PUBLISHED BY
VOPROSY
EKONOMIKI
N. P.

Russian Journal of Economics 11 (2025) 444–464
DOI 10.32609/j.ruje.11.163408
Publication date: 17 December 2025

Russian
Journal of
Economics

www.rujec.org

Social unrest, subjective well-being, and active government: Evidence from a global sample

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Abstract

This study presents fresh evidence on the impact of social unrest on the subjective well-being of approximately 400,000 individuals worldwide from 1981 to 2022. Utilizing data from a media reports platform allows us to capture the effects of unrest with a lag of about one month, as opposed to conventional national-level data. The results provide clear evidence of a growing negative effect of regional instability—causing a decline in people's welfare. Notably, examining government actions during this period using the Integrated Macroprudential Policy (iMaPP) Database reveals that governments may mitigate the adverse effects of social unrest on citizens' satisfaction through policies concerning liquidity adjustments and relaxed reserve requirements. Still, most other actions appear to exacerbate the situation. The findings of this study suggest practical implications for the design of prudent policy measures during periods of instability to enhance the subjective well-being of their citizens.

Keywords: social unrest, life satisfaction, government actions, macroprudential policy.
JEL classification: D63, E61.

1. Introduction

After the COVID-19 pandemic, instability appears to have worsened in certain regions (Fig. 1). In Ethiopia, the number of conflict-related deaths rose dramatically to nearly 102,860 in 2022, up from 412 in 2019 (Herre et al., 2024). The Middle East continues to experience turmoil, exemplified by conflicts involving Hamas, while Asia sees conflicts in Myanmar and territorial disputes with China (International Crisis Group, 2024; Shambaugh, 2020). Despite promises of a global trade-driven peace order (Friedman, 2005) and a consensus on democratic order since the end of the Cold War (Fukuyama, 2014), these ideas have

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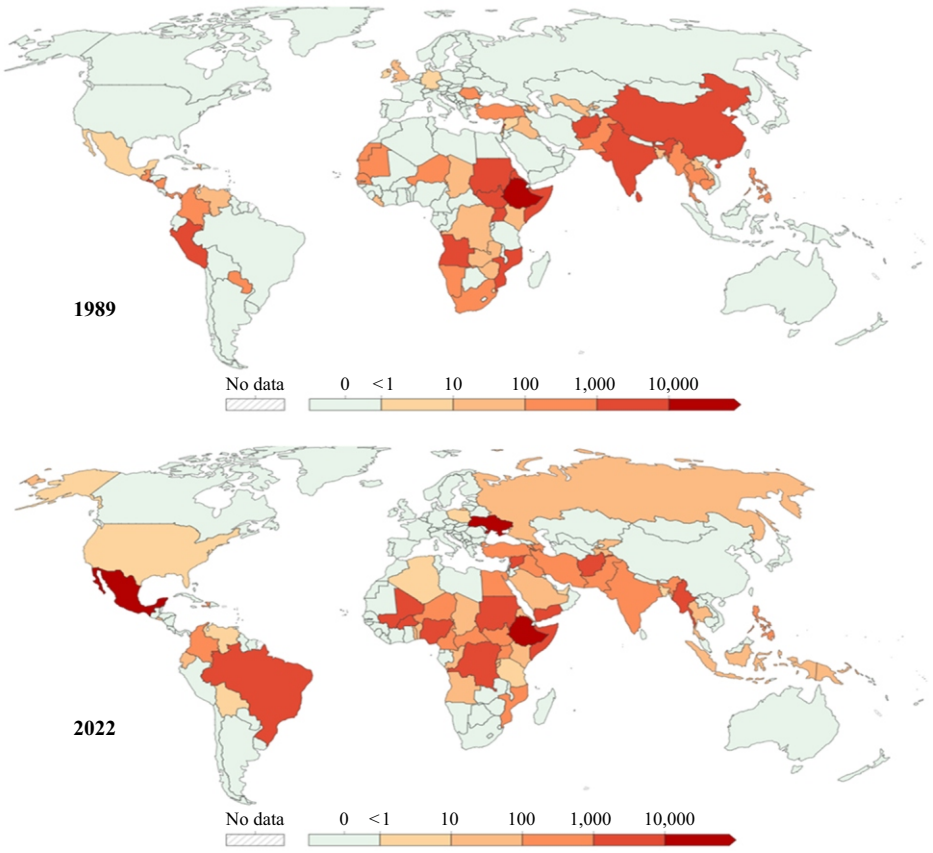

Fig. 1. Deaths in armed conflicts based on where they occurred (people).

Source: Compiled by the authors using data from Herre et al. (2024).

been increasingly criticized (Huntington, 2008; Krugman and Obstfeld, 2009). Unrest continues to adversely affect global welfare.

While government actions with sovereign authority are expected to improve people's welfare, debates persist over whether loosening or tightening policies garner divergent viewpoints. Hesitation in decision-making may exacerbate harmful effects.[1] Aiming to enhance welfare through national prosperity (objective well-being), proponents of the Austrian school of economics (Hayek and Caldwell, 2008), Chicago school of economics (Knight, 1921), and classical economics (Friedman, 2005) argue that limited government intervention is effective. In contrast, Keynesian and neo-Keynesian schools emphasize the efficacy of an active government (Krugman and Obstfeld, 2009; Solow, 1956). A relative consensus has emerged, pointing out that long-term actions underpin free-market principles, while government interventions are often beneficial in the short term to ensure less volatility in economic cycles (e.g., reducing government spending during periods of boom and boosting aggregate demand during periods of bust). Establishing

[1] In this context, government intervention can improve welfare, but its effects hinge on timing and calibration. By "harm," we mean welfare losses arising from policy uncertainty, delayed or miscalibrated tightening/loosening, and policy reversals, which can amplify the adverse impact of unrest. Conversely, clear and well-timed measures help stabilize expectations and cushion welfare losses.

a power equilibrium between the state and civil society thus provides a necessary institutional framework to ensure effective operations, though historically only some countries have achieved this harmony (Acemoglu and Robinson, 2019).

Notably, the critical issue of how governments should respond to increasing instability to enhance the welfare of the populace often receives little attention. This gap in research is significant, yet challenging to address. First, it is difficult to assess the influence of government actions on the rapidly changing mood of the public, given the often significant delays in the effects of policies. Second, comparing government responses is contentious due to differences in institutional frameworks and research contexts. This study offers new insights into evaluating this relationship by integrating three datasets: (i) the World Values Survey (WVS), which includes information from over 400,000 individuals across nearly 100 countries; (ii) the Reported Social Unrest Index (RSUI), a consistent, high-frequency, real-time indicator of social unrest; and (iii) the Integrated Macroprudential Policy (iMaPP) Database, which uses 17 instruments to provide cross-country monthly data on government actions concerning tightening and loosening.

The study's findings are twofold: (i) higher values of the RSUI are associated with a significant reduction in subjective well-being, and (ii) while an active government can exacerbate the impact of social unrest on people's welfare, well-designed policy responses (such as loosening reserve requirements and implementing liquidity-related measures) can improve satisfaction during heightened social unrest. Thus, this research contributes to the enhancement of government policies aimed at improving subjective welfare, particularly during periods of increased social instability. The remainder of this study is structured as follows: Section 2 presents the empirical strategy and data sources used, Section 3 outlines the research findings, and Section 4 discusses the results and their policy implications.

2. Empirical strategy and data

2.1. Econometric model

Our empirical specification is grounded in the "happiness equations" literature, which models life satisfaction as a function of individual circumstances and the macro-institutional environment (Frey and Stutzer, 2002; Van Le and Tran, 2024). Accordingly, we view life satisfaction as generated by a stable country component (culture, institutions), time effects, and observed covariates capturing health, income, employment, demographics, religiosity, social trust, and expectations, along with time-varying country conditions. Into this structure, we insert an exogenous high-frequency shock (i.e., the Reported Social Unrest Index), which captures the incidence and intensity of conflict or unrest domestically (and spillovers from neighbors) and shifts perceived security and uncertainty.

The econometric model is structured as follows (Blanchflower and Oswald, 2011; Howell and Howell, 2008; Riitsalu and Murakas, 2019; Van Le and Tran, 2024):

$$Wellbeing_{i,c,y,m} = \alpha_c + \gamma RSUI_{c,y,m-1} + Z'X_{i,c,y,m} + N'C_{c,y} + \lambda_y + \tau_m + \varepsilon_{i,c,y,m}, \quad (1)$$

where $Wellbeing_{i,c,y,m}$ represents the life satisfaction of resident i in country c during month m and year y; $RSUI$ indicates the incidence and intensity of social unrest

domestically and in neighboring regions. We introduce a 1-month lagged effect of *RSUI* on individual well-being, a novel contribution compared to studies that typically assume yearly or quarterly average effects. Two sets of control variables, X and C, include personal, community-related, and national characteristics, such as health status, income, personal faith, demographics, and job status (Blanchflower and Oswald, 2011; Dolan et al., 2008; Howell and Howell, 2008; Voukelatou et al., 2021), general societal trust (Waldinger and Schulz, 2023), government trust (Helliwell et al., 2020), neighbor relationships (Waldinger and Schulz, 2023), economic expectations, and democratic factors (Bartels, 2015; Dolan et al., 2008; Howell and Howell, 2008). α_c denotes time-invariant country-specific factors; λ_y accounts for year fixed effects; τ_m — for month fixed effects, and ε represents error terms.

Regarding government policy, we explore interaction terms between social unrest and various types of government actions, using data from the iMaPP database, which provides dummy indices for government tightening and loosening actions across 17 instruments monthly. The main proxy for government actions is a discrete variable recording tightening (+1), loosening (–1), or no change (0), cumulated over months and divided into (i) aggregate tightening policy and (ii) aggregate loosening policy across the 17 instruments (Alam et al., 2019). In our setting, the "harm" of state intervention is operationalized as a decline in subjective well-being conditional on RSUI, with moderation by policy stance (iMaPP). Thus, we do not claim that intervention is inherently harmful; rather, indecision or miscalibration is what raises welfare costs during unrest.

Equation (1) then specifies the model:

$$Wellbeing_{i,c,y,m} = \alpha_c + \gamma_1 RSUI_{c,y,m-1} \times activeG_{c,y,m} + \\ + Z'X_{i,c,y,m} + N'C_{c,y} + \lambda_y + \tau_m + \varepsilon_{i,c,y,m}; \quad (2)$$

$$Wellbeing_{i,c,y,m} = \alpha_c + \gamma_2 RSUI_{c,y,m-1} \times \overline{activeG_c} + \\ + Z'X_{i,c,y,m} + N'C_{c,y} + \lambda_y + \tau_m + \varepsilon_{i,c,y,m}, \quad (3)$$

where $activeG \in \{-1, 0, +1\}$ denotes policy actions encompassing both tightening and loosening measures, and $\overline{activeG_c}$ is the country-level average stance. The coefficient of the interaction term γ_1 in Equation (2) indicates the current effects of active or inactive government policies on subjective well-being, reflecting monthly responses. The coefficient γ_2 in Equation (3) assesses their general effect on subjective well-being using the average value of the moderating variable and examines whether, during periods of high social unrest, an inactive government — in contrast with an active one — maintains consistent policies that generally enable citizens to feel more (+) or less (–) happy. This study employs high-dimensional fixed-effect estimators, which provide advantages over traditional fixed-effect models by accommodating a larger number of individual- or entity-specific fixed effects. Thus, they effectively mitigate bias resulting from unobserved heterogeneity and enhance the precision of estimates in panel data analysis (Belloni et al., 2014).

In brief, the coefficient γ in Equation (1) captures the effect of the (log) *RSUI* on life satisfaction; the a *priori* expectation is a negative and statistically significant association. The coefficient γ_1 in Equation (2) identifies the short-run

moderating effect of government interventions when policy actions are observed at the monthly frequency. The coefficient γ_2 in Equation (3) captures longer-run moderation by replacing monthly actions with the country-specific average policy stance over the study period.

Equations (1)–(3) assume a linear, additive relationship between *RSUI* (and its interactions) and well-being conditional on controls and fixed effects. Identification relies on the exogeneity of the incidence and intensity of social unrest domestically and in neighboring regions, mathematically:

$$E[\varepsilon_{i,c,y,m} \mid \alpha_c, \lambda_y, \tau_m, X_{i,c,y,m}, C_{c,y}, RSUI_{c,y,m-1}, \cdot] = 0.$$

Although the incidence and intensity of social unrest—domestically and in neighboring regions—are plausibly exogenous to individual respondents, we mitigate residual simultaneity by entering *RSUI* with a 1-month lag, absorbing country, year, and month fixed effects, and conditioning on rich covariates at the personal, community, and national levels. Because key regressors vary at the country—month level while the outcome is individual-level, residuals may cluster within countries and within months; accordingly, we report two-way clustered standard errors (country and year—month). To address multicollinearity and leverage, we provide variance inflation factors (VIFs) for time-varying covariates and influence diagnostics.

2.2. Data

The study utilizes data from three primary sources. First, to assess well-being, we collect responses from the World Values Survey (WVS) to the questions: *"All things considered, how satisfied are you with your life as a whole these days?"* and *"Taking all things together, would you say you are very happy/quite happy/not very happy/not at all happy?"* The WVS is a pivotal dataset aimed at examining global cultural and social trends through standardized questionnaires administered across diverse populations. Since 1981, it has collected data from over 100 countries in multiple cycles designed to investigate changes in values and beliefs over time. The WVS employs rigorous methodological approaches, such as face-to-face interviews or telephone surveys conducted with representative samples from each participating country. Studies frequently utilize WVS data to examine the correlates of either happiness or subjective well-being and other factors, such as cultural values (Diener and Oishi, 2000; Inglehart et al., 2008) and democratic governance (Oishi and Diener, 2003). Furthermore, the WVS provides information on socio-demographic characteristics, personal life, and community aspects, including levels of trust in neighbors and government.

The second data source is the Reported Social Unrest Index (RSUI), which measures levels of social unrest based on media reports analyzed through big data techniques (Barrett et al., 2022). Covering 130 countries from January 1985 to May 2020, the RSUI offers a consistent, high-frequency, real-time monitoring indicator of social unrest. Spikes in the RSUI align closely with major social disturbances domestically and in neighboring countries, validated by external sources. The Armed Conflict Location & Event Data (ACLED) dataset[2] is

[2] https://acleddata.com/data/

another proxy for assessing social unrest, such as violent events, and draws on near real-time resources for recording political violence and protest data globally. This dataset is also used for robustness checks.

The Integrated Macroprudential Policy (iMaPP) Database[3] is the third data source, which accounts for tightening and loosening government policy (Alam et al., 2019). The iMaPP database focuses not only on the disparate types of policy actions but also on the direction in which they are implemented. Notably, dummy indicators characterize the use of macroprudential policy instruments, which are useful in estimating the effects of these instruments per policy action, as demonstrated in previous studies.

It should be noted that these dummy-type indices do not provide information concerning the magnitude of policy actions, as Alam et al. (2019, p. 6) noted: "It is possible, for instance, that some instruments are adjusted frequently but with small changes, while other instruments are adjusted less frequently but with large changes." The current study assumes that an active government is more likely to use instruments in response to situations of unrest, whether the changes are small or large. In addition, from various sources we collect other national-level control variables, such as GDP growth from the World Development Indicators (WDI) and democracy level from the V-Dem dataset.[4]

Table 1 presents all variables, units, sources, and descriptive statistics. Appendix 1 lists the countries included in the final merged dataset, Appendix 2 outlines the main components of iMaPP.

3. Results

3.1. Main results

Table 2 displays the impact of social unrest on life satisfaction using a high-dimensional fixed-effects estimator. All coefficients (columns 1–4) are statistically significant and negative, indicating that, as expected, social disturbances reduce life satisfaction. Column 2 controls for personal variables (e.g., health status, personal faith, demographics, income, and job status), while columns 3 and 4 additionally account for community and national factors. As more variables are included, the coefficients exhibit larger magnitudes, suggesting that social unrest has a greater detrimental effect on well-being when external factors are taken into account. We reestimate the model, replacing the 1-month lag of RSUI with two-, three-, and four-month lags (Appendix 3). In specifications without controls, the two- and three-month lags are negative and statistically significant. However, once we include covariates together with country and time fixed effects, these coefficients lose statistical significance. The four-month lag is insignificant in all specifications. These patterns suggest a short-lived well-being response to unrest and align with our interpretation that the public's emotions adjust rapidly, while government actions typically operate with non-trivial implementation lags. Accordingly, we retain the 1-month lag as the primary specification.

[3] https://www.elibrary-areaer.imf.org/Macroprudential/Pages/iMaPPDatabase.aspx
[4] https://www.v-dem.net/

Table 1
Variables, units, sources, and descriptive statistics.

	Units	Sources	Data level	Obs.	Mean	St. dev.	Min	Max
Dependent variables								
Satisfaction with your life	[1, 10 = most satisfied]	WVS (all cycles)	Individual levels	433,634	6.690	2.410	1.000	10.000
Feeling of happiness	[1, 4 = happiest]			430,877	3.076	0.742	1.000	4.000
Independent variables: Violence and social unrest								
Reported Social Unrest Index (RSUI)	[0, ∞]	Barrett et al. (2022)	Cross-countries monthly levels	384,915	100.970	139.794	0.000	985.254
Battle fatalities	[0, ∞]	ACLED data		107,723	27.113	56.336	0.000	220.000
Personal-related control variables								
Health status	[1, 5 = very good]	WVS (all cycles)	Individual levels	428,603	2.193	0.886	1.000	5.000
Personal faith (belief in God)	Dummy			311,056	0.854	0.353	0.000	1.000
Gender	Dummy			439,531	0.475	0.499	0.000	1.000
Income level	[1, 10 = richest]			403,414	4.664	2.271	1.000	10.000
Age	Continuous			434,793	41.293	16.254	13.000	103.000
Unemployment	Dummy			439,531	0.088	0.283	0.000	1.000
Community-related control variables								
Most people can be trusted	Dummy	WVS (all cycles)	Individual levels	422,192	1.742	0.437	1.000	2.000
Confidence in the government	[1, 4 = a great deal]			384,371	2.403	0.953	1.000	4.000
Neighbors: Different race	Dummy			411,468	0.168	0.374	0.000	1.000
Neighbors: Immigrant workers	Dummy			409,081	0.214	0.410	0.000	1.000
Neighbors: Drug addicts	Dummy			402,992	0.785	0.411	0.000	1.000
National-related control variables								
GDP growth	Annual growth (%)	WDI	Cross-countries yearly levels	416,062	3.913	6.068	–23.043	53.382
(Electoral) Democracy index	Z-score	V-Dem		422,503	0.572	0.259	0.017	0.921

(continued on next page)

Table 1 *(continued)*

	Units	Sources	Data level	Obs.	Mean	St. dev.	Min	Max
Government actions: Moderating variables								
Government actions: All tools	Tightening actions (+1), loosening actions (–1), no actions (0)	iMaPP database	Cross-countries monthly levels	350,292	0.070	0.440	-1.000	5.000
Government actions: Tightening, all tools	Tightening actions (+1), no action (0)			350,292	0.085	0.419	0.000	5.000
Government actions: Loosening, all tools	Loosening actions (–1), no action (0)			350,292	0.015	0.122	0.000	1.000
Capital requirements (all)	Dummy	iMaPP database	Cross-countries monthly levels	344,547	0.008	0.090	0.000	1.000
Loan loss provision (all)	Dummy			345,466	0.012	0.108	0.000	1.000
Systemic liquidity (all)	Dummy			350,292	0.017	0.130	0.000	1.000
Reserve requirements (all)	Dummy			350,292	–0.002	0.166	–1.000	1.000
Capital requirements (tight)	Dummy	iMaPP database	Cross-countries monthly levels	344,547	0.008	0.090	0.000	1.000
Loan loss provision (tight)	Dummy			345,466	0.012	0.108	0.000	1.000
Systemic liquidity (tight)	Dummy			350,292	0.017	0.130	0.000	1.000
Reserve requirements (tight)	Dummy			350,292	0.013	0.112	0.000	1.000
Capital requirements (loose)	Dummy	iMaPP database	Cross-countries monthly levels	344,547	0.000	0.000	0.000	0.000
Loan loss provision (loose)	Dummy			345,466	0.000	0.000	0.000	0.000
Systemic liquidity (loose)	Dummy			350,292	0.000	0.000	0.000	0.000
Reserve requirements (loose)	Dummy			350,292	0.015	0.122	0.000	1.000

Source: Authors' calculations.

Table 2
Reported Social Unrest Index (RSUI) on satisfaction in life.

	Dependent variable: Satisfaction with your life			
	(1)	(2)	(3)	(4)
$\ln(RSUI)_{m-1}$	–0.004*	–0.009***	–0.020***	–0.024***
	(0.003)	(0.003)	(0.003)	(0.004)
Health status: Good		–0.619***	–0.604***	–0.602***
(baseline = very good)		(0.011)	(0.012)	(0.012)
Health status: Fair		–1.265***	–1.233***	–1.239***
		(0.013)	(0.014)	(0.014)
Health status: Poor		–2.194***	–2.141***	–2.141***
		(0.021)	(0.022)	(0.022)
Health status: Very poor		–2.800***	–2.768***	–2.804***
		(0.050)	(0.054)	(0.056)
Personal faith: Belief in God		0.244***	0.239***	0.234***
(yes = 1, no = 0)		(0.015)	(0.016)	(0.016)
Male		–0.109***	–0.110***	–0.106***
		(0.009)	(0.009)	(0.009)
Income level: Second step		0.068***	0.066***	0.059***
(baseline = lowest level of income)		(0.020)	(0.021)	(0.021)
Income level: Third step		0.196***	0.204***	0.202***
		(0.019)	(0.020)	(0.020)
Income level: Fourth step		0.412***	0.406***	0.414***
		(0.018)	(0.020)	(0.020)
Income level: Fifth step		0.593***	0.596***	0.597***
		(0.018)	(0.019)	(0.019)
Income level: Sixth step		0.736***	0.737***	0.738***
		(0.019)	(0.020)	(0.020)
Income level: Seventh step		0.958***	0.958***	0.962***
		(0.020)	(0.021)	(0.022)
Income level: Eighth step		1.123***	1.134***	1.137***
		(0.023)	(0.024)	(0.025)
Income level: Ninth step		1.219***	1.232***	1.221***
		(0.031)	(0.033)	(0.033)
Income level: Tenth step (highest)		1.362***	1.395***	1.383***
		(0.033)	(0.035)	(0.036)
Ages		0.007***	0.007***	0.006***
		(0.000)	(0.000)	(0.000)
Unemployment		–0.381***	–0.359***	–0.352***
(yes = 1, no = 0)		(0.015)	(0.016)	(0.016)
Most people can be trusted: No			–0.088***	–0.094***
(baseline = most people can be trusted)			(0.011)	(0.011)
Confidence in the government: 2			0.175***	0.169***
(baseline = none at all = 1)			(0.013)	(0.013)
Confidence in the government: 3			0.364***	0.360***
			(0.014)	(0.014)
Confidence in the government: 4 (a great deal)			0.570***	0.555***
			(0.017)	(0.017)
Neighbors: People of a different race			–0.037***	–0.041***
(baseline = no = 0, yes = 1)			(0.014)	(0.014)
Neighbors: Immigrants/foreign workers			–0.042***	–0.039***
			(0.013)	(0.013)
Neighbors: Drug addicts			–0.005	0.003
			(0.012)	(0.012)
GDP growth				0.017***
				(0.002)
(Electoral) Democracy index				0.725***
				(0.087)
Countries FEs	Yes	Yes	Yes	Yes
Years FEs	Yes	Yes	Yes	Yes
Months FEs	Yes	Yes	Yes	Yes
Observations	377,782	249,091	220,195	212,230
R-squared	0.154	0.243	0.247	0.250
Number of countries	94	82	81	78
Number of years	28	23	21	21

Notes: The average VIF in column 4 is 1.49, and no individual value exceeds 10 (the threshold limit). Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The list of countries is presented in Appendix 1.
Source: Authors' calculations.

The coefficients of the control variables align with findings from prior research. Better health status is associated with a significant increase of approximately 2.8 points in life satisfaction from 'very poor' to 'very good' status. Personal faith and demographic factors such as gender and age also corroborate existing studies (Bartels, 2015; Dolan et al., 2008; Howell and Howell, 2008). Furthermore, higher income correlates positively with life satisfaction, with individuals in the wealthiest group reporting approximately 1.3 points greater satisfaction than those in the poorest group. Unemployment is linked to a decrease of about 0.35 points in satisfaction.

Regarding community-related features, trust in both community members and government positively influences satisfaction. Accordingly, individuals who trust their community and government report higher satisfaction levels (approximately 0.17 points per category). Neighbor characteristics, including ethnicity, and behaviors such as substance use, also affect life satisfaction (Waldinger and Schulz, 2023). Notably, when controlling for both trust in people and government in columns 3 and 4, the coefficients of RSUI increase compared to column 2, suggesting that social disturbances may decrease social trust among respondents (Delhey and Newton, 2003). In other words, reducing trust may be one mechanism of the nexus under consideration.

By employing a large sample covering over 200,000 individuals worldwide, the study supports Inglehart et al. (2008) finding that individuals in democratic countries are happier than those in autocratic ones. Moreover, the study confirms that economic expectations, proxied by GDP growth, predict life satisfaction better compared to using GDP per capita (Blanchflower and Oswald, 2011), as seen in previous studies (Voukelatou et al., 2021).

Table 3 presents the estimated results for Equations (2) and (3), examining the moderating effects of government actions on the relationship. Column 1 reveals a statistically significant and negative impact, suggesting that an active government is generally associated with lower satisfaction levels among its citizens during periods of unrest. Columns 2–4 explore the effects of the current government response to these events, specifically focusing on tightening actions (column 3) and loosening actions (column 4). The findings indicate either that governments are more likely to introduce new policies in more vulnerable situations or that policy changes in these areas exacerbate the negative effects of social disturbances on satisfaction (Inglehart et al., 2008; Oishi and Diener, 2003).

As previously indicated, the iMaPP database encompasses 17 government instruments. Accordingly, we delve into a detailed examination of how each action moderates the relationship. Based on our final dataset, it is noteworthy that only 4 of these 17 instruments showed changes during the study period. These were reserve requirements (RR), systemic liquidity and funding (liquidity), loan loss provision (LLP), and capital requirements (capital). Definitions of these instruments are provided in Appendix 2. Fig. 2 displays the coefficients of all interaction terms, while the regression table format is presented in Appendix 4.

The findings confirm that government actions, particularly those directed at tightening, negatively moderate the relationship between RSUI and subjective well-being. This effect is observed predominantly in actions related to RR, LLP,

Table 3
Reported Social Unrest Index (RSUI) on satisfaction in life: The role of government actions.

	Dependent variable: Satisfaction with your life			
	(1)	(2)	(3)	(4)
$\ln(RSUI)_{m-1}$	–0.018***	–0.016***	–0.015***	–0.024***
	(0.004)	(0.004)	(0.004)	(0.004)
$\ln(RSUI)_{m-1} \times \overline{All\ tools}\,(\gamma_2)$	–0.081**			
	(0.039)			
All tools		0.249***		
		(0.051)		
$\ln(RSUI)_{m-1} \times All\ tools\,(\gamma_1)$		–0.071***		
		(0.014)		
Tightening actions			0.213***	
			(0.058)	
$\ln(RSUI)_{m-1} \times$ *Tightening actions*			–0.068***	
			(0.015)	
Loosening actions				–0.288***
				(0.099)
$\ln(RSUI)_{m-1} \times$ *Loosening actions*				0.037
				(0.026)
Health status: Good	–0.618***	–0.617***	–0.617***	–0.618***
	(0.012)	(0.012)	(0.012)	(0.012)
Health status: Fair	–1.253***	–1.252***	–1.251***	–1.253***
	(0.014)	(0.014)	(0.014)	(0.014)
Health status: Poor	–2.170***	–2.170***	–2.168***	–2.171***
	(0.023)	(0.023)	(0.023)	(0.023)
Health status: Very Poor	–2.774***	–2.772***	–2.771***	–2.775***
	(0.057)	(0.057)	(0.057)	(0.057)
Personal faith: Belief in God	0.232***	0.230***	0.230***	0.234***
	(0.016)	(0.016)	(0.016)	(0.016)
Male	–0.100***	–0.100***	–0.100***	–0.100***
	(0.009)	(0.009)	(0.009)	(0.009)
Income level: Second step	0.066***	0.065***	0.066***	0.067***
	(0.022)	(0.022)	(0.022)	(0.022)
Income level: Third step	0.208***	0.208***	0.209***	0.208***
	(0.021)	(0.021)	(0.021)	(0.021)
Income level: Fourth step	0.428***	0.427***	0.429***	0.427***
	(0.021)	(0.021)	(0.021)	(0.021)
Income level: Fifth step	0.606***	0.606***	0.608***	0.605***
	(0.020)	(0.020)	(0.020)	(0.020)
Income level: Sixth step	0.738***	0.738***	0.740***	0.737***
	(0.021)	(0.021)	(0.021)	(0.021)
Income level: Seventh step	0.956***	0.954***	0.957***	0.955***
	(0.022)	(0.022)	(0.022)	(0.022)
Income level: Eighth step	1.138***	1.136***	1.138***	1.137***
	(0.025)	(0.025)	(0.025)	(0.025)
Income level: Ninth step	1.224***	1.222***	1.225***	1.225***
	(0.034)	(0.034)	(0.034)	(0.034)
Income level: Tenth step (highest)	1.389***	1.389***	1.391***	1.391***
	(0.037)	(0.037)	(0.037)	(0.037)
Ages	0.007***	0.007***	0.007***	0.007***
	(0.000)	(0.000)	(0.000)	(0.000)
Unemployment	–0.378***	–0.378***	–0.378***	–0.377***
	(0.017)	(0.017)	(0.017)	(0.017)
Most people can be trusted: No	–0.092***	–0.093***	–0.093***	–0.091***
	(0.012)	(0.012)	(0.012)	(0.012)
Confidence in the government: 2	0.144***	0.146***	0.145***	0.144***
	(0.014)	(0.014)	(0.014)	(0.014)
Confidence in the government: 3	0.334***	0.336***	0.335***	0.334***
	(0.014)	(0.014)	(0.014)	(0.014)

(continued on next page)

Table 3 *(continued)*

	Dependent variable: Satisfaction with your life			
	(1)	(2)	(3)	(4)
Confidence in the government: 4 (a great deal)	0.534***	0.535***	0.535***	0.533***
	(0.018)	(0.018)	(0.018)	(0.018)
Neighbors: People of a different race	–0.048***	–0.048***	–0.048***	–0.048***
	(0.015)	(0.015)	(0.015)	(0.015)
Neighbors: Immigrants/foreign workers	–0.050***	–0.051***	–0.050***	–0.049***
	(0.013)	(0.013)	(0.013)	(0.013)
Neighbors: Drug addicts	–0.003	–0.003	–0.002	–0.002
	(0.013)	(0.013)	(0.013)	(0.013)
GDP growth	0.016***	0.018***	0.018***	0.014***
	(0.003)	(0.003)	(0.003)	(0.003)
(Electoral) Democracy index	0.741***	0.804***	0.792***	0.685***
	(0.087)	(0.093)	(0.091)	(0.089)
Countries FEs	Yes	Yes	Yes	Yes
Years FEs	Yes	Yes	Yes	Yes
Months FEs	Yes	Yes	Yes	Yes
Observations	193,659	193,659	193,659	193,659
R-squared	0.253	0.253	0.253	0.253
Number of countries	68	68	68	68
Number of years	21	21	21	21

Notes: The average VIF in columns is from 1.84 to 2.00, and no individual value exceeds 10 (the threshold limit). Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Authors' calculations.

and capital instruments. Conversely, loosening government actions using the RR instrument enhances public satisfaction. These results elucidate why governments often implement such measures as reducing reserve requirements during periods of unrest, thereby stimulating economic activity by enabling increased lending capacity among banks. This lowering of constraints on foreign currency deposits also facilitates enhanced support for businesses and consumers with diverse funding needs, potentially leading to increased consumer spending, investment, and overall economic stability during periods of unrest (Cerutti et al., 2017; Galati and Moessner, 2018).

Regarding the liquidity instrument, tightening actions such as raising liquidity coverage ratios, liquid asset ratios, net stable funding ratios, and core funding ratios ensure that banks maintain stable funding by holding more high-quality liquid assets and imposing restrictions on external debt. At the same time, loosening these ratios and easing external debt restrictions enable banks to increase lending (Arena et al., 2020; Cerutti et al., 2017; Galati and Moessner, 2018).

Notably, the most common government practice poses the threat of reducing subjective well-being given an increase in unstable situations. Accordingly, tightening capital requirements compels banks to allocate a larger portion of their capital as reserves, restricting their lending capacity and potentially reducing credit availability for businesses and consumers. Similarly, increasing LLP requires banks to set aside higher provisions for potential loan losses, further constraining their lending capabilities. These measures can lead to decreased investment, higher borrowing costs, and lower economic growth, thereby contributing to growing public discontent during economic downturns (Akinci and Olmstead-Rumsey, 2018; Alam et al., 2019; Basten, 2020; Galati and Moessner, 2018).

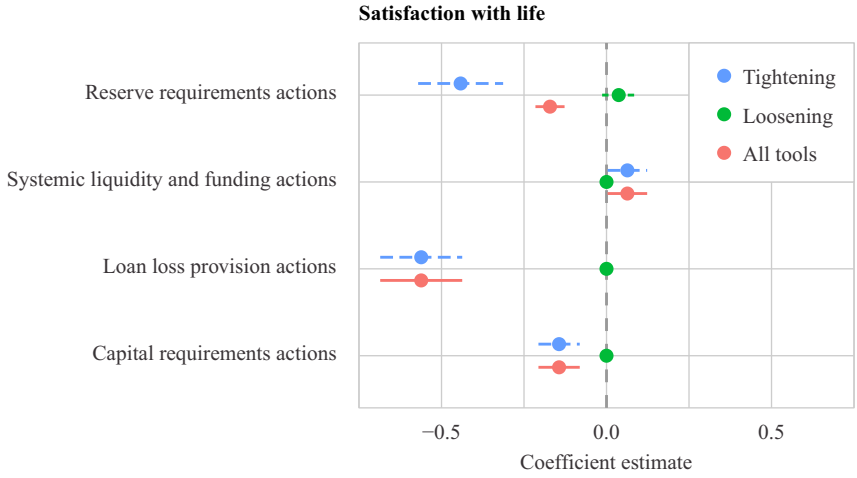

Fig. 2. Interaction terms between government actions and Reported Social Unrest Index (RSUI) on satisfaction.

Notes: Coefficients of interaction between loan loss provision actions and RSUI have been divided by 10 for clarity. Detailed regression results and government actions are presented in Appendix 4.
Source: Authors' calculations.

3.2. Extension and robustness checks

The study proposes several strategies to enhance the robustness of current findings. First, the effects of RSUI are analyzed based on thresholds where dummy variables are created, taking the value of 1 if RSUI values exceed the 90th, 75th, and 25th percentiles, respectively. These results are presented in columns 1–4 of Table 4 and align consistently with previous findings. As the percentile thresholds increase, the coefficients of the social unrest index on life satisfaction are larger. This finding indicates that the higher the severity and scale of unrest are the more significantly it damages the subjective well-being of the population. Specifically, the top 10% of regions with the highest instability experience a decrease of more than 0.184 points in satisfaction compared to the remaining 90%.

Second, an alternative proxy for measuring subjective well-being is considered, specifically the perception of happiness. Results in columns 5–8 mirror those in columns 1–4 but the dependent variable used is the individual perception of happiness. Once again, the findings are consistent. It is noteworthy that if the study seeks to assess immediate emotional states or short-term fluctuations in well-being, *feeling of happiness* may be more appropriate. Conversely, for evaluating overall life satisfaction and the influence of stable factors on well-being — the main purpose of this study — *satisfaction with your life* would be preferable (Diener et al., 1985, 1999; Lucas et al., 1996).

Third, an alternative proxy for RSUI is employed with two requirement criteria: (i) it must cover data on the monthly level, and (ii) it must reflect the severity of disturbances in relation to armed conflict. The first criterion ensures the study model remains consistent with previous research, while the second criterion aims to consider recent social unrest associated with wars (deaths in armed conflicts), such as those in Gaza; thus, focusing on this unrest category ensures

Table 4
Robustness checks with thresholds and other proxies for well-being.

	Dependent variable: Satisfaction with your life				Dependent variable: Feeling of happiness			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Threshold $p(90)_{m-1}$	–0.184***				–0.035***			
	(0.028)				(0.009)			
Threshold $p(75)_{m-1}$		–0.116***				–0.047***		
		(0.021)				(0.006)		
Threshold $p(25)_{m-1}$			–0.058***				–0.001	
			(0.017)				(0.005)	
$\ln(RSUI)_{m-1}$				–0.024***				–0.003***
				(0.004)				(0.001)
Health status: Good	–0.602***	–0.602***	–0.602***	–0.602***	–0.326***	–0.326***	–0.326***	–0.327***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.004)	(0.004)	(0.004)	(0.004)
Health status: Fair	–1.241***	–1.241***	–1.241***	–1.239***	–0.553***	–0.553***	–0.553***	–0.554***
	(0.013)	(0.013)	(0.013)	(0.014)	(0.004)	(0.004)	(0.004)	(0.004)
Health status: Poor	–2.147***	–2.147***	–2.149***	–2.141***	–0.867***	–0.867***	–0.867***	–0.871***
	(0.022)	(0.022)	(0.022)	(0.022)	(0.007)	(0.007)	(0.007)	(0.007)
Health status: Very poor	–2.810***	–2.810***	–2.811***	–2.804***	–1.078***	–1.078***	–1.078***	–1.081***
	(0.053)	(0.053)	(0.053)	(0.056)	(0.016)	(0.016)	(0.016)	(0.017)
Personal faith: Belief in God	0.224***	0.224***	0.222***	0.234***	0.070***	0.070***	0.070***	0.075***
	(0.015)	(0.015)	(0.015)	(0.016)	(0.005)	(0.005)	(0.005)	(0.005)
Male	–0.110***	–0.110***	–0.110***	–0.106***	–0.046***	–0.046***	–0.046***	–0.046***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.003)	(0.003)	(0.003)	(0.003)
Income level: Second step	0.055***	0.057***	0.056***	0.059***	0.008	0.009	0.009	0.010
	(0.021)	(0.021)	(0.021)	(0.021)	(0.006)	(0.006)	(0.006)	(0.007)
Income level: Third step	0.196***	0.198***	0.197***	0.202***	0.053***	0.054***	0.053***	0.055***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.006)	(0.006)	(0.006)	(0.006)
Income level: Fourth step	0.411***	0.412***	0.411***	0.414***	0.096***	0.097***	0.096***	0.097***
	(0.019)	(0.019)	(0.019)	(0.020)	(0.006)	(0.006)	(0.006)	(0.006)
Income level: Fifth step	0.598***	0.599***	0.598***	0.597***	0.142***	0.143***	0.142***	0.143***
	(0.019)	(0.019)	(0.019)	(0.019)	(0.006)	(0.006)	(0.006)	(0.006)
Income level: Sixth step	0.743***	0.742***	0.742***	0.738***	0.162***	0.162***	0.162***	0.163***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.006)	(0.006)	(0.006)	(0.006)
Income level: Seventh step	0.960***	0.960***	0.960***	0.962***	0.195***	0.195***	0.195***	0.195***
	(0.021)	(0.021)	(0.021)	(0.022)	(0.006)	(0.006)	(0.006)	(0.007)

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Table 4 *(continued)*

	Dependent variable: Satisfaction with your life				Dependent variable: Feeling of happiness			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Income level: Eighth step	1.125***	1.125***	1.125***	1.137***	0.223***	0.223***	0.222***	0.228***
	(0.024)	(0.024)	(0.024)	(0.025)	(0.007)	(0.007)	(0.007)	(0.008)
Income level: Ninth step	1.211***	1.209***	1.210***	1.221***	0.238***	0.237***	0.238***	0.239***
	(0.031)	(0.031)	(0.031)	(0.033)	(0.010)	(0.010)	(0.010)	(0.010)
Income level: Tenth step (highest)	1.381***	1.379***	1.379***	1.383***	0.247***	0.247***	0.247***	0.243***
	(0.033)	(0.033)	(0.033)	(0.036)	(0.010)	(0.010)	(0.010)	(0.011)
Ages	0.007***	0.007***	0.007***	0.006***	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Unemployment	–0.356***	–0.355***	–0.356***	–0.352***	–0.094***	–0.093***	–0.095***	–0.091***
	(0.016)	(0.016)	(0.016)	(0.016)	(0.005)	(0.005)	(0.005)	(0.005)
Most people can be trusted: No	–0.104***	–0.105***	–0.104***	–0.094***	–0.044***	–0.044***	–0.044***	–0.042***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.003)	(0.003)	(0.003)	(0.004)
Confidence in the government: 2	0.169***	0.169***	0.169***	0.169***	0.050***	0.050***	0.050***	0.050***
	(0.013)	(0.013)	(0.013)	(0.013)	(0.004)	(0.004)	(0.004)	(0.004)
Confidence in the government: 3	0.359***	0.359***	0.359***	0.360***	0.096***	0.096***	0.096***	0.096***
	(0.013)	(0.013)	(0.013)	(0.014)	(0.004)	(0.004)	(0.004)	(0.004)
Confidence in the government: 4	0.547***	0.547***	0.548***	0.555***	0.175***	0.175***	0.175***	0.176***
	(0.016)	(0.016)	(0.016)	(0.017)	(0.005)	(0.005)	(0.005)	(0.005)
Neighbors: People of a different race	–0.050***	–0.052***	–0.051***	–0.041***	0.006	0.005	0.006	0.010**
	(0.014)	(0.014)	(0.014)	(0.014)	(0.004)	(0.004)	(0.004)	(0.004)
Neighbors: Immigrants/foreign workers	–0.039***	–0.040***	–0.039***	–0.039***	–0.011***	–0.011***	–0.011***	–0.009**
	(0.012)	(0.012)	(0.012)	(0.013)	(0.004)	(0.004)	(0.004)	(0.004)
Neighbors: Drug addicts	0.007	0.007	0.007	0.003	0.001	0.001	0.002	0.002
	(0.012)	(0.012)	(0.012)	(0.012)	(0.004)	(0.004)	(0.004)	(0.004)
GDP growth	0.018***	0.017***	0.017***	0.017***	0.009***	0.008***	0.008***	0.010***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
(Electoral) Democracy index	0.721***	0.689***	0.641***	0.725***	0.232***	0.243***	0.211***	0.259***
	(0.086)	(0.086)	(0.085)	(0.087)	(0.027)	(0.027)	(0.026)	(0.027)
Countries FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Years FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Months FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	226,789	226,789	226,789	212,230	226,390	226,390	226,390	211,865
R-squared	0.252	0.252	0.252	0.250	0.228	0.228	0.228	0.229

Notes: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Authors' calculations.

Table 5
Robustness checks with other proxies for social unrest.

	Dependent variable: Satisfaction with your life	Dependent variable: Feeling of happiness
	(1)	(2)
Battles fatalities$_{m-1}$	–1.136***	–0.645***
	(0.112)	(0.034)
Countries FEs	Yes	Yes
Years FEs	Yes	Yes
Month FEs	Yes	Yes
Observations	102,023	101,893
R-squared	0.141	0.108
Number of countries	47	47
Number of years	14	14

Notes: Due to insufficient data on controlling personal factors, the study conducted only a simple regression analysis. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Authors' calculations.

policy relevance. Data on deaths in armed conflicts, sourced from the ACLED dataset, serve as a substitute proxy for RSUI, and the results are presented in Table 5. The regression coefficients are negative and statistically significant, as anticipated. However, due to data limitations, conducting regressions with control variables is impractical, limiting our study to presenting results with simple regressions.

Regional heterogeneity is also examined by estimating the effects separately for five World Bank regions (Africa, the Americas, Asia, Europe, and Oceania). The results, presented in Appendix 5, show negative and statistically significant coefficients for the Americas, Asia, and Europe, aligning with the expectation that higher unrest reduces subjective well-being by increasing uncertainty, disrupting economic activity, and weakening perceptions of safety. The largest adverse effect is observed in Europe, while Africa displays a positive coefficient, indicating a distinct regional pattern.

4. Discussion and policy implications

To examine the impact of social unrest on subjective well-being, this study utilizes a dataset comprising approximately 400,000 individuals globally, spanning from 1981 to 2022, integrated with real-time monitoring indicators of social unrest. The results confirm unequivocally that social instability reduces satisfaction in life and feelings of happiness, as supported by various estimations and robustness checks.

Furthermore, we investigate the moderating effects of government actions on the relationship under consideration. The findings indicate that an active government — frequently altering policies — tends to be associated with decreased subjective well-being of citizens during periods of crisis. This can be explained either by positing that these government actions exacerbate social uncertainty or by suggesting that governments are compelled to adapt in response to instability. A deeper exploration of the adaptive tools employed by governments during times of unrest reveals an intriguing pattern. While most tightening actions (i.e., reserve requirements, loan loss provisions, and capital requirements) decrease citizen

satisfaction, liquidity-related action improves citizens' welfare. These research findings, therefore, may assist governments in adapting wisely to situations of unrest to optimize citizens' welfare rather than reacting passively to such events.

5. Limitations and further research direction

Our study does not address the endogeneity of (i) the social unrest index proxied by RSUI and (ii) government actions. For RSUI, the main cause of endogeneity could be confounding effects. The study design attempts to mitigate this issue by controlling for personal-, community-, and national-level variables. As noted, however, government actions may often be more proactive in response to situations of unrest. Thus, caution is advised for other studies when interpreting the results of interaction terms in this study. Future research could strengthen the validity of these results by identifying suitable instrumental variables or conducting studies in specific regions where government actions occur more spontaneously.

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Appendix 1. Lists of countries

ALB	AND	ARG	ARM	AUS	AZE	BFA	BGD	BGR	BIH	BLR
BOL	BRA	CAN	CHE	CHL	CHN	COL	CYP	CZE	DEU	DOM
DZA	ECU	EGY	ESP	EST	ETH	FIN	FRA	GBR	GEO	GHA
GRC	GTM	HKG	HRV	HTI	HUN	IDN	IND	IRL	IRN	IRQ
ISR	ITA	JOR	JPN	KAZ	KEN	KGZ	KOR	KWT	LBN	LBY
LTU	LVA	MAC	MAR	MDA	MDV	MEX	MKD	MLI	MMR	MNG
MYS	NGA	NIC	NLD	NOR	NZL	PAK	PER	PHL	POL	PRI
PSE	QAT	ROM	RUS	RWA	SAU	SGP	SVK	SVN	SWE	THA
TJK	TTO	TUN	TUR	TWN	TZA	UGA	UKR	URY	USA	UZB
VEN	VNM	YEM	YUG	ZAF	ZMB	ZWE				

Source: Compiled by the authors.

Appendix 2. Active government instruments

No.	Action types	Instruments (definition)
1	Capital actions	Bank capital requirements encompass risk weights, systemic risk buffers, and minimum capital thresholds. Notably, countercyclical capital buffers and capital conservation buffers are treated separately and are not included within this definition.
		The tightening of capital requirements involves raising minimum capital requirements, increasing risk weights, and introducing systemic risk buffers and targeted capital measures for specific sectors or foreign exchange loans, thereby bolstering banks' capital adequacy. Loosening actions reduce these capital constraints, enabling banks to operate with lower capital buffers and potentially expand their lending activities. These macroprudential instruments are essential for dynamically adjusting financial regulations to address systemic risks and maintain economic stability.
2	Loan loss provision actions	Loan loss provision (LLP) requirements aimed at macroprudential objectives involve dynamic provisioning and sector-specific provisions, such as those for housing loans.
		Tightening actions necessitate higher LLP, the implementation of dynamic provisioning, and increased sectoral provisions to enhance banks' resilience to credit risk. Loosening these requirements reduces the financial burden on banks, allowing for greater lending capacity.
3	Liquidity actions	To mitigate systemic liquidity and funding risks, measures include establishing minimum thresholds for liquidity coverage ratios, liquid asset ratios, net stable funding ratios, core funding ratios, and uniform restrictions on external debt across currencies.
		For liquidity requirements, tightening measures include raising liquidity coverage ratios, liquid asset ratios, and net stable funding ratios, as well as imposing external debt restrictions to ensure robust liquidity management and mitigate funding risks. Loosening these measures involves lowering the aforementioned ratios and relaxing external debt restrictions, thereby allowing banks greater flexibility in liquidity management.
4	Reserve requirements actions	Reserve requirements (RR) for macroprudential purposes, whether in domestic or foreign currency, may encompass requirements aligned with monetary policy objectives, reflecting the challenge of distinguishing between macroprudential and monetary policy purposes.
		Tightening actions for reserve requirements involve increasing the reserve requirements ratio and implementing differentiated reserve requirements for foreign currency deposits. These requirements constrain banks' lending capacity and mitigate excessive credit growth and foreign exchange risk. Conversely, loosening actions entail reducing the reserve requirements ratio and easing foreign currency deposit requirements, thereby enhancing banks' ability to lend.

Source: Compiled by the authors.

Appendix 3. RSUI on life satisfaction: Different lag chosen

	Dependent variable: Satisfaction with your life					
	(1)	(2)	(3)	(4)	(5)	(6)
$\text{Ln}(RSUI)_{m-2}$	–0.056*** (0.009)	–0.021 (0.026)				
$\text{Ln}(RSUI)_{m-3}$			–0.049*** (0.005)	0.019 (0.029)		
$\text{Ln}(RSUI)_{m-4}$					0.003 (0.005)	0.011 (0.024)
Countries FEs	Yes	Yes	Yes	Yes	Yes	Yes
Years × months FEs	Yes	Yes	Yes	Yes	Yes	Yes
Personal characteristics FEs	No	Yes	No	Yes	No	Yes
Other controls	No	Yes	No	Yes	No	Yes
Observations	375,356	238,858	375,356	238,858	375,356	238,858
R-squared	0.168	0.256	0.168	0.256	0.168	0.256

Notes: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Authors' calculations.

Appendix 4. Regressions with interaction terms

	Dependent variable: Satisfaction with your life			
	Government actions			
	Capital requirements	Loan loss provision	Address systemic liquidity and funding risks	Reserve requirements
	(1)	(2)	(3)	(4)
Panel A: All tools				
$\text{Ln}(RSUI)_{m-1}$	–0.020*** (0.004)	–0.016*** (0.004)	–0.023*** (0.004)	–0.022*** (0.004)
$\text{Ln}(RSUI)_{m-1} \times GA$	–0.144*** (0.032)	–5.615*** (0.634)	0.063** (0.031)	–0.171*** (0.023)
Government actions (GA)	0.430*** (0.109)	24.334*** (2.789)	–0.047 (0.069)	0.589*** (0.091)
Countries FEs	Yes	Yes	Yes	Yes
Years FEs	Yes	Yes	Yes	Yes
Months FEs	Yes	Yes	Yes	Yes
Personal controls	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes
National controls	Yes	Yes	Yes	Yes
Observations	189,604	190,422	193,659	193,659
R-squared	0.256	0.255	0.253	0.253
Panel B: Tightening actions				
$\text{Ln}(RSUI)_{m-1}$	–0.020*** (0.004)	–0.016*** (0.004)	–0.023*** (0.004)	–0.017*** (0.004)
$\text{Ln}(RSUI)_{m-1} \times GA$	–0.144*** (0.032)	–5.615*** (0.634)	0.063** (0.031)	–0.442*** (0.066)
Government actions (GA)	0.430*** (0.109)	24.334*** (2.789)	–0.047 (0.069)	1.926*** (0.348)
Countries FEs	Yes	Yes	Yes	Yes
Years FEs	Yes	Yes	Yes	Yes
Months FEs	Yes	Yes	Yes	Yes
Personal controls	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes
National controls	Yes	Yes	Yes	Yes
Observations	189,604	190,422	193,659	193,659
R-squared	0.256	0.255	0.253	0.254

(continued on next page)

Appendix 4 *(continued)*

	Dependent variable: Satisfaction with your life			
	Government actions			
	Capital requirements	Loan loss provision	Address systemic liquidity and funding risks	Reserve requirements
	(1)	(2)	(3)	(4)
Panel C: Loosening actions				
$\text{Ln}(RSUI)_{m-1}$	–0.024***	–0.022***	–0.023***	–0.024***
	(0.004)	(0.004)	(0.004)	(0.004)
$\text{Ln}(RSUI)_{m-1} \times GA$	0.000	0.000	0.000	0.037
	(0.000)	(0.000)	(0.000)	(0.026)
Government actions (GA)	0.000	0.000	0.000	–0.288***
	(0.000)	(0.000)	(0.000)	(0.099)
Countries FEs	Yes	Yes	Yes	Yes
Years FEs	Yes	Yes	Yes	Yes
Months FEs	Yes	Yes	Yes	Yes
Personal controls	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes
National controls	Yes	Yes	Yes	Yes
Observations	189,604	190,422	193,659	193,659
R-squared	0.256	0.255	0.253	0.253

Notes: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Authors' calculations.

Appendix 5. RSUI on life satisfaction: Regional heterogeneity

	Dependent variable: Satisfaction with your life				
	Region				
	Africa	Americas	Asia	Europe	Oceania
	(1)	(2)	(3)	(4)	(5)
$\text{Ln}(RSUI)_{m-1}$	0.321***	–0.077***	–0.041***	–0.106***	n.a.
	(0.034)	(0.011)	(0.005)	(0.034)	
Countries FEs	Yes	Yes	Yes	Yes	Yes
Years FEs	Yes	Yes	Yes	Yes	Yes
Months FEs	Yes	Yes	Yes	Yes	Yes
National controls	Yes	Yes	Yes	Yes	Yes
Observations	63,998	74,761	140,303	74,575	10,661
R-squared	0.074	0.076	0.121	0.240	0.007

Notes: n.a. — missing data. In Africa, the coefficient on the lagged Reported Social Unrest Index is positive and statistically significant, suggesting that higher reported unrest is associated with greater life satisfaction. This counterintuitive result may reflect the nature of social movements in the region, where demonstrations often serve as a means of exercising democratic rights, fostering community solidarity, and raising expectations for positive change. In such contexts, increased reported unrest may signal civic engagement and optimism rather than purely adverse sociopolitical conditions. Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Authors' calculations.