



The Role of Freedom in Shaping Happiness: Evidence from APEC Countries

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Abstract. This study investigates the impact of freedom and economic growth on happiness across 16 APEC member countries from 2012 to 2021, using a Panel ARDL model. The key variables include economic, democratic, and personal freedoms, along with GDP per capita. Results indicate that all three types of freedom significantly enhance happiness in the long run, underscoring the importance of individual autonomy, effective governance, and personal security. In the short run, economic freedom positively influences happiness, while democratic and personal freedoms have more delayed effects. Interestingly, GDP per capita increases happiness in the short run but reduces it in the long run. This may be due to rising inequality, work-life stress, or the diminishing marginal benefits of income. These findings suggest that economic growth alone is not enough to ensure sustained well-being. A more comprehensive approach that also prioritizes civil liberties and personal empowerment is necessary. The results provide important policy implications for APEC governments, highlighting the need to align economic development with political and social reforms. By fostering both prosperity and freedom, governments can help build a more resilient and inclusive foundation for long-run happiness.

Keywords: Economic Freedom, Democratic Freedom, Personal Freedom, Happiness.

1 Introduction

From early human history, the pursuit of a better life, both materially and emotionally, has driven societal progress. The Theory of Consumer Behavior reflected this desire, promoting the idea that “more is better,” with economists equating income with happiness. This perspective led to the development of Gross Domestic Product (GDP), a concept introduced by Simon Kuznets in 1934 [1], which became the global standard for measuring national prosperity and well-being. Governments soon began to prioritize GDP growth as a key indicator of progress.

However, economist Richard Easterlin [2] later challenged this view by showing that while economic growth initially improves happiness, its benefits diminish over time. He advocated for broader measures of well-being beyond GDP. In 1972, Bhutan’s King Jigme Singye Wangchuk introduced the groundbreaking concept of Gross National

Happiness (GNH) [3]. Unlike GDP, GNH emphasized holistic well-being by measuring dimensions such as good governance, cultural preservation, and environmental sustainability.

Inspired by GNH, international indices such as the Human Development Index (HDI), the Happy Planet Index (HPI), and the OECD's Better Life Index were developed to capture a wider range of well-being factors. Academic research has increasingly focused on subjective well-being, exploring how people perceive happiness and life satisfaction through factors like health, education, political freedom, and economic security. Surveys such as the European Values Study and the Psychological Well-being Scale provide valuable data on these experiences.

In this context, the Asia-Pacific Economic Cooperation (APEC) plays a key role in promoting regional economic cooperation. Table 1 presents a comparative overview of happiness and freedom rankings for 16 member nations, based on a scoring scale from 0 to 10. Higher scores indicate greater levels of happiness and individual freedom reported by citizens in each country.

Table 1. Rankings of Happiness, Economic Freedom, Democratic Freedom, and Personal Freedom among 16 APEC Countries.

Country	Economic Freedom	Democracy Freedom	Personal Freedom	Country	Economic Freedom	Democracy Freedom	Personal Freedom
AUS	10	8	14	PER	68	37	77
CAN	15	10	13	PHL	53	70	53
CHL	38	30	25	RUS	72	104	144
CHN	60	111	148	KOR	52	42	22
IDN	80	74	56	TWN	31	11	10
JPN	51	20	16	THA	58	64	63
MEX	25	68	90	USA	23	5	29
NZL	11	4	2	VNM	54	106	136

Note: Due to data limitations, this study focuses on 16 APEC member nations, using data from the 2024 *World Happiness Report*, 2023 *World Economic Freedom Index*, *Democracy Index*, and *Human Freedom Index*.

The data highlights a notable disparity in happiness and freedom scores among APEC member economies. Countries such as Australia, New Zealand, Canada, the United States, and Taiwan rank at the top, reflecting high levels of well-being and strong personal freedoms. In contrast, nations like Vietnam, China, and Russia occupy the lower end of the spectrum, suggesting ongoing challenges in promoting both happiness and individual liberty.

To explore these relationships, this study utilizes a Panel Autoregressive Distributed Lag (ARDL) model to assess how economic freedom, democratic freedom, personal freedom, and GDP per capita influence happiness across APEC member countries. The structure of the paper is as follows: Section 2 reviews the relevant literature; Section 3

describes the data and methodology; Section 4 reports the empirical findings; and Section 5 concludes with final observations.

2 Literature Review

The relationship between economic growth and happiness has long attracted scholarly attention. Classical economic theory suggests that rising income increases well-being, but empirical evidence increasingly challenges this view. The Easterlin Paradox (Easterlin [4]) shows that while happiness tends to rise with income at low levels of development, the relationship weakens as income continues to grow. Other studies (e.g., Kundu et al. [5]; Tavernier et al. [6]) reinforce this, noting that GDP per capita often fails to capture non-material aspects of well-being such as environmental quality, mental health, social relationships, and work-life balance.

Recent theoretical perspectives point to hedonic adaptation, where individuals return to a baseline level of happiness after income changes, and social comparison, where relative income influences satisfaction more than absolute income. Additionally, rapid economic growth can create negative externalities like environmental degradation, job insecurity, and social fragmentation, which may offset the benefits of higher income.

In contrast, various dimensions of freedom, including economic, democratic, and personal freedom, have been shown to exert more consistent and long-run effects on happiness. Economic freedom, defined as the ability to control one's labor and property, has been positively associated with higher life satisfaction due to its role in fostering entrepreneurship, innovation, and better employment opportunities (Veenhoven [7]; Gropper et al. [8]; Nikolaev [9]). Nevertheless, other studies (e.g., Graafland & Lous [10]) caution that excessive economic liberalization can exacerbate inequality and social exclusion. Furthermore, Yilmaz & Tag [11] argue that the positive effects of economic freedom are conditional on social cohesion and access to public goods such as healthcare and education.

Democratic freedom, including civil liberties and political participation, enhances happiness by promoting agency, trust in institutions, and civic engagement (Frey & Stutzer [12]; Inglehart & Ponarin [13]). However, Potts [14] notes that these benefits require strong governance and rule of law. Mungar & Cramer [15] further emphasize that civil and political rights must be meaningful in practice, not just formal, to positively impact well-being.

Personal freedom shows a strong and direct connection to happiness, especially through autonomy, social support, and the ability to make life choices. Studies (e.g., Summers et al. [16]; Graafland [17]) find that greater autonomy and opportunity lead to higher life satisfaction. Behera et al. [18] emphasize that regardless of a country's development level, freedom of choice and strong social support are essential for happiness. Together, these findings highlight the complex and multidimensional role of freedom in shaping well-being.

The findings highlight that economic growth should not come at the cost of social and psychological well-being. A multidimensional development approach is needed, combining economic indicators with measures of freedom and quality of life.

Policymakers should promote inclusive growth through investments in education, healthcare, and social support, while also strengthening democratic institutions to build trust and civic engagement. Protecting personal autonomy and ensuring individuals can freely express themselves and make life choices is essential for happiness. Progress should be measured beyond GDP by incorporating well-being indicators such as those from the OECD Better Life Index or World Happiness Report. A balanced approach that aligns economic goals with freedom and equity offers a more sustainable path to happiness.

3 Data and Methodology

3.1 Data

This study analyzes 16 APEC countries, including Australia, Canada, Chile, China, Indonesia, Japan, Mexico, New Zealand, Peru, the Philippines, Russia, South Korea, Taiwan, Thailand, the United States, and Vietnam, during the period from 2012 to 2021. The empirical model includes one dependent variable, the happiness index (*HAPP*), and four explanatory variables: economic freedom (*EFI*), democratic freedom (*DI*), personal freedom (*PFI*), and GDP per capita (*GDPPC*).

Happiness (*HAPP*) is measured using the *World Happiness Report*, with scores ranging from 0 to 10, where higher values reflect greater levels of happiness. Missing data for 2014 were addressed through imputation using SPSS software. Economic freedom (*EFI*) is assessed using the *World Economic Freedom Index* from the Fraser Institute, which evaluates indicators such as government size, legal systems, and trade freedom, also on a 0 to 10 scale, with higher scores indicating greater freedom.

Democratic freedom (*DI*) is measured using the Economist Intelligence Unit's Democracy Index, which provides an average score across five dimensions, including the electoral process and civil liberties, on a 0 to 10 scale. Personal freedom (*PFI*) is assessed using the Human Freedom Index, which examines areas such as safety, mobility, and freedom of expression, also using a 0 to 10 scale.

Democratic freedom (*DI*) is measured using the Democracy Index from the Economist Intelligence Unit, which provides an average score across five dimensions, including the electoral process and civil liberties, on a 0 to 10 scale. Personal freedom (*PFI*) is assessed using the Human Freedom Index, which examines areas such as safety, mobility, and freedom of expression, also using a 0 to 10 scale.

GDP per capita (*GDPPC*) data are obtained from the *IMF's World Economic Outlook Database*. These figures are adjusted for purchasing power parity and population and are expressed in U.S. dollars. For analytical purposes, *GDPPC* is converted into its natural logarithmic form.

3.2 Methodology

This study employs the Panel Autoregressive Distributed Lag (Panel ARDL) model for empirical analysis. The Panel ARDL framework incorporates both the lagged dependent variable and the current and lagged values of the explanatory variables,

allowing for a comprehensive examination of dynamic relationships. It also includes an Error Correction Model (ECM) component, which facilitates the analysis of both long-run equilibrium relationships and short-run adjustments among the variables. We selected the Panel ARDL approach because it effectively accommodates variables with different orders of integration, specifically $I(0)$ and $I(1)$. This flexibility is essential, as it ensures that the model remains valid and robust even when the underlying variables do not share the same level of stationarity.

The model utilizes three key estimators: Dynamic Fixed Effects (DFE) (Pesaran & Smith [19]), Mean Group (MG) (Johansen & Juselius [20]), and Pooled Mean Group (PMG) (Pesaran et al. [21]). The MG estimator allows all parameters to vary across groups, performing regressions separately for each group and analyzing the distribution of the average values of estimated coefficients across groups. The DFE estimator, in contrast, restricts the slopes across all cross-sections to be identical while permitting variation in intercept terms. The PMG estimator strikes a balance between MG and DFE by imposing restrictions only on the long-run parameters, making them consistent across groups, while allowing short-run parameters to differ. This approach facilitates the examination of both long-run and short-run relationships among variables and identifies potential cointegration without the need for separate cointegration tests. The Panel ARDL model is specified as follows:

$$\Delta HAPP_{i,t} = \sum_{k=1}^p \alpha_{1,ik} \Delta HAPP_{i,t-k} + \sum_{k=0}^{q_1} \alpha_{2,ik} \Delta EFI_{i,t-k} + \sum_{k=0}^{q_2} \alpha_{3,ik} \Delta DI_{i,t-k} + \sum_{k=0}^{q_3} \alpha_{4,ik} \Delta PFI_{i,t-k} + \sum_{k=0}^{q_4} \alpha_{5,ik} \Delta GDPPC_{i,t-k} + \beta_1 HAPP_{i,t-1} + \beta_2 EFI_{i,t-1} + \beta_3 DI_{i,t-1} + \beta_4 PFI_{i,t-1} + \beta_5 GDPPC_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

Where Δ represents the first difference variables, α_1 to α_5 are short-run coefficients, and β_1 to β_5 are long run coefficients. ε denotes the error term. The optimal lag lengths p , q_1 , q_2 , q_3 , and q_4 , are determined based on the Schwarz Information Criterion (SIC). Once, a long-run relationship exists between the dependent variable and the regressors, the model in equation (1) can be expressed as follows:

$$\Delta HAPP_{i,t} = \sum_{k=1}^p \alpha_{1,ik} \Delta HAPP_{i,t-k} + \sum_{k=0}^{q_1} \alpha_{2,ik} \Delta EFI_{i,t-k} + \sum_{k=0}^{q_2} \alpha_{3,ik} \Delta DI_{i,t-k} + \sum_{k=0}^{q_3} \alpha_{4,ik} \Delta PFI_{i,t-k} + \sum_{k=0}^{q_4} \alpha_{5,ik} \Delta GDPPC_{i,t-k} + \theta_i EMC_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

Where θ_i represents the coefficient of the ECM, indicating the speed of adjustment towards long run equilibrium.

4 Empirical Results

This study employs the Panel ARDL approach for the empirical analysis. Prior to estimation, panel unit root tests were conducted for all variables, and the results are presented in Table 2. The variable HAPP is found to be stationary at level $I(0)$, while EFI, DI, PFI, and GDPPC are stationary at first difference $I(1)$. None of the variables are stationary at the second difference $I(2)$, indicating that the data meet the necessary conditions for applying the Panel ARDL-ECM model. The significance of these

findings confirms the appropriateness of the Panel ARDL approach, which requires at least one variable to be $I(0)$ and others to be $I(1)$.

Table 2. Panel Unit Root Test Results.

Variable	Level 1 st Diff.	LLC	IPS	Fisher- ADF	Fisher-PP	Oder of Integration
HAPP	Level	-5.86***	-2.24**	66.14***	67.65***	$I(0)$
	1 st Diff.	-----	-----	-----	-----	
EFI	Level	-0.71	0.43	30.86	18.81	$I(1)$
	1 st Diff.	-6.74***	-2.50***	56.05***	54.64***	
DI	Level	-0.47	0.64	25.05	26.95	$I(1)$
	1 st Diff.	-4.60***	-1.97**	49.17**	52.25***	
PFI	Level	1.61	2.76	21.42	12.34	$I(1)$
	1 st Diff.	8.10***	-3.48***	68.76***	72.27***	
GDPPC	Level	0.60	3.65	7.65	5.37	$I(1)$
	1 st Diff.	-1.66**	-2.24**	57.40***	137.69***	

Note: **and *** indicate significant at the 5% and 1% levels, respectively.

To estimate the panel ARDL regression, this study applies PMG technique. Table 3 shows the results of panel ARDL-ECM. The coefficient of error correction (ECM_{t-1}), which represents the speed at which deviations from the long-run equilibrium are corrected, is both negative and highly significant at the 1% level. This provides robust evidence of a stable long-run relationship between happiness ($HAPP$) and the explanatory variables.

Table 3. Results of Panel ARDL-ECM.

Regressor	Dependent Variable: $HAPP$	
	Coefficient	P-value
Long-run Coefficients		
$EFI_{i,t-1}$	0.6407***	0.0000
$DI_{i,t-1}$	0.2348***	0.0000
$PFI_{i,t-1}$	0.2679***	0.0003
$GDPPC_{i,t-1}$	-0.2881***	0.0001
Short-run Coefficients		
$ECM_{i,t-1}$	-0.6986***	0.0001
$\Delta EFI_{i,t}$	0.8445*	0.0664
$\Delta DI_{i,t}$	0.1517	0.7747
$\Delta PFI_{i,t}$	-0.1179	0.9369
$\Delta GDPPC_{i,t}$	0.7693*	0.0552

Note: *and *** indicate significant at the 10% and 1% levels, respectively.

In the long run, economic freedom, democratic freedom, and personal freedom all have a significantly positive impact on happiness. In contrast, GDP per capita has a

significantly negative effect. This finding is consistent with the Easterlin Paradox, an influential theory in economics that suggests increases in income do not necessarily lead to greater happiness at the societal level. In the short run, economic freedom and GDP per capita exist a significantly positive influence on happiness, while the effects of democratic freedom and personal freedom are not statistically significant.

These findings align with previous research, reinforcing the notion that improvements in economic and democratic freedoms play a vital role in enhancing happiness. Personal freedom, which includes safety, freedom of expression, and freedom of movement, also proves to be a key contributor to long-term well-being. Furthermore, the diminishing returns of GDP growth emphasize the need for development strategies that are both balanced and inclusive.

The results confirm a strong long-run relationship between happiness and variables such as economic freedom, democratic freedom, and personal freedom. In contrast, the short-run effects are relatively limited, suggesting that sustained structural reforms and carefully designed policy interventions are essential to promote lasting improvements in societal well-being.

5 Conclusion

In 2015, the United Nations introduced the “2030 Sustainable Development Goals (SDGs),” widely adopted by governments as a policy framework. Notably, SDG 3 emphasizes happiness as a measure of mental health and well-being, highlighting the need to understand its key drivers for sustainable development and social stability.

This study investigates how economic, democratic, and personal freedoms, along with GDP per capita, influence happiness across 16 APEC countries from 2012 to 2021. Empirical results show a significant long-run relationship between happiness and the explanatory variables. Economic, democratic, and personal freedoms all have positive long-run effects on happiness, while GDP per capita has a significant negative impact, consistent with the Easterlin Paradox.

In the short run, only economic freedom shows a positive effect, while democratic and personal freedoms are not significant. However, their long-run impact grows over time as political reforms and personal autonomy take root. GDP per capita, conversely, boosts happiness in the short run but has a negative effect in the long run, possibly due to inequality, overwork, and stress tied to rapid growth.

These findings suggest that prioritizing economic growth alone may harm long-run well-being. Policymakers should aim for a balanced strategy that promotes economic development alongside political and personal freedoms. This includes enhancing transparency, protecting civil rights, and reducing market restrictions. Strengthening personal freedoms, such as freedom of speech, religion, and safety, is essential. Equally important is fostering political participation through civic education and digital engagement. Maintaining judicial independence and press freedom is also critical to democratic accountability.

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