts of advanced economies over our sample period. We compute this number by comparing the absolute sum of current accounts over GDP across advanced economies for the period 1986-2019, $\frac{\sum_{j,t}|CA_{j,t}|}{\sum_{j,t}Y_{j,t}}$, in the data and in the model.

We then assess the prediction from the analytical model that exogenous *changes* in domestic inequality cause current account imbalances on the path from the old to the new steady state. For that purpose, we slightly tweak our baseline regression in Section 2 by replacing levels of income inequality with year-on-year percentage point changes in income inequality. The coefficients associated with inequality changes are reported in the second row of Table 6 and lend support to the prediction that income inequality *growth* is associated with larger current account balances.[25]

6 Inequality, financial development and current accounts

In this section, we revisit through the lens of our calibrated model two major global developments that characterized the last decades: rising income inequality and financial liberalisation, both within and across borders. We consider a two-country version of the model, in which countries E (Equal) and U (Unequal) only differ in their income allocation across the *Bottom*, *Middle*, and *Top* segments of the distribution. For the Equal country, we target the income shares at the 25th percentile of the disposable income distribution within our panel of coun-

[25]The same result applies to percentage changes in income inequality, as reported in Table D2.

tries, whereas for the Unequal country, we use the 75th percentile.

We begin by studying the transition path from financial autarky to financial integration against the background of cross-country heterogeneity in income inequality. In particular, we examine the dynamic responses of current accounts, savings, investment, and the net foreign asset position during this transition. We then turn to the role of income inequality itself and assess how changes in permanent income inequality within a country generate cross-border capital flows under international capital mobility. We also investigate whether the underlying source of income inequality, i.e. differences in the permanent versus stochastic component of income, matters for aggregate outcomes. Finally, we analyze in depth the role of domestic financial liberalisation, i.e. easier access to credit, and how this interacts with inequality.

6.1 Financial integration

As a first exercise, we study how country E and U transition from financial autarky to a world with perfect capital mobility, with the aim of capturing the episode of rapid financial integration starting in the 1980s. We simulate a scenario in which both countries, starting at the steady state under financial autarky, are unexpectedly and permanently allowed to trade in foreign assets. For simplicity, we model financial integration as a one-off event instead of a gradual change.

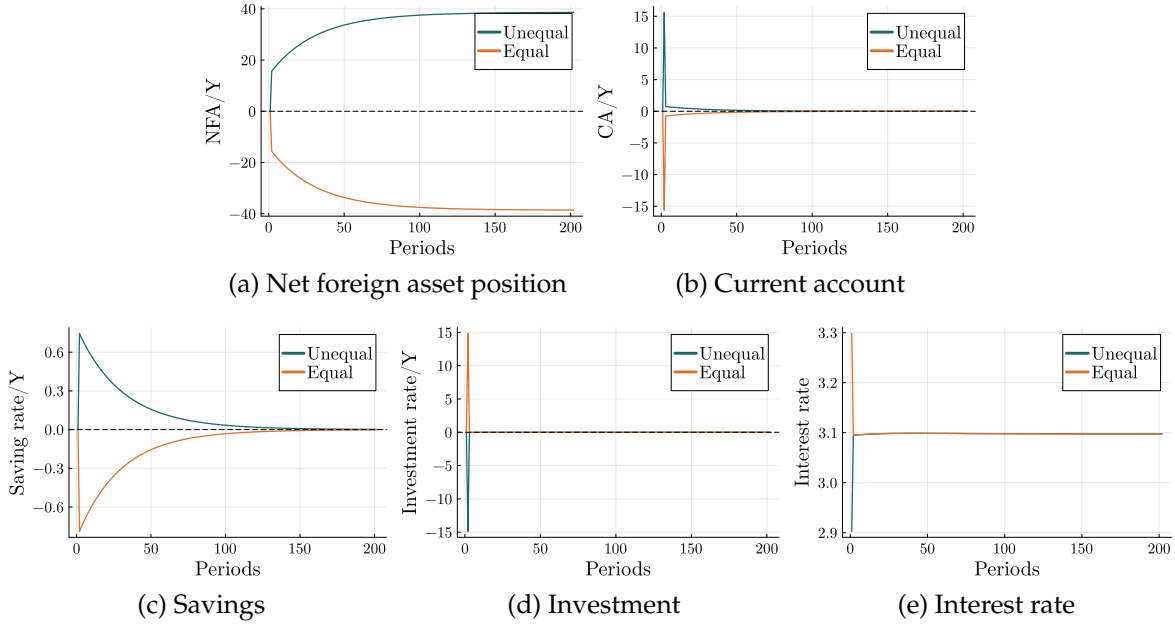
Figure 5 reports the transition paths of the net foreign asset position, current account, domestic savings, investment and the interest rate. The upper left panel shows that financial opening leads to a sudden jump in the net foreign asset position in the unequal country, mirrored by an equivalent spike in the current account position. After this initial increase, the current account remains positive for a prolonged period of time, leading to a further, slowly decelerating build-up of the NFA. Quantitatively, the effects of sudden financial liberalisation are highly persistent, with the unequal country running a current accout surplus of 0.4 percent of GDP ten years after the shock.

What lies behind these dynamics? Financial integration equalizes interest rates across countries. A higher interest rate compared to financial autarky incentivizes households in U to save more, and firms in U to invest less. Both forces contribute to positive current account balances. The investment response, however, is stronger on impact while the savings response is more persistent. As such, the strong initial current account response is driven by the frictionless adjustment of firms while the persistence of the effect comes from the gradual adjustment of households. Naturally, reallocations in country U are mirrored in country E.

6.2 Rise in permanent income inequality

Across most countries, income inequality has been rising steadily since the 1980s. What does this broad-based rise in inequality imply for current accounts? We address this question in two steps. First, we analyze how an increase in the *dispersion* of income inequality, i.e. country U becoming more unequal, affects the current account. We then simulate an increase in inequality

Figure 5: Transition from financial autarky to perfect capital mobility



(a) Net foreign asset position (b) Current account

(c) Savings (d) Investment (e) Interest rate

Notes: This figure reports the transition path of net foreign assets, the current account, saving, investment and interest rate from a steady state under financial autarky to a steady state under full capital mobility. In $t = 1$, capital is permanently and unexpectedly allowed to flow freely across countries.

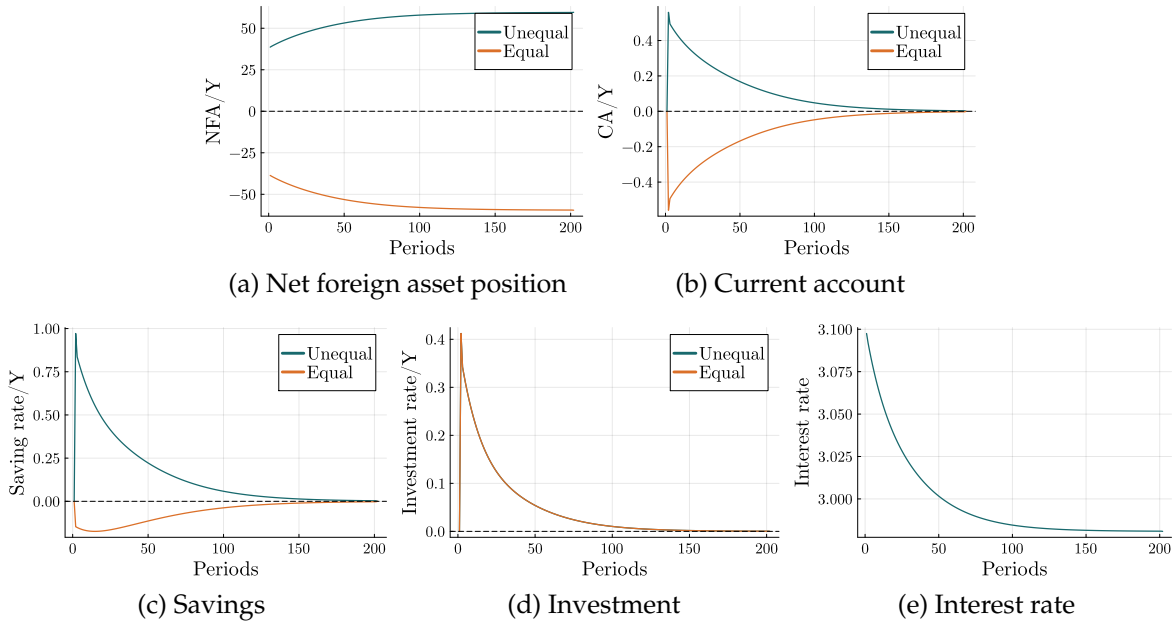
across both countries. In both scenarios, we start from the open-economy steady state to isolate the role of distributional changes.

To study the increase in income inequality dispersion, we permanently increase the level of permanent income inequality in U from period t=1 onwards by increasing the share of income held by *Top* and *Middle* by 5 and 1 percentage points, respectively. This mimics the rise in income inequality in the US over our sample period and corresponds to an increase in the Gini index of 5 percentage points. Figure 6 again reports the transition paths of the net foreign asset position, current account, domestic savings, investment and the interest rate under this scenario. In the initial steady state, U is a net lender while E is a net debtor. The increase in income inequality in U further exacerbates this imbalance. The NFA in U increases gradually by more than 20 percentage points throughout the transition period. This is reflected in a persistently positive current account over more than 200 periods. As already illustrated in the previous experiment, one-off changes in income inequality can have long-lasting effects on the external positions of countries.

Turning to savings and investment rates separately, we observe that savings increase substantially in the unequal country while they decrease, albeit to a lesser extent, in the equal country. The increase in inequality leads to more demand for savings in U, which depresses the interest rate and in turn lowers the savings demand in E. On the investment side, the responses are identical across countries. In both U and E, investment increases for a prolonged period of time. However, the investment response is not strong enough to offset the increase in savings in U, generating a positive current account balance.

The predicted investment response across countries is particularly relevant in light of our

Figure 6: Transition to higher cross-country dispersion of permanent income inequality



(a) Net foreign asset position (b) Current account

(c) Savings (d) Investment (e) Interest rate

Notes: This figure reports the transition path of net foreign assets, the current account, saving, investment and interest rate from the initial steady state under financial openness to a steady state with larger cross-country differences in permanent income inequality. In $t = 1$, permanent income inequality in the unequal country increases permanently and unexpectedly through an increase in the share of aggregate income held by the *Top* and the *Middle* of the distribution of 5 and 1 percentage points.

empirical finding that investment rates and income inequality are only weakly related. Within our empirical framework, which examines investment *relative* to other countries rather than in *absolute* terms, we would not expect to find a significant association between investment and income inequality if investment reacted identically in both countries. A parsimonious production sector under perfect capital mobility is therefore sufficient to rationalize the null-response of investment in the data. This finding also aligns with the view that the Feldstein-Horioka puzzle, i.e. the high correlation of domestic savings and investment rates, has become less relevant over the last few decades due to increased capital mobility (Feldstein and Horioka, 1980).

We next simulate a global increase in income inequality by raising *Top* and *Middle* income shares by the same amounts (5 and 1 percentage points, respectively) in both countries, instead of U only. Figure 10 reports the steady-state NFA of U following this experiment. For brevity, we omit the full transition path. The global increase in income inequality affects the external position much less than the previously studied relative increase. Higher savings of high-income households in U are accompanied by higher savings of high-income households in E, largely offsetting the effect on the current account. Compared to the previous scenario, however, the interest rate decreases substantially more to absorb the increased desire of high-income households to accumulate assets.

These two experiments illustrate that the model captures two empirical observations: the negative co-movement of interest rates and income inequality at the global level, and the decoupling between current accounts and inequality after the Global Financial Crisis (see Figure

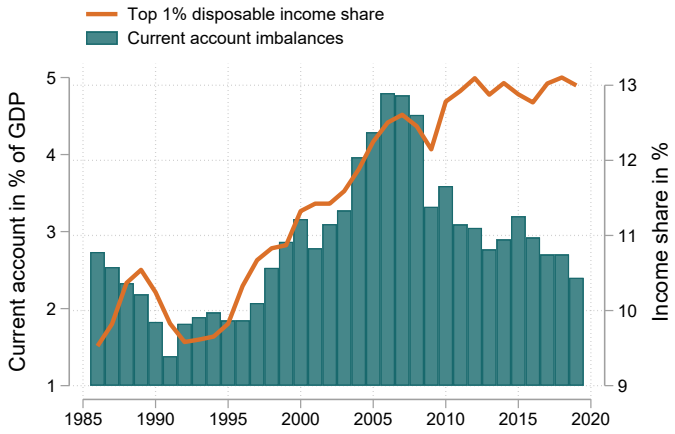
7). While income inequality has continued to rise, global imbalances have remained relatively stable. The latter observation confirms a key prediction of the theoretical model: the configuration of global imbalances depends on how income inequality differs across countries, rather than on its absolute level.

We provide empirical support for this prediction in Figure 8, which plots the global dispersion of income inequality across countries in each year against the level of global imbalances, measured as the GDP-weighted average of current accounts and net foreign asset positions expressed in absolute terms. The figure shows that periods with a larger dispersion of income inequality across countries are indeed associated with larger global imbalances. In our simulated panel, the relationship between inequality dispersion across countries and the level of global imbalances, both in terms of absolute levels of NFAs and current accounts, closely resembles the one in the data depicted in Figure 8. Both inequality dispersion across countries and changes in inequality over time – as emphasized in Table 6 – underscore that *relative* income inequality is key to understanding global capital flows.

6.3 Rise in income risk

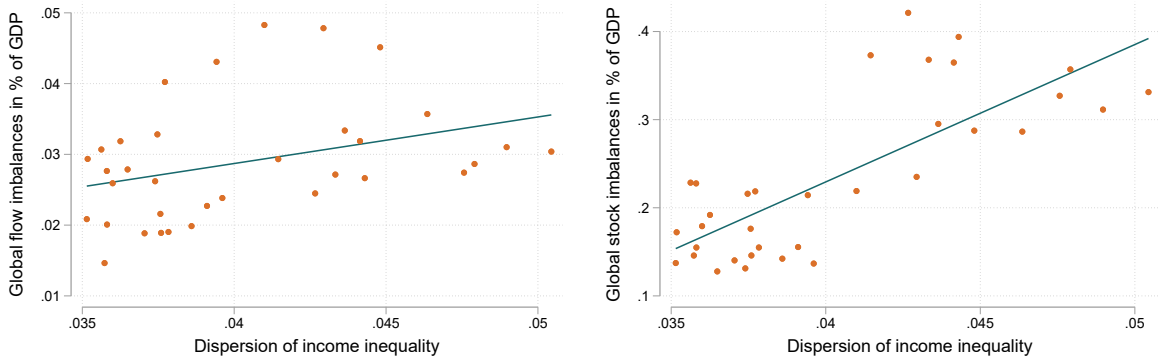
We now turn to analyzing the transition to a more dispersed income inequality distribution driven by changes in the stochastic instead of the permanent component of income. While changes in income risk are not the focus of our analysis, we pursue this experiment to relate to previous studies that interpret changes in income inequality as changes in income risk and evaluate their consequences quantitatively (Broer, 2014; De Ferra et al., 2021). For this purpose, we permanently increase the variance of the transitory income component in U from period t=1 onwards to mimic the rise in income inequality, as measured by the Gini index, simulated

Figure 7: Global within-country income inequality and current account imbalances



Notes: The top 1% disposable income share is calculated as the GDP-weighted average of within-country top 1% shares. Current account imbalances are measured as the absolute sum of current account balances relative to GDP across countries. The sample includes 52 countries. Sources: World Inequality Database and External Wealth of Nations (Lane and Milesi-Ferretti, 2018).

Figure 8: Cross-country dispersion of income inequality and global imbalances



(a) Flow imbalances (b) Stock imbalances

Notes: Income inequality dispersion is computed as the GDP-weighted standard deviation of disposable income inequality across countries for each year. Global imbalances are computed as the GDP-weighted average of current accounts and net foreign asset positions across countries in absolute terms.

in the previous subsection.[26]

Qualitatively, the transition paths of net foreign assets, the current account, domestic savings, investment and the interest rate are similar to the scenario in which we considered shifts in permanent income inequality. Figure 10 shows, however, that quantitatively the response of the net foreign asset position is almost five times larger. The large increase in the risky component of income triggers substantial precautionary savings and therefore large current account surpluses.[27]

What distinguishes the increase in income risk from the increase in permanent income inequality is the prediction regarding wealth inequality. The increase in the permanent component leads to an increase in wealth inequality in U from 0.78 to 0.83 as measured by the Gini index while an increase in the transitory component *decreases* wealth inequality by 10 percentage points. Seen through the lens of the model, the correlation between income and wealth inequality therefore provides a moment to distinguish between changes in the permanent versus the stochastic income component.

We explicitly test this prediction in Table A11 in Appendix A.3, which reports regression estimates of wealth inequality on several measures of income inequality for the sample of advanced economies. To isolate the dynamic relationship between income and wealth inequality from the well-known correlation in levels, we estimate regressions similar to Equation 1, i.e. controlling for several covariates as well as country- and time-fixed effects. For overall income inequality, the estimated coefficients, though imprecisely estimated, suggest that higher income inequality is associated with higher wealth inequality. This results support the view that increases in income inequality over the last decades have been primarily driven by changes in

[26] One could alternatively engineer an equivalent increase in the income variance through a higher persistence of the AR-1 component ρ_z. We find that this leads to quantitatively similar results.

[27] Note that, in our framework, assets have a dual purpose: they provide a buffer stock against negative income shocks *and* generate utility directly. Absent wealth preferences, the increase in savings following an increase in income risk would be even larger in relative terms, because households would initially hold fewer assets.

the permanent income component. When we split income inequality into its permanent and transitory components, we find that wealth inequality is positively associated with permanent income inequality while it is negatively associated with income risk, in line with the model's predictions.

Our model allows us to decompose changes in wealth inequality and compare, at a disaggregated level, how asset holdings across income groups respond to different sources of rising income inequality. Figure 9 plots the change in wealth between the initial and the new steady state under two scenarios: a higher cross-country dispersion in permanent income inequality (left panel), and increased income risk (right panel). In both cases, total wealth across both countries increases. Wealth responses across income groups, however, substantially differ.

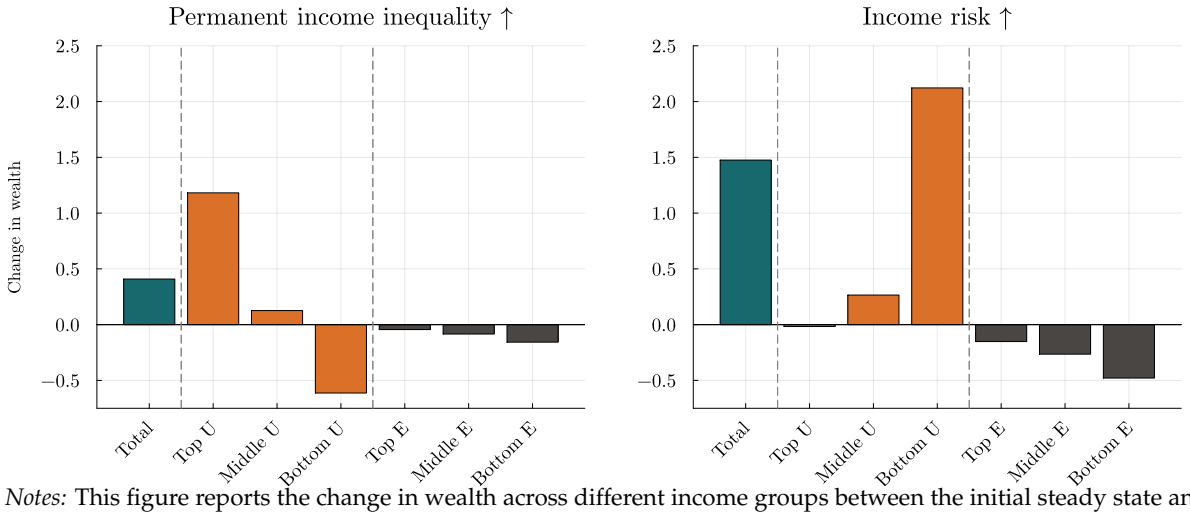
When income inequality increases because of a divergence in permanent income, nearly the entire increase in wealth is concentrated among a single group: the *Top* earners in U. Because they now receive a larger share of aggregate income, these households increase their desired savings accordingly.[28] With the exception of the *Middle* group in U, who also see a modest income gain, all other household groups reduce their asset holdings. The excess savings of the *Top* in U are absorbed both domestically by the *Bottom* in U, who experience income losses and therefore dissave, and abroad across all permanent income types due to the decline in interest rates triggered by higher savings demand in U.

In contrast, when inequality rises due to higher income risk, the cross-sectional wealth responses look quite different. In this case, *Bottom* earners in U account for most of the increase in wealth holdings, while the *Top* earners in U see little change. This reversal occurs because higher income risk strengthens precautionary saving motives primarily at the bottom of the distribution, where households are more likely to be constrained in bad states and must accumulate additional assets to smooth consumption. Top earners, instead, already hold enough wealth to self-insure against income fluctuations due to the non-homotheticity of preferences and therefore adjust their savings only marginally.

Our argument so far relies on the assumption of exogenously incomplete markets, modeled as a fixed borrowing constraint. In contrast, studies such as Broer (2014) and De Ferra et al. (2021) endogenize market incompleteness by introducing frictions to contract enforcement. In their frameworks, greater inequality driven by higher income risk can lead to the development of deeper financial markets, thereby relaxing borrowing constraints. As a result, unequal countries may borrow more and run current account deficits. In the next section, we attempt to capture the spirit of these alternative mechanisms in reduced form by allowing for cross-country heterogeneity in borrowing capacity through the parameter ϕ.

[28] Non-homothetic preferences are not the only way through which the permanent income distribution can affect the wealth distribution. Favilukis (2013), for example, offers an explanation based on a fixed cost of stock market participation.

Figure 9: Wealth changes by income group and source of inequality



Notes: This figure reports the change in wealth across different income groups between the initial steady state and the steady state with higher cross-country dispersion of permanent income inequality (left) and higher income risk (right).

6.4 Domestic financial liberalisation and heterogeneous borrowing constraints

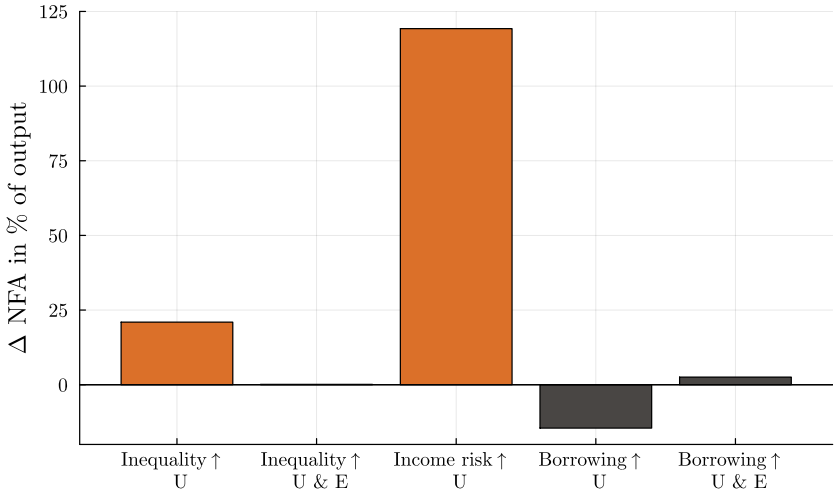
The role of financial factors in shaping global current account patterns has received considerable attention in the literature, largely due to the central position of the United States in the international financial system (see, for example, Caballero et al., 2008; Mendoza et al., 2009; Coeurdacier et al., 2015). Particularly relevant for our analysis is the observation that the U.S. has run persistent current account deficits over recent decades, despite a marked rise in income inequality, standing seemingly at odds with the predictions of our model. However, we show that the model can also accommodate the exceptional U.S. case once the well-established role of financial market development is taken into account.

Suppose that borrowing in U is relaxed, but not in E, i.e. $\phi^U > \phi^E$. Figure 10 illustrates that a loose enough borrowing constraint in U can indeed generate a current account deficit in the unequal country. The figure reports the results of a simulation in which the borrowing limit in U is increased to the equivalent of one year of income. As a result, net foreign assets fall from 40 percent to roughly 25 percent of GDP, corresponding to a cumulative current account deficit of 15 percentage points. While the required increase in borrowing capacity is sizeable, the exercise shows that for large enough differences in borrowing capacity, even strongly unequal countries can run current account deficits.

This result highlights the importance of heterogeneous borrowing constraints as a potentially omitted variable in the empirical analysis of current accounts. Unfortunately, a direct measure of borrowing capacity is not readily available. In Appendix Table A10, we report results of an exercise in which we proxy for borrowing constraints using private credit as a percentage of GDP, a metric available for a broad set of countries.[29] Specifically, we re-estimate our baseline regression from Equation 1, replacing country-fixed effects with private credit as

[29] While not a perfect proxy – private credit reflects an equilibrium outcome shaped by both credit supply and demand – it serves as a tractable empirical counterpart to the structural parameter governing borrowing capacity in our model.

Figure 10: Net foreign asset positions across different scenarios



Notes: This figure reports the change in net foreign assets for the unequal country U compared to the baseline scenario across various scenarios: (i) an increase in permanent income inequality in U by increasing the share of aggregate income held by *Top* and *Middle* of 5 and 1 percentage points, (ii) an equivalent increase in permanent income inequality in both U and E, (iii) an increase in income risk in U mimicking the rise in the income Gini in (ii), (iv) a six-fold increase in the borrowing limit in U and (v) a six-fold increase in the borrowing limit in both U and E.

an additional control. The results show that, without controlling for private credit, the coefficient on inequality varies in sign across different inequality measures, echoing earlier findings that highlight the role of unobserved heterogeneity. Once private credit is included, the coefficient on inequality becomes positive and statistically significant for both the Top 1% and Top 10% income shares. The coefficient on private credit itself is negative, in line with the model's prediction that greater borrowing capacity is associated with a lower current account balance.

As for income inequality, the distinction between relative and absolute, or country-specific versus global changes is important. To illustrate this point, we run a final experiment in which we relax the borrowing constraint in both countries instead of in U only. This scenario is useful to understand how wide-spread financial liberalisation, a development distinct from financial integration, contributed to the build-up of global imbalances. Figure 10 shows that looser borrowing conditions are associated with only slightly larger global imbalances.

7 Conclusion

This article unveils a tight link between income inequality and current accounts. Using cross-country panel regressions, we document that higher income inequality is associated with higher current account balances. This link is economically meaningful, stronger for advanced economies, and robust to different ways of measuring income inequality. We show that income inequality affects current accounts through its positive association with domestic savings. Furthermore, for a subset of countries, we provide evidence that inequality in permanent income, rather than transitory income risk, is the key margin to explain the observed empirical co-movement.

We rationalize these findings in two steps. First, through a stylized two-country framework with heterogeneous agents, which highlights the core of our theory, namely differences in households' savings behaviour along the distribution of permanent income. Despite its simplicity, the model not only generates the positive co-movement between inequality and current accounts observed in the data, but delivers several other nuanced predictions through the interaction between inequality and financial markets. Second, we develop a richer quantitative model, accomodating broader heterogeneity, income uncertainty and an endogenous production side. We show that income inequality can explain approximately 35% of the cumulated current account imbalances of advanced economies over the sample period, and that increases in income inequality driven by higher transitory risk, unlike those driven by higher permanent income inequality, predict a counterfactual reduction in wealth inequality.

Our analysis suggests that the distribution of income constitutes an important determinant of global imbalances. Even though we remained intentionally agnostic on the drivers underlying shifts in income inequality, our results indicate that fiscal authorities need to consider the effects of redistribution not only on domestic outcomes, but also on their country's external position. Through their impact on saving rates, taxes and transfers can be deployed to address current account imbalances – raising the possibility that fiscal coordination across countries could play a role in managing global financial stability. From a normative perspective, it remains an open question to what extent current account surpluses caused by income inequality are justified, or should instead be treated as excessive. In our framework, inequality in labor income arises exogenously, but in a world where it is partly policy-induced, the answer to this question is far from obvious and provides an important avenue for future research.

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APPENDIX

A Empirical evidence

A.1 Data

Our sample covers 52 countries of which 24 are classified as advanced and 28 are classified as emerging according to the IMF definition. We drop the observation pertaining to Ireland in 2019 because of an extreme current account balance, whose absolute value lies in excess of five standard deviations of both historical Irish data and international data from the same year. For some countries, we also have data on income inequality from the GRID database, which are marked with an asterix.

Advanced economies: Australia, Austria, Belgium, Canada*, Czech Republic, Denmark*, Finland, France*, Germany*, Greece, Ireland, Israel, Italy*, Japan, Netherlands, New Zealand, Norway*, Portugal, South Korea, Spain*, Sweden*, Switzerland, United Kingdom, United States*

Emerging economies: Argentina*, Bangladesh, Brazil*, Chile, China, Colombia, Costa Rica, Egypt, Guatemala, Hungary, India, Indonesia, Malaysia, Mexico*, Morocco, Pakistan, Peru, Philippines, Poland, Romania, Russia, South Africa, Sri Lanka, Thailand, Tunisia, Turkey, Uruguay, Vietnam

A.2 Robustness checks

This section collects a wealth of complementary analyses to assess the robustness of our results. In some cases, for brevity, we only report results for our main measure of inequality, the share of disposable income held by the top 1%.

Capital account openness. In the main text, we compare results between the full sample, and a subsample with advanced economies only. Table A4 introduces a distinction based on the value of the Chinn-Ito index on capital openness, showing that inequality affects current accounts only beyond a certain level of capital openness.

Pre-tax income inequality. We consider different measures of pre-tax income inequality. Table A5 reports the results of re-estimating Equation 1. The estimate is positive across inequality measures (top 1%, top 10%, Gini index) and again larger and more precisely estimated for the sample of advanced economies. Compared to disposable income, an increase in gross income inequality is associated with a marginally smaller increase in current account balances.

Functional income distribution. Table A6 shows the results for the baseline regression including the labour and profit share along with inequality in disposable income. The profit share is measured by the gross operating surplus of non-financial firms as a percentage of national income, provided by the WID. The coefficients on the labour share have the expected sign, while those associated to income inequality remain strongly positive and significant at the 1%

Table A1: Current accounts and income inequality, full table

	Advanced economies				All			
	Top 1%	Top 10%	Top 0.1%	Gini	Top 1%	Top 10%	Top 0.1%	Gini
mb_ygap_dif_wo	-0.434**	-0.507**	-0.407**	-0.623***	-0.334***	-0.329***	-0.332***	-0.332***
	(0.173)	(0.186)	(0.170)	(0.198)	(0.062)	(0.062)	(0.062)	(0.061)
mb_totcomgap_open	0.236*	0.243*	0.237*	0.268**	0.111	0.116	0.102	0.131
	(0.121)	(0.120)	(0.119)	(0.119)	(0.090)	(0.088)	(0.094)	(0.084)
l1_d_reer	-0.027	-0.033	-0.026	-0.040	-0.022**	-0.023**	-0.023**	-0.021*
	(0.024)	(0.025)	(0.025)	(0.025)	(0.011)	(0.011)	(0.011)	(0.011)
mb_nfa2y_1	0.039***	0.038***	0.040***	0.040***	0.030***	0.029***	0.030***	0.026***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.008)	(0.008)	(0.008)	(0.008)
mb_rel3pppypw15DM_1	0.014	-0.009	0.020	-0.030	0.056	0.052	0.057	0.044
	(0.052)	(0.052)	(0.057)	(0.051)	(0.044)	(0.043)	(0.044)	(0.042)
mb_yg_mt_dif_wo	0.579	0.972	0.426	1.329*	-0.498*	-0.525*	-0.510*	-0.564**
	(0.633)	(0.693)	(0.645)	(0.730)	(0.281)	(0.278)	(0.275)	(0.281)
odep_dif_wo	0.124	0.129	0.148	0.196**	-0.042	-0.049	-0.039	-0.062
	(0.088)	(0.094)	(0.094)	(0.093)	(0.097)	(0.098)	(0.097)	(0.096)
mb_pgro_dif_wo	-0.729	-0.564	-0.719	-0.200	-0.710	-0.677	-0.670	-0.725
	(0.921)	(0.857)	(0.948)	(0.829)	(0.609)	(0.601)	(0.610)	(0.582)
ps_shr1_dif_wo	0.124	0.180	0.140	0.213	0.096	0.100	0.098	0.094
	(0.132)	(0.138)	(0.142)	(0.142)	(0.096)	(0.098)	(0.097)	(0.098)
le_wap_dif_wo	0.004	0.002	0.006	0.003	-0.008	-0.009*	-0.009	-0.010*
	(0.008)	(0.008)	(0.008)	(0.007)	(0.005)	(0.005)	(0.005)	(0.005)
le_wap_odepf20	-0.006	-0.002	-0.008	-0.002	0.021**	0.022**	0.021**	0.022**
	(0.016)	(0.016)	(0.016)	(0.016)	(0.009)	(0.009)	(0.010)	(0.009)
icrg_pol_risk_x_d	-0.072	-0.050	-0.065	0.009	-0.041	-0.040	-0.041	-0.038
	(0.090)	(0.093)	(0.092)	(0.096)	(0.042)	(0.043)	(0.042)	(0.042)
mb_ob_alt_dif_wo	0.644***	0.691***	0.645***	0.705***	0.433***	0.434***	0.425***	0.417***
	(0.091)	(0.079)	(0.099)	(0.070)	(0.111)	(0.113)	(0.114)	(0.112)
mb_ggcb2y_fit2	0.377	0.388	0.411	0.280	0.110	0.105	0.125	0.018
	(0.353)	(0.327)	(0.367)	(0.309)	(0.206)	(0.206)	(0.207)	(0.199)
mb_heal2y_dif_wo_1	-1.832***	-1.949***	-1.803***	-1.934***	-1.409***	-1.432***	-1.422***	-1.382***
	(0.549)	(0.569)	(0.564)	(0.549)	(0.409)	(0.409)	(0.411)	(0.391)
mb_ca_reserves_kc	-5.633**	-7.271**	-5.183*	-9.210***	0.041	0.015	0.053	0.069
	(2.699)	(2.936)	(2.748)	(3.179)	(0.774)	(0.772)	(0.765)	(0.768)
dmfd_pcr2y_adj_d	-0.128***	-0.150***	-0.126***	-0.175***	-0.091***	-0.090***	-0.090***	-0.085***
	(0.038)	(0.041)	(0.041)	(0.043)	(0.018)	(0.019)	(0.018)	(0.019)
Income inequality	0.849***	0.475***	1.232***	0.392***	0.161**	0.096	0.246*	0.169**
	(0.234)	(0.131)	(0.360)	(0.081)	(0.076)	(0.068)	(0.141)	(0.067)
R-squared	0.49	0.48	0.47	0.49	0.40	0.40	0.40	0.41
Observations	749	749	749	749	1479	1479	1479	1479
Countries	24	24	24	24	52	52	52	52

Notes: This table reports the coefficients estimated in equation 1. Country and time-fixed effects are not reported. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A2: Current accounts and income inequality, emerging economies

	Emerging economies		
	Top 1%	Top 10%	Gini
Income inequality	0.113	0.032	0.082
	(0.070)	(0.066)	(0.079)
R-squared	0.47	0.46	0.47
Observations	730	730	730
Countries	28	28	28

Notes: This table reports the coefficient of disposable income inequality on the current account estimated in equation 1 for the sample of emerging economies. Coefficients of other covariates are omitted from the regression table. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A3: Current accounts and income inequality changes (advanced economies and full sample)

	Advanced economies			All		
	Top 1%	Top 10%	Gini	Top 1%	Top 10%	Gini
Δ Income inequality (%)	0.044***	0.102***	0.078***	0.030***	0.069**	0.065***
	(0.010)	(0.030)	(0.020)	(0.010)	(0.027)	(0.020)
R-squared	0.45	0.45	0.45	0.40	0.40	0.40
Observations	749	749	749	1479	1479	1479
Countries	24	24	24	52	52	52

Notes: This table reports the regression coefficients of year-on-year percentage changes in disposable income inequality on the current account estimated in equation 1 across advanced economies and the full sample. The reported R^2 is the within R^2. Standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

level in the advanced economies sample. Similarly to the findings in Behringer and Van Treeck (2018), a larger labour share is associated with smaller current account balances. We also find that a higher profit share is associated with larger current account balances. Smitkova (2022) shows that if profits disproportionately flow towards high-income households, a higher aggregate profit share induces current account surpluses if households exhibit non-homothetic savings behaviour. The distribution of disposable income, however, matters beyond what is captured by the profit share as the coefficient on income inequality remains largely unchanged once we include the profit share as an additional control.

Lagged inequality. We replicate the main exercise including lagged instead of contemporaneous inequality as the independent variable. Table A7 shows that the coefficient on income inequality remains positive and statistically significant at the 5% level for the advanced economies sample. We take this as reassuring evidence concerning the possibility of reverse causality. The coefficient remains positive but is imprecisely estimated when estimated on the sample including emerging economies.

Multi-year averages. In Table A7, we use four-year averages instead of annual data and repeat our analysis. This is meant to account for high-frequency movements in the current account,

Table A4: Current accounts and income inequality by capital openness

	High capital openness			Low capital openness		
	Top 1%	Top 10%	Gini	Top 1%	Top 10%	Gini
Income inequality	0.574**	0.470***	0.373***	0.076	0.006	0.004
	(0.214)	(0.120)	(0.084)	(0.071)	(0.052)	(0.058)
R-squared	0.44	0.44	0.45	0.52	0.51	0.51
Observations	690	690	690	706	706	706
Countries	33	33	33	40	40	40

Notes: This table reports the coefficient of disposable income inequality on the current account estimated in equation 1. The first three columns include observations from the sample where the Chinn-Ito index of capital openness lies above its median sample value. The opposite holds for the last three columns. Coefficients of other covariates are omitted from the regression table. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A5: Current accounts and pre-tax income inequality

	Advanced economies			All		
	Top 1%	Top 10%	Gini	Top 1%	Top 10%	Gini
Pre-tax income inequality	0.719***	0.388***	0.286***	0.183**	0.083	0.124*
	(0.187)	(0.126)	(0.083)	(0.079)	(0.067)	(0.064)
R-squared	0.50	0.48	0.47	0.40	0.40	0.40
Observations	749	749	749	1479	1479	1479
Countries	24	24	24	52	52	52

Notes: This table reports the coefficient of pre-tax income inequality on the current account estimated in Equation 1. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

potentially related to the business cycle, which we do not control for. Despite the information loss from the decrease in available observations, the estimated coefficients are similar to those obtained with annual data, and strongly significant for the sample of advanced economies.

Estimation method. This section conducts robustness analysis with respect to the estimation method. Table A8 reports the results of estimating Equation 1 using the original EBA methodology which consists of pooled GLS estimation with panel-corrected standard errors. The latter takes into account the autocorrelation of current accounts. The coefficient on income inequality as measured by the Top 1% share remains positive, and is statistically significant at the 5% level in advanced economies.

Stability over time. Figure A1 reports rolling coefficient estimates of Equation 1 using 10-year windows. The coefficient of inequality on the current account is positive throughout virtually the entire sample.

Private credit. Table A10 presents regression estimates of the current account on disposable income inequality, incorporating mean private credit as a percentage of GDP as a control variable for our sample of advanced economies. As ϕ is treated as time-invariant, the specification omits country fixed effects. Columns 1–3 reveal that, absent controls for private credit, the

Table A6: Current accounts and functional income inequality

	Advanced economies		All	
	Labour share	Profit share	Labour share	Profit share
Income inequality	0.723***	0.783***	0.095	0.249***
	(0.219)	(0.214)	(0.083)	(0.086)
Labour share	-0.338***		-0.128*	
	(0.098)		(0.072)	
Profit share		0.258**		0.130**
		(0.109)		(0.053)
R-squared	0.53	0.53	0.41	0.44
Observations	749	696	1419	1102
Countries	24	24	49	47

Notes: This table reports the coefficient of disposable income inequality on the current account estimated in equation 1 augmented with the labour and profit share. Income inequality is measured by the share of disposable income held by the top 1%. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

sign of the inequality coefficient varies across different measures. This pattern is consistent with the findings in Section 2, which emphasize the importance of accounting for unobserved heterogeneity through fixed effects. Once private credit is included, the coefficient on inequality turns positive and statistically significant for both the Top 1% and Top 10% income shares. The coefficient on private credit is negative, consistent with the model's prediction that greater borrowing capacity is associated with a lower current account balance.

A.3 Income and wealth

Table A11 reports regression estimates of wealth inequality on various measures of income inequality for the sample of advanced economies. Due to potential measurement error in top wealth shares, we present results using both the top 1% and top 10% wealth shares as dependent variables. Overall, the estimates point to a positive, though imprecisely estimated, relationship between top income and wealth shares in the WID sample (Columns 1 and 5). The remaining columns report results using the measures of permanent income inequality and income risk constructed from the GRID dataset. Across these specifications, the estimated coefficients suggests that higher permanent income inequality is associated with higher wealth inequality, and higher income risk with lower wealth inequality. Only the coefficient in Column 2 has the opposite sign, but comes with a large standard error.

B Reconciliation with existing empirical results

This section provides a detailed comparison of our empirical analysis with existing studies on the link between income inequality and current accounts. Our aim is to reconcile as well as we can potential differences, and identify which choices in the empirical strategy are critical to

Table A7: Current accounts, lagged income inequality and 4-year averages of data

	Advanced economies		All	
	Lagged income	4-y averages	Lagged income	4-y averages
Lagged income inequality	0.536**		0.110	
	(0.217)		(0.072)	
Income inequality		0.860***		0.107
		(0.276)		(0.085)
R-squared	0.46	0.56	0.40	0.45
Observations	749	208	1479	416
Countries	24	24	52	52

Notes: This table reports the coefficient of disposable income inequality on the current account estimated in equation 1. Income inequality is measured by the share of disposable income held by the top 1%. In Columns 1 and 3, coefficients are estimated based on annual data and lagged income inequality. In Columns 2 and 4, coefficients are instead estimated on non-overlapping four year averages of the data and a contemporaneous measure of income inequality. The reported R^2 is the within R^2. Standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A8: Current accounts and income inequality with EBA estimation

	Advanced economies			All		
	Top 1%	Top 10%	Gini	Top 1%	Top 10%	Gini
Income inequality	0.205**	0.054	-0.003	0.054	-0.008	-0.018
	(0.081)	(0.044)	(0.030)	(0.037)	(0.021)	(0.018)
R-squared	0.34	0.34	0.34	0.35	0.35	0.35
Observations	749	749	749	1479	1479	1479
Countries	24	24	24	52	52	52

Notes: This table reports the coefficient of disposable income inequality on the current account estimated from variations of equation 1. Coefficients are estimated with pooled GLS and panel-corrected standard errors. Standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

explain them. For the clarity of the argument, we refrain from listing all possible differences, and only focus on a selected few for each paper which we consider most important.

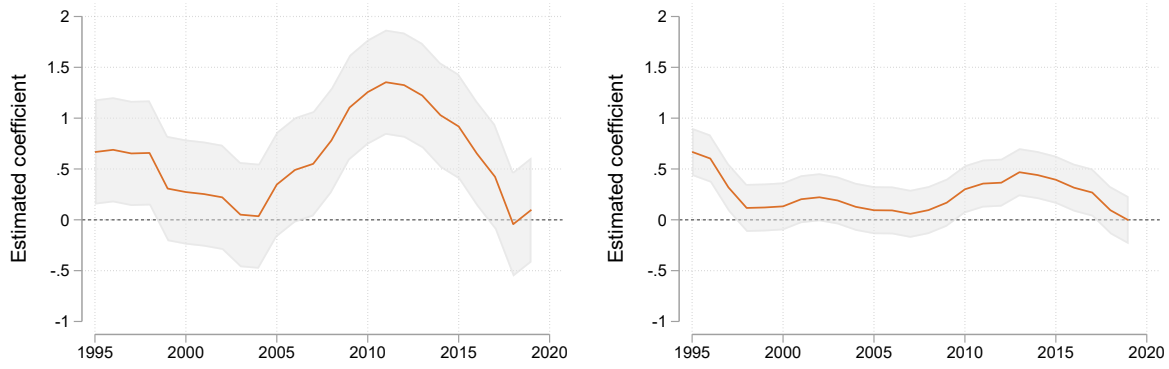
A salient distinction with respect to several studies listed below is our reliance on country-fixed effects. As explained in Section 2, this choice is guided by the consideration that persistent idiosyncratic national features can be important for the determination of current account balances. In fact, the share of explained variation increases by some 17 percentage points (35%) when country dummies are included in our baseline regression. Ignoring this fundamental source of heterogeneity can carry important risks with regards to other coefficient estimates. Specifically, countries with relatively high income per capita and relatively low income inequality exhibit larger estimated fixed effects. This correlation holds in the full sample, as well as across subsamples of advanced and emerging economies. Some of the countries belonging to this category (such as Germany, China, South-Eastern Asian countries, Nordic and Eastern European countries) have followed an export-led growth model over at least part of our sample period, constituting suggestive evidence that institutional features at the national level can

Table A9: Current accounts and income inequality without country-fixed effects

	Advanced economies			Advanced economies, no US		
	Top 1%	Top 10%	Gini	Top 1%	Top 10%	Gini
Income inequality	-0.092	-0.112***	-0.125***	0.418***	0.084**	-0.023
	(0.067)	(0.032)	(0.021)	(0.075)	(0.040)	(0.028)
R-squared	0.60	0.61	0.62	0.66	0.64	0.64
Observations	749	749	749	716	716	716
Countries	24	24	24	23	23	23

Notes: This table reports the coefficient of disposable income inequality on the current account estimated in equation 1 without country-fixed effects for the sample of advanced economies with and without the US. Heteroskedasticity-robust standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Figure A1: Coefficient estimates from rolling regressions



(a) Advanced economies (b) All

Notes: This figure reports rolling coefficient estimates of Equation 1 using 10-year windows. The horizontal axis denotes the endpoint of each subsample. The shaded area denotes the 95 percent confidence interval.

Table A10: Current accounts, income inequality and private credit

	Top 1%	Top 10%	Gini	Top 1%	Top 10%	Gini
Income inequality	0.069	-0.027	-0.080***	0.241***	0.060*	-0.042*
	(0.075)	(0.035)	(0.023)	(0.074)	(0.035)	(0.023)
Avg. private credit (% of GDP)				-0.038***	-0.035***	-0.029***
				(0.005)	(0.005)	(0.005)
R-squared	0.66	0.66	0.67	0.69	0.69	0.69
Observations	520	520	520	520	520	520
Countries	23	23	23	23	23	23

Notes: This table reports the coefficient of disposable income inequality on the current account estimated in equation 1 with average private credit as a percent of GDP as an additional control variable and without country-fixed effects for the sample of advanced economies. Coefficients of other covariates are omitted from the regression table. Heteroskedasticity-robust standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

indeed play a significant role in determining current account balances.

Despite the arguable importance of accounting for such unobservable idiosyncracies, we

Table A11: Income and wealth inequality

	Top 1% wealth share				Top 10% wealth share			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Top 1% income share	0.194							
	(0.199)							
Top 1% permanent income share		-0.165						
		(0.557)						
Var. permanent income - M1			0.199**				0.253***	
			(0.069)				(0.071)	
Var. transitory income - M1			-0.148				-0.103	
			(0.182)				(0.310)	
Var. permanent income - M2				0.429***				0.400***
				(0.099)				(0.049)
Var. transitory income - M2				-0.178**				-0.112
				(0.073)				(0.096)
Top 10% income share					0.191			
					(0.177)			
Top 10% permanent income share						1.267		
						(0.734)		
R-squared	0.31	0.58	0.71	0.68	0.28	0.69	0.74	0.72
Observations	642	187	188	187	642	187	188	187
Countries	24	9	9	9	24	9	9	9

Notes: This table reports the coefficient of various measures of income inequality on the share of wealth held by the top 1% and top 10%, respectively, estimated in equation 1 for the sample of advanced economies. Column 1 and 5 show the coefficient of disposable income inequality from the WID. The remaining columns show the measures derived from GRID data. Coefficients of other covariates are omitted from the regression table. The reported R^2 is the within R^2. Standard errors are clustered at the country-level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

also show in our robustness section A.2 that including country fixed effects is not necessarily crucial to obtain a positive relation between income inequality and current accounts. There, we also provide a battery of further robustness checks based on our own empirical strategy. In the remaining part of this appendix, we will proceed by starting with the empirical strategy pursued in the respective study and gradually build towards our own.

Behringer and Van Treeck (2018). The authors find a negative relationship between income inequality and current accounts for a sample of 20 countries over the period 1972-2007. Methodologically, the authors pursue a similar strategy in the sense that they estimate conditional correlations using cross-country panel regressions controlling for several variables. We primarily consider the sample period and estimation method to cause the difference in results, since the period between 1972 and 1985, not covered in our sample, saw a high prevalence of state intervention in capital flows in the form of exchange rate management, capital controls, and financial repression. In Table B1, we report the results of our reconciliation exercise. Across all specifications, income inequality is measured by the share of pre-tax income held by the top 1 percent instead of disposable income and the sample is restricted to the period 1986-2007 and the sample of countries studied in Behringer and Van Treeck (2018). Estimation is performed using pooled OLS on 4-year averages instead of annual data. Differently to Behringer and Van Treeck (2018), we find a coefficient on income inequality that is not statistically significant

Table B1: Reconciliation of results with Behringer and Van Treeck (2018)

	(1)	(2)	(3)
Income inequality	0.075	0.375*	0.462**
	(0.177)	(0.191)	(0.164)
Estimation	Pooled OLS	FE	FE
R-squared	0.69	0.75	0.61
Observations	110	110	379
Countries	20	20	20

Notes: This table reports the coefficient of income inequality, measured by the share of pre-tax income held by the top 1 percent, on the current account estimated based on variations of the specification estimated Equation 1. In Columns 1 and 2, estimation is based on 4-year averages of the data, whereas in Column 3, annual data are used. The reported R^2 is the within R^2 in Columns 2 and 3. Heteroskedasticity-robust standard errors (Column 1) and standard errors clustered at the country-level (Column 2 and 3) are reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

at the 10 percent level (Column 1). This can be due to the fact that our sample starts in 1986 instead of 1972, differences in the vector of controls, which is similar yet not identical, or to potential revisions to the underlying inequality series, regularly updated by the WID. Once we include country and time fixed-effects in the regression, the coefficient on income inequality increases in magnitude and becomes statistically significant at the 10 percent level. Including country-fixed effects comes at a cost in terms of statistical power. In Column 3, we therefore increase the variation available by analysing annual data instead of four-year averages. This yields a positive and statistically significant coefficient on income inequality at the 5 percent level.

De Ferra et al. (2021). The authors show that current accounts and income inequality are negatively correlated over the period 1997-2007 for a large set of countries in their main analysis, both unconditionally and conditionally on selected variables. The main methodological difference with our approach is that the authors perform a cross-sectional analysis using long-term averages, i.e. study between-variation, while we exploit the panel dimension of the data to focus on within-variation.

The authors interpret the rise in income inequality as a rise in income risk and provide supportive evidence that the stochastic component of income inequality is negatively associated with current accounts. We, instead, illustrate that it is the permanent component of income that yields the positive relation between income inequality and current accounts.

Table B2 reports the results of our reconciliation exercise. In Column 1, we attempt to stay as close as possible to the original specification in De Ferra et al. (2021). In particular, we compute long-term averages of all variables entering the regression over the period 1997-2007. The income inequality measure is given by the income Gini from the UNU WIDER World Income Inequality Database (WIID). More details on the specification including the vector of controls can be found in the original paper.

As expected, we obtain a negative correlation between income inequality and the current account. In Column 2, we replace the income Gini from the WIID with the income Gini from

Table B2: Reconciliation of results with De Ferra et al. (2021)

	(1)	(2)	(3)
Income Gini	-0.525***	-0.194	0.237**
	(0.122)	(0.384)	(0.114)
Data	WIID	WID	WID
Panel	No	No	Yes
R-squared	0.90	0.76	0.96
Observations	34	34	149

Notes: This table reports the coefficient of income inequality on the current account estimated based on the specification estimated in De Ferra et al. (2021). More details can be found in the original paper. Heteroskedasticity-robust standard errors (Column 1) and standard errors clustered at the country-level (Column 2 and 3) are reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

the WID, our preferred dataset. Using WID data, the coefficient on income inequality is not statistically significant anymore at the 10 percent level. In Column 3, we exploit the full panel dimension of the data and, instead of averaging over the years, estimate a regression on annual data adding country and time fixed-effects. The coefficient on income inequality changes signs and becomes positive, recovering the relationship between income inequality and current accounts established in this paper.

The difference in coefficient estimates between Columns 1 and 2 underscores the importance of data source selection. We prefer the WID dataset for three reasons. First, the WID provides detailed estimates of top income shares, including up to the top 0.01%, whereas the WIID lacks data for shares below the top 5%. Second, the WIID aggregates data from a heterogeneous set of sources, which undermines cross-country comparability due to the absence of a standardized methodology applied ex ante. Third, benchmarking Gini coefficients from both the WID and WIID against those reported in the GRID dataset reveals that WID figures are more closely aligned with GRID values.

Kumhof et al. (2024). The authors pursue a similar empirical strategy by augmenting the IMF EBA model with measures of income inequality. They find that income inequality and current accounts are, on average, negatively correlated and that this correlation is strongly dependent on the level of financial development, as proxied by stock market capitalization. Our approach differs broadly along three dimensions: our sample ends in 2019 instead of 2013 and includes more countries, we analyse disposable instead of pre-tax income inequality and we include country and time-fixed effects in the regression.

To understand where the differences in results might be coming from, Column 1 in Table reports the results of a regression for the period 1986-2013 with the share of pre-tax income held by the top 1 percent as the measure of inequality. Estimation is performed using pooled GLS with a panel-wide AR(1) correction. Despite the similarity with the approach in Kumhof et al. (2024), we find a positive correlation between income inequality and the current account. In Columns 2-4, we successively move towards our preferred specification by replacing pre-tax income inequality with disposable income inequality in Column 2, extending the sample to 2019 in Column 3 and introducing time and country fixed-effects in Column 4. Across all

Table B3: Reconciliation of results with Kumhof et al. (2024)

	(1)	(2)	(3)	(4)	(5)
Income inequality	0.065*	0.021	0.053	0.132*	0.207***
	(0.039)	(0.039)	(0.035)	(0.077)	(0.074)
Income measure	Pre-tax	Disposable	Disposable	Disposable	Pre-tax
Time & Country FE	NO	NO	NO	YES	NO
Sample	1986-2013	1986-2013	1986-2019	1986-2019	1986-2013
R-squared	0.38	0.38	0.35	0.34	0.43
Observations	1137	1137	1446	1446	588
Countries	52	52	52	52	24

Notes: This table reports the coefficient of income inequality on the current account estimated based on variations of Equation 1. The reported R^2 is the within R^2 in Column 4. Panel-corrected standard errors (Columns 1,2,3,5) and standard errors clustered at the country-level are reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

specifications, the coefficient remains positive but is not always statistically significant at the 10 percent level. In Column 5, we revert to the specification in Column 1, but restrict the sample to advanced economies only. In doing so, we recover the positive and statistically signficant coefficient found in the main text of this paper. In conclusion, we believe that the differences in results, in particular in Column 1 which is closest to the original paper, arise due to our slighly different sample of countries and potential differences in the underlying data as in particular the WID income inequality data are updated on a regular basis.

C Model

For this section, we assume log utility from both consumption and financial wealth – with $u(c) = \log(c)$ and $v(a) = \psi \log(\kappa + a)$. For simplicity, and without loss of generality, we further assume $\kappa = 1$. In subsection C.4, we show how our results extend to an environment with CRRA preferences in consumption and financial wealth.

C.1 Parameter restrictions

For the log utility case, we impose two parameter restrictions. The first ensures that the unconstrained interest rate is positive and that desired asset holdings are increasing in income:

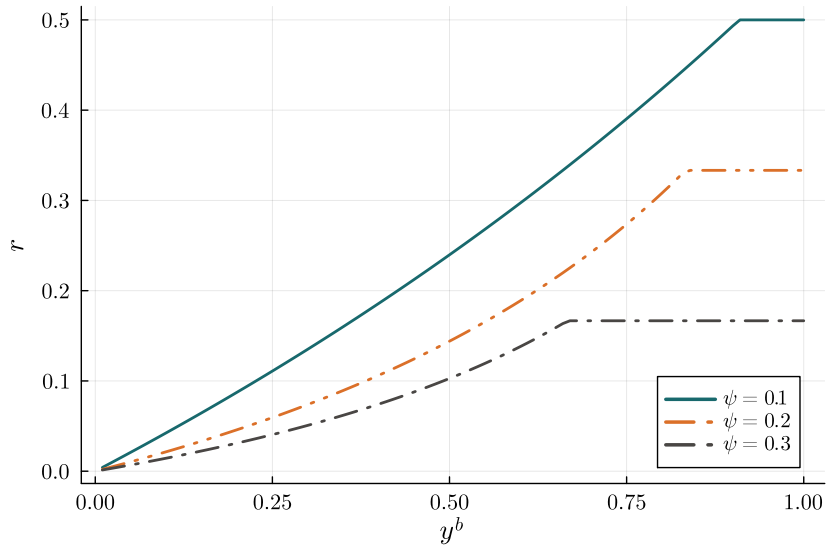
$$1 - 2\beta < \psi < 1 - \beta$$

To see the rationale of this restriction, consider the agent's optimal unconstrained wealth decision $a^{i*} = \frac{\psi y^i - 1 + \beta(1+r)}{1-\beta(1+r)-\psi r}$ in combination with market clearing $a^b = -\frac{\mu^t}{\mu^b} a^t$. This yields an equilibrium interest rate of:

$$r = \frac{1 - \beta - \psi}{\beta}$$

When agents are unconstrained, the interest rate is positive whenever the sum of the discount factor and the strength of the wealth motive is less than one.

Figure C1: Interest rate and inequality



Notes: This figure plots the closed-economy equilibrium interest rate against the level of income per capita of bottom earners, for $\beta = 0.6$ and $\phi = 0.1$.

Desired assets holdings are increasing in income if $1 - \beta(1 + r) - \psi r > 0$. Substituting the expression for the unconstrained interest rate yields that this expression is positive if $\psi > 1 - 2\beta$. Since the interest rate is lower when households are borrowing-constrained, this restriction also holds in the constrained case.

Second, we restrict our attention to cases consistent with Lemma 1. In this environment, bottom earners are borrowing-constrained. This is not necessarily a strong assumption as for any ψ, there is always a strictly positive level of y^b below which bottom earners are borrowing-constrained.

Under these assumptions, the interest rate is weakly decreasing in the level of income inequality, as seen in Figure C1. For low levels of inequality, low-income households are unconstrained and the interest rate is flat in income. Once inequality surpasses the threshold defined in Lemma 1, however, low-income households become constrained, and the interest rate starts to decline in response to further increases in inequality. Intuitively, this threshold moves closer to perfect equality the smaller the utility weight ψ on wealth is.

C.2 Model derivations

Financial autarky. Combining Euler equation and budget constraint yields debt supply. Debt demand follows directly from the borrowing constraint. Debt is in zero net supply.

$$1 = \beta(1 + r) + \psi \left(\frac{y^t + ra^t}{1 + a^t} \right), \quad a^b = -\frac{\phi y^b}{r}, \quad a^t = -\frac{\mu^b}{\mu^t} a^b$$

Combining supply and demand with market clearing, the equilibrium condition is given by:

$$1 = \beta(1+r) + \psi\left(\frac{y^t + \mu\phi y^b}{1 + \frac{\mu\phi y^b}{r}}\right)$$

where $\mu = \frac{\mu_b}{\mu_t}$.

Financial integration. Debt supply is again given by the Euler equations. The Euler equations across countries additionally need to equate:

$$1 = \beta(1+r) + \psi\left(\frac{y_U^t + ra_U^t}{1 + a_U^t}\right) = \beta(1+r) + \psi\left(\frac{y_E^t + ra_E^t}{1 + a_E^t}\right)$$

Debt demand is given by the bottom earners in each country:

$$a^b = a_U^b + a_E^b = -\phi\frac{y_U^b + y_E^b}{r}$$

Market clearing is now given by:

$$\mu^t(a_U^t + a_E^t) = -\mu^b(a_U^b + a_E^b)$$

To solve for the equilibrium interest rate, we rewrite the system as two equations in two unknowns. The first equation is given by the Euler equation in U, the second equation by the Euler equation in E combined with market clearing and debt demand:

$$1 = \beta(1+r) + \psi\left(\frac{y_U^t + ra_U^t}{1 + a_U^t}\right)$$

$$1 = \beta(1+r) + \psi\left(\frac{y_E^t + \mu\phi\left(y_U^b + y_E^b\right) - ra_U^t}{1 + \mu\phi\frac{y_U^b + y_E^b}{r} - a_U^t}\right)$$

Solving this system yields r and a_U^t. From there, we can compute the other endogenous variables:

$$a_U^b = -\frac{\phi y_U^b}{r}, \quad a_E^b = -\frac{\phi y_E^b}{r}, \quad a_E^t = -\mu(a_U^b + a_E^b) - a_U^t$$

The net foreign asset position is given by:

$$NFA_U = \mu_t a_U^t + \mu_b a_U^b, \quad NFA_E = \mu_t a_E^t + \mu_b a_E^b$$

C.3 Proofs

Lemma 1. *Low-income households are constrained whenever their income per capita y^b is below a threshold $\underline{y_b}$, defined as:*

$$\underline{y_b} = \frac{(1-\beta-\psi)}{(1-\phi)(1-\beta-\psi) + \phi\beta} > 0$$

The borrowing constraint is given by $a^b = -\phi\frac{y^b}{r}$, whereas optimal debt is pinned down by $a^b = \frac{\psi y^b - [1-\beta(1+r)]}{1-\beta(1+r)-\psi r}$. Substituting the equilibrium rate $r = \frac{1-\beta-\psi}{\beta}$ into the two equations, we can verify that $-\phi\frac{y^b}{r} > \frac{\psi y^b - [1-\beta(1+r)]}{1-\beta(1+r)-\psi r}$ iff:

$$-\frac{\phi y^b}{1-\beta-\psi} > \frac{y^b - 1}{2\beta + \psi - 1} \Rightarrow y^b < \underline{y^b} \equiv \frac{1-\beta-\psi}{(1-\phi)(1-\beta-\psi)+\phi\beta} > 0$$

For a given discount factor and strength of wealth motive, this threshold level lies between r when the borrowing constraint corresponds to the natural borrowing limit ($\underline{y^b}(\phi = 1) = r$) and 1 when no borrowing is allowed ($\underline{y^b}(\phi = 0) = 1$).

Lemma 2. *Debt demand and supply are, respectively, decreasing and increasing in the interest rate.*

$$\frac{\partial a^b}{\partial r} < 0, \quad \frac{\partial a^t}{\partial r} > 0$$

The fact that debt demand is decreasing in the interest rate follows directly from the borrowing constraint. For debt supply, rewrite the wealth policy function as:

$$a^t = \frac{\psi y^t - 1 + \beta(1+r)}{\xi(r)}$$

where $\xi(r) = 1 - \beta(1+r) - \psi r$. Taking derivatives yields:

$$\frac{\mathrm{d}a^t}{\mathrm{d}r} = \frac{\beta\xi(r) + (\beta+\psi)[\psi y^t - 1 + \beta(1+r)]}{\xi(r)^2}$$

This expression is positive under the parameter restrictions on β and ψ.

Proposition 1. *The closed-economy equilibrium interest rate is decreasing in income inequality (defined as the share of endowment accruing to the top 1 percent):*

$$\frac{\partial r^*}{\partial \omega^t} < 0$$

Equalizing aggregate debt supply with debt demand yields:

$$\mu^t \frac{\psi y^t - 1 + \beta(1+r)}{\xi(r)} = \mu^b \frac{\phi y^b}{r} \Longrightarrow \psi\omega^t - [1-\beta(1+r)]\mu^t - \frac{\phi(1-\omega^t)\xi(r)}{r} = 0$$

By total differentiation:

$$\left[\beta\mu^t - \frac{\phi(1-\omega^t)[\xi'(r)r - \xi(r)]}{r^2}\right]\mathrm{d}r + \left[\psi + \phi\frac{\xi(r)}{r}\right]\mathrm{d}\omega^t = 0$$

Therefore:

$$\frac{\mathrm{d}r}{\mathrm{d}\omega^t} = -\frac{\psi r^2 + \phi\xi(r)r}{\beta\mu^t r^2 - \phi(1-\omega^t)[\xi'(r)r - \xi(r)]}$$

Since $\xi(r) > 0$, and $\xi'(r) < 0$, both numerator and denominator of this expression are positive.

As a consequence, $\frac{\mathrm{d}r}{\mathrm{d}\omega^t} < 0$.

Proposition 2. *All else equal, the unequal country has a positive and the equal country a negative net foreign asset position.*

$$NFA_U^* > 0, \quad NFA_E^* < 0 \quad \text{iff} \quad \omega_U^t > \omega_E^t$$

The result follows from Proposition 1 and Lemma 2. Under financial integration and debt supply determined by top earners' Euler equations, it follows from Proposition 1 that the global equilibrium interest rate lies between the two closed-economy rates ($r_U < r_W < r_E$) since the global share of endowment accruing to top earners falls between that of countries E and U. Furthermore, from Lemma 2, we know that debt supply is increasing and debt demand decreasing in the interest rate. This translates into a decrease of debt supply in E and an increase of debt supply in U, and an increase of debt demand in E and a decrease of debt demand in U. As a consequence, the net foreign asset position of U is positive and that of E negative.

Lemma 3. *The closed-economy equilibrium interest rate is increasing in the share of pledgeable endowment:*

$$\frac{\partial r^*}{\partial \phi} > 0$$

Totally differentiating the equilibrium condition yields:

$$\left[\beta\mu^t - \frac{\phi(1-\omega^t)[\xi'(r)r - \xi(r)]}{r^2}\right]\mathrm{d}r + \left[-\frac{(1-\omega^t)\xi(r)}{r}\right]\mathrm{d}\phi = 0$$

Therefore:

$$\frac{\mathrm{d}r}{\mathrm{d}\phi} = \frac{\frac{(1-\omega^t)\xi(r)}{r}}{\beta\mu^t - \frac{\phi(1-\omega^t)[\xi'(r)r-\xi(r)]}{r^2}}$$

Since $\xi'(r) < 0$ and $\xi(r) > 0$, this expression is always positive. As a consequence, $\frac{\mathrm{d}r}{\mathrm{d}\phi} > 0$.

C.4 CRRA utility

We consider the case where utility from consumption and financial wealth takes the form of CRRA utility. In particular, $u(c) = \frac{c^{1-\gamma}}{1-\gamma}$ and $v(a) = \frac{(\kappa+a)^{1-\gamma}}{1-\gamma}$, where we consider $\kappa = 1$ as in the case of log utility.

C.4.1 Model derivations

The Euler equation for the top earners with CRRA utility becomes:

$$1 = \beta(1+r) + \psi\left(\frac{y^t + ra^t}{1+a^t}\right)^{\gamma}$$

Debt demand and market clearing are as in the log utility case.

Financial autarky. Combining debt supply and demand with market clearing yields the equi-

librium condition:

$$1 = \beta(1+r) + \psi\left(\frac{y^t + \mu\phi y^b}{1 + \frac{\mu\phi y^b}{r}}\right)^\gamma$$

where $\mu = \frac{\mu_b}{\mu_t}$.

Financial integration. We rewrite the equilibrium conditions as in the log utility case, with the first equation given by the Euler equation in U and the second by the Euler equation in E combined with market clearing and debt demand:

$$1 = \beta(1+r) + \psi\left(\frac{y_U^t + ra_U^t}{1 + a_U^t}\right)^\gamma$$

$$1 = \beta(1+r) + \psi\left(\frac{y_E^t + \mu\phi\left(y_U^b + y_E^b\right) - ra_U^t}{1 + \mu\phi\frac{y_U^b + y_E^b}{r} - a_U^t}\right)^\gamma$$

Solving this system yields r and a_U^t. From there, we can compute the other endogenous variables, as in the log utility case.

C.4.2 Proofs

Lemma 1. *Low-income households are constrained whenever their income per capita y^b is below a threshold $\underline{y_b}$, defined as:*

$$\underline{y_b} = \frac{(1-\beta-\psi)}{(1-\phi)(1-\beta-\psi)+\phi\beta} > 0 \tag{26}$$

The borrowing constraint is represented by $a^b = -\phi\frac{y^b}{r}$, whereas optimal debt is pinned down by $a^b = \frac{y^b - \Xi(r)}{\Xi(r) - r}$, where $\Xi(r) = \left(\frac{1-\beta(1+r)}{\psi}\right)^{\frac{1}{\gamma}}$. Optimal debt combined with market clearing gives the same equilibrium interest rate as the one derived in the log utility case: $r = \frac{1-\beta-\psi}{\beta}$. Substituting this into the two equations, we can verify that $-\phi\frac{y^b}{r} > \frac{y^b - \Xi(r)}{\Xi(r) - r}$ iff:

$$-\frac{\phi y^b}{1-\beta-\psi} > \frac{y^b - 1}{2\beta + \psi - 1} \Rightarrow y^b < \underline{y^b} \equiv \frac{(1-\beta-\psi)}{(1-\phi)(1-\beta-\psi)+\phi\beta} > 0 \tag{27}$$

For given discount factor and strength of wealth motive, this threshold level lies between r when the borrowing constraint corresponds to the natural borrowing limit ($\underline{y^b}(\phi = 1) = r$) and 1 when no borrowing is allowed ($\underline{y^b}(\phi = 0) = 1$).

Lemma 2. *Debt demand and supply are, respectively, decreasing and increasing in the interest rate.*

$$\frac{\partial a^b}{\partial r} < 0, \quad \frac{\partial a^t}{\partial r} > 0$$

The fact that debt demand is decreasing in interest rate follows directly from the borrowing

constraint. For debt supply, rewrite the wealth policy function as:

$$a^t = \frac{y^t - \Xi(r)}{\Xi(r) - r}$$

where $\Xi(r) = \left(\frac{1-\beta(1+r)}{\psi}\right)^{\frac{1}{\gamma}}$. Taking derivatives yields:

$$\frac{\mathrm{d}a^t}{\mathrm{d}r} = \frac{-\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r}\left(\Xi(r) - r\right) - \left(y^t - \Xi(r)\right)\left(\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r} - 1\right)}{\left(\Xi(r) - r\right)^2}$$

This expression is positive under the parameter restrictions on β and ψ.

Proposition 1. *The closed-economy equilibrium interest rate is decreasing in income inequality (defined as the share of endowment accruing to the top 1 percent):*

$$\frac{\partial r^*}{\partial \omega^t} < 0$$

Equalizing aggregate debt supply with debt demand yields:

$$\mu^t \left(\frac{y^t - \Xi(r)}{\Xi(r) - r}\right) = \mu^b \frac{\phi y^b}{r} \Rightarrow r\omega^t - \mu^t r\Xi(r) - \phi(1-\omega^t)(\Xi(r) - r) = 0$$

By total differentiation:

$$\left[\omega^t - \mu^t\left(\Xi(r) + r\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r}\right) - \phi(1-\omega^t)\left(\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r} - 1\right)\right]\mathrm{d}r + \left[r + \phi(\Xi(r) - r)\right]\mathrm{d}\omega^t = 0$$

Therefore:

$$\frac{\mathrm{d}r}{\mathrm{d}\omega^t} = -\frac{r + \phi(\Xi(r) - r)}{\omega^t - \mu^t\left(\Xi(r) + r\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r}\right) - \phi(1-\omega^t)\left(\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r} - 1\right)}$$

Since $\Xi(r) > 0$, $\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r} < 0$, $\Xi(r) > r$ and $y^t > \Xi(r)$, both numerator and denominator of this expression are positive. As a consequence, $\frac{\mathrm{d}r}{\mathrm{d}\omega^t} < 0$.

Proposition 2. *All else equal, the unequal country has a positive and the equal country a negative net foreign asset position.*

$$NFA_U^* > 0, \quad NFA_E^* < 0 \quad \text{iff} \quad \omega_U^t > \omega_E^t$$

The proof is identical to the one used for the log utility case.

Lemma 3. *The closed-economy equilibrium interest rate is increasing in the share of pledgeable endowment:*

$$\frac{\partial r^*}{\partial \phi} > 0$$

Totally differentiating the equilibrium condition yields:

$$\left[\omega^t - \mu^t\left(\Xi(r) + r\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r}\right) - \phi(1-\omega^t)\left(\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r} - 1\right)\right]\mathrm{d}r + \left[-(1-\omega^t)(\Xi(r)-r)\right]\mathrm{d}\phi = 0$$

Therefore:

$$\frac{\mathrm{d}r}{\mathrm{d}\phi} = \frac{(1-\omega^t)(\Xi(r)-r)}{\omega^t - \mu^t\left(\Xi(r) + r\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r}\right) - \phi(1-\omega^t)\left(\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r} - 1\right)}$$

Since $\Xi(r) > 0$, $\frac{\mathrm{d}\Xi(r)}{\mathrm{d}r} < 0$, $\Xi(r) > r$ and $y^t > \Xi(r)$, this expression is always positive. As a consequence, $\frac{\mathrm{d}r}{\mathrm{d}\phi} > 0$.

D Quantitative model

Table D1 reports the regression coefficients of (i) income inequality levels and (ii) year-on-year percentage point changes in disposable income inequality on the current account estimated in the data (full sample) and in the model.

Table D1: Current accounts and income inequality changes in data and model (full sample)

	Top 1%		Top 10%		Top 0.1%		Gini	
	Data	Model	Data	Model	Data	Model	Data	Model
Income inequality	0.161**	0.716***	0.096	0.565***	0.246*	3.222***	0.169**	0.669***
	(0.076)	(0.098)	(0.068)	(0.070)	(0.141)	(0.456)	(0.169)	(0.078)
Δ Income inequality	0.169*	0.230***	0.158*	0.233***	0.467**	1.006***	0.166**	0.267***
	(0.096)	(0.006)	(0.083)	(0.005)	(0.178)	(0.028)	(0.073)	(0.005)
Observations	1479	1716	1479	1716	1479	1716	1479	1716
Countries	52	52	52	52	52	52	52	52

Notes: This table reports regression coefficients from separate estimations of (i) income inequality levels and (ii) year-on-year percentage point changes on the current account described in Equation 1 using observed and model-generated data for the full sample. The estimated coefficients on covariates from the data regressions are omitted. Standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D2 reports the regression coefficients of year-on-year percentage changes in disposable income inequality on the current account estimated in the data (sample of advanced economies) and in the model.

Table D2: Current accounts and income inequality changes in data and model

	Top 1%		Top 10%		Gini	
	Data	Model	Data	Model	Data	Model
Δ Income inequality (%)	0.044***	0.023***	0.102***	0.060***	0.078***	0.076***
	(0.010)	(0.001)	(0.030)	(0.003)	(0.020)	(0.003)
Observations	749	768	749	768	749	768
Countries	24	24	24	24	24	24

Notes: This table reports the regression coefficients of year-on-year percentage changes in disposable income inequality on the current account estimated in the data (sample of advanced economies) and in the model. Standard errors in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.