Global Economic Policy Uncertainty, Gross Capital Inflows, and the Mitigating Role of Macroprudential Policies

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Abstract

We consider the effects of global economic policy uncertainty on capital inflows and the potentially mitigating effect of different macroprudential frameworks and policies on this effect. While macroprudential policies aim to maintain domestic financial stability, they can also affect cross-border capital flows. We use a global panel of 84 economies during 1997–2018, to analyze the relationships among global economic policy uncertainty, macroprudential policies, and gross capital inflows. We find that global economic policy uncertainty impacts negatively on gross capital inflows. The tightening of macroprudential policies, however, can moderate this effect by nearly 30%-40%. Disaggregating macroprudential policy instruments indicates that supply-side tools, especially those related to bank capital requirements, are the most effective. Moreover, heterogeneity exists among different capital inflows; more specifically, portfolio investment is influenced most significantly, while direct and other types of investment remain unchanged. Our results have direct implications for the utilization of macroprudential policies in managing capital inflows.

***Keywords*:** Global economic policy uncertainty, gross capital inflows, macroprudential policies.

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1. Introduction

In less than a decade after the global financial crisis the global economy witnessed several major shocks including Brexit in 2016, the trade dispute between China and the United States since 2018, the Covid-19 pandemic in 2020, and the war in Ukraine since 2022. The implications for policy uncertainty have been direct, with the Global Economic Policy Uncertainty Index recording values even higher than those of the global financial crisis period. Moreover, recent research shows that domestic policy uncertainty adversely affects international capital flows (Gauvin et al., 2014; Julio & Yook, 2016). In an environment of ever-growing financial integration international capital flows emerge as the key channel of risk contagion across economies.

The accelerating pace of capital market integration and increased interdependence of both advanced and emerging economies suggests that confining one's attention only to uncertainty originating at the country level is not sufficient (e.g., Bhattarai et al., 2021). Global economic policy uncertainty emerges indeed as an important factor in shaping global financial performance (Hoque & Zaidi, 2018). Forbes and Warnock (2012) suggest that global uncertainty dominates domestic factors in driving extreme fluctuations in capital flows. Akinci et.al. (2022) develop a model with cross-border holdings of risky assets by financial intermediaries who operate under financial frictions, and who take on foreign asset risk, acting as global intermediaries. An exogenous increase in uncertainty, modeled as a higher level of asset volatility, leads to higher risk premia in both countries. Passari and Rey (2015) also hint to the global nature of uncertainty shocks by producing evidence on the existence of a global cycle in gross cross-border flows, asset prices and leverage.

Two types of "capital flow management" (CFM) measures exist, capital controls and macroprudential policies (International Monetary Fund, 2012). Capital controls mostly apply to the nonresidents of the capital recipient countries, while measures of macroprudential policy cover all the participants in the financial system (e.g., Binici and Das, 2021). Capital control measures have low effectiveness in stabilizing international capital flows (Gelos et al., 2022; Bergant et al., 2020; Forbes and Warnock, 2014). Given that global economic uncertainty has increased sharply in the last decade and its negative impact on output, employment, trade and capital flows, has amplified (e.g., Bonciani and Ricci, 2020), policymakers call for proper tools to manage global economic uncertainty. Macroprudential policies have proven to be effective in constraining domestic credit expansion and maintaining domestic financial stability. While the literature on capital flows typically focuses on the role of capital controls, the potential role of macroprudential policies has been overlooked.

Indeed, macroprudential measures have become a key element of policies aiming to achieve financial stability and cope with systemic risks since the global financial crisis (Beirne and Friedrich, 2017). Nevertheless, less research exists on the implications of macroprudential policies for cross-border capital (in)flows (e.g., Forbes, 2020). We contribute towards filling this gap, by examining the potential role of macroprudential policies in offsetting the negative effects of global economic policy

uncertainty on capital inflows. Gelos et al. (2022) find that foreign exchange intervention, borrowing and credit-volume restricted macroprudential policy tools are effective in mitigating the negative impact on portfolio inflows from US shocks. Different from Gelos et al. (2022), our study tries to fill this gap by examining the potential role of specific macroprudential policy tools in reducing the adverse effect of global economic policy uncertainty on cross-border capital inflows. The focus on specific macroprudential policy instruments can guide policy makes on the use of specific macroprudential policy tools.

Both theoretical (e.g., Akinci et.al, 2022) and empirical (e.g., Passari and Rey, 2015) studies typically use shocks and uncertainty in the USA as a proxy for global economic policy uncertainty. This paper considers explicitly the effects of global economic policy uncertainty on capital inflows as well as the potentially mitigating effect of different macroprudential frameworks and policies on this effect. To our knowledge, it constitutes the first attempt to analyze the potential role of macroprudential policies in mitigating the effect of global economic policy uncertainty on international capital inflows.

We use quarterly data covering a panel of 84 economies, for the period 1997Q1–2018Q4. We find that global economic policy uncertainty impacts negatively on gross capital inflows. Implementation of tight macroprudential policies, however, can mitigate this negative relationship by nearly 30%-40%. To address concerns about reverse causality we combine the lagged global economic policy uncertainty index with country-level data, since it is unlikely that an individual country's capital inflows can change the assessment of global economic uncertainty. Moreover, macroprudential policy is designed and implemented with the objective of maintaining domestic rather than international financial stability, which further reduces the probability that an increase of capital inflows leads to the implementation of macroprudential policy.

We disaggregate across different types of capital flows and macroprudential policy instruments. In particular we disaggregate gross capital inflows into three components—direct investment, portfolio investment, and other investment, with portfolio inflows emerging as the most susceptible to global economic policy uncertainty. Moreover, we consider explicitly how different types of macroprudential instruments impact on the effect of global economic policy uncertainty gross capital inflows. We find that the mitigating effect of macroprudential policy mainly materializes through bank capital requirements. We also find that global economic policy uncertainty affects the composition of gross capital inflows by decreasing portfolio investment. Our results remain valid in the face of a series of robustness tests.

Our analysis contributes to the literature in several ways. First, we offer new evidence on the global determinants of cross-border capital inflows. While the existing literature focuses on traditional factors, such as volatility in oil prices and global interest rates (e.g., Forbes and Warnock, 2014), we characterize the (negative) effects of global economic policy uncertainty using an index based on Baker et al. (2016). Second, we highlight the implications of macroprudential policies on capital inflows. To our knowledge this is the first direct attempt to characterize the implications of macroprudential policy for the effects

of global economic policy uncertainty on capital flows. Typically, the literature focuses on macroprudential policy's ability to stabilize the domestic financial system. Macroprudential policies, however, have implications for capital flows and they are also proposed as "capital flow management" (CFM) measures by IMF (Frost et al., 2020). Third, we investigate the potential spillover effects of macroprudential policies and regulations on international capital inflows. Finally, we contribute to understanding the mechanism of how global economic policy uncertainty and macroprudential regulations affect different components of capital inflows and we identify the macroprudential tools that can moderate the capital inflows-uncertainty nexus.

Our study is closely related to that of Gelos et al. (2022), who show the mitigating role of foreign exchange interventions, borrowing and credit-volume macroprudential regulations in dampening the volatility of capital inflows from US shocks. The global shocks used by Gelos et al. (2022), however, are mainly measured by US financial variables. In contrast, we shift focus on global economic policy uncertainty, using the measures developed by Baker et al. (2016). These measures have been widely used in the recent literature but not in the context of capital inflows. Different from global financial conditions, measured by the U.S. corporate BBB yield in Gelos et al. (2022), economic policy uncertainty is policy-related economic uncertainty and another important source of financial and economic volatility (Baker et al., 2016). Moreover, our work differs from Gelos et al. (2022) in the analysis of the mechanism, through which one can determine how global economic policy uncertainty and macroprudential policy influence capital inflows. Gelos et al. (2022) test for aggregate borrowing and credit-volume macroprudential regulations. Our paper studies specific macroprudential policy tools and concludes that the supply-side tools, especially those related to bank capital requirements, are the most effective. This result differs from the results of Gelos et al. (2022). Moreover, our findings also indicate that the use of macroprudential policies is not a panacea, since they can smooth portfolio inflows, however they are ineffective to manage direct and other inflows. This implies that a comprehensive framework of capital controls, monetary and macroprudential policies, is needed.

We perform a series of robustness tests, including consideration of alternative measures of global economic policy uncertainty, such as global economic policy uncertainty based on PPP-adjusted GDP and the arithmetic average of the economic policy uncertainty indexes of three major advanced economies (the US, the UK, and Japan), the use of another database of macroprudential policy, dropping tax havens, adding additional control variables, addressing potential endogeneity problems with global economic policy uncertainty lagged and instrumental variables methods.

The focus of our study is gross capital inflows. Capital inflows differ from capital outflows based on the residency of creditor or borrower (Broner et al., 2013). Capital inflows equal net purchases (difference between purchases and sales) of domestic assets by foreign agents, while capital outflows are net purchases of foreign assets by domestic agents without the central bank. There is a strong comovement of capital inflows and outflows, reflecting increasing financial integration and a reduction in home bias (Steiner, 2016). Capital inflows, however, weigh more than outflows in domestic financial

markets. A possible explanation is the higher sensitivity of capital inflows to agency problems (Dinger and te Kaat, 2020). Brennan and Cao, (1997) and Tille and van Wincoop, (2010) argue that gross capital inflows are subject to considerable information asymmetries relative to capital outflows. This is because gross capital inflows increase the share of foreign investors holding bank liabilities. Foreign investors are less informed about the quality of domestic assets and, thus, have inferior monitoring abilities. As a result, the agency problems between asset managers and investors are more pronounced. In contrast, a decrease in capital outflows usually reflects an increase in the stakes of domestic investors. A recent survey conducted by the Working Group of the Bank of International Settlements' Committee on the Global Financial System (CGFS) suggests that central banks tend to pay closer attention to inflows than to outflows, viewing an extended period of gradual inflows as a possible symptom of growing financial vulnerabilities (CGFS, 2021). Moreover, the same report finds that global factors play a more noticeable role in driving capital inflows.

The remainder of this paper is organized as follows. Section 2 reviews the literature on global economic policy uncertainty, capital inflows, and macroprudential policies, and formulates the research hypotheses. Section 3 describes the methodology. Section 4 discusses the sample, the data sources, and the variables employed. Section 5 presents the main findings, and section 6 presents the robustness checks, while the final section concludes.

2. Related Literature

This study relates to two strands of the academic literature. First, it relates to the literature that examines the impact of global economic policy uncertainty on capital inflows, and second the literature on the association between macroprudential policy and international capital inflows.

An extensive literature investigates the impact of economic policy uncertainty on investment (Bernanke, 1983; Kang et al., 2014), stock prices, exchange rates (Bhattarai et al., 2020), and capital flows (Gourio et al., 2015). A robust consensus emerges that this effect is negative across different measures of economic policy uncertainty. For example, Bonciani and Ricci (2020) find that global financial uncertainty, extracted from the realized volatilities of almost 1,000 risky asset returns, has an adverse impact on output and unemployment. The measurement of uncertainty, however, is not free from complications. Many studies use stock market volatility at the country level as a proxy for economic uncertainty and find that capital inflows decrease as uncertainty increases (S. Bhattarai et al., 2020; Choi & Furceri, 2019; Gourio et al., 2015). Stock market volatility, however, is realized ex post, after the policy has been announced, while actual uncertainty is implied and ex ante (Choi and Furceri, 2019). Political economy models consider various aspects of the electoral process, treating national elections as a proxy for policy uncertainty and find that policy uncertainty reduces cross-border capital inflows (Almaghrabi, 2021; Biswas and Zhai, 2021; Julio and Yook, 2016). While election dummy variables are exogenous to international capital flows, the assumption is made that policy uncertainty

remains unchanged during nonelection years, which is a key drawback to interpreting an estimated coefficient (Gulen and Ion, 2015).

The Baker et al. (2016) index has been widely used in the relevant literature (Gauvin et al., 2014; Hoque and Zaidi, 2018) because it is extracted based on the news reporting rather than the financial markets, and it is considered the first continuous index to capture policy uncertainty accurately (Baker et al., 2016). For instance, Biswas & Zhai (2021) point out that banks' cross-border outflows increase in the face of high domestic policy uncertainty. Gauvin et al. (2014) use the Baker index to document that economic policy uncertainty from advanced markets (the US and the EU) has negative spillover effects on capital inflows to emerging markets. Çepni et al. (2020) use the same index to examine the effect of global economic policy uncertainty on capital inflows to Turkey.

From a theoretical perspective, there are several channels through which global economic policy uncertainty can affect international capital inflows. A typical channel relied on the option value of waiting when investors "wait and see" (Bernanke, 1983). Indeed investors temporarily stop investing when they face possible regulatory changes due to policy uncertainty (Drobetz et al., 2018; Gulen & Ion, 2015; Kang et al., 2014; Stokey, 2016). This effect still exists when investors invest abroad. Therefore, cross-border capital inflows decrease naturally when investors are confronted with high global economic policy uncertainty and hesitate to invest (Julio & Yook, 2016). Another channel emerges through investors' risk-taking behavior. Given the assumption that investors are risk averse, cross-border investment decreases when uncertainty increases, as uncertainty suggests unpredictable risk (Gauvin et al., 2014). A third channel is through the negative correlation of return on investment and global economic policy uncertainty (Hoque & Zaidi, 2018). Evidence exists that an increase in US policy uncertainty reduces portfolio inflows to emerging markets (Gauvin et al., 2014). To sum up, private investment declines in response to an increase in global economic policy uncertainty, as even moderate uncertainty can serve as a heavy investment tax (Rodrik, 1991). The above discussion motivates our first hypothesis.

Hypothesis 1. Global economic policy uncertainty negatively affects gross capital inflows.

An extant literature exists on the effectiveness of macroprudential policy in preserving financial stability. It is acknowledged that such policies can significantly affect domestic credit expansion (Alam et al., 2019; Fendoğlu, 2017) and international bank lending (Agénor et al., 2014; Ahnert et al., 2020). Moreover, previous studies have shown that macroprudential regulations can effectively lessen the adverse effects of economic shocks (Mendicino & Punzi, 2014). Neanidis (2019) considers the long-term implications of banking supervision as a basic category of macroprudential policy, arguing that it can moderate the negative effect of capital flow volatility on economic growth. Gelos et al. (2022) also explore the mitigating role of macroprudential policy in preventing the volatility of capital inflows from US shocks. In general, macroprudential regulations, by strengthening the resilience of the financial

system and promoting macroeconomic stability, can serve as a shield against external shocks (Agénor et al., 2014; Ali & Iness, 2020; Takáts & Temesvary, 2017). Takáts & Temesvary (2017) use a difference-in-difference approach and show that that macroprudential measures can assuage the negative effect of the taper tantrum on cross-border banking inflows, a finding that is more pronounced when one considers the host country rather than the source country. Domestic macroprudential policy can stabilize indeed loan demand from banks and enhance economic resilience during times of stress (Ostry et al., 2012). A reasonable extension emerges, suggesting that macroprudential policies can moderate uncertainty from global economic policy as well. Thus, the second hypothesis that we test is as follows:

Hypothesis 2. Implementing tight macroprudential policies can mitigate the impact of global economic policy uncertainty on gross capital inflows.

3. Methodology

We consider whether global economic policy uncertainty can affect capital inflows and whether the implementation of tight macroprudential regulation matters for the effect of global economic policy uncertainty on capital inflows. To answer the first question, we follow Gauvin et al. (2014) and develop the following model, which corresponds to our first hypothesis, that global economic policy uncertainty negatively affects gross capital inflows.

$$Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}, \quad (1)$$

where *Cf* is an index of country-level gross capital inflows for country *i* at time *t* , *Gepu* is an indicator of global economic policy uncertainty, *Dom* refers to a vector of domestic control variables, and *Glo* is a vector of global control variables. *Dom* includes the quarterly exchange rate growth (*dex*), the quarterly growth rate of gross imports and exports (*dca*), nominal domestic GDP growth (*gdpg*), and the quarterly growth in the consumer price index (*dcpi*). *Glo* includes the change in Chicago board options volatility index (*vxo*), the quarterly growth rate of real global GDP (*growth*), the change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). Table 1 provides details on the construction of the above variables. The terms λ_i and μ_q are respectively a time-invariant country-specific unobservable effect and a common unobservable quarter-specific effect, while θ is the constant term and $\varepsilon_{i,t}$ is the time-varying individual-specific idiosyncratic error. Standard errors are clustered at the country level. Consistent with Ahnert et al. (2020), and Istrefi and Mouabbi (2018), all variables on the right-hand side of Eq.(1) are lagged by one quarter to alleviate endogeneity concerns. Moreover, time fixed effects are collinear with global economic policy uncertainty since the last varies only through time and not within countries. Therefore, it is impossible to include time fixed effects simultaneously with global economic policy uncertainty.

The coefficient, we are interested in is α. A negative α indicates that global economic policy uncertainty reduces gross capital inflows, while a positive α suggests that global economic policy uncertainty increases gross capital inflows. If α is negative, we further test whether macroprudential policies have any influence on the negative effect of global economic policy uncertainty.

Hence, the second hypothesis, suggesting that macroprudential policies can mitigate the impact of global economic policy uncertainty on gross capital inflows, arises naturally. The specification of the empirical model corresponds to the following regression, which adds the interaction of global economic policy uncertainty and macroprudential policies into Model (1):

$$Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it} \text{ ,(2)}$$

where *Mp* is defined as country-level macroprudential policy indicator. A higher level of *Mp* implies a tighter macroprudential policy. The macroprudential policy variable, *Mp*, enters the equation with a quarter lag because it takes time for macroprudential policies to be effective (Ahnert et al., 2020). In Model (2), the coefficient of interest is α_2, which captures the impact of macroprudential policy on the global economic policy uncertainty–gross capital inflows relationship. A positive α_2 implies that the implementation of macroprudential policy is effective in mitigating the adverse effect of global economic policy uncertainty on gross capital inflows. The remaining variables are the same as those in Model (1).

4. Data: Variables and Sample

4.1 Dependent Variable

Our main dependent variable is an index of the quarterly country-level gross capital inflows (*Cf)*, which is collected from the balance of payments statistics of the International Monetary Fund (IMF). In order to identify those capital flows that are affected by global economic policy uncertainty the most, we divide gross capital inflows into gross direct investment, gross portfolio investment, and gross other investment. We further, disaggregate gross capital inflows into gross debt inflows and gross equity inflows to perform robustness tests. Following Dinger & te Kaat (2020), we scale all capital inflows by current GDP. To reduce the impact of outliers, we drop the top and bottom 1% of capital inflow ratios.

4.2 Global Economic Policy Uncertainty and Macroprudential Policy

To capture uncertainty we use the global economic policy uncertainty index, constructed by Baker et al. (2016). This metric of policy uncertainty is being widely used in the modern literature (e.g., Chen & Tillmann, 2021; Gauvin et al., 2014).[1] Moreover, this measure turns out to be highly correlated with

[1] The data for global economic policy uncertainty index is collected from www.policyuncertainty.com.

other measures of policy uncertainty (Baker et al., 2016). Two versions of the global economic policy uncertainty index exist in the database—one calculated on current-price GDP, and another based on GDP adjusted by purchasing power parity (PPP). We use the former in our main regressions, and the latter in the robustness tests. The monthly global economic policy uncertainty index is available from January 1997. We compute the quarterly arithmetic mean and take its logarithm.

The macroprudential policy data are collected from Alam et al. (2019). These authors have reorganized and updated existing databases of macroprudential policies, which contain the most comprehensive and detailed monthly information of 17 instruments from 134 countries during 1990 - 2018 (Forbes, 2020). We include the following 17 instruments in our study: limits on the loan-to-value ratio, limits on the debt-service-to-income ratio, loan loss provisions, limits on credit growth, loan restrictions, limits on foreign currency, limits on the loan-to-deposit ratio, liquidity requirements, limits on foreign exchange positions, reserve requirements, countercyclical buffers, conservation, capital requirements, leverage limits, tax measures, measures taken to mitigate risks from global and domestic systemically important financial institutions (SIFIs), and other.[23]

Consistent with previous studies, the index assigns +1 to tightening actions, -1 to loosening actions, and 0 to no action. We calculate quarterly data by aggregating the monthly data at each quarter. Considering that the variations of many individual instruments are subtle, we mainly focus on the impact of an aggregated index of macroprudential policy (*mp*) and instrument groups. The aggregated index (*mp*) equals the sum of 17 instrument changes. Alam et al. (2019), classify the instruments into two groups, *demand* and *supply* measures, and the latter is further divided into three subcategories: *loan*, *general*, and *capital* tools. A detailed description of the tools that each group includes is provided in the Appendix (Table A.1).

4.3 Control Variables

In line with existing studies on capital flows, we control for the following country-specific and global-specific characteristics (Gelos et al., 2022; Julio & Yook, 2016). At the country level, we use the quarterly growth in nominal exchange rate (*dex*) as an indicator of exchange rate, and the quarterly growth rate of gross imports and exports (*dca*) as an indicator of trade openness. We capture the economic cycle by incorporating nominal domestic GDP growth (*gdpg*) and the quarterly growth in consumer price index (*dcpi*), which can also be regarded as a proxy for monetary policy. To capture the effect of global economic conditions, we control for global risk by using the quarterly change of the Chicago board options volatility index (*vxo*), the quarterly growth of real global GDP (*growth)*, the

[2] Measures taken to mitigate risks from global and domestic SIFIs include capital and liquidity surcharges.
[3] Other includes macroprudential measures not captured in the above categories—e.g., stress testing, restrictions on profit distribution, and structural measures (e.g., limits on exposures between financial institutions).

change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). The frequency of all control variables is quarterly, and all variables enter the model with a one-quarter lag.

Table 1 presents the variable definitions and summary statistics while the Appendix (Table A.2) shows the sample coverage. Our sample contains 84 economies, which emerges after combining gross capital inflows with global data. Of them, 35 are advanced economies and 49 are emerging economies. The time span that we consider is from 1997Q1 to 2018Q4. The starting and ending points of our sample are constrained by the availability of data on global policy uncertainty and the macroprudential policy indices respectively. Hence our sample does not include the period of the Covid-19 pandemic. Studying of the effects of global economic policy uncertainty on gross capital inflows, during rare and extreme events as the Covid-19 pandemic and the war in Ukraine, could be an intriguing extension of the present analysis.

As Table 1 shows, though *Cf* has been winsorized, there are still large fluctuations in global capital inflows. The maximum value of *Gepu* occurs in 2018Q4, while the minimum value is in 2005Q1. This pronounced difference and abrupt increase in global economic policy uncertainty highlights the volatile global conditions, and their importance for policy and financial analysis.

[Insert Table 1 here]

5. Empirical Results

5.1 Global Economic Policy Uncertainty and Gross Capital Inflows

We start by exploring the effect that global economic policy uncertainty on gross capital inflows according to the specification of Equation (1) and corresponds to our first Hypothesis. Table 2 presents the regression results from the baseline specification. In all regressions, country and quarter fixed effects are included. The standard errors are clustered at the country level. Country-level control variables are included in Column (2), global control variables are included in Column (3), and both of them are included in Column (4). The coefficient on *L.Gepu* is significantly negative at the 1% level across all the four Columns in Table 2, suggesting that an increase in global economic policy uncertainty is associated with lower gross capital inflows in the next quarter, a finding which is consistent with previous studies (Çepni et al., 2020; Choi & Furceri, 2019; Gourio et al., 2015). The baseline regression results appear in Column (4). The coefficient on *L.Gepu* is -0.805, suggesting that an increase in global economic policy uncertainty by 1% is associated with a lower gross capital inflow ratio by 0.00805, which is 1.453% (i.e. 0.00805/0.554*100) of the unconditional average gross capital inflows (0.554). Thus, the negative effect of global economic policy uncertainty is not only statistically significant, but it is also economically meaningful.

[Insert Table 2 here]

5.2 The Mitigating Role of Macroprudential Policies

The previous section reveals the negative impact of global economic policy uncertainty on gross capital inflows. An emerging policy question is whether financial policies can mitigate the adverse effect of global economic policy uncertainty. This question corresponds to our second hypothesis and model specification (2). We focus on the effects of macroprudential policies, which are designed with the goal of domestic financial stability in mind. As specified earlier, we mainly use the aggregated index of 17 macroprudential policy instruments (*mp*) of the Alam et al. (2019) database as a proxy of macroprudential policy. We report the results from specification (2) in Table 3. All columns include the lag of macroprudential policy (*L.Mp*) and its interaction with global economic policy uncertainty (*L.Gepu*L.Mp*). The control variables of each column are consistent with Table 2.

The coefficient on *L.Gepu* is significantly negative at 1% level across all the four columns in Table 3, which is consistent with the results of the baseline specification, reported in Table 2. The coefficients on macroprudential policies are negative at a significance level of 5% or 10%, which implies that tight macroprudential regulation decreases capital inflows (Beirne & Friedrich, 2017; Ostry et al., 2012). More importantly for our analysis, the coefficients on the interaction term (*L.Gepu*L.Mp*) are significantly positive in each of the four columns. This result lends support to our second hypothesis that tight macroprudential policies reduce the negative effect of global economic policy uncertainty on gross capital inflows. We further estimate the magnitude of the effect, which is given in Proportion in Table 3 (last row). Regardless of the control variables included in the regression, tight macroprudential policy consistently helps to reduce the adverse effect of global economic policy by nearly 30%-40%, and the proportion is economically significant.[4]

[Insert Table 3 here]

5.3 Which Macroprudential Policy Instruments Matter?

While the results of the previous section are quite convincing, they rely on an aggregate index of macroprudential policies. To understand how macroprudential policy assuages the effects of uncertainty on capital flows, we must examine the effect of specific macroprudential policy instruments. As discussed in Section 4.2, the macroprudential instruments in our sample are divided into two groups, *demand* and *supply*, and the latter includes three subcategories: *loan*, *general*, and *capital* tools. We test the model of specification (2) for each of these groups and subcategories and present the results in Table

[4] Tables A.7.,and A.8., present the regression results from the specifications in Equations (1) and (2) after adding capital controls. As we can see, the sign of the coefficients of global economic policy uncertainty and its interaction with macroprudential policies remain significant. So, whether considering the impact of capital control measures or not, our main conclusions remain the same. Moreover, the capital control measures enter insignificantly. This is consistent with the findings of several studies, emphasizing that the effect of capital controls on capital flows is limited, see Gelos et al. (2022), Bergant et al. (2020), Forbes and Warnock (2014) etc. Our findings further confirm these studies. We wish to thank an anonymous reviewer for making this point.

4 (Columns (1) – (5)). As expected, there is a consistent negative relation between macroprudential policies and gross capital inflows. The results indicate, however, that the mitigating effect varies across instruments. Specifically, *supply*, *general*, and *capital* are significant, while *demand* and *loan* are insignificant. This suggests that the supply-side instruments have a greater effect on lowering the global economic volatility effects than the demand-side instruments. More generally, loan-targeted tools (i.e. *demand* and *supply-loans*) are found to have no impact on capital inflows.

Among the supply-side instruments, *capital* tools appear to have a larger mitigating effect than *general* tools. This result may reflect the fact that capital instruments are widely and heavily used in both advanced economies and emerging markets (Alam et al., 2019). Phan et al. (2021) point out that a higher capital adequacy ratio can mitigate the destabilizing effect of domestic economic policy uncertainty on financial stability. Tight capital requirements provide a buffer against macro shocks, decrease the insolvency risk of financial institutions, and help to reduce financial instability. In our study, it turns out that, by stabilizing the domestic financial system, tight capital requirements can also mitigate the negative effect of global economic policy uncertainty on capital inflows.

We further investigate the effects of individual instruments, which belong to *general* and *capital*. *General* tools involve reserve requirements (*rr*), liquidity requirements (*liq*) and limits on foreign exchange positions (*lfx*), while *Capital* tools include leverage limits (*lvr*), countercyclical buffers (*ccb*), conservation (*con*) and capital requirements (*cap*). We present the regression results in Table 4 (Columns (6) – (12)). Among general tools, only liquidity requirements (*liq*) enter significantly in the regression. On the contrary, all four sub-instruments and their interaction with *L.gepu* in *capital* tools are statistically significant and display the expected sign. This result suggests that the impact of macroprudential policies on capital inflows works mainly through the *capital* tools.

[Insert Table 4 here]

Considering that the use of some macroprudential policy tools is infrequent, it may not be sufficient to consider the effect of the changes in macroprudential policy tools. Thus, we follow Cerutti et al. (2017) and define a cumulative macroprudential policy index, which equals to the cumulative change in macroprudential policy instruments and reflects the level of macroprudential policy instruments since the time at which our sample starts. We report the results from using the cumulative macroprudential policy index in Appendix (Table A.3).

As we can see, the cumulative use of demand tools rather than supply tools moderates the negative shock of global policy uncertainty. The mitigating effect of *capital*, *liq*, *lvr*, *ccb*, *con* and *cap* still holds under the level data. Moreover, *lfx* helps to moderate the negative effect of global policy uncertainty shocks. To sum up, although the effect of the sum of sub-instruments is different under the cumulative measure and the changes measure, most of the results of the individual macroprudential tools remain the same based on the cumulative use of macroprudential policies under the two measures.

5.4 Which Capital Inflows Matter?

In this section, we further analyze the documented negative association between global economic policy uncertainty and different capital inflows, by disaggregating gross capital inflows into direct investment, portfolio investment, and other investment. As the term of direct investment is longer than portfolio investment and other investment, we put forward the hypothesis that the former is less susceptible to uncertainty than the latter.

We regress the three capital inflow measures on global economic policy uncertainty: macroprudential policy, and its interaction with uncertainty. The regressions include the groups of country-level and global control variables as in the above sections. The specification allows for both country and quarter fixed effects. We report the results of this exercise in Table 5. All coefficients on global economic policy uncertainty are negative and statistically significant. The interactions terms of global economic policy uncertainty and macroprudential policies in direct investment and other investment, however, are insignificant (Columns (2) and (6)), and the coefficient in portfolio investment is significantly positive (Column (4)). This suggests that portfolio investment tends to decrease when global economic policy uncertainty increases (as in Gauvin et al., 2014), and the negative effect can be alleviated by the implementation of tight macroprudential policy tools. Macroprudential policies shift the composition of gross capital inflows by decreasing portfolio investment.

[Insert Table 5 here]

To answer the question which macroprudential policy instruments affect the behavior of portfolio investment in the face of uncertainty we consider explicitly different macroprudential policy instruments. We present the results of this exercise in Table 6. The coefficients on different instruments are roughly consistent with the basic results in Table 4. As previously discussed, gross capital inflows are sensitive to the supply-side instruments (*supply*), especially the capital (*capital*) and general (*general*) tools. The results in Table 6 show that the same is true for portfolio investment, except for general tools. It is loan (*loan*) tools rather than general (*capital*) tools that have a mitigating effect on portfolio investment.

[Insert Table 6 here]

The results presented in Table 5 and Table 6, are consistent with another classification of gross capital inflows. Following Forbes & Warnock (2014), gross capital inflows are split into debt-led inflows (specifically, inflows through debt instruments) and equity-led inflows (specifically, inflows through equity and investment fund shares) from the perspective of financing tools.[5] Equity-led inflows

[5]A debt-led flow is a sort of foreign capital where there is obligation for the agents to repay it, while a non-debt-led flow is a sort of capital where there is no obligation for the residents to repay it. For example, in the case of FDI, there is not debt payment obligation. Hence, a criterion in assessing the quality of capital inflows is whether they result in future repayment obligation.

refer to the medium-run dynamics of capital inflows (Jinjarak et al., 2011), which to some extent are similar to direct investment. Debt-led inflows, on the contrary, are of short-run nature.

We consider the effects of global economic policy uncertainty and macroprudential policies on debt-led inflows and equity-led inflows and we provide the results in the Appendix (Table A.4). As Table 5 shows, increased global economic policy uncertainty reduces the volume of debt-led inflows, with a smaller effect on equity-led inflows. The same holds for macroprudential policies. We report all regressions with the full set of control variables and fixed effects (as discussed in Section 4.3). The results provided in Table A.4 are consistent with the results and discussion of Table 5. Both global economic policy uncertainty and macroprudential policy tools have a negative effect on debt-led inflows (e.g., Forbes, 2020), and their interaction is significantly positive (Columns (1) and (2)). In contrast, and as expected, the increase in global economic policy uncertainty and the application of macroprudential policy have a less significant effect on equity-led inflows (Columns (3) and (4)).

Similarly, we test for the effects of different macroprudential policy instruments on debt-led inflows and we present the results in the Appendix (Table A.5). The estimated coefficients of various macroprudential policy tools again confirm the conclusions of the earlier analysis. It is the supply-side tools, especially *capital* tools, that have a significant effect on capital inflows (see Column (5) in Table A.5, Columns (2), (4) and (5) in Table A.6). Moreover, Columns (7) – (12) in both Table A.5 and Table A.6 show that there is also a significant mitigating effect through sub-instruments in capital tools.

6. Robustness Checks

The results presented in the previous sections show that global economic policy uncertainty has a negative effect on gross capital inflows, and the implementation of tight macroprudential policies can mitigate this negative effect. In this section, we conduct a set of additional regressions and tests to investigate the robustness of our main results. More specifically, we substitute the independent variables, we use an alternative database to capture macroprudential policies, and we consider potential nonlinear relationships. For each test, we focus on whether global economic policy uncertainty decreases gross capital inflows, and whether the decreasing effect can be mitigated by exercising tight macroprudential policies.

6.1 Alternative Measures of Global Economic Policy Uncertainty Index

First, we change the way that global economic policy uncertainty is constructed. The uncertainty index we use in the main regressions is calculated on current-price GDP. In this part, the index is based on PPP-adjusted GDP, which is considered to reduce the price effect. Many previous studies argued that global uncertainty mainly originates from advanced economies, especially the US (e.g., Bhattarai et al., 2020; Choi & Furceri, 2019) and capital inflows in emerging markets are sensitive to policy shocks from advanced countries (e.g., Bhattarai et al., 2021). To test whether our results are robust to

uncertainty originated in developed economies only we use the arithmetic average of the economic policy uncertainty indexes of three major advanced economies (the US, the UK, and Japan) as a proxy of global economic policy uncertainty.[6] Table 7 presents the main results of two alternative global economic policy uncertainty indexes. The regressor (*Gepu*) in Column (1) and (2) is based on PPP-adjusted GDP, while the regressor (*Gepu*) in Column (3) and (4) is the average index of advanced economies. All coefficients on *L.Gepu*, as expected, are significantly negative, and its interactions with macroprudential policies are significantly positive. Therefore, the reported results are in-line with the findings reported in the previous sections.

[Insert Table 7 here]

6.2 Alternative Measures of Macroprudential Policies

To test the sensitivity of our results to different policy indices, we use an alternative database of macroprudential policies, constructed by Cerutti et al. (2017). This database contains information on only six macroprudential policy tools during the period 2000Q1-2014Q4 for 64 economies. The related instruments are capital buffers, capital requirements, loan-to-value ratio limits, reserve requirements, concentration limits, and interbank exposure limits, with only the first five instruments in conformity with Alam et al. (2019). Consequently, we further use the sum of five instruments as the proxy variable of macroprudential policies by rerunning our baseline regressions shown in Table 4. To be consistent with the previous categories, we classify loan-to-value ratio limits into *demand* tools, while the remaining four instruments are categorized as *supply* tools. Moreover, concentration limits are *supply-loan* instruments, reserve requirements are *supply-general*, and capital buffers and capital requirements are *supply-capital*. As reported in Table 8, both the sum of five instruments (*mp*) and capital requirements (*cap*) are significant, and the remaining instruments are insignificant. This reinforces our evidence and interpretation (in Section 5.3) that macroprudential policies, especially *supply* tools and *supply-capital* tools, help to mitigate the negative effect of global economic policy uncertainty on capital inflows.

[Insert Table 8 here]

6.3 Potential Nonlinear Relationships

The mitigating role may hold when the effect of global economic policy uncertainty on gross capital inflows is non-linear. Thus, we further explore the potential non-linear relationship between global economic policy uncertainty and gross capital inflows. We augment the baseline models (1) and (2) with a quadratic term of global economic policy uncertainty ($Gepu^2$) and present the results in Table 9. Regardless of the inclusion of domestic control variables, the coefficients of both $L.Gepu$ and $L.Gepu^2$

[6] The index is based on current-price GDP.

in Columns (1) and (2) are insignificant. When we allow for the presence of global control variables into the same regressions, both $L.Gepu$ and $L.Gepu^2$ emerges as jointly significant at the 1% level and the quadratic term has a reasonable positive sign. As can be computed, the turning point of global economic policy uncertainty is 5.575 (=4.906/2/0.44) and 5.524 (=5.137/2/0.465) in Columns (3) and (4). The nonlinear relationship, however, does not hold in our study, because the turning point is larger than the maximum of global economic policy uncertainty in our sample (i.e., 5.459). Thus, the conclusion that the global economic policy uncertainty decreases gross capital inflows still holds. In addition, our sample lies on the left-side of the U-shaped curve, because $L.Gepu^2$ is positive and the U-shaped curve is convex. This indicates that the impact of global economic policy uncertainty may decrease as uncertainty itself increases.

[Insert Table 9 here]

6.4 Accounting for Endogeneity

Endogeneity is the result of the correlation between an explanatory variable and the error term, and can be caused by measurement errors, omitted important explanatory variables, simultaneity bias or reverse causality (Greene 2012). The increase in capital inflows could lead to the tightening in macroprudential policy instruments. Lowering the volatility of capital inflows, however, is not the direct goal of macroprudential policies (Forbes, 2020), and therefore one should not worry about reverse causality. Moreover, combining country-level data are with global economic policy uncertainty data contributes to mitigating the endogeneity problems because global economic policy uncertainty is less likely to be affected by individual economies except for some advanced economies, such as the US.

Thus, we use the first lags of economic policy uncertainty in the US, the UK, and Japan as the instrumental variables of global economic policy uncertainty, and exclude the US, the UK, and Japan from our sample. Table 10 shows the regression results with instrumented variables in Columns (1) – (2). The main results of the previous sections remain impervious. Global economic policy uncertainty enters the relationship in a significantly negative manner, and the coefficients (i.e., -0.915, -1.012) are larger than in the baseline results. The interaction term has a coefficient of 0.432, which significantly different from zero at 5% level. Hence, the mitigated impact of tight macroprudential policies accounts for 42.7% (=0.432/1.012*100). Both the coefficient on *Gepu* and the mitigating effect are larger than the base case results. This result reinforces our view that global economic policy uncertainty decreases gross capital inflows, and the negative effect can be mitigated through the use of tight macroprudential policies.

6.5 Persistence of Capital Inflows and Endogeneity

Thus far, our discussion has not considered the persistent nature of capital inflows. To handle this issue, we add the lagged independent variable into the basic model, and apply the system Generalized

Method of Moments (GMM) estimator proposed by Blundell & Bond (1998).[7] We present the results of this exercise in Columns (3) – (4) of Table 10. All country-level variables are treated as endogenous, while the global control variables are treated as predetermined. As Table 10 shows, the coefficient on *L.Gepu* is significantly negative, and its interaction with macroprudential policies is significantly positive. The proportion of the mitigating effect accounts for 42.29%. The results above indicate that our conclusions remain robust under the system GMM method.

[Insert Table 10 here]

6.6 Other Robustness Tests

To further explore the robustness of the relationship among gross capital inflows, global economic policy uncertainty, and macroprudential policies, we conduct several additional tests, reported in Table 11). Following the rationale of Hines (2010), we dropped nine tax havens from the sample because of their volatile capital flows.[8] We then exclude 10 economies whose sample coverage is less than half of the whole sample (i.e. 44).[9] We also add four variables (one at a time) to capture global characteristics: year-over-year growth in oil prices; global broad money supply; and the average shadow short rate for the US, Japan, the Euro area, and the UK.[10] The main results remain unchanged, suggesting that the effect of global economic policy uncertainty is not the consequence of other global shocks.

[Insert Table 11 here]

7. Conclusions

We explore the effect of global economic policy uncertainty on international capital inflows and whether macroprudential policies can mitigate this effect. We produce evidence showing a negative association between global economic policy uncertainty and gross capital inflows. We then examine the effectiveness of macroprudential policies and disaggregated policy measures in mitigating this effect.

We use a comprehensive data set covering 84 countries for the period 1997Q1–2018Q4. We find that increases in global economic policy uncertainty result in decreasing international capital inflows. Implementation of tight macroprudential policies, however, can mitigate this adverse effect by nearly 30%-40%. Our results remain valid in a series of robustness tests, including the use of alternative measures of global economic policy uncertainty, such as global economic policy uncertainty based on PPP-adjusted GDP and the arithmetic average of the economic policy uncertainty indexes of three major advanced economies (the US, the UK, and Japan), the use of alternative datasets of macroprudential

[7] System GMM is a more efficient method than difference GMM, thus we only provide the results of System GMM and not of difference GMM.
[8] The 9 tax havens are Costa Rica, Cyprus, Hong Kong (China), Ireland, Luxembourg, Malta, Mauritius, Singapore and Switzerland.
[9] The 10 economies are Albania, Cabo Verde, Cambodia, Dominican, Jamaica, Kosovo, Nigeria, Saudi Arabia, South Africa and Sri Lanka.
[10] Data source: IMF.

policy, dropping tax havens, adding additional control variables, addressing potential endogeneity problems with global economic policy uncertainty lagged and instrument variable method.

Considering the disaggregated components of macroprudential policies and capital inflows, we address two important mechanisms. First, we determine how the exercise of macroprudential policies affects gross capital inflows. Second, we identify the specific type of macroprudential policy tools matter in delivering this result. Our findings show that supply-side tools, especially those related to bank capital requirements, such as leverage limits and conservation, are useful in alleviating the adverse effect of global economic policy uncertainty on gross capital inflows.

Furthermore, our results point to the structural effects of capital inflows and the implications for their composition. Changes in both global and domestic macroeconomic conditions affect portfolio investment most significantly, while the direct investment remains unchanged. Another classification of capital inflows also confirms this conclusion. It is debt-led capital inflows, rather than equity-led inflows, that are most susceptible to global economic policy uncertainty and domestic macroprudential policies. Taken together, our analysis shows that global economic policy uncertainty mainly decreases portfolio inflows, and the adverse effect can be mediated by tight macroprudential tools related to bank capital requirements.

Overall, our study highlights the importance of the global economic policy uncertainty for capital inflows. As global financial interdependence deepens, financial policies should not only focus on the domestic sources of instability but also be cautious about adverse changes in global conditions. The results of this paper also have direct implications for the stability of international capital inflows and the implementation of macroprudential policies. Our result illustrates that global economic policy uncertainty is a well-behaved leading indicator for short-term and debt-led capital inflows. A major implication relates to the debate on the effectiveness of macroprudential policies. Our analysis suggests that macroprudential policies are generally useful in stabilizing cross-border capital inflows. Policy makers can include macroprudential policy tools in the policy mix, along with monetary policies and capital controls, to manage capital inflows when faced with global uncertainty shocks. Especially, authorities can use capital tools, such as limits on foreign exchange positions and the capital requirements on foreign exchange loans, to mitigate the adverse effect of global uncertainty.

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Tables

Table 1. Variable Definitions, Sources and Summary Statistics.

Panel A: Variable Definitions and Sources

Variable	Definition	Source
Cf	Gross capital inflow/GDP	IFS IMF
Gepu	Natural logarithm of global economic policy uncertainty	Baker et al. (2016)
mp	Sum of 17 macroprudential policy instruments	Alam et al. (2019)
	Domestic control variables	
dex	Quarterly growth in exchange rates (domestic currency per U.S. dollar, period average)	IFS IMF
dca	Quarterly growth in total imports and exports	IFS IMF
gdpg	Growth in nominal domestic GDP, relative to four quarters earlier	IFS IMF
dcpi	Quarterly growth in consumer price index	IFS IMF
	Global control variables	
vxo	Change in VXO index, relative to four quarters earlier	CBOE
growth	Quarter growth of real global GDP	IFS IMF
rate	Change in long-term interest rate, averaged across US, Euro Area and Japan, relative to four quarters earlier	IFS IMF
inf	Global inflation rate	Haver

Table 1 continued. Variable Definitions, Sources and Summary Statistics.

Panel B: Summary Statistics

Variable	N	Mean	S.D.	Min	Max
Cf	6167	0.554	2.611	-0.523	23.040
Gepu	6167	4.650	0.362	3.982	5.459
mp	6167	0.184	0.737	-4.000	8.000
dex	6147	-0.002	0.229	-9.749	1.589
dca	6147	0.017	0.111	-0.701	0.519
gdpg	6007	0.096	0.259	-0.380	10.400
dcpi	6146	0.011	0.032	-0.086	1.580
vxo	6167	-0.247	9.807	-40.080	39.100
growth	6167	2.691	1.504	-3.708	4.880
rate	6167	-0.179	0.457	-1.158	1.145
inf	6167	1.439	0.672	-0.693	3.747

Notes: IMF stands for International Monetary Fund; IFS stands for International Financial Statistics; CBOE stands for Chicago Board Options Exchange; Haver stands for Haver Analytics; VXO stands for Chicago board options volatility index. The 17 macroprudential policy instruments are the following limits on the loan-to-value ratio, limits on the debt-service-to-income ratio, loan loss provisions, limits on credit growth, loan restrictions, limits on foreign currency, limits on the loan-to-deposit ratio, liquidity requirements, limits on foreign exchange positions, reserve requirements, countercyclical buffers, conservation, capital requirements, leverage limits, tax measures, measures taken to mitigate risks from global and domestic systemically important financial institutions (SIFIs), and other.

Table 2. Main Results.

	(1)	(2)	(3)	(4)
L.Gepu	-0.719***	-0.705***	-0.807***	-0.805***
	(-2.84)	(-2.77)	(-2.94)	(-2.87)
L.dex		0.407***		0.399***
		(3.60)		(3.45)
L.dca		0.275		0.377*
		(1.17)		(1.72)
L.gdpg		-0.128		-0.183
		(-0.66)		(-0.90)
L.dcpi		1.887		1.595
		(0.74)		(0.64)
L.vxo			0.005**	0.005**
			(2.11)	(2.45)
L.growth			0.070***	0.069***
			(3.46)	(3.37)
L.rate			-0.395**	-0.425**
			(-2.19)	(-2.36)
L.inf			-0.008	0.004
			(-0.15)	(0.08)
_cons	3.920***	3.846***	4.092***	4.059***
	(3.30)	(3.23)	(3.26)	(3.17)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	6104	5921	6104	5921
Adjusted R^2	0.013	0.015	0.020	0.023
Countries	84	84	84	84

Notes: This table shows the Ordinary Least Squares (OLS) estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. The dependent variable is gross capital inflows (*Cf*) scaled by current GDP, and *Gepu* measures global economic policy uncertainty taken from Baker et al. (2016), which is the natural logarithm of the index. *Dom* is a vector of domestic control variables, including quarterly exchange rate growth (*dex*), the quarterly growth rate of total imports and exports (*dca*), nominal domestic GDP growth (*gdpg*), and the quarterly growth in consumer price index (*dcpi*). *Glo* is a vector of global control variables including the change in Chicago board options volatility index (*vxo*), quarterly growth rate of global GDP (*growth*), the change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). *i* denotes the country, and *t* stands for time. λ_i and μ_q are country and quarter fixed effects. θ is the constant term, and ε_{it} is the idiosyncratic error term. *L.* stands for the first lag of the variable. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis. ***, **, and * indicate significance at 1%, 5%, and 10% respectively. The definitions and data sources of the variables are given in Table 1.

Table 3. The Mitigating Role of Macroprudential Policies.

	(1)	(2)	(3)	(4)
L.Gepu	-0.768***	-0.764***	-0.890***	-0.898***
	(-2.79)	(-2.75)	(-2.91)	(-2.87)
L.Mp	-1.193*	-1.541**	-1.534**	-1.914**
	(-1.77)	(-1.99)	(-2.04)	(-2.25)
L.Gepu L.Mp*	0.248*	0.316**	0.322**	0.397**
	(1.79)	(2.00)	(2.06)	(2.27)
L.dex		0.408***		0.400***
		(3.61)		(3.45)
L.dca		0.231		0.337
		(1.04)		(1.61)
L.gdpg		-0.129		-0.187
		(-0.67)		(-0.92)
L.dcpi		1.872		1.576
		(0.73)		(0.64)
L.vxo			0.005**	0.005**
			(2.27)	(2.55)
L.growth			0.068***	0.068***
			(3.43)	(3.35)
L.rate			-0.414**	-0.448**
			(-2.23)	(-2.41)
L.inf			-0.006	0.005
			(-0.12)	(0.11)
_cons	4.152***	4.129***	4.480***	4.500***
	(3.21)	(3.16)	(3.20)	(3.13)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	6104	5921	6104	5921
Adjusted R^2	0.014	0.016	0.021	0.025
Countries	84	84	84	84
Proportion	0.322	0.414	0.361	0.442

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. *Cf*, *Gepu*, *Dom* and *Glo* are defined as in Table 2. *Mp* denotes macroprudential policy instruments, including the sum of 17 macroprudential policies (Alam et al., 2019). *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion is α_2 over α_1, α_2/α_1.

Table 4. The Effect of Different Macroprudential Policy Instruments on Gross Capital Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.Gepu	-0.806***	-0.887***	-0.817***	-0.850***	-0.848***	-0.812***	-0.860***	-0.806***	-0.810***	-0.810***	-0.834***	-0.816***
	(-2.89)	(-2.84)	(-2.84)	(-2.82)	(-2.94)	(-2.86)	(-2.86)	(-2.87)	(-2.87)	(-2.86)	(-2.98)	(-2.87)
L.Mp	-0.443	-2.340**	-3.024	-2.601*	-2.944***	-2.129	-4.644**	-0.658	-6.344***	-4.439*	-6.217***	-2.406*
	(-0.80)	(-2.16)	(-1.44)	(-1.80)	(-2.64)	(-1.28)	(-2.00)	(-0.66)	(-2.91)	(-1.87)	(-3.25)	(-1.77)
*L.Gepu*L.Mp*	0.088	0.486**	0.618	0.548*	0.612***	0.436	0.971**	0.182	1.309***	0.914*	1.248***	0.512*
	(0.71)	(2.18)	(1.41)	(1.81)	(2.66)	(1.25)	(2.03)	(0.91)	(2.93)	(1.85)	(3.21)	(1.80)
L.dex	0.399***	0.400***	0.399***	0.400***	0.400***	0.400***	0.399***	0.401***	0.400***	0.399***	0.399***	0.400***
	(3.45)	(3.45)	(3.44)	(3.44)	(3.45)	(3.43)	(3.44)	(3.46)	(3.45)	(3.45)	(3.43)	(3.45)
L.dca	0.376*	0.344	0.374*	0.359*	0.355	0.384*	0.350	0.380*	0.377*	0.378*	0.355	0.373*
	(1.71)	(1.65)	(1.72)	(1.72)	(1.63)	(1.79)	(1.63)	(1.73)	(1.72)	(1.72)	(1.60)	(1.71)
L.gdpg	-0.183	-0.187	-0.184	-0.183	-0.188	-0.181	-0.187	-0.183	-0.183	-0.184	-0.186	-0.185
	(-0.90)	(-0.92)	(-0.90)	(-0.90)	(-0.92)	(-0.89)	(-0.91)	(-0.90)	(-0.90)	(-0.90)	(-0.91)	(-0.91)
L.dcpi	1.593	1.585	1.587	1.583	1.601	1.583	1.594	1.598	1.591	1.596	1.587	1.593
	(0.64)	(0.64)	(0.64)	(0.64)	(0.65)	(0.64)	(0.64)	(0.64)	(0.64)	(0.64)	(0.64)	(0.64)
L.vxo	0.005**	0.006**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**
	(2.46)	(2.53)	(2.44)	(2.53)	(2.53)	(2.47)	(2.59)	(2.48)	(2.44)	(2.45)	(2.57)	(2.47)

Table 4 continued. The Effect of Different Macroprudential Policy Instruments on Gross Capital Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.growth	0.069***	0.068***	0.070***	0.067***	0.069***	0.069***	0.069***	0.069***	0.069***	0.069***	0.070***	0.069***
	(3.38)	(3.33)	(3.38)	(3.31)	(3.38)	(3.33)	(3.36)	(3.38)	(3.37)	(3.38)	(3.40)	(3.37)
L.rate	-0.426**	-0.446**	-0.426**	-0.439**	-0.437**	-0.428**	-0.443**	-0.425**	-0.427**	-0.428**	-0.435**	-0.426**
	(-2.36)	(-2.41)	(-2.36)	(-2.39)	(-2.38)	(-2.36)	(-2.40)	(-2.36)	(-2.36)	(-2.36)	(-2.37)	(-2.36)
L.inf	0.004	0.006	0.002	0.008	0.004	0.009	0.002	0.003	0.004	0.003	0.001	0.004
	(0.08)	(0.12)	(0.05)	(0.18)	(0.08)	(0.20)	(0.03)	(0.07)	(0.08)	(0.08)	(0.01)	(0.10)
_cons	4.065***	4.445***	4.120***	4.273***	4.261***	4.091***	4.322***	4.065***	4.084***	4.086***	4.199***	4.109***
	(3.19)	(3.10)	(3.13)	(3.09)	(3.24)	(3.15)	(3.14)	(3.17)	(3.17)	(3.16)	(3.29)	(3.16)
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5921	5921	5921	5921	5921	5921	5921	5921	5921	5921	5921	5921
Adjusted R^2	0.023	0.025	0.023	0.024	0.023	0.023	0.024	0.023	0.023	0.023	0.023	0.023
Countries	84	84	84	84	84	84	84	84	84	84	84	84
Proportion	0.109	0.548	0.756	0.645	0.722	0.537	1.129	0.226	1.617	1.128	1.496	0.628

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. *Cf*, *Gepu*, *Dom* and *Glo* are defined as in Table 2. *Mp* represents various macroprudential policy instruments classified into two groups, *demand* and *supply* measures, and the latter is further divided into three subcategories: *loan*, *general*, and *capital* tools. We further test sub-instruments, which belong to *general* and *capital*. *General* tools involve reserve requirements (*rr*), liquidity requirements (*liq*) and limits on foreign exchange positions (*lfx*), while Capital tools include leverage limits (*lvr*), countercyclical buffers (*ccb*), conservation (*con*) and capital requirements (*cap*). *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively Proportion equals to α_2 divided by α_1.

Table 5. The Effect on Different Capital Inflows.

	Direct investment		Portfolio investment		Other investment	
	(1)	(2)	(3)	(4)	(5)	(6)
L.Gepu	-0.180**	-0.199**	-0.144***	-0.159***	-0.328***	-0.356***
	(-2.26)	(-2.24)	(-2.92)	(-2.99)	(-2.99)	(-2.95)
L.Mp		-0.380		-0.306**		-0.369
		(-1.52)		(-2.14)		(-1.45)
*L.Gepu*L.Mp*		0.079		0.063**		0.081
		(1.56)		(2.19)		(1.53)
L.dex	0.116***	0.116***	0.070**	0.070**	0.108*	0.109*
	(3.88)	(3.90)	(2.60)	(2.60)	(1.98)	(1.98)
L.dca	0.041	0.033	0.111	0.105	0.176**	0.162**
	(0.60)	(0.49)	(1.31)	(1.25)	(2.12)	(1.99)
L.gdpg	-0.116	-0.116	0.006	0.005	-0.021	-0.023
	(-0.95)	(-0.96)	(0.40)	(0.35)	(-0.72)	(-0.77)
L.dcpi	1.103	1.100	-0.226	-0.230	0.130	0.138
	(0.86)	(0.85)	(-1.35)	(-1.38)	(0.36)	(0.38)
L.vxo	0.001	0.001	0.001	0.001	0.002**	0.002***
	(0.82)	(0.93)	(0.70)	(0.79)	(2.63)	(2.67)
L.growth	0.012*	0.012*	0.013***	0.013***	0.025***	0.023***
	(1.97)	(1.98)	(2.91)	(2.83)	(3.24)	(3.17)
L.rate	-0.130***	-0.134***	-0.074*	-0.077*	-0.107**	-0.114**
	(-2.70)	(-2.71)	(-1.78)	(-1.82)	(-2.28)	(-2.37)
L.inf	0.011	0.011	-0.009	-0.009	0.022	0.023
	(1.15)	(1.19)	(-0.72)	(-0.71)	(1.17)	(1.22)
_cons	0.964***	1.055**	0.775***	0.841***	1.584***	1.718***
	(2.64)	(2.58)	(3.63)	(3.65)	(3.18)	(3.12)
Country	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes
N	5928	5928	5928	5928	5928	5928
Adjusted R^2	0.016	0.016	0.011	0.011	0.027	0.028
Countries	84	84	84	84	84	84
Proportion		0.396		0.398		0.226

Notes: (1), (3), and (5) show the OLS estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$, (2), (4), and (6) show estimates of the model $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. The dependent variable (*Cf*) in (1) and (2) is direct investment, in (3) and (4) is portfolio investment, and in (5) and (6) is other investment, all variables are scaled by current GDP. *Gepu, Dom* and *Glo* are defined as in Table 2. *Mp* is defined as in Table 3. *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion equals to α_2 divided by α_1.

Table 6. The Effect of Different Macroprudential Instruments on Portfolio Investment.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.Gepu	-0.145***	-0.156***	-0.150***	-0.147***	-0.152***	-0.145***	-0.152***	-0.145***	-0.145***	-0.145***	-0.149***	-0.147***
	(-2.93)	(-2.96)	(-2.97)	(-2.91)	(-2.93)	(-2.91)	(-2.92)	(-2.92)	(-2.92)	(-2.90)	(-2.93)	(-2.93)
L.Mp	-0.104	-0.361**	-0.978**	-0.242	-0.433*	-0.029	-1.041*	-0.145	-0.910***	-0.449	-0.826	-0.492
	(-0.75)	(-2.08)	(-2.11)	(-1.26)	(-1.82)	(-0.09)	(-1.96)	(-0.84)	(-2.70)	(-0.87)	(-1.03)	(-1.32)
*L.Gepu*L.Mp*	0.020	0.074**	0.205**	0.049	0.091*	0.002	0.210*	0.037	0.188***	0.092	0.166	0.107
	(0.67)	(2.14)	(2.16)	(1.26)	(1.85)	(0.03)	(1.95)	(1.07)	(2.68)	(0.85)	(1.05)	(1.36)
L.dex	0.070**	0.070**	0.070**	0.070**	0.070**	0.070**	0.070**	0.070**	0.070**	0.070**	0.070**	0.070**
	(2.60)	(2.60)	(2.60)	(2.60)	(2.60)	(2.61)	(2.60)	(2.61)	(2.60)	(2.60)	(2.60)	(2.60)
L.dca	0.110	0.106	0.109	0.111	0.107	0.114	0.104	0.111	0.111	0.111	0.108	0.110
	(1.30)	(1.26)	(1.29)	(1.31)	(1.26)	(1.34)	(1.26)	(1.32)	(1.31)	(1.31)	(1.26)	(1.30)
L.gdpg	0.006	0.005	0.005	0.006	0.005	0.006	0.006	0.006	0.006	0.006	0.005	0.006
	(0.40)	(0.35)	(0.37)	(0.41)	(0.35)	(0.41)	(0.37)	(0.39)	(0.40)	(0.39)	(0.37)	(0.37)
L.dcpi	-0.227	-0.229	-0.225	-0.229	-0.224	-0.225	-0.232	-0.226	-0.227	-0.226	-0.227	-0.226
	(-1.36)	(-1.37)	(-1.35)	(-1.36)	(-1.36)	(-1.35)	(-1.37)	(-1.35)	(-1.36)	(-1.35)	(-1.37)	(-1.36)
L.vxo	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.69)	(0.79)	(0.73)	(0.72)	(0.73)	(0.66)	(0.84)	(0.71)	(0.70)	(0.70)	(0.73)	(0.71)

Table 6 continued. The Effect of Different Macroprudential Instruments on Portfolio Investment.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.growth	0.013***	0.013***	0.014***	0.013***	0.013***	0.014***	0.014***	0.013***	0.013***	0.013***	0.014***	0.013***
	(2.91)	(2.84)	(2.90)	(2.89)	(2.87)	(2.92)	(2.99)	(2.91)	(2.91)	(2.91)	(2.89)	(2.88)
L.rate	-0.074*	-0.077*	-0.074*	-0.075*	-0.076*	-0.074*	-0.076*	-0.074*	-0.074*	-0.074*	-0.075*	-0.074*
	(-1.78)	(-1.82)	(-1.79)	(-1.80)	(-1.80)	(-1.79)	(-1.80)	(-1.78)	(-1.79)	(-1.78)	(-1.79)	(-1.78)
L.inf	-0.009	-0.009	-0.010	-0.009	-0.009	-0.009	-0.011	-0.009	-0.009	-0.009	-0.010	-0.009
	(-0.72)	(-0.70)	(-0.76)	(-0.70)	(-0.71)	(-0.69)	(-0.82)	(-0.73)	(-0.72)	(-0.72)	(-0.77)	(-0.71)
_cons	0.776***	0.830***	0.800***	0.787***	0.809***	0.775***	0.812***	0.776***	0.779***	0.778***	0.794***	0.787***
	(3.64)	(3.63)	(3.66)	(3.60)	(3.62)	(3.63)	(3.59)	(3.63)	(3.62)	(3.61)	(3.65)	(3.63)
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928
Adjusted R^2	0.010	0.011	0.011	0.010	0.010	0.010	0.011	0.010	0.010	0.010	0.010	0.010
Countries	84	84	84	84	84	84	84	84	84	84	84	84
Proportion	0.141	0.477	1.369	0.330	0.600	0.012	1.383	0.258	1.294	0.635	1.118	0.726

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. The dependent variable is portfolio investment (*Cf*) scaled by current GDP. *Gepu, Dom* and *Glo* are defined as in Table 2. *Mp* is defined as in Table 4. i λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion equals to α_2 divided by α_1.

Table 7. Different Measures of Global Economic Policy Uncertainty.

	GEPU based on PPP-adjusted GDP		GEPU from US, UK, and Japan	
	(1)	(2)	(3)	(4)
L.Gepu	-0.817***	-0.916***	-0.652***	-0.712***
	(-2.86)	(-2.86)	(-2.71)	(-2.70)
L.Mp		-1.951**		-1.493**
		(-2.28)		(-2.12)
*L.Gepu*L.Mp*		0.405**		0.295**
		(2.30)		(2.14)
L.dex	0.405***	0.405***	0.389***	0.389***
	(3.48)	(3.49)	(3.42)	(3.43)
L.dca	0.365*	0.326	0.438*	0.409*
	(1.68)	(1.56)	(1.90)	(1.84)
L.gdpg	-0.190	-0.195	-0.182	-0.184
	(-0.93)	(-0.95)	(-0.89)	(-0.91)
L.dcpi	1.530	1.509	1.692	1.690
	(0.62)	(0.62)	(0.68)	(0.68)
L.vxo	0.005**	0.005**	0.003*	0.004*
	(2.34)	(2.47)	(1.93)	(1.97)
L.growth	0.063***	0.061***	0.079***	0.079***
	(3.33)	(3.30)	(3.45)	(3.43)
L.rate	-0.413**	-0.437**	-0.452**	-0.471**
	(-2.32)	(-2.37)	(-2.46)	(-2.50)
L.inf	0.018	0.020	-0.008	-0.005
	(0.40)	(0.45)	(-0.17)	(-0.11)
_cons	4.109***	4.577***	3.464***	3.754***
	(3.15)	(3.13)	(3.00)	(2.96)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	5921	5921	5921	5921
Adjusted R^2	0.024	0.026	0.022	0.023
Countries	84	84	84	84
Proportion		0.442		0.414

Notes: (1) and (3) show the OLS estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$, and (2), (4), and (6) show the OLS estimates of the model $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. *Cf*, *Gepu, Dom* and *Glo* are defined as in Table 2. *Gepu* in (1) and (2) is calculated using PPP-adjusted GDP, *Gepu* in (3) and (4) is the average of the economic policy uncertainty indexes of three major economies (the US, the UK, and Japan). *Mp* is defined as in Table 3. *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively .Proportion equals to α_2 divided by α_1.

Table 8. Another Database of Macroprudential Policy.

	mp	*ltv*	*con*	*rr*	*sscb*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)
L.Gepu	-0.711**	-0.686**	-0.675**	-0.689**	-0.679**	-0.663**
	(-2.19)	(-2.23)	(-2.19)	(-2.20)	(-2.19)	(-2.22)
L.Mp	-2.031*	-2.948	-0.733	-2.163	-1.782	-5.681*
	(-1.70)	(-1.65)	(-0.62)	(-1.45)	(-1.22)	(-1.87)
*L.Gepu*L.Mp*	0.431*	0.659	0.159	0.459	0.384	1.147*
	(1.71)	(1.66)	(0.62)	(1.43)	(1.29)	(1.89)
L.dex	0.817**	0.808**	0.810**	0.819**	0.809**	0.814**
	(2.17)	(2.15)	(2.16)	(2.16)	(2.15)	(2.15)
L.dca	0.559**	0.600**	0.612**	0.580**	0.611**	0.628**
	(2.40)	(2.37)	(2.42)	(2.50)	(2.38)	(2.41)
L.gdpg	2.358	2.286	2.288	2.359	2.286	2.289
	(1.64)	(1.63)	(1.63)	(1.65)	(1.62)	(1.63)
L.dcpi	-1.047	-0.768	-0.793	-1.101	-0.831	-1.029
	(-0.53)	(-0.39)	(-0.39)	(-0.56)	(-0.42)	(-0.54)
L.vxo	0.006**	0.006**	0.006**	0.006**	0.006**	0.006**
	(2.37)	(2.39)	(2.32)	(2.30)	(2.32)	(2.32)
L.growth	0.044*	0.046*	0.048*	0.045*	0.047*	0.048*
	(1.88)	(1.98)	(1.98)	(1.90)	(1.98)	(1.99)
L.rate	-0.132	-0.130	-0.130	-0.138	-0.129	-0.119
	(-1.30)	(-1.28)	(-1.28)	(-1.34)	(-1.27)	(-1.22)
L.inf	-0.175*	-0.177*	-0.178*	-0.174*	-0.177*	-0.179*
	(-1.75)	(-1.75)	(-1.75)	(-1.74)	(-1.76)	(-1.77)
_cons	3.925**	3.805***	3.749**	3.818**	3.772**	3.699***
	(2.61)	(2.67)	(2.63)	(2.62)	(2.63)	(2.68)
Country	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes
N	3133	3133	3133	3133	3133	3133
Adjusted R^2	0.033	0.032	0.032	0.033	0.032	0.032
Countries	57	57	57	57	57	57
Proportion	0.606	0.959	0.236	0.666	0.565	1.731

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. *Cf, Gepu, Dom* and *Glo* are defined as in Table 2. *Mp* denotes macroprudential instruments, summarized by Cerutti et al. (2017). We test five individual instruments: loan-to-value ratio limits (*ltv*), concentration limits (*con*), reserve requirements (*rr*), capital buffers (sscb), capital requirements (cap), and the sum of the five tools (*mp*). *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion equals to α_2 divided by α_1.

Table 9. Accounting for Nonlinearity

	(1)	(2)	(3)	(4)
L.Gepu	-1.860	-1.818	-4.906***	-5.137***
	(-1.22)	(-1.28)	(-3.05)	(-2.92)
$L.Gepu^2$	0.123	0.120	0.440***	0.465***
	(0.78)	(0.82)	(2.87)	(2.77)
L.dex		0.407***		0.398***
		(3.59)		(3.43)
L.dca		0.272		0.396*
		(1.17)		(1.77)
L.gdpg		-0.131		-0.191
		(-0.68)		(-0.93)
L.dcpi		1.906		1.657
		(0.74)		(0.66)
L.vxo			0.005**	0.005**
			(1.99)	(2.32)
L.growth			0.065***	0.063***
			(3.40)	(3.31)
L.rate			-0.432**	-0.465**
			(-2.33)	(-2.49)
L.inf			-0.014	-0.004
			(-0.28)	(-0.08)
_cons	6.547*	6.411*	13.597***	14.113***
	(1.75)	(1.82)	(3.24)	(3.08)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	6104	5921	6104	5921
Adjusted R^2	0.013	0.015	0.021	0.023
Countries	84	84	84	84
Turnpoint	7.550	7.573	5.575	5.524

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1}^2 + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. *Cf, Gepu, Dom* and *Glo* are defined as in Table 2. $Gepu^2$ is the square of *Gepu*. *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Turnpoint equals to α_1 divided by $-2\alpha_2$.

Table 10. **Endogeneity Tests.**

	(1)	(2)	(3)	(4)
L.Gepu	-0.915***	-1.012***	-0.435**	-0.472**
	(-2.87)	(-2.87)	(-2.38)	(-2.51)
L.Mp		-2.074**		-0.983*
		(-2.30)		(-1.78)
*L.Gepu*L.Mp*		0.432**		0.200*
		(2.32)		(1.73)
L.infgdp			0.254**	0.255**
			(2.03)	(2.04)
L.dex	0.405***	0.406***	-0.143***	-0.143***
	(3.45)	(3.46)	(-2.76)	(-2.89)
L.dca	0.362*	0.319	0.093	0.071
	(1.65)	(1.52)	(0.57)	(0.45)
L.gdpg	-0.195	-0.198	-0.168	-0.156
	(-0.94)	(-0.97)	(-1.14)	(-1.15)
L.dcpi	1.486	1.477	-0.268	-0.252
	(0.61)	(0.61)	(-0.55)	(-0.54)
L.vxo	0.005**	0.006***	0.005***	0.006***
	(2.48)	(2.58)	(3.08)	(3.17)
L.growth	0.068***	0.066***	0.054***	0.056***
	(3.37)	(3.34)	(3.00)	(3.03)
L.rate	-0.463**	-0.487**	-0.178**	-0.186**
	(-2.41)	(-2.46)	(-2.13)	(-2.16)
L.inf	0.008	0.009	-0.012	-0.016
	(0.16)	(0.19)	(-0.42)	(-0.53)
_cons	4.183***	4.624***	2.315**	2.495**
	(2.78)	(2.80)	(2.42)	(2.50)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	5660	5660	5920	5920
Adjusted R^2	0.336	0.338		
Countries	81	81	84	84
Proportion		0.426		0.423
AR(1)			0.012	0.012
AR(2)			0.928	0.915
Hansen			0.348	0.629

Notes: Columns (1) and (3) show the estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$, and columns (2) and (4) show estimates of model $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. (1) and (2) show the results of the OLS estimation. The first lag of the dependent variable is added into regressions in (3) and (4). (3) and (4) show the results of the one-step system Generalized Method of Moments (GMM) estimation. *Cf*, *Gepu*, *Dom* and *Glo* are defined as in Table 2. The first lags of three major economies' (the US, the UK, and Japan) economic policy uncertainty indexes are the instrumental variables of global economic policy uncertainty in (1) and (2). The US, the UK, and Japan are excluded from regressions in (1) and (2). *Mp* is defined as in Table 3. All country-level variables are treated as endogenous under GMM, while the global control variables are treated as predetermined. i λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust in (3)-(4) and clustered by country in (1)-(2). t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. The matrix of instruments is collapsed in (3) and (4).

Table 11. Robustness Checks: Sub-samples and Additional Control Variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
L.Gepu	-0.852***	-0.939***	-0.823***	-0.919***	-0.802***	-0.896***	-0.819***	-0.914***	-0.734***	-0.823***
	(-2.75)	(-2.72)	(-2.87)	(-2.87)	(-2.86)	(-2.86)	(-2.87)	(-2.87)	(-2.66)	(-2.68)
L.Mp		-1.855**		-1.942**		-1.983**		-1.992**		-1.946**
		(-2.13)		(-2.25)		(-2.32)		(-2.27)		(-2.27)
*L.Gepu*L.Mp*		0.383**		0.403**		0.411**		0.412**		0.402**
		(2.14)		(2.28)		(2.34)		(2.29)		(2.29)
L.dex	0.387***	0.388***	0.401***	0.402***	0.396***	0.396***	0.397***	0.397***	0.391***	0.392***
	(3.30)	(3.30)	(3.44)	(3.44)	(3.28)	(3.28)	(3.38)	(3.38)	(3.31)	(3.32)
L.dca	0.332	0.290	0.383	0.339	0.460**	0.429**	0.413*	0.375*	0.449**	0.413**
	(1.43)	(1.31)	(1.62)	(1.50)	(2.37)	(2.31)	(1.88)	(1.78)	(2.16)	(2.09)
L.gdpg	-0.191	-0.194	-0.187	-0.192	-0.188	-0.192	-0.183	-0.186	-0.184	-0.187
	(-0.92)	(-0.93)	(-0.90)	(-0.93)	(-0.92)	(-0.94)	(-0.89)	(-0.91)	(-0.91)	(-0.93)
L.dcpi	1.667	1.636	1.597	1.581	1.736	1.729	1.716	1.699	1.772	1.753
	(0.66)	(0.65)	(0.64)	(0.63)	(0.68)	(0.68)	(0.67)	(0.67)	(0.70)	(0.69)
L.vxo	0.007***	0.007***	0.005**	0.006**	0.003	0.003	0.007**	0.008**	0.002	0.003
	(3.29)	(3.26)	(2.46)	(2.56)	(1.28)	(1.38)	(2.54)	(2.61)	(1.12)	(1.30)
L.growth	0.065***	0.065***	0.071***	0.070***	0.077***	0.077***	0.058***	0.056***	0.024	0.022
	(3.31)	(3.29)	(3.36)	(3.33)	(3.16)	(3.13)	(3.39)	(3.36)	(1.06)	(0.98)
L.rate	-0.423**	-0.443**	-0.442**	-0.465**	-0.382**	-0.400**	-0.394**	-0.415**	-0.511**	-0.535**
	(-2.19)	(-2.23)	(-2.36)	(-2.41)	(-2.50)	(-2.53)	(-2.42)	(-2.47)	(-2.25)	(-2.31)
L.inf	0.007	0.009	0.001	0.002	0.057	0.064	-0.005	-0.004	0.011	0.012
	(0.16)	(0.19)	(0.01)	(0.03)	(0.62)	(0.70)	(-0.10)	(-0.09)	(0.23)	(0.25)

Table 11 continued. Robustness Checks: Sub-samples and Additional Control Variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
L.oil					-0.002	-0.002				
					(-1.00)	(-1.11)				
L.money							-0.021*	-0.023*		
							(-1.74)	(-1.80)		
L.ssr									0.102	0.105*
									(1.65)	(1.68)
_cons	4.127***	4.537***	4.156***	4.610***	3.971***	4.408***	4.265***	4.722***	3.851***	4.273***
	(2.92)	(2.88)	(3.18)	(3.14)	(3.05)	(3.03)	(3.18)	(3.14)	(3.02)	(3.00)
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5282	5282	5662	5662	5921	5921	5921	5921	5921	5921
Adjusted R^2	0.025	0.027	0.023	0.025	0.023	0.025	0.024	0.026	0.024	0.026
Countries	75	75	74	74	84	84	84	84	84	84
Proportion		0.408		0.439		0.458		0.451		0.488

Notes: Columns in odd numbers show the OLS estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$, while columns in even numbers show estimates of the model $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. The dependent variable (*Cf*) is gross capital inflows scaled by current GDP. *Gepu* measures global economic policy uncertainty taken from Baker et al. (2016), which is the natural logarithm of the index. *Mp* represents macroprudential instruments, including the sum of 17 macroprudential policies from Alam et al. (2019). *Dom* is a vector of domestic control variables, including quarterly exchange rate growth (*dex*), the quarterly growth rate of total imports and exports (*dca*), nominal domestic GDP growth (*gdpg*), and the quarterly growth in consumer price index (*dcpi*). *Glo* is a vector of global control variables and contains the change in Chicago board options volatility index (*vxo*), quarterly growth rate of global GDP (*growth*), the change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). Nine tax havens are removed from the sample in Columns (1) and (2). Estimations might be biased if the time interval is too short. Therefore, we drop 10 economies whose observations are less than half of the whole sample (i.e. 44). Year-over-year growth in oil prices (*oil*); global broad money supply (*money*); the average shadow short rate for the US, Japan, the euro area, and UK (*ssr*) are added separately in Columns (5)–(10). *i* denotes the country, and *t* stands for time. λ_i and μ_q are country and quarter fixed effects. θ is the constant term, and ε_{it} is the idiosyncratic error term. *L.* stands for the first lag of the variable. Standard errors are heteroscedasticity robust and clustered by country. t statistics are reported in parentheses, ***, **, and * indicate the 1%, 5%, and 10% significance levels. Proportion equals to α_2 divided by α_1.

Appendix

Table A.1. Classification of Macroprudential Policy Instruments.

Demand side		Limits on the Loan-to-Value Ratio Limits on the Debt-Service-to Income Ratio
Supply side	*Loan*	Limits on Credit Growth Loan Loss Provisions Loan Restrictions Limits on the Loan-to-Deposit Ratio Limits on Foreign Currency
	General	Reserve Requirements Liquidity Requirements Limits on Foreign Exchange Positions
	Capital	Leverage Limits Countercyclical Buffers Conservation Capital Requirements

Notes: Data source: Alam et al. (2019).

Table A.2. Sample Coverage.

Albania	Denmark	South Korea	Philippines
Armenia	Dominican	Kosovo	Poland
Australia	Ecuador	Kyrgyz	Portugal
Austria	El Salvador	Latvia	Romania
Azerbaijan	Estonia	Lithuania	Russian Federation
Belarus	Finland	Luxembourg	Saudi Arabia
Belgium	France	Malaysia	Serbia
Bosnia and Herzegovina	Georgia	Malta	Singapore
Brazil	Germany	Mauritius	Slovak
Brunei Darussalam	Greece	Mexico	Slovenia
Bulgaria	Hong Kong, China	Moldova	South Africa
Cabo Verde	Hungary	Mongolia	Spain
Cambodia	Iceland	Montenegro	Sri Lanka
Canada	India	Morocco	Sweden
Chile	Indonesia	Netherlands	Switzerland
China, P.R.: Mainland	Ireland	New Zealand	Thailand
Colombia	Israel	Nigeria	Turkey
Costa Rica	Italy	North Macedonia	Ukraine
Croatia	Jamaica	Norway	United Kingdom
Cyprus	Japan	Paraguay	United States
Czech Republic	Kazakhstan	Peru	Uruguay

Notes: The entire sample includes 84 economies.

Table A.3. The Effect of the Cumulative Changes in Macroprudential Policy Instruments on Gross Capital Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.Gepu	-0.913***	-1.101***	-0.957***	-1.024***	-1.039***	-0.827***	-0.902**	-0.969***	-0.895***	-0.828***	-0.893***	-0.961***
	(-2.94)	(-2.68)	(-2.94)	(-2.65)	(-2.74)	(-2.92)	(-2.43)	(-2.91)	(-2.85)	(-2.85)	(-2.96)	(-2.68)
L.Mp	-0.957**	-0.073	-1.210*	0.164	-0.957**	0.372	-0.821*	-1.797**	-2.765**	-1.720**	-2.733***	-0.988*
	(-2.32)	(-0.56)	(-1.92)	(0.85)	(-2.35)	(1.46)	(-1.79)	(-2.21)	(-2.53)	(-2.10)	(-2.70)	(-1.96)
*L.Gepu*L.Mp*	0.199**	0.024	0.249*	-0.012	0.200**	-0.046	0.169*	0.420**	0.595**	0.370**	0.549***	0.211*
	(2.41)	(0.88)	(1.98)	(-0.34)	(2.36)	(-1.06)	(1.81)	(2.34)	(2.56)	(2.09)	(2.69)	(1.96)
L.dex	0.402***	0.408***	0.402***	0.408***	0.404***	0.404***	0.402***	0.407***	0.402***	0.400***	0.402***	0.402***
	(3.46)	(3.38)	(3.44)	(3.33)	(3.43)	(3.40)	(3.42)	(3.45)	(3.43)	(3.44)	(3.47)	(3.42)
L.dca	0.375*	0.416*	0.376*	0.407*	0.364*	0.390*	0.374*	0.401*	0.381*	0.380*	0.357	0.374*
	(1.68)	(1.81)	(1.76)	(1.78)	(1.69)	(1.75)	(1.70)	(1.80)	(1.72)	(1.72)	(1.64)	(1.70)
L.gdpg	-0.190	-0.163	-0.199	-0.172	-0.194	-0.176	-0.188	-0.170	-0.183	-0.184	-0.186	-0.189
	(-0.93)	(-0.81)	(-0.97)	(-0.83)	(-0.95)	(-0.83)	(-0.92)	(-0.86)	(-0.89)	(-0.90)	(-0.91)	(-0.92)
L.dcpi	1.522	1.804	1.559	1.822	1.559	1.607	1.584	1.731	1.635	1.577	1.539	1.584
	(0.62)	(0.71)	(0.63)	(0.70)	(0.63)	(0.63)	(0.65)	(0.69)	(0.66)	(0.64)	(0.62)	(0.64)
L.vxo	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.005**	0.006**	0.005**
	(2.51)	(2.39)	(2.46)	(2.34)	(2.51)	(2.36)	(2.54)	(2.52)	(2.42)	(2.45)	(2.56)	(2.47)

Table A.3 continued. The Effect of the Cumulative Changes in Macroprudential Policy Instruments on Gross Capital Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.growth	0.066***	0.050***	0.065***	0.053***	0.061***	0.067***	0.066***	0.061***	0.065***	0.068***	0.069***	0.063***
	(3.24)	(2.79)	(3.22)	(2.87)	(3.21)	(3.30)	(3.23)	(3.23)	(3.28)	(3.37)	(3.50)	(3.20)
L.rate	-0.445**	-0.508**	-0.440**	-0.484**	-0.485**	-0.406**	-0.452**	-0.447**	-0.448**	-0.433**	-0.457**	-0.456**
	(-2.41)	(-2.49)	(-2.41)	(-2.45)	(-2.44)	(-2.33)	(-2.34)	(-2.43)	(-2.42)	(-2.37)	(-2.27)	(-2.44)
L.inf	0.006	0.021	0.005	0.011	0.008	-0.010	0.004	0.010	0.008	0.003	-0.004	0.010
	(0.12)	(0.46)	(0.11)	(0.25)	(0.17)	(-0.21)	(0.09)	(0.21)	(0.18)	(0.07)	(-0.08)	(0.22)
_cons	4.564***	5.363***	4.787***	5.053***	5.143***	4.233***	4.512***	4.773***	4.472***	4.167***	4.480***	4.774***
	(3.23)	(2.90)	(3.19)	(2.88)	(2.98)	(3.21)	(2.67)	(3.16)	(3.12)	(3.14)	(3.30)	(2.92)
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5921	5921	5921	5921	5921	5921	5921	5921	5921	5921	5921	5921
Adjusted R^2	0.025	0.027	0.026	0.031	0.025	0.033	0.024	0.026	0.024	0.023	0.024	0.024
Countries	84	84	84	84	84	84	84	84	84	84	84	84
Proportion	0.218	0.021	0.260	-0.011	0.193	-0.055	0.188	0.433	0.664	0.447	0.614	0.219

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. *Cf*, *Gepu*, *Dom* and *Glo* are defined as in Table 2. *Mp* represents the cumulative use of various macroprudential policy instruments classified into two groups, *demand* and *supply* measures, and the latter is further divided into three subcategories: *loan*, *general*, and *capital* tools. We further test sub-instruments, which belong to *general* and *capital*. *General* tools involve reserve requirements (*rr*), liquidity requirements (*liq*) and limits on foreign exchange positions (*lfx*), while Capital tools include leverage limits (*lvr*), countercyclical buffers (*ccb*), conservation (*con*) and capital requirements (*cap*). *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively Proportion equals to α_2 divided by α_1.

Table A.4. The Effect on Debt-Led and Equity-Led Inflows.

	Debt-led inflows		Equity-led inflows	
	(1)	(2)	(3)	(4)
L.Gepu	-0.608***	-0.660***	-0.214**	-0.238**
	(-2.97)	(-2.91)	(-2.48)	(-2.47)
L.Mp		-0.986*		-0.502*
		(-1.78)		(-1.94)
*L.Gepu*L.Mp*		0.206*		0.104*
		(1.80)		(1.99)
L.dex	0.277***	0.278***	0.148***	0.148***
	(3.27)	(3.27)	(4.27)	(4.27)
L.dca	0.352*	0.330*	0.070	0.059
	(1.99)	(1.90)	(1.62)	(1.39)
L.gdpg	-0.136	-0.138	-0.150	-0.151
	(-0.91)	(-0.93)	(-0.87)	(-0.88)
L.dcpi	1.023	1.018	1.566	1.561
	(0.58)	(0.58)	(0.86)	(0.86)
L.vxo	0.004***	0.004***	0.001	0.001
	(2.81)	(2.79)	(0.59)	(0.68)
L.growth	0.050***	0.049***	0.019**	0.019**
	(3.36)	(3.34)	(2.47)	(2.45)
L.rate	-0.313**	-0.326**	-0.151**	-0.157**
	(-2.38)	(-2.41)	(-2.40)	(-2.43)
L.inf	0.032	0.033	-0.015	-0.015
	(0.98)	(1.01)	(-0.92)	(-0.90)
_cons	2.939***	3.182***	1.159***	1.274***
	(3.18)	(3.09)	(2.99)	(2.93)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	5928	5928	5928	5928
Adjusted R^2	0.025	0.025	0.015	0.016
Countries	84	84	84	84
Proportion		0.312		0.437

Notes: Columns (1) and (3) show the OLS estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$, and columns (2) and (4) show the OLS estimates of the model $Cf_{it} = \theta + \alpha_1 Gepu_t + \alpha_2 Gepu_t * Mp_{it} + \alpha_3 Mp_{it} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. The dependent variable (*Cf*) in columns (1) and (2) is debt-led inflows, and in (3) and (4) is equity-led inflows, all variables are scaled by current GDP. *Gepu*, is defined as in Table 2. *Dom* is a vector of domestic control variables, including quarterly exchange rate growth (*dex*), the quarterly growth rate of total imports and exports (*dca*), nominal domestic GDP growth (*gdpg*), and the quarterly growth in consumer price index (*dcpi*). *Glo* is a vector of global control variables and contains the change in Chicago board options volatility index (*vxo*), quarterly growth rate of global GDP (*growth*), the change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion equals to α_2 divided by α_1.

Table A.5. The Effect of Different Macroprudential Instruments on Debt-Led Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.Gepu	-0.609***	-0.654***	-0.618***	-0.631***	-0.633***	-0.611***	-0.639***	-0.609***	-0.612***	-0.613***	-0.629***	-0.610***
	(-2.99)	(-2.88)	(-2.94)	(-2.87)	(-3.02)	(-2.95)	(-2.94)	(-2.97)	(-2.98)	(-2.96)	(-3.09)	(-2.95)
L.Mp	-0.276	-1.202	-1.505	-1.325	-1.626**	-0.934	-2.323**	-0.874	-5.199***	-3.355*	-4.247***	-0.518
	(-0.76)	(-1.64)	(-1.32)	(-1.30)	(-2.31)	(-0.76)	(-2.07)	(-1.53)	(-3.14)	(-1.95)	(-3.35)	(-0.55)
*L.Gepu*L.Mp*	0.056	0.252	0.322	0.279	0.338**	0.188	0.491**	0.196	1.072***	0.695*	0.854***	0.108
	(0.70)	(1.66)	(1.32)	(1.30)	(2.31)	(0.72)	(2.09)	(1.60)	(3.17)	(1.94)	(3.32)	(0.53)
L.dex	0.278***	0.278***	0.278***	0.278***	0.278***	0.278***	0.277***	0.278***	0.278***	0.278***	0.278***	0.278***
	(3.26)	(3.27)	(3.26)	(3.26)	(3.27)	(3.25)	(3.26)	(3.27)	(3.27)	(3.27)	(3.25)	(3.27)
L.dca	0.352*	0.333*	0.349*	0.343**	0.340*	0.358**	0.339*	0.354**	0.352*	0.353*	0.337*	0.352*
	(1.98)	(1.93)	(1.98)	(1.99)	(1.91)	(2.05)	(1.92)	(1.99)	(1.99)	(1.99)	(1.88)	(1.98)
L.gdpg	-0.136	-0.138	-0.136	-0.136	-0.138	-0.134	-0.138	-0.136	-0.136	-0.136	-0.138	-0.136
	(-0.91)	(-0.93)	(-0.92)	(-0.92)	(-0.93)	(-0.91)	(-0.92)	(-0.91)	(-0.91)	(-0.91)	(-0.92)	(-0.91)
L.dcpi	1.023	1.024	1.030	1.017	1.027	1.020	1.027	1.025	1.021	1.024	1.020	1.022
	(0.58)	(0.58)	(0.58)	(0.57)	(0.58)	(0.58)	(0.58)	(0.58)	(0.58)	(0.58)	(0.57)	(0.58)
L.vxo	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***	0.004***
	(2.83)	(2.76)	(2.78)	(2.77)	(2.82)	(2.74)	(2.82)	(2.81)	(2.80)	(2.81)	(2.88)	(2.79)

Table A.5 continued. The Effect of Different Macroprudential Instruments on Debt-Led Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.growth	0.050***	0.049***	0.050***	0.049***	0.050***	0.050***	0.050***	0.050***	0.050***	0.050***	0.051***	0.050***
	(3.35)	(3.34)	(3.36)	(3.36)	(3.35)	(3.38)	(3.37)	(3.36)	(3.36)	(3.37)	(3.37)	(3.37)
L.rate	-0.313**	-0.325**	-0.314**	-0.320**	-0.320**	-0.315**	-0.323**	-0.313**	-0.315**	-0.315**	-0.320**	-0.313**
	(-2.38)	(-2.41)	(-2.39)	(-2.40)	(-2.39)	(-2.38)	(-2.41)	(-2.38)	(-2.39)	(-2.38)	(-2.39)	(-2.38)
L.inf	0.032	0.033	0.031	0.034	0.032	0.034	0.032	0.032	0.032	0.032	0.030	0.032
	(0.98)	(1.03)	(0.93)	(1.08)	(0.97)	(1.09)	(0.97)	(0.97)	(0.98)	(0.97)	(0.91)	(0.99)
_cons	2.944***	3.153***	2.984***	3.046***	3.052***	2.952***	3.084***	2.944***	2.959***	2.961***	3.039***	2.948***
	(3.21)	(3.06)	(3.14)	(3.06)	(3.24)	(3.15)	(3.14)	(3.18)	(3.19)	(3.18)	(3.32)	(3.16)
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928
Adjusted R^2	0.024	0.025	0.024	0.025	0.025	0.025	0.025	0.024	0.024	0.024	0.025	0.024
Countries	84	84	84	84	84	84	84	84	84	84	84	84
Proportion	0.092	0.385	0.521	0.442	0.535	0.307	0.768	0.322	1.750	1.135	1.358	0.177

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$.The dependent variable (*Cf*) is debt-led inflows scaled by current GDP. *Gepu*, is defined as in Table 2. *Mp* represents various macroprudential instruments, which are classified into two groups, *demand* and *supply* measures, and the latter is further divided into three subcategories: *loan*, *general*, and *capital* tools. We further test sub-instruments, which belong to *general* and *capital*. *General* tools involve reserve requirements (*rr*), liquidity requirements (*liq*) and limits on foreign exchange positions (*lfx*), while Capital tools include leverage limits (*lvr*), countercyclical buffers (*ccb*), conservation (*con*) and capital requirements (*cap*). *Dom* refers to a vector of domestic control variables, including quarterly exchange rate growth (*dex*), the quarterly growth rate of total imports and exports (*dca*), nominal domestic GDP growth (*gdpg*), and the quarterly growth in consumer price index (*dcpi*). *Glo* is a vector of global control variables and contains the change in Chicago board options volatility index (*vxo*), quarterly growth rate of global GDP (*growth*), the change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). i λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion equals to α_2 divided by α_1.

Table A.6. The Effect of Different Macroprudential Instruments on Equity-Led Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.Gepu	-0.214**	-0.235**	-0.216**	-0.225**	-0.227**	-0.215**	-0.230**	-0.214**	-0.215**	-0.215**	-0.226**	-0.216**
	(-2.47)	(-2.47)	(-2.45)	(-2.48)	(-2.49)	(-2.47)	(-2.47)	(-2.48)	(-2.47)	(-2.47)	(-2.51)	(-2.47)
L.Mp	-0.170	-0.600*	-0.841	-0.600	-0.943**	-0.437	-1.465*	0.234	-1.832	-1.343	-1.883**	-0.594*
	(-0.75)	(-1.79)	(-1.19)	(-1.58)	(-2.42)	(-0.95)	(-1.84)	(0.42)	(-1.63)	(-1.52)	(-2.20)	(-1.88)
*L.Gepu*L.Mp*	0.032	0.125*	0.167	0.129*	0.196**	0.090	0.304*	-0.018	0.374	0.273	0.385**	0.122*
	(0.64)	(1.84)	(1.15)	(1.66)	(2.40)	(0.96)	(1.88)	(-0.18)	(1.65)	(1.50)	(2.22)	(1.85)
L.dex	0.148***	0.148***	0.147***	0.148***	0.148***	0.148***	0.147***	0.149***	0.148***	0.148***	0.147***	0.148***
	(4.27)	(4.27)	(4.25)	(4.28)	(4.28)	(4.28)	(4.27)	(4.35)	(4.26)	(4.27)	(4.28)	(4.27)
L.dca	0.069	0.061	0.069	0.064	0.063	0.071*	0.061	0.072	0.070	0.070	0.061	0.069
	(1.60)	(1.42)	(1.60)	(1.52)	(1.48)	(1.69)	(1.49)	(1.65)	(1.62)	(1.62)	(1.42)	(1.60)
L.gdpg	-0.150	-0.151	-0.150	-0.150	-0.151	-0.149	-0.151	-0.150	-0.150	-0.150	-0.151	-0.150
	(-0.87)	(-0.88)	(-0.87)	(-0.87)	(-0.88)	(-0.87)	(-0.88)	(-0.87)	(-0.87)	(-0.87)	(-0.88)	(-0.87)
L.dcpi	1.564	1.564	1.560	1.565	1.567	1.563	1.564	1.567	1.564	1.566	1.569	1.564
	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)	(0.86)
L.vxo	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.57)	(0.69)	(0.61)	(0.67)	(0.66)	(0.62)	(0.69)	(0.63)	(0.59)	(0.60)	(0.67)	(0.60)

Table A.6 continued. The Effect of Different Macroprudential Instruments on Equity-Led Inflows.

	demand	*supply*	*loan*	*general*	*capital*	*rr*	*liq*	*lfx*	*lvr*	*ccb*	*con*	*cap*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
L.growth	0.019**	0.019**	0.019**	0.018**	0.019**	0.019**	0.019**	0.019**	0.019**	0.019**	0.019**	0.019**
	(2.49)	(2.45)	(2.50)	(2.36)	(2.50)	(2.42)	(2.48)	(2.47)	(2.46)	(2.47)	(2.49)	(2.49)
L.rate	-0.151**	-0.157**	-0.151**	-0.155**	-0.155**	-0.152**	-0.156**	-0.151**	-0.152**	-0.152**	-0.156**	-0.151**
	(-2.40)	(-2.44)	(-2.40)	(-2.43)	(-2.41)	(-2.40)	(-2.42)	(-2.40)	(-2.40)	(-2.40)	(-2.41)	(-2.40)
L.inf	-0.015	-0.015	-0.015	-0.014	-0.015	-0.014	-0.016	-0.015	-0.015	-0.015	-0.016	-0.015
	(-0.92)	(-0.88)	(-0.94)	(-0.85)	(-0.91)	(-0.84)	(-0.94)	(-0.94)	(-0.92)	(-0.92)	(-0.96)	(-0.91)
_cons	1.159***	1.260***	1.171***	1.215***	1.221***	1.165***	1.235***	1.160***	1.165***	1.166***	1.217***	1.168***
	(2.98)	(2.93)	(2.95)	(2.97)	(2.97)	(2.98)	(2.94)	(2.98)	(2.98)	(2.98)	(3.01)	(2.97)
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928	5928
Adjusted R^2	0.015	0.016	0.015	0.015	0.015	0.015	0.016	0.015	0.015	0.015	0.015	0.015
Countries	84	84	84	84	84	84	84	84	84	84	84	84
Proportion	0.149	0.532	0.772	0.571	0.861	0.419	1.323	-0.083	1.742	1.270	1.702	0.568

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha_1 Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. The dependent variable (*Cf*) is equity-led inflows scaled by current GDP. *Gepu*, is defined as in Table 2. *Mp* represents various macroprudential instruments, which are classified into two groups, *demand* and *supply* measures, and the latter is further divided into three subcategories: *loan*, *general*, and *capital* tools. We further test sub-instruments, which belong to *general* and *capital*. *General* tools involve reserve requirements (*rr*), liquidity requirements (*liq*) and limits on foreign exchange positions (*lfx*), while Capital tools include leverage limits (*lvr*), countercyclical buffers (*ccb*), conservation (*con*) and capital requirements (*cap*). *Dom* refers to a vector of domestic control variables, including quarterly exchange rate growth (*dex*), the quarterly growth rate of total imports and exports (*dca*), nominal domestic GDP growth (*gdpg*), and the quarterly growth in consumer price index (*dcpi*). *Glo* is a vector of global control variables and contains the change in Chicago board options volatility index (*vxo*), quarterly growth rate of global GDP (*growth*), the change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). *i* denotes the country, and *t* stands for time. λ_i and μ_q are country and quarter fixed effects. θ is the constant term, and ε_{it} is the idiosyncratic error term. *L.* stands for the first lag of the variable. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion equals to α_2 divided by α_1.

Table A.7. Robustness Checks: The Effect of Capital Control Measures.

	(1)	(2)	(3)	(4)
L.Gepu	-0.593**	-0.733**	-0.674**	-0.768***
	(-2.15)	(-2.26)	(-2.62)	(-2.70)
L.dex	0.419***	0.415***	0.398***	0.391***
	(3.14)	(3.02)	(3.59)	(3.43)
L.dca	0.130	0.331	0.285	0.425
	(0.39)	(1.10)	(1.04)	(1.64)
L.gdpg	-0.090	-0.150	-0.153	-0.207
	(-0.39)	(-0.61)	(-0.75)	(-0.95)
L.dcpi	2.667	2.375	1.627	1.411
	(0.82)	(0.77)	(0.70)	(0.62)
L.vxo		0.006***		0.006***
		(2.79)		(2.95)
L.growth		0.070***		0.061***
		(3.04)		(3.22)
L.rate		-0.458**		-0.384**
		(-2.07)		(-2.14)
L.inf		-0.001		0.028
		(-0.02)		(0.62)
L.ka1	0.817	0.866		
	(1.27)	(1.29)		
L.ka2			-0.518	-0.429
			(-1.28)	(-1.08)
_cons	2.581***	2.945**	3.956***	4.071***
	(2.66)	(2.56)	(3.02)	(2.95)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	4720	4720	5685	5685
Adjusted R^2	0.013	0.021	0.016	0.024
Countries	67	67	79	79

Notes: This table shows the Ordinary Least Squares (OLS) estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. The dependent variable is gross capital inflows (*Cf*) scaled by current GDP, and *Gepu* measures global economic policy uncertainty taken from Baker et al. (2016), which is the natural logarithm of the index. *Dom* is a vector of domestic control variables, including quarterly exchange rate growth (*dex*), the quarterly growth rate of total imports and exports (*dca*), nominal domestic GDP growth (*gdpg*), the quarterly growth in consumer price index (*dcpi*) and the capital control measures (*ka1*, *ka2*). *ka1* is from Fernández et al. (2016) and *ka2* is from Chinn and Ito (2008). We take 1 minus Fernández et al. (2016) index in regressions. *Glo* is a vector of global control variables including the change in Chicago board options volatility index (*vxo*), quarterly growth rate of global GDP (*growth*), the change in long-term interest rate in advanced economies (*rate*), and the global inflation rate (*inf*). *i* denotes the country, and *t* stands for time. λ_i and μ_q are country and quarter fixed effects. θ is the constant term, and ε_{it} is the idiosyncratic error term. *L.* stands for the first lag of the variable. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis. ***, **, and * indicate significance at 1%, 5%, and 10% respectively. The definitions and data sources of the variables are given in Table 1.

Table A.8. Robustness Checks: The Effect of Capital Control Measures on the Mitigating Role of Macroprudential Policies.

	(1)	(2)	(3)	(4)
L.Gepu	-0.650**	-0.831**	-0.727**	-0.853***
	(-2.15)	(-2.29)	(-2.58)	(-2.69)
L.Mp	-1.436*	-1.850**	-1.358*	-1.703**
	(-1.81)	(-2.06)	(-1.79)	(-2.04)
L.Gepu L.Mp*	0.295*	0.385**	0.279*	0.354**
	(1.82)	(2.08)	(1.80)	(2.07)
L.dex	0.418***	0.414***	0.398***	0.391***
	(3.15)	(3.02)	(3.60)	(3.43)
L.dca	0.080	0.291	0.237	0.378
	(0.25)	(1.00)	(0.91)	(1.52)
L.gdpg	-0.091	-0.156	-0.154	-0.210
	(-0.40)	(-0.64)	(-0.75)	(-0.97)
L.dcpi	2.631	2.330	1.606	1.389
	(0.82)	(0.76)	(0.69)	(0.61)
L.vxo		0.007***		0.006***
		(2.77)		(2.93)
L.growth		0.068***		0.060***
		(3.02)		(3.19)
L.rate		-0.481**		-0.404**
		(-2.12)		(-2.19)
L.inf		0.002		0.029
		(0.03)		(0.64)
L.ka1	0.801	0.847		
	(1.25)	(1.27)		
L.ka2			-0.525	-0.436
			(-1.29)	(-1.10)
_cons	2.867**	3.418**	4.215***	4.479***
	(2.60)	(2.56)	(2.95)	(2.91)
Country	Yes	Yes	Yes	Yes
Quarter	Yes	Yes	Yes	Yes
N	4720	4720	5685	5685
Adjusted R^2	0.014	0.023	0.017	0.025
Countries	67	67	79	79
Proportion	45.36%	46.34%	38.38%	41.47%

Notes: This table shows the OLS estimates of the model: $Cf_{it} = \theta + \alpha Gepu_{t-1} + \alpha_2 Gepu_{t-1} * Mp_{it-1} + \alpha_3 Mp_{it-1} + \beta Dom_{it-1} + \gamma Glo_{t-1} + \lambda_i + \mu_q + \varepsilon_{it}$. *Cf*, *Gepu, Dom* and *Glo* are defined as in Table 1. *Mp* denotes macroprudential policy instruments, including the sum of 17 macroprudential policies (Alam et al. (2019)). We further include capital control measures (*ka1*, *ka2*) in the regressions. *ka1* is from Fernández et al. (2016) and *ka2* is from Chinn and Ito (2008). We take 1 minus Fernández et al. (2016) index in regressions. *i* λ_i, μ_q, θ, ε_{it} and *L.* are defined as in Table 2. Standard errors are heteroscedasticity robust and clustered by country. t-statistics are in parenthesis, ***, **, * indicate significance at 1%, 5%, and 10% respectively. Proportion is α_2 over α_1, α_2/α_1. The definitions and data sources of the variables are given in Table 1.