Can government policies that drive strong economic outcomes for the private sector alleviate poverty?

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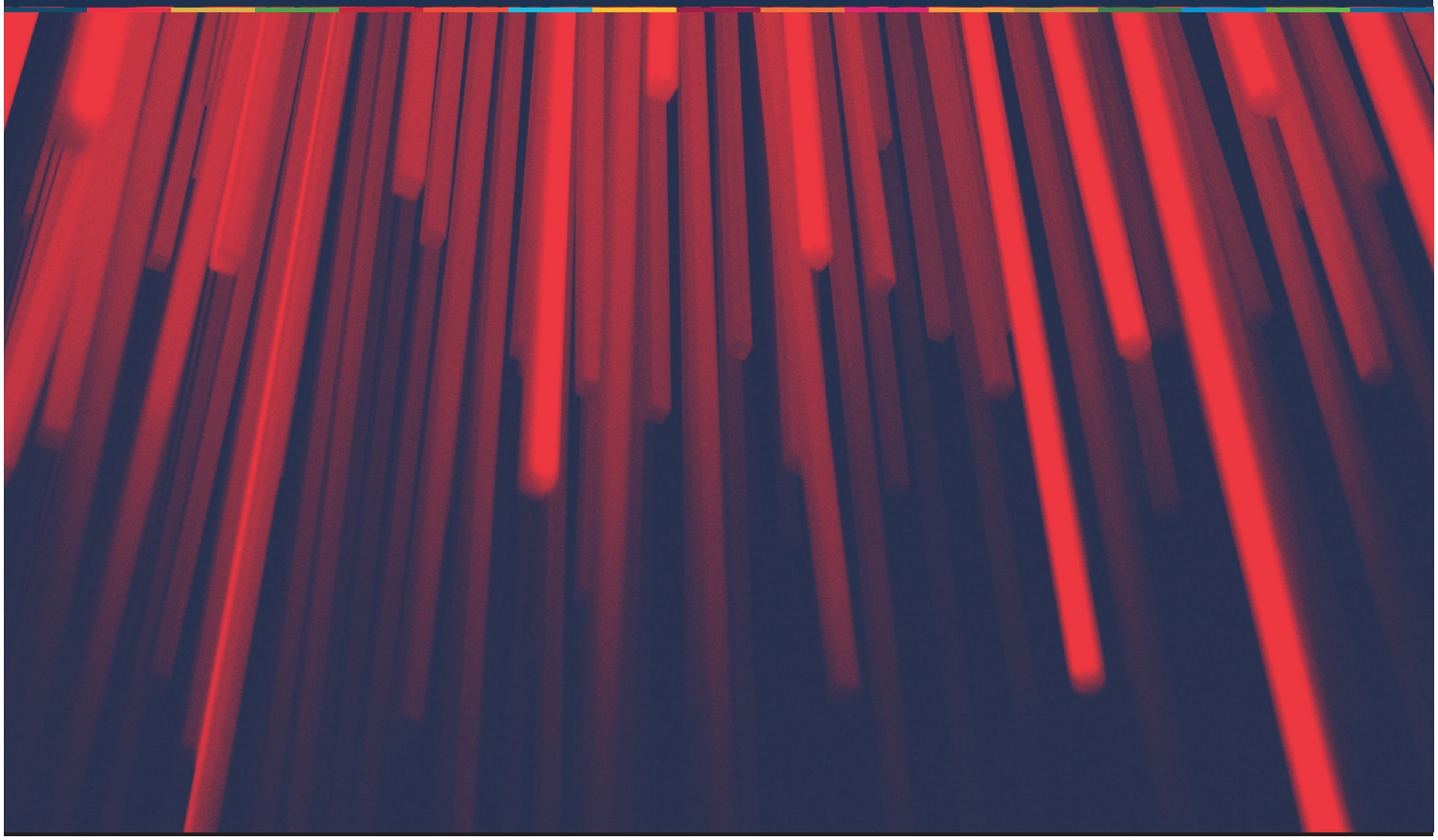

Executive Summary

In recent years, some parts of the developing world experienced considerable advancements in economic development and poverty reduction, while many others lagged behind. These varying outcomes warrant an investigation into the role that policies play in poverty reduction. This study focuses on government policies that drive strong economic outcomes for the private sector (referred to here as pro-growth policies) and their effect on poverty reduction.

The analysis revealed that countries that adopt pro-growth policies tend to have lower levels of poverty. It is contended that pro-growth policies lead to job creation, which translates into more opportunities to get out of poverty. Specifically, the analysis presented in this report shows that countries with policies that promote greater access to credit as well as the protection of minority investors have lower levels of poverty.

It is argued that access to credit can decrease poverty through several mechanisms, particularly by facilitating the entrance or expansion of businesses into the economy. These new or larger businesses can generate new employment opportunities, thus putting downward pressure on poverty.

Similarly, laws that protect investors are likely to boost investment, which can help decrease poverty by (i) increasing employment opportunities, (ii) providing new market opportunities for smallholders, (iii) increasing access to essential services.

The analysis is consistent with several policy recommendations, namely:

- Governments facilitate access to small or micro loans,
- Improve monetisation of remote areas,
- Continue financial literacy programs,
- Facilitate data collection efforts on credit information, repayments as well as factors known to correlate with these outcomes,
- Enforce clear property rights, and
- Provide free legal advice to small investors.

The study shows that since pro-growth policies contribute toward poverty reduction, there are important complementarities between a number of the 17 Sustainable Development Goals (SDGs). SDG 1 (No Poverty), for example, could be indirectly achieved by government policies that also promote Industry, Innovation, and Infrastructure (SDG 9), and/or Peace, Justice, and Strong Institutions (SDG 16).

Acronyms

Afghanistan	AFG
American Samoa	ASM
Australia	AUS
Bangladesh	BGD
Bhutan	BTN
Brunei Darussalam	BRN
Cambodia	KHM
China	CHN
Country Policy and Institutional Assessment	CPIA
Fiji	FJI
Foreign Direct Investment	FDI
French Polynesia	PYF
Gross National Income	GNI
Guam	GUM
Hong Kong	HKG
India	IND
Indonesia	IDN
International Development Association	IDA
Japan	JPN
Kiribati	KIR
Korea, Democratic People's Republic	PRK
Korea, Republic	KOR
Lao PDR	LAO
Macao	MAC
Malaysia	MYS
Maldives	MDV
Marshall Islands	MHL
Micronesia, Federated States	FSM
Mongolia	MNG
Myanmar	MMR
Nauru	NRU
Nepal	NPL
New Caledonia	NCL
New Zealand	NZL
Northern Mariana Islands	MNP
Pakistan	PAK
Palau	PLW
Papua New Guinea	PNG
Philippines	PHL
Purchasing Power Parity	PPP
Samoa	WSM
Singapore	SGP
Solomon Islands	SLB
Sri Lanka	LKA
Sustainable Development Goal	SDG
Sustainable Development Goals	SDGs
Thailand	THA
Timor-Leste	TLS
Tonga	TON
Tuvalu	TUV
United Nations Economic and Social Commission for Asia and the Pacific	UNESCAP
Vanuatu	VUT
Vietnam	VNM

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Introduction

Since the 1960s, the Asia Pacific region has experienced considerable advancements in economic development and poverty reduction. However, economic experiences have not been homogenous with certain economies performing exceptionally well, while others still host a large proportion of individuals living below internationally recognised poverty lines. Least developed countries, landlocked developing countries, and small island developing states, for example, have made slow progress toward poverty reduction and, thus, achieving the first United Nations Sustainable Development Goal (SDG 1).[1] Disparities in performance of this nature are evident within all developing-country regions.[2]

The economic history of the Asia Pacific region and much of the developing world suggests that policies play a pivotal role in explaining diverging economic outcomes.[3] Macroeconomic policies, such as trade liberalisation, low inflation, fiscal responsibility and financial liberalisation have been shown to be important. At the same time, institutions play a dominant role in determining poverty outcomes. Indeed, governance and accountability are argued to set the necessary structures in which other policies can operate.

A relatively new strand in the economics literature also suggests that government policies that drive strong economic outcomes for the private sector (referred to here as pro-growth policies) can create new income generating opportunities that principally benefit the poor. These policies take the form of microeconomic reforms, which include (hard) laws protecting investors and enforcing contracts, registering property, and policies that guarantee greater access to credit and financial services.

This report shows the results from statistical analysis that investigates the role that pro-growth policies play toward poverty reduction. The analysis used advanced statistical techniques to explain if changes in poverty rates within countries are influenced by their regulations for businesses and protections of property rights. The business environment was assessed using information from World Bank surveys on business operators across the world. The survey asked respondents to rate the regulatory environment in their country and explain how easy it is for them to establish a new business, obtain credit, obtain access to electricity, register a property and protect investors, amongst other things.

The results revealed evidence that suggests that countries that adopt pro-growth policies tend to have lower levels of poverty. The interpretation of these results is that in economies where government policy makes operating a business easier, the economy can provide more jobs. In turn, having more jobs means that people have more opportunities to get out of poverty. Specifically, the study found that policies that promote greater access to credit and the protection of minority investors reduce poverty.[4] The report provides a set of policy recommendations that are believed to enhance these outcomes.

The role that pro-growth policies play toward poverty reduction suggests that there are important complementarities between a number of the 17 SDGs. Intuitively, policies that lead to the improvement of the regulatory environment, facilitating access to credit and the protection of investors and property rights, are going to promote Industry, Innovation, and Infrastructure (SDG 9), and strengthening Peace, Justice, and Strong Institutions (SDG 16). This report argues that these same policies are also likely to help economies achieve progress toward SDG 1 (No Poverty).

The remainder of the report is structured as follows. The next section presents the literature review. The role of the review is to place this study within the existing knowledge structure, while simultaneously informing us about important macroeconomic variables, aside from pro-growth policy indicators, that have been found to influence poverty. Following that, the report presents findings from the statistical analysis. The results from the latter are used to make a non-exhaustive list of policy recommendations. The final section provides our concluding remarks of the study.

1 UNESCAP. (2017). Prospects for poverty reduction in Asia and the Pacific: Progress, opportunities and challenges, especially in countries with special needs. Bangkok, Thailand: United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).
2 Pritchett, L. (1999). Divergence, big time. Washington D.C.: The World Bank.
3 Posso, A. (2018). Preferential trade agreements with labour provisions and child labour: evidence from Asia and the Pacific. Asia-Pacific Development Journal, 24(2), 89-111.
4 A minority investor is an investor that has a minority interest in a company. That is, a percentage of ownership that is significant, but does not give the holder the right to control the company.

The evolution of economic thought on poverty: from macroeconomics to the role of business

Early thought on poverty-reduction centred on a *Laissez-Faire*[5] approach to economic development. Proponents of this school of thought argued that the benefits of economic growth would trickle-down to the poor naturally and with minimal (or no) government intervention, principally by allowing the private sector to create new employment opportunities. The experiences of some economies gave impetus to this notion.[6]

More recent thought, however, suggested that the role of government in poverty reduction had been significantly downplayed by earlier analysts. Economic growth would reduce poverty if coupled with policies that promote social justice, education and health. Furthermore, many argue that in the absence of institutions that work against corruption and improve governance, these interventionist policies are unlikely to make much of a difference.

More modern literature suggests that government policy can also play a role by creating favourable business environments. This literature acknowledges the value of interventions and institutions, but also discusses how policy can help the business sector create new job opportunities, which can benefit the poor.

This report gives impetus to the latter argument providing new empirical evidence that supports the notion that policies that help businesses grow are also likely to help the poor. This section summarises key influential studies to highlight the evolution of recent economic thought on poverty, while placing the current study within the extant literature.

The Trickle-Down School

The Trickle-Down hypothesis of economic development became the standard policy paradigm in the 1980s and 1990s. Proponents conjectured that the benefits of economic growth would reach the poor without the need for government intervention. Economic growth was argued to lead to employment generation, thus directly helping the poor. This proposition was essentially promoted by Washington-based institutions such as the International Monetary Fund, the World Bank, and the U.S. Treasury Department and commonly known as the 'Washington Consensus'.[7] For economies to generate and sustain high levels of growth, it was argued that they needed prudent macroeconomic management, free-market capitalism, and outward-orientation.

Outward-orientation, or trade, is arguably at the centre of this policy paradigm, ensuring that countries reallocate resources according to comparative advantage, resulting in higher economic growth and reduced poverty through positive labour market outcomes for workers.[8] Essentially, by focusing on exports, countries ensure a large source of demand for their products. This demand was expected to lead to new employment opportunities. The poor would benefit by getting jobs in factories and farms making products for export.

However, for trade to fully catalyse change, macroeconomic stability was argued to be necessary.[9] Large fiscal imbalances that lead to high inflation were considered to result in real exchange rate appreciations. An appreciation of the exchange rate makes the local currency more expensive, meaning that the cost of exports going out to other countries increases. As a result, government expenditure, through this mechanism, can hurt employment prospects, which can hurt the chances that the poor would find viable work.

Additionally, proponents of this school of thought argued that in developing countries with low levels of investment, export-oriented industries would require inflows of Foreign Direct Investment (FDI) to help finance the export sector. Thus, capital market liberalisation, which increases FDI, can potentially help the poor by creating new jobs in economy's export sectors.[10]

At the same time, capital market liberalisation can also help the poor directly by allowing migrant remittances to flow more easily into countries. Remittances have been found to allocate to relatively poorer segments of society and can boost household investment in health and education.[11]

To summarise the points above, the trickle-down school believed that poverty reduction could be achieved with the following basic *Laissez-Faire*-style macroeconomic policies:

- Reducing inflation primarily with independent central banks, which target monetary policy to maintain inflation within predetermined bands,
- Maintaining low-levels of government expenditure,
- Opening the economy to international trade by reducing tariffs and non-tariff barriers (such as import quotas), and
- Facilitating capital inflows by removing restrictions to foreign investment, which increases FDI and remittances.

[5] Poverty reduction can be achieved best when there is no interference by the government.
[6] Akinci, M. (2018). Inequality and economic growth: Trickle-down effect revisited. Development Policy Review, 36, O1-O24.
[7] Williamson, John, Latin American Adjustment: How Much Has Happened? Washington, DC: Institute for International Economics.
[8] Posso, A. (2017). 'La Pesadilla Neoliberal: Why East Asia did not experience a 'neoliberal nightmare' while Latin America did.' In Hal Hill and Jayant Menon (ed.), Managing Globalization in the Asian Century, Chapter 8, pp.193-220. Singapore: ISEAS Publishing.
[9] Krueger, A. (1978). Foreign trade regimes and economic development: Liberalization attempts and Consequences. Cambridge, MA: Ballinger Pub. Co.
World Bank (1993). The East Asian Miracle: Economic Growth and Public Policy. New York: Oxford University Press.
[10] Behrman, J., Birdsall, N., & Szekely, M. (2000). Economic reform and wage differentials in Latin America. Washington DC: Inter-American Development bank.
[11] Orozco, M. (2013). Migrant remittances and development in the global economy. Boulder, CO: Lynne Rienner Publishers.

The Interventionist Approach

The Trickle-Down School believed in a mechanical relationship between government expenditure and poverty. Essentially describing a mechanism whereby expenditure leads to an appreciation of the exchange rate, less exports and thus less employment opportunities. Recent evidence, however, suggests that the nature of public spending plays a key role in poverty reduction, over and above the more mechanical macroeconomic effects described above.

The economics literature acknowledges that it is important to identify how governments spend their money. Economic growth is a necessary, yet not sufficient condition to guarantee a steady trend towards poverty reduction.[12] China, for example, has experienced episodes of high economic performance in the 1990s accompanied with increases in poverty rates, while in India the high rate of economic growth has not been coupled with similarly paced poverty reduction.

This literature argues that to facilitate poverty reduction, economic growth needs to be accompanied by the following policies (or policy-types):

- Wealth redistribution through progressive taxation or transfers, which addresses issues related to poverty and inequality directly,
- Investments in human capital, which helps households pay for educational opportunities and promotes schooling at every level,
- Investments in health, which helps households remain active in the labour force and in education, and
- The provision of social protection through social welfare programs, which helps households cope with unforeseen shocks, such as natural calamities or illness, so that they can get back on their feet.

The Role of Institutions

The policies described above work within a wider societal background, which determines their effectiveness. A large literature suggests that policy effectiveness depends on institutional quality.[13] Corruption and poor governance leads to misappropriation and misuse of funds leading to education and health finance not going to where they are most needed. That is, the broader political structure can also determine the efficacy of poverty reduction policies.[14]

Consequently, this literature suggests that understanding the political infrastructure in which policies take place in each economy, considering both time variant and invariant factors, is important in cross-country poverty analysis.[15] Accordingly, these factors can be proxied with good governance indicators, obtained from surveys of experts or from household surveys. These indicators measure governments' progress toward ending corruption and facilitating government services.

In this regard, this literature highlights that policies that promote SDG 16 – Peace, Justice, and Strong Institutions – are potentially associated with policies that also promote SDG 1.

[12] Niño-Zarazúa, M. & Addison, T. (2010). Redefining Poverty in China and India. Tokyo, Japan: United Nations University.
[13] Collier, P., & Dollar, D. (2002). Aid allocation and poverty reduction. European Economic Review, 46(8), 1475-1500.
Dollar, D. & Collier, P. (1999). Can the world cut poverty in half? How policy reform and effective aid can meet international development goals. Washington D.C.: The World Bank.
[14] Craig, D. A., & Porter, D. (2006). Development beyond neoliberalism? Governance, poverty reduction and political economy. London, U.K.: Routledge.
Hernández-Trillo, F. (2016). Poverty alleviation in Federal systems: The case of México. World Development, 87, 204-214.
[15] Jalan, J., & Ravallion, M. (2002). Geographic poverty traps? A micro model of consumption growth in rural China. Journal of Applied Econometrics, 17(4), 329-346.

Can government policies that drive strong economic outcomes for the private sector alleviate poverty?

Most of the poverty literature focuses on macroeconomic, institutional and redistributional policy levers. A growing literature also looks at whether government policies that drive strong economic outcomes for the private sector also alleviate poverty. In this study we refer to these policies as pro-growth.

In 2002, Collier and Dollar showed that pro-growth policies are also good for the poor.[16] They (and others) measure pro-growth policies with an index of Country Policy and Institutional Assessment (CPIA) collected by the World Bank's International Development Association (IDA).

The CPIA rates countries against a set of 16 criteria grouped in four clusters:

- Economic management,
- Structural policies,
- Policies for social inclusion and equity, and
- Public sector management and institutions.

CPIA data are, however, collected only for economies with a gross national income per capita below US$1,145. That is, this literature focuses solely on a subset of 73 developing countries, which omits many middle-income countries (GNI per capita between $1,006 and $12,235) from the analysis.[17] This is an important omission because according to the World Bank, middle income countries are home to approximately 73 percent of the world's poor. That is, their analysis ignored how pro-growth policies potentially affect most of the world's poor.

Furthermore, focusing on CPIA lumps policy tools into a single environment, which does not allow researchers to isolate what levers within government policy are more supportive of poverty alleviation.

Contribution of this study

This report contributes to the literature on pro-growth policies and poverty. It bridges the gaps identified in the preceding section in three key ways:

- First, the analysis focused on a larger set of countries – 139 over the period 2005 to 2017.
- Second, the analysis used a more comprehensive list of policy levers to test what pro-growth reforms are more likely to drive poverty reduction.
- Third, the analysis tested for the primacy of the Asia Pacific region in terms of poverty reduction by studying whether significant regional differences between this region and others arise.

This report also contributes to our understanding of the complementarities between the 17 SDGs. The study addresses whether progress toward SDG 1 (No Poverty) could be indirectly achieved by government pro-growth policies that potentially also promote Industry, Innovation, and Infrastructure (SDG 9), and/or Peace, Justice, and Strong Institutions (SDG 16).

The following section discusses the report's findings.

[16] Collier, P., & Dollar, D. (2002). Aid allocation and poverty reduction. European economic review, 46(8), 1475-1500.
[17] Countries and data analysed in the CPIA are available from this link: https://datacatalog.worldbank.org/dataset/country-policy-and-institutional-assessment

Do pro-growth policies alleviate poverty?

Data Background

The analysis presented in this report used macroeconomic data from the World Bank to investigate whether policies that improve the ease of doing business also decrease poverty.

Ease of doing business was captured by an index that includes information from surveys on business operators across the world. The survey asked respondents to explain how easy it is for them to undertake the following practices, given the regulatory environment that they face in their country (refer to Appendix A for a complete explanation):

- Dealing with construction permits,
- Enforcing contracts,
- Obtaining credit,
- Getting access to electricity,
- Paying taxes,
- Protecting investors,
- Registering property,
- Resolving insolvency,
- Starting a business, and
- Trading across borders.

These categories are also used to form an overarching *Doing Business Index*.

The statistical analysis coupled this information with poverty data to see if changes in poverty rates within countries are influenced by the ease of doing business. Poverty was measured using internationally accepted variables from the World Bank. The analysis used poverty headcount ratios to focus on the proportion of a population that lives below a predetermined poverty line. In doing so, poverty was defined in three ways:

- Extreme poverty: Headcount ratio at $1.90 a day (2011 PPP) (% of population),
- Poverty: Headcount ratio at $3.20 a day (2011 PPP) (% of population), and
- Vulnerability to poverty: Headcount ratio at $5.50 a day (2011 PPP) (% of population).

The results from the analysis suggested that countries where government policies facilitate the above-listed activities, tend to have lower levels of poverty. Theoretically, this suggests that policies that help business operate, by making business practice simpler, potentially promote employment opportunities. The latter, in turn, help people get out of poverty.

Pro-growth policies and poverty: cross-country evidence

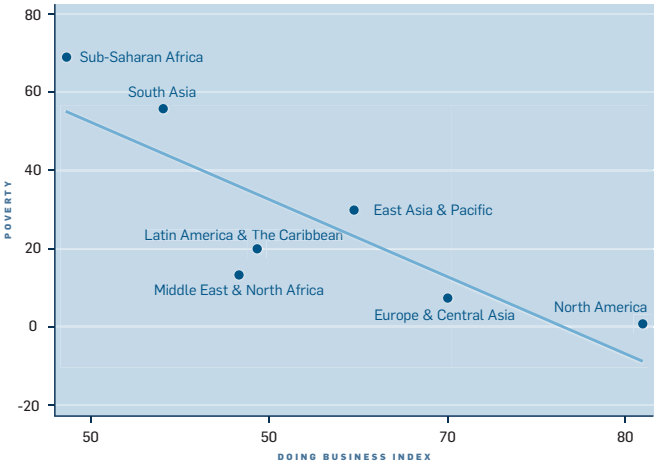
Cross-regional findings

The analysis in this section focuses on uncovering correlations between different measures of poverty and pro-growth policies. For simplicity, pro-growth policies are proxied with the Doing Business Index.

Overall, as mentioned above, the analysis revealed a negative correlation, which implies that pro-growth policies are associated with lower levels of poverty. The results are depicted using a series of figures. Each figure shows the correlation between a measure of poverty (measured in the vertical axis) and the Doing Business Index (in the horizontal axis).

Figures 1 to 3 highlight a negative correlation between pro-growth policies, proxied with the Doing Business Index, and poverty, vulnerability and extreme poverty across various regions across Africa, Asia Europe and Latin America. A simple correlation analysis confirmed that these relationships are statistically significant.[18]

Figure 1: Pro-growth policies and poverty, by region

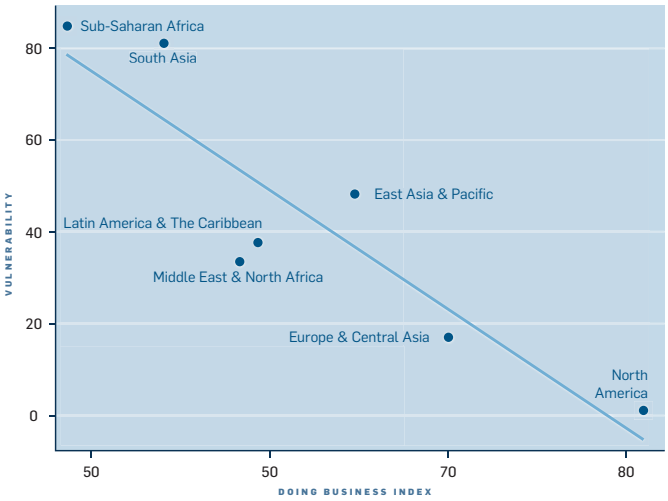


Notes: Regions are aggregated using data available data from 2005 to 2017. A higher doing business index is associated with better business environment. Poverty is the headcount ratio at $3.20 a day (2011 PPP) (% of population).

Source: Calculations made using data from the World Bank.

[18] The analysis revealed a -62% ($p<0.1$) correlation between poverty and the Doing Business Index. The corresponding figures for vulnerability and extreme poverty are -55% ($p<0.01$) and -66% ($p<0.1$), respectively. $p<0.01$ denotes statistical significance at the 1% level, $p<0.1$ denotes statistical significance at the 10% level.

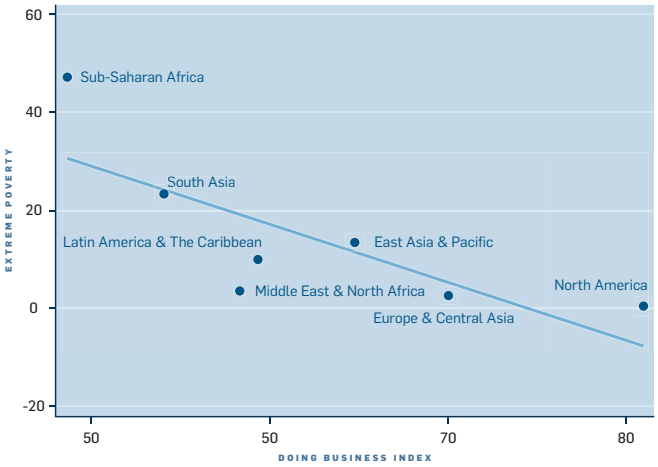
Figure 2: Pro-growth policies and vulnerability, by region



Notes: Regions are aggregated using data available data from 2005 to 2017. A higher doing business index is associated with better business environment. Vulnerability to poverty is the headcount ratio at $5.50 a day (2011 PPP) (% of population).

Source: Calculations made using data from the World Bank.

Figure 3: Pro-growth policies and extreme poverty, by region



Notes: Regions are aggregated using data available data from 2005 to 2017. A higher doing business index is associated with better business environment. Extreme poverty is the headcount ratio at $1.90 a day (2011 PPP) (% of population),

Source: Calculations made using data from the World Bank.

Asia Pacific findings

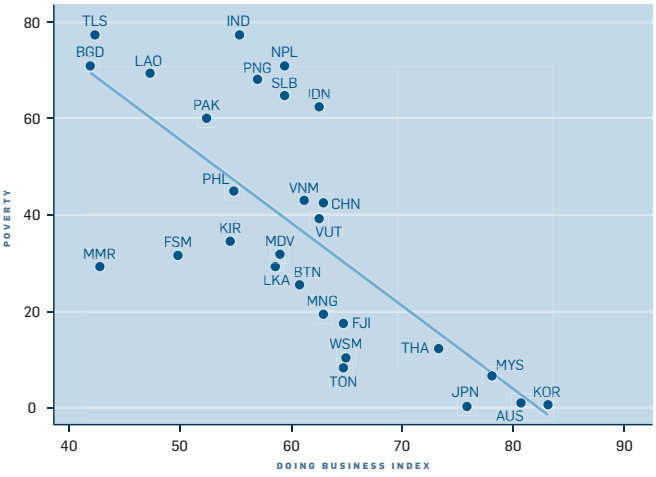
The regional analysis above is interesting; however, it does not consider the extent of regional heterogeneity that exists, particularly in Asia Pacific. The Asia Pacific region includes both exceptionally advanced and largely developing economies. We addressed this point with Figures 4 to 6, which replicate Figures 1 to 3 for economies in the Asia Pacific region. Acronyms used in the figures are presented in Appendix A.

Figures 4 to 6 confirm a negative correlation between pro-growth policies and the poverty measures within the Asia pacific region. The figures, for instance, show that Timor-Leste (TSL*.) has relatively less business-friendly policies and relatively higher rates of poverty, while Malaysia (MYS) has significantly friendlier policies and lower rates of poverty.

However, the figures also show evidence that pro-growth policies cannot explain all the differences in poverty. For example, Indonesia (IDN) and Tonga (TON) exhibit relatively similar Doing Business measures, but Indonesia has relatively higher headcount poverty measures.

This suggests that differences in poverty cannot alone be explained by differences in Doing Business measures – not surprising given the literature review. The following section explores these factors using advanced statistical analysis.

Figure 4: Pro-growth policies and poverty in Asia Pacific

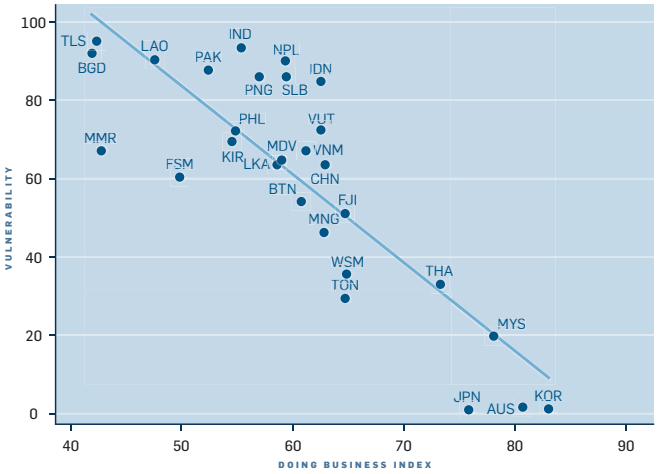


Notes: Country data are aggregated using data available data from 2005 to 2017. A higher doing business index is associated with better business environment. Poverty is the headcount ratio at $3.20 a day (2011 PPP) (% of population). Acronyms used in the figures are presented in Appendix A.

Source: Calculations made using data from the World Bank.

* For a full list of country acronyms please refer to pg. ii.

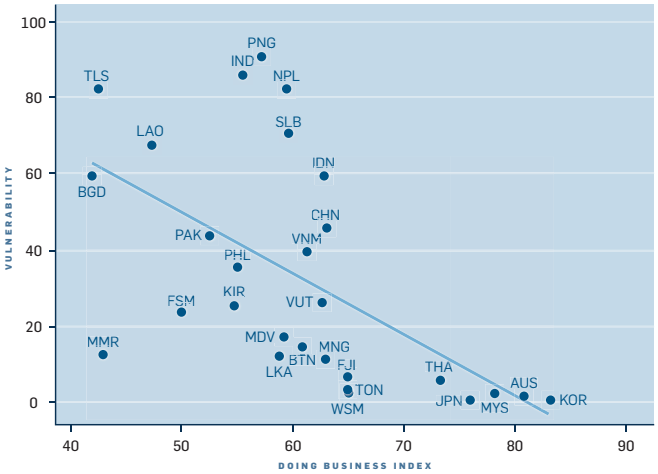
Figure 5: Pro-growth policies and vulnerability in Asia Pacific



Notes: Country data are aggregated using data available data from 2005 to 2017. A higher doing business index is associated with better business environment. Vulnerability to poverty is the headcount ratio at $5.50 a day (2011 PPP) (% of population). Acronyms used in the figures are presented in Appendix A.

Source: Calculations made using data from the World Bank.

Figure 6: Pro-growth policies and extreme poverty in Asia Pacific



Notes: Country data are aggregated using data available data from 2005 to 2017. A higher doing business index is associated with better business environment. Extreme poverty is the headcount ratio at $1.90 a day (2011 PPP) (% of population). Acronyms used in the figures are presented in Appendix A.

Source: Calculations made using data from the World Bank.

Pro-growth policies and poverty: Evidence from advanced techniques

Background

The preceding section shows a negative correlation between the Ease of Doing Business Index and poverty. Doing Business has information from surveys on business operators across the world. As noted earlier, the survey asked respondents to consider the regulatory environment in their country to explain how easy it is for them to establish a new business, obtain credit, obtain access to electricity, register a property and protect investors, amongst other things.

The correlation results depicted in the previous section suggest that places where these activities are easier, tend to have lower levels of poverty. It is plausible that these results mean that policies that promote business operations, by making business practice simpler, promote employment, which means that people have more opportunities to get out of poverty.

While this interpretation is certainty possible, the correlation analysis does not suggest that it is causal for two reasons:

- First, correlation coefficients are estimated without the use of other controls. That is, there are other factors that influence poverty (identified in the literature review) and without capturing their effect, one could unfairly attribute too much power to the ease of doing business measure(s). The analysis presented in Appendix B corrected for this statistical problem.
- Second, it is possible that lower levels of poverty influence the regulatory environment toward business, rather than the other way around. Richer (less poor) populations could potentially be more likely to demand better or improved business conditions to support entrepreneurial activities. Simple correlation analysis cannot uncover causality, so the analysis also used more advanced techniques that can (see Appendix B). These techniques show that policies that help business obtain access to credit and those that protect investors cause lower poverty. The report argues that more credit and better protection of investors is potentially creating new employment opportunities that benefit the poor.

The remainder of this section discusses the findings.

Lessons from the existing literature

The literature review section summarised a series of variables that proxy for policies that potentially influence poverty. A statistical model was estimated to test the significance of these policies simultaneously. It is described in detail in Appendix B.

The results are, by and large, consistent with the expectations summarised in the literature review. Higher levels of inflation and government expenditure hurt the poor, while remittances, health and education expenditures, institutional quality and social protection are associated with declines in different types of poverty.

The only finding that is inconsistent with the expectations generated by the literature review is related to trade. The analysis found evidence that suggests that trade and poverty are positively correlated. This result can be explained theoretically – trade inflows can potentially put downward pressure on wages through basic competition.[19] As new and cheaper products enter an economy, producers of local substitutes can be displaced. This is particularly common in sectors with relatively low productivity where the majority of workers have relatively low levels of education. Consequently, trade could be hurting employment opportunities for the poor disproportionately.

Ease of Doing Business and Poverty alleviation

The analysis tested whether the Doing Business Index as well as the subindices that make it up have a statistically significant relationship with poverty (see Appendix B). The results highlight that the overall Doing Business measure does not have a statistically significant association with poverty. That is, while there is evidence of a negative correlation, this correlation is not statistically significant after controlling for other confounding factors. In other words, after holding constant the role that trade, inflation, government expenditure, education, health and institutions play, the relationship between the ease of Doing Business Index and poverty is statistically equal to zero.

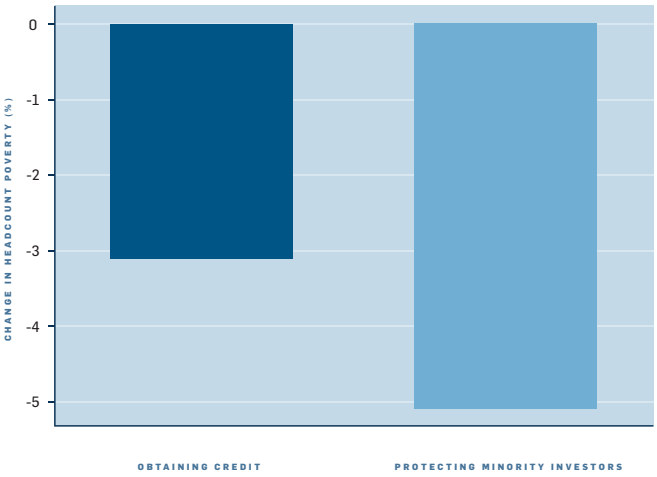
Decomposing the index into its components, however, revealed that some aspects of doing business are associated with poverty reduction. That is, while not all pro-growth activities are statistically associated with poverty, there is evidence that at least two activities are. These activities were found to be:

- Obtaining credit, which has a negative and statistically significant association with poverty.
- Protecting minority investors, which has a negative and statistically significant association with poverty.

Furthermore, the analysis allowed for the application of advanced statistical techniques that allow us to make causal inferences (explained in detail in Appendix B). The results of that exercise revealed that greater access to credit and protecting minority investors causes a decrease in poverty, vulnerability and extreme poverty.

The results are summarised in Figures 7 and 8. The bars in the figures show the estimated magnitude that each policy would have on poverty. The dark blue pertains to obtaining credit, while the light blue bar indicates the effect of protecting minority investors. Figure 7 shows the results for the estimated effects on poverty, while Figure 8 shows the results for the estimated effects on vulnerability and extreme poverty. Both figures show that protecting minority investors has a relatively larger effect on poverty reduction than obtaining credit. Comparing Figures 7 and 8 also reveals that those that are extremely poor benefit the most from these policies.

Figure 7: The effect of obtaining credit and protecting investors on poverty

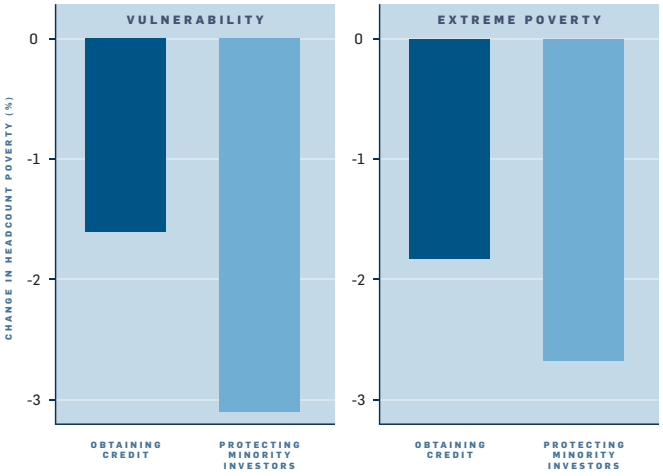


Notes: Estimates from results presented in table B3 in Appendix B. The results show changes in the headcount poverty rate after a 10 index point change in obtaining credit and protecting minority investors, respectively.

Source: Calculations made using data from the World Bank.

[19] Wood, A., & Mayer, J. (2011). Has China de-industrialised other developing countries?. Review of World Economics, 147(2), 325-350.

Figure 8: The effect of obtaining credit and protecting investors on vulnerability and extreme poverty



Notes: Estimates from results presented in table B3 in Appendix B. The results show changes in the headcount poverty rate after a 10 index point change in obtaining credit and protecting minority investors, respectively.

Source: Calculations made using data from the World Bank.

How would obtaining credit help the poor?

Obtaining credit measures how easy respondents feel it is to obtain finance in their country, as determined by the lack of legal restrictions as well as laws that facilitate lending. The effect of obtaining credit on poverty is not surprising, given the large literature on financial inclusion and poverty reduction in the developing world.[20] This literature argues that financial inclusion and access to credit can decrease poverty through several mechanisms, including:

- Investments in education,
- Starting or expanding a business, and
- Managing risks and absorbing financial shocks.

This report focuses on pro-growth policies, therefore the results presented above are likely to suggest that policies that improve access to credit are potentially leading to a decrease in poverty by allowing individuals to start or expand a business. Both activities would be associated with employment promotion, which grants more opportunities to the poor. There is international evidence from, for example, microloan activities in Brazil, China, and South Asia that show that access to credit increases the likelihood of starting a small business, fostering employment.[21]

How would obtaining protecting minority investors help the poor?

Protecting minority investors measures the strength of minority shareholder protections against misuse of corporate assets by directors for their personal gain as well as shareholder rights, governance safeguards and corporate transparency requirements that reduce the risk of abuse. Hard laws that protect investors are likely to boost investment, which can help decrease poverty by:

- Increasing employment opportunities among the poor,
- Providing new market opportunities for smallholders[22],
- Increasing the access of the poor to essential services.[23]

Regional differences: Is Asia Pacific different?

The introductory section of this study argued that the Asia Pacific region has experienced unprecedented changes in poverty reduction. As a result, the results in the previous section could be stronger or driven entirely by this region.

This section discusses results from a test of this proposition (explained in Appendix B). The results in Table B4 (refer to pg. 21) suggest that investor protection has a stronger relationship in Asia Pacific region than in the rest of the world. However, the findings remain generally applicable to all countries in the sample.

This means that this pro-growth policy has a statistically stronger effect on poverty reduction in Asia Pacific than in other places. While it is not possible to examine why this difference exists using the current data, this could be due to investor-protection policies in Asia Pacific being targeted more toward labour-intensive sectors. The latter, of course, are understood to generate ample employment opportunities that predominantly benefit the poor.[24]

[20] Bruhn, M., & Love, I. (2014). The real impact of improved access to finance: Evidence from Mexico. The Journal of Finance, 69(3), 1347–1376.
Burgess, R., Pande, R., & Wong, G. (2005). Banking for the poor: Evidence from India. Journal of the European Economic Association, 3(2–3), 268–278. Demirgüç-Kunt, A., & Levine, R. (Eds.). (2004). Financial structure and economic growth: A cross-country comparison of banks, markets, and development. Cambridge, M.A.: MIT press.
Zhang, Q., & Posso, A. (2019). Thinking inside the box: A closer look at financial inclusion and household income. The Journal of Development Studies, 55(7), 1616-1631.

[21] World Bank. (2015). Global financial development report 2015-2016: Long-term finance. Washington, DC: The World Bank.

[22] Smallholders refer to farmers with small pieces of land adjacent to their living quarters.

[23] Newell, P., & Frynas, J. G. (2007). Beyond CSR? Business, poverty and social justice: An introduction. Third World Quarterly, 28(4), 669-681.

[24] Athukorala, P. C. (2014). Global production sharing and trade patterns in East Asia. In Coxhead, Ian (Ed.) Routledge Handbook of Southeast Asian Economics, Chapter 7, 333-61. London: Routledge.

Enhancing pro-growth policies with governance

It is also interesting to test whether the poverty reducing effect of pro-growth policies, namely access to credit and minority investor protection, are enhanced by better governance. The results in Table B5 (refer to pg. 22) uncover evidence to suggest that the poverty-reducing effect of greater access to credit and investor protection are somewhat mitigated by government effectiveness. That is, in economies characterised by greater effectiveness (i.e. those with strong institutions and rule of law), these two doing business indicators have a less powerful effect on poverty.

This result may be due to a degree of substitutability between pro-growth policies and government effectiveness. That is, the strength of government effectiveness in reducing poverty reduces the role that doing business mechanisms potentially play. This could also be associated with government effectiveness improving the quality of other poverty reducing programs, leaving less room for the business sector.

What does the analysis teach us about policy?

Based on the analysis in the previous section, this section provides a non-exhaustive list of policies that may potentially help Asia Pacific economies and beyond achieve sustained poverty reduction.

Pro-growth policies that support progress toward the SDGs

The role that pro-growth policies play toward poverty reduction suggests that there are important complementarities between a number of the 17 SDGs. This study finds evidence that policies that promote greater access to credit and those that protect minority investors have a negative, causal and statistically significant effect on poverty. Policies that promote access to credit and protect investment are likely to also promote Industry, Innovation, and Infrastructure (SDG 9), and/or Peace, Justice, and Strong Institutions (SDG 16). Thus, it is plausible that policies that advance progress toward SDG 9 and SDG 16 are also likely to advance progress toward SDG 1 (No Poverty).

Greater access to credit could also help economies achieve SGD 5 (Gender Equality) and SDG 10 (Reduced Inequalities). It was suggested that access to credit can decrease poverty because it allows individuals to start or expand businesses. There is evidence from across the developing world that shows, for example, that obtaining credit (through microloans) allows households to start new ventures thus increasing employment opportunities. These opportunities are often targeted to women and other relatively more marginalised groups, which can not only help countries progress toward SDG 1, but also toward SDG 5 and SDG 10 (Reduced Inequalities).

Access to credit, alone, however, is unlikely to improve the conditions of the poor. For example, financial providers are unlikely to enter areas characterised by low levels of monetisation. There are many sectors within the developing world, especially in small Pacific Island communities, where barter dominates economic interactions.[26] When money plays a minor role in economic activities, access to additional credit is unlikely to lead to investment in new business and more employment opportunities because money would not be commonly used. Monetisation and the promotion of formal economic interactions can begin to bridge those gaps. Monetisation is also likely to promote SDG 9 by facilitating economic transactions between consumers and firms.

Similarly, in locations with weak property rights, households will be unwilling or unable to make large investments. In the absence of property rights, individuals will not be able to use their property as collateral to obtain a loan.[27] Moreover, firms will be apprehensive about taking out new loans in fear of expropriation.[28] Thus, facilitating SDG 16 is likely to help promote investment, which generates employment opportunities and helps the poor.

In a similar vein, laws that protect investors are expected to boost investment, which could help decrease poverty by increasing employment opportunities, providing new market opportunities and increasing access to essential services. Importantly, there is not a significant amount of research on investor protection and employment. This means that the mechanisms through which the two interact and how they affect poverty remain under-researched.

Finally, it is important to note that access to credit can lead to an increased debt burden amongst some borrowers, which can have adverse consequences. There is evidence, for example, that the debt burden is associated with increased rates of stress that lead to suicide amongst farmers in India.[29] That is, access to credit could potentially create unsustainable debt burden that works against progress toward SDG 3 (Good Health and Well-Being). It is therefore crucial that governments regulate the credit industry to ensure that terms are fair and that levels of debt are sustainable. Particularly, improving financial literacy and the facilitation of credit information for actuarial analyses will be important to ensure that the debt burden is not overwhelming.

To summarise, the findings in this report are consistent with the following recommendations:

- Governments facilitate access to small or micro loans,
- Improve monetisation of remote areas,
- Continue financial literacy programs,
- Facilitate data collection efforts on credit information, repayments as well as factors know to correlate with these outcomes, and
- Enforce clear property rights.

[27] Bai, C. E., Lu, J., & Tao, Z. (2006). Property rights protection and access to bank loans: Evidence from private enterprises in China. Economics of Transition, 14(4), 611-628.
[28] Johnson, S., McMillan, J., & Woodruff, C. (2002). Property rights and finance. American Economic Review, 92(5), 1335-1356.
[29] Mohanty, B. B. (2005). 'We are like the living dead': farmer suicides in Maharashtra, Western India. Journal of Peasant Studies, 32(2), 243-276.

Other policies that can promote SDG 1

This study also provides evidence that support findings from the extant literature on poverty reduction. The following policy recommendations can be ascertained from that analysis:

- Efforts to lower inflationary pressures are understood to be good for economic growth. This study finds evidence that suggests that high inflation also hurts the poor. Governments need to continue to target inflationary pressures.
- This study shows evidence of a positive correlation between trade and poverty. It is important for governments to mitigate the potential negative effects of trade on employment, particularly in unskilled labour sectors. As new and cheaper products enter an economy, producers of local substitutes can be displaced. Government programs aiming at retraining displaced workers through life-long learning initiatives, for instance, may prove useful.

  Polices that incentivise life-long learning include:

  - Tax breaks/subsidies for firms to undertake in-house staff retraining and apprenticeships.
  - Facilitating access to finance for educational purposes throughout a person's life.
  - Facilitating support (financial and technical) for universities to provide micro-credits and other retraining opportunities.
  - Improving pathways and transitions between formal and non-formal learning and work over the life span including income support and language skills for migrants.
- This study also shows evidence that government expenditure, after controlling for changes in education and health expenditures, is associated with higher levels of poverty. Government efforts to maintain fiscal responsibility and balanced budgets may therefore potentially have poverty-reducing effects.
- The analysis also shows that remittance inflows are associated with decreases in poverty. Policies that facilitate remittance inflows, particularly those that lower transaction costs, may consequently prove effective tools in poverty reduction.
- Education expenditure is also found to be correlated with poverty reduction. Increments and targeted expenditure to improve educational opportunities for the poor by investing in greater access to primary and secondary education in remote and marginalised areas may prove effective.
- Targeted health expenditure in poorer areas to improve general water and sanitation conditions is also likely to decrease poverty.
- Government effectiveness is estimated to have a large and negative relationship with poverty. Government effectiveness measures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures. Clearly striving toward improving these features will improve the quality of anti-poverty government policies.

Conclusion

Do policies that support the business sector also help the poor?

The aim of this report is to answer this question empirically using advanced statistical techniques. The analysis tested a battery of different policies and found that policies that promote greater access to credit as well as those that enforce protection of minority investors lead to lower levels of poverty. It is argued that both activities effectively help promote employment opportunities, which in turn help achieve progress toward SDG 1 (No Poverty).

For access to credit to have its full potential, governments must also promote monetisation, which in turn will help promote formal economic activity and help countries work toward SDG 9 (Industry, Innovation and Infrastructure). Similarly, enforcing property rights is likely to not only boost investment and ensure that credit is utilised efficiently, but also facilitate progress toward SDG 16 (Peace, Justice and Strong Institutions). That is, the report finds that there are important synergies and complementarities between the various SDGs.

Importantly, the report also notes that while access to credit is good for the poor, governments should be mindful of potentially adverse consequences of debt. High or unstainable debt can lead to stress and self-harm, thus mitigating progress toward SDG 3 (Good Health and Well-Being). Governments must regulate credit provision and ensure that firms obtain the right amount of information to assess cases, while consumers have adequate levels of financial literacy needed to manage debt.

Appendices

Appendix A: Variables and data

This report uses macroeconomic data from the World Bank's World Development Indicators and Doing Business Measures to investigate the relationship between pro-growth policies and poverty in developing countries.

Doing Business is specifically created to measure regulations that affect the ease of opening and operating a business across various economies. Data is collected from over 12,000 experts and practitioners in 190 countries who deal with business regulations in their work. The questionnaires are used to create 10 subindices in categories that reflect various aspects of the business environment (Table A1). In turn, the subindices are used to create an overarching Doing Business Index. We rely on the latter in our basic statistical analysis to establish an overview of trends and patterns in poverty and pro-growth policies. We then decompose the indicator in the regression analysis to correct for omitted variable bias and provide causal inferences.

Table A1: Doing Business indicators and components

Subindices	Components
Dealing with construction permits	Procedures, time, and cost to build a warehouse.
Enforcing contracts	Procedures, time, and cost to enforce a debt contract.
Obtaining credit	Strength of legal rights index, depth of credit information index.
Getting electricity	Procedures, time, and cost required for a business to obtain a permanent electricity connection for a newly constructed warehouse.
Paying taxes	Number of taxes paid, hours per year spent preparing tax returns, and total tax payable as share of gross profit.
Protecting investors	Indices on the extent of disclosure, extent of director liability, and ease of shareholder suits.
Registering property	Procedures, time, and cost to register commercial real estate.
Resolving insolvency	The time, cost, and recovery rate (%) under bankruptcy proceeding.
Starting a business	Procedures, time, cost, and minimum capital to open a new business.
Trading across borders	Number of documents, cost, and time necessary to export and import.

Source: https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB19-Chapters/DB19-About-Doing-Business.pdf.

These pro-growth indicators are compared to internationally accepted poverty variables from the World Bank's World Development Indicators. We use poverty headcount ratios to focus on the proportion of a population that lives below a predetermined poverty line. In doing so, we can define poverty in three ways:

- Extreme poverty: Headcount ratio at $1.90 a day (2011 PPP) (% of population),
- Poverty: Headcount ratio at $3.20 a day (2011 PPP) (% of population), and
- Vulnerability to poverty: Headcount ratio at $5.50 a day (2011 PPP) (% of population).

The remaining variables employed in this study are captured form the literature review in the main report and suggest that poverty within a country is a function of:

- Inflation of consumer prices (expressed in annual terms),
- Government expenditure, as a percentage of GDP,
- Trade openness, measured as exports and imports as a share of GDP,
- Remittances received, as a percentage of GDP,
- FDI inflows, as a percentage of GDP,
- Educational expenditures by the government, as a percentage of GDP
- Government expenditure on health, as a percentage of GDP
- Government effectiveness, which captures perceptions of the quality of public services, the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
- Finally, to capture social protection we use the CPIA social protection rating. This variable assesses, using a scale from 1 to 6, government policies in social protection and labour market regulations that reduce the risk of becoming poor, assist those who are poor to better manage further risks, and ensure a minimal level of welfare to all people. The variable is only available for a subset of 75 countries and, consequently, not employed in the preferred specification.

Table A2: Summary statistics and source

Variable	Obs	Mean	Std. Dev.	Min	Max	Source
Panel A: Poverty measures						
Poverty	740	14.05	21.49	0.00	91.00	World Development Indicators
Extreme poverty	740	25.92	29.90	0.00	97.30	World Development Indicators
Vulnerability	740	6.24	12.70	0.00	77.60	World Development Indicators
Panel B: Doing Business indicators						
Ease of doing business index	740	5.20	8.86	-4.48	168.62	Doing Business Indicators
Dealing with construction permits	740	93.02	47.68	22.11	416.39	Doing Business Indicators
Enforcing contracts	740	3.84	6.47	0.01	45.46	Doing Business Indicators
Obtaining credit	740	6.83	22.05	-43.46	451.72	Doing Business Indicators
Getting electricity	740	16.72	4.57	4.97	28.29	Doing Business Indicators
Paying taxes	740	7.00	2.29	1.88	16.41	Doing Business Indicators
Protecting investors	740	0.41	0.96	-1.59	2.35	Doing Business Indicators
Registering property	120	3.43	0.53	2.00	4.50	Doing Business Indicators
Resolving insolvency	740	5.20	8.86	-4.48	168.62	Doing Business Indicators
Starting a business	740	93.02	47.68	22.11	416.39	Doing Business Indicators
Trading across borders	740	3.84	6.47	0.01	45.46	Doing Business Indicators
Panel C: Controls						
Government expenditure (total)	740	16.72	4.57	4.97	28.29	World Development Indicators
Inflation	740	5.20	8.86	-4.48	168.62	World Development Indicators
Trade	740	93.02	47.68	22.11	416.39	World Development Indicators
Remittances	740	3.84	6.47	0.01	45.46	World Development Indicators
FDI	740	6.83	22.05	-43.46	451.72	World Development Indicators
Gov. expenditure on educ.	740	7.00	2.29	1.88	16.41	World Development Indicators
Gov. expenditure on health	740	0.41	0.96	-1.59	2.35	World Development Indicators
Government effectiveness	120	3.43	0.53	2.00	4.50	Worldwide Governance Indicators
Social protection (CPIA)	740	16.72	4.57	4.97	28.29	Worldwide Governance Indicators

Notes: Number of observations varies due to data availability.

Appendix B: Regression models and results

The following equation is estimated:

$$P_{i,t} = \alpha_1 \boldsymbol{M_{i,t}} + \alpha_2 G_{i,t} + \alpha_3 S_{i,t} + \gamma_i + \tau_t + \varepsilon_{i,t},$$

where $P_{i,t}$ represents a poverty measure of country i at time t; $\boldsymbol{M}$ is a vector of macroeconomic controls, G is government effectiveness, and S is a social protection indicator. In equation (1) γ_i denotes country-fixed effects, τ_t is year fixed effects, while $\varepsilon_{i,t}$ is an idiosyncratic error term. Country-fixed effects γ_i are effectively dummy variables equal to one for each country. These variables capture any time-invariant factor affecting country i that could influence poverty. This could include a host of historical and geographical factors. Similarly, year fixed effects create a dummy variable for each year, which control for any global shock that could influence poverty in all countries in a given year.

We augment equation (1) by systematically including the Doing Business indicators of table A1 as explanatory variables. We consequently estimate equation (2), where $\boldsymbol{DB}$ is a vector of Doing Business measures.

$$P_{i,t} = \alpha_1 \boldsymbol{M_{i,t}} + \alpha_2 G_{i,t} + \alpha_3 S_{i,t} + \alpha_4 \boldsymbol{DB_{i,t}} + \gamma_i + \tau_t + \varepsilon_{i,t},$$

In equation (2), $\boldsymbol{DB}$ and P are potentially endogenous because, for instance, poorer countries may be receiving higher rates of technical assistance to improve business conditions. That is, poverty could be causing improvements in the Doing Business measures.

We account for this using an instrumental variable approach. Instrumental variables are used in regression analysis to explain and isolate movements in $\boldsymbol{DB}$ that are not explained by poverty. In doing so we estimate an explained version of $\boldsymbol{DB}$ and use this in the model. Thus, the first stage of the equation explains $\boldsymbol{DB}$, while the second stage estimates equation (2) using an explained version of $\boldsymbol{DB}$. We therefore estimate:

$$\boldsymbol{DB}_{i,t} = \beta_1 \boldsymbol{M_{i,t}} + \beta_2 G_{i,t} + \beta_3 S_{i,t} + \beta_4 \boldsymbol{DBA_{i,t}} + \gamma_i + \tau_t + \varepsilon_{i,t},$$

where $\boldsymbol{DBA}$ is a vector of Doing Business indicators that are correlated with $\boldsymbol{DB}$, but not with poverty. We instrument for obtaining credit and protecting minority investors with Doing Business scores for enforcing contracts and starting a business. The latter two are found to not explain poverty after estimating equation (2).

Following this exercise, we re-estimate equations (2) and (3) using interactions of region and education. For simplicity, assume that we are interested in the effect that X has on poverty through its relationship with $\boldsymbol{DB}$. That is, we assume that X can affect poverty directly and indirectly through $\boldsymbol{DB}$. X in this scenario can be a region or another policy variable, like education. We can therefore estimate the following equation:

$$P_{i,t} = \vartheta_1 \boldsymbol{M_{i,t}} + \vartheta_2 G_{i,t} + \vartheta_3 S_{i,t} + \vartheta_4 \boldsymbol{DB_{i,t}} + \vartheta_5 X_{i,t} + \vartheta_6 \boldsymbol{DB_{i,t}} * X + \gamma_i + \tau_t + \varepsilon_{i,t}.$$

The coefficient estimates attached to ϑ_4 and ϑ_6 can be used to measure the combined effect $\boldsymbol{DB}$ and X through $\boldsymbol{DB}$.

The remainder of this section presents the full set of results.

The baseline results in Table B1 suggest that an increase in inflation by 10 percentage points is associated with an increase in headcount poverty and vulnerability by one and two percentage points, respectively. A similar increase in the share of trade in GDP is associated with an increase in headcount poverty and vulnerability by 0.8 and 1 percentage points. In both cases these changes are small. Additionally, the tables show evidence to suggest that a similar increase in government expenditure is associated with an increase in vulnerability to poverty by 7 percentage points.

The results also show that remittances, health expenditure, government effectiveness and social protection are associated with declines in different types of poverty. In this case the coefficient estimates suggest that the correlations are stronger than above. An increase in remittance inflows by 10 percentage points of GDP is associated with a reduction in the headcount poverty rate by 10 percentage points, while vulnerability and extreme poverty would fall by 3 and 6 percentage points, respectively.[30] An increase in government expenditure on education by 10 percentage points of GDP is associated with a decrease in headcount poverty, vulnerability and extreme headcount poverty by 20, 20 and 14 percentage points, respectively. An increase in government effectiveness by 1 index point (roughly one standard deviation) is associated with a decrease in vulnerability by 5 percentage points. Finally, increase in CPIA's social protection indicator by 1 point is associated with a decline in extreme poverty by 3.5 percentage points.

Following this exercise, we tested whether the Doing Business indicator as well as the subindices that make it up have a statistically significant relationship with poverty. To do so we estimated the same regressions as above, augmented with the Doing Business indicators.[31] The regression results are presented in table B2.

[30] The coefficient estimate attached to remittances in the vulnerability equation when we estimate the model using the smaller sample for which CPIA data is available is positive. This could be due to remittances pushing the poor out of poverty and into this group – the coefficient estimate attached to poverty is negative, but statistically insignificant.

[31] The regressions are estimated without the CPIA measure of social protection in order to maximise the number of available observations and countries.

Table B1: Baseline results – Equation (1)

VARIABLES	(1) Poverty	(2) Poverty	(3) Vulnerability	(4) Vulnerability	(5) Extreme poverty	(6) Extreme poverty
Government expenditure	0.24	0.067	0.67***	0.22	0.18	0.093
	[1.44]	[0.22]	[2.64]	[0.65]	[1.51]	[0.51]
Inflation	0.11***	0.15	0.18***	0.043	0.032	0.062
	[3.13]	[0.54]	[4.28]	[0.14]	[1.04]	[0.49]
Trade	0.075**	-0.030	0.13***	-0.013	0.015	-0.068
	[2.53]	[-0.39]	[3.48]	[-0.16]	[1.03]	[-1.38]
Remittances	-1.01***	-0.037	-0.30***	0.78***	-0.63***	0.024
	[-5.19]	[-0.16]	[-3.50]	[3.08]	[-5.54]	[0.26]
FDI	-0.0027	-0.014	0.0033	-0.027	-0.0051	-0.030
	[-0.48]	[-0.23]	[0.51]	[-0.37]	[-1.33]	[-0.67]
Education expenditure	-2.09***	-2.16**	-2.01**	-1.12	-1.46***	-1.83**
	[-3.53]	[-2.69]	[-2.59]	[-1.07]	[-3.97]	[-2.60]
Health expenditure	-0.022	-0.053	-0.30	-1.05	0.047	0.34
	[-0.053]	[-0.087]	[-0.44]	[-1.44]	[0.19]	[0.65]
Government effectiveness	-1.38	4.67	-4.57**	-0.30	-0.96	1.73
	[-0.82]	[0.93]	[-2.13]	[-0.056]	[-0.97]	[0.68]
Social protection		-2.82		-0.063		-3.45*
		[-0.66]		[-0.015]		[-1.71]
Country & year FE?	Yes	Yes	Yes	Yes	Yes	Yes
Observations	740	120	740	120	740	120
R-squared	0.62	0.57	0.59	0.50	0.58	0.58
Number of countries	117	45	117	45	117	45

Notes: Robust t-statistics in brackets, ***, ** and * denote 1, 5 and 10 percent level of significance, respectively. All regressions are clustered at the country level and include country and year fixed effects. Number of observations vary due to data availability.

The overall Doing Business measure does not have a statistically significant association with poverty. The results show that obtaining credit has a negative and statistically significant association with poverty and vulnerability. Also, there is evidence that protecting minority investors has a negative and statistically significant association with vulnerability.

These variables are measured on a zero to 100 scale, where larger figures suggest that the country has relatively friendlier business policies. On average, the countries in the sample have a obtaining credit score of 62/100 with a standard deviation of 20/100. Our results suggest that an increase in the score from 62 (roughly the Indonesian score) to 72 (roughly the Malaysian score) is associated with a decline in headcount poverty and vulnerability by 0.6 and 1 percentage points, respectively. Similarly, an increase in the protecting minority investors score by the same amount is associated with a decline in vulnerability by 0.9 percentage points. In both occasions the changes are small, compared to, say, similar changes in educational expenditure.

Table B2: Doing Business results – Equation (2)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel A: Poverty equations											
Doing Business Index	0.027										
	[0.65]										
Dealing with construction permits		-0.046									
		[-1.09]									
Enforcing contracts			0.099								
			[0.97]								
Obtaining credit				-0.055***							
				[-2.93]							
Getting electricity					-0.0082						
					[-0.39]						
Paying taxes						0.0072					
						[0.29]					
Protecting minority investors							-0.052				
							[-1.38]				
Registering property								0.048			
								[1.31]			
Resolving insolvency									0.026		
									[1.17]		
Starting a business										-0.021	
										[-0.71]	
Trading across borders											-0.0036
											[-0.16]
Other controls?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	329	519	600	560	329	519	519	560	600	600	519
R-squared	0.36	0.28	0.35	0.32	0.36	0.27	0.28	0.31	0.35	0.35	0.27
Panel B: Vulnerability equations											
Doing Business Index	-0.033										
	[-0.48]										
Dealing with construction permits		-0.035									
		[-0.98]									
Enforcing contracts			0.057								
			[0.40]								
Obtaining credit				-0.095***							
				[-3.37]							
Getting electricity					-0.052						
					[-1.23]						
Paying taxes						-0.030					
						[-0.92]					
Protecting minority investors							-0.091*				
							[-1.74]				
Registering property								0.025			
								[0.51]			
Resolving insolvency									-0.031		
									[-0.79]		
Starting a business										-0.043	
										[-0.94]	
Trading across borders											-0.044
											[-1.09]
Other controls?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	329	519	600	560	329	519	519	560	600	600	519
R-squared	0.44	0.40	0.44	0.42	0.44	0.40	0.41	0.39	0.44	0.44	0.40

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Panel C: Extreme poverty equations											
Doing Business Index	-0.010										
	[-0.34]										
Dealing with construction permits		-0.018									
		[-0.87]									
Enforcing contracts			0.039								
			[0.96]								
Obtaining credit				-0.014							
				[-1.38]							
Getting electricity					-0.012						
					[-0.71]						
Paying taxes						0.018					
						[1.40]					
Protecting minority investors							0.0018				
							[0.087]				
Registering property								0.028			
								[1.49]			
Resolving insolvency									0.018		
									[1.46]		
Starting a business										-0.024	
										[-1.08]	
Trading across borders											0.0081
											[0.59]
Other controls?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	329	519	600	560	329	519	519	560	600	600	519
R-squared	0.25	0.20	0.28	0.26	0.26	0.20	0.20	0.26	0.28	0.28	0.20

Notes: Robust t-statistics in brackets, ***, ** and * denote 1, 5 and 10 percent level of significance, respectively. Panels A, B and C, summarise the results from equations that use poverty, vulnerability and extreme poverty as dependent variables, respectively. All regressions are clustered at the country level. The regressions are estimated controlling for government expenditure inflation, trade, remittances, FDI, education expenditure, health expenditure, government effectiveness as well as country and year fixed effects. Number of observations vary due to data availability.

The results in Table B2 do not show a causal relationship. However, we successfully applied econometric techniques that allowed us to make causal inferences using a two-stage process (explained above). The results of that exercise are summarised in Table B3. The table shows evidence to suggest that greater access to credit and protecting minority investors causes a decrease in poverty, vulnerability and extreme poverty. An increase in the credit score by 10 points will lead to a decline in poverty, vulnerability and extreme poverty by 3, 5, and 2 percentage points, respectively. A similar change in the score given for protecting minority investors is estimated to decrease poverty, vulnerability and extreme poverty by 5, 7, and 3 percentage points, respectively.

Table B3: Credit and investor protection results, two-stage least squares – Equation (3)

Dependent variable:	(1) Poverty	(2) Vulnerability	(3) Extreme poverty	(4) Poverty	(5) Vulnerability	(6) Extreme poverty
Obtaining credit	-0.31***	-0.47***	-0.16***			
	[-3.73]	[-5.41]	[-2.85]			
Protecting minority investors				-0.51***	-0.69***	-0.31***
				[-3.57]	[-4.01]	[-2.75]
Government effectiveness	2.18	2.36	0.82	1.07	-0.87	0.79
	[1.06]	[0.91]	[0.57]	[0.49]	[-0.33]	[0.55]
Inflation	0.043	0.0075	0.017	-0.038	-0.11	-0.034
	[0.57]	[0.080]	[0.39]	[-0.64]	[-1.59]	[-0.88]
Trade	0.034*	0.058*	0.0069	0.012	0.030	-0.0081
	[1.69]	[1.79]	[0.54]	[0.61]	[1.08]	[-0.57]
Remittances	0.26	1.11***	0.13	-0.0052	0.55**	-0.051
	[0.95]	[4.20]	[0.99]	[-0.019]	[1.97]	[-0.42]
FDI	-0.017	-0.017	-0.013	-0.016	-0.016	-0.015
	[-0.79]	[-0.58]	[-1.08]	[-1.07]	[-0.81]	[-1.42]
Government expenditure	0.025	0.27	-0.041	0.012	0.26	-0.11
	[0.092]	[0.69]	[-0.28]	[0.057]	[1.12]	[-0.90]
Educational expenditure	-1.06*	-0.93	-0.70*	-0.71	-0.71	-0.61
	[-1.84]	[-1.30]	[-1.68]	[-1.55]	[-1.30]	[-1.38]
Health expenditure	-0.37	-1.27***	0.033	0.43	-0.16	0.55*
	[-1.10]	[-2.80]	[0.15]	[1.13]	[-0.30]	[1.69]
Country and year FE?	Yes	Yes	Yes	Yes	Yes	Yes
Observations	529	529	529	489	489	489
Kleibergen-Paap F statistic	17.8	17.8	17.8	12.4	12.4	12.4
Hansen J p-value	0.27	0.69	0.43	0.95	0.50	0.57

Notes: Robust t-statistics in brackets, ***, ** and * denote 1, 5 and 10 percent level of significance, respectively. These results are from two-stage least squares instrumental variable regressions that include country fixed effects. Obtaining credit and protecting minority investors are instrumented with Doing Business scores for enforcing contracts and starting a business. Hansen J p-values and Kleibergen-Paap F statistic suggests that the instrument set is valid. Number of observations vary due to data availability.

The introductory section of this study argued that the Asia Pacific region has experienced unprecedented changes in poverty reduction. As a result, the results above could be stronger or driven entirely by this region. This section presents the results from a test of this proposition using interactive terms that account for regional differences between Asia Pacific, East Asia and the Pacific and the rest of the world.

The results in Table B4 suggest that investor protection has a stronger relationship in Asia Pacific region and East Asia and the Pacific. For example, while an increase in the investment protection score by ten points is associated with a decrease in vulnerability by 2 percentage points in the rest of the world, the effect in the Asia Pacific region and East Asia and the Pacific is a decline of approximately 6 percentage points, respectively. The remaining results are consistent with those explained above.

Table B4: Credit and investor protection results, regional differences, fixed effects regression

Dependent variable:	(1) Poverty	(2) Vulnerability	(3) Extreme poverty	(4) Poverty	(5) Vulnerability	(6) Extreme poverty
Panel A: Credit						
Obtaining credit	-0.11***	-0.17***	-0.039***	-0.11***	-0.17***	-0.039***
	[-5.41]	[-5.94]	[-4.12]	[-5.35]	[-5.84]	[-4.12]
Obtaining credit* APAC	-0.046	-0.0014	-0.012			
	[-0.21]	[-0.0045]	[-0.16]			
Obtaining credit* EAP				-0.14	-0.17	-0.019
				[-0.50]	[-0.40]	[-0.20]
Other controls?	Yes	Yes	Yes	Yes	Yes	Yes
Observations	560	560	560	560	560	560
R-squared	0.20	0.26	0.16	0.20	0.27	0.16
Panel B: Investor protection						
Protecting minority investors	-0.13***	-0.20***	-0.049**	-0.13***	-0.20***	-0.049**
	[-2.76]	[-3.57]	[-2.21]	[-2.83]	[-3.64]	[-2.24]
Protecting minority investors* APAC	-0.13	-0.46***	0.015			
	[-1.05]	[-3.22]	[0.33]			
Protecting minority investors* EAP				-0.094	-0.43***	0.024
				[-0.84]	[-2.81]	[0.53]
Other controls?	Yes	Yes	Yes	Yes	Yes	Yes
Observations	519	519	519	519	519	519
R-squared	0.14	0.28	0.10	0.14	0.27	0.10

Notes: Robust t-statistics in brackets, ***, ** and * denote 1, 5 and 10 percent level of significance, respectively. Panel A shows the results of regressions focusing on obtaining credit, while Panel B focuses on protecting minority investors. APAC and EAP refer to the Asia Pacific region and East Asia and the Pacific, respectively. The regressions are estimated controlling for government expenditure inflation, trade, remittances, FDI, education expenditure, health expenditure, government effectiveness as well as country and year fixed effects. Number of observations vary due to data availability.

Table B5: Credit and investor protection results, differences by governance, fixed effects regression

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	**Poverty**	**Vulnerability**	**Extreme poverty**	**Poverty**	**Vulnerability**	**Extreme poverty**
Obtaining credit	-0.11***	-0.18***	-0.040***			
	[-5.49]	[-6.38]	[-4.06]			
Obtaining credit* gov. effectiveness	0.069**	0.090***	0.030**			
	[2.43]	[3.11]	[2.10]			
Protecting minority investors				-0.17***	-0.28***	-0.063**
				[-3.53]	[-3.91]	[-2.55]
Protecting minority investors* gov. effectiveness				0.11***	0.15***	0.045**
				[2.77]	[2.90]	[2.29]
Other controls?	Yes	Yes	Yes	Yes	Yes	Yes
Observations	560	560	560	519	519	519
R-squared	0.22	0.29	0.17	0.18	0.29	0.12

Notes: Robust t-statistics in brackets, ***, ** and * denote 1, 5 and 10 percent level of significance, respectively. All regressions are clustered at the country level. The regressions are estimated controlling for government expenditure inflation, trade, remittances, FDI, education expenditure, health expenditure, government effectiveness as well as country and year fixed effects. Number of observations vary due to data availability.

Contributors

About the UN Global Compact and Global Compact Network Australia

As a special initiative of the UN Secretary-General, the United Nations Global Compact is a call to companies everywhere to align their operations and strategies with ten universal principles in the areas of human rights, labour, environment and anti-corruption. Launched in 2000, the mandate of the UN Global Compact is to guide and support the global business community in advancing UN goals and values through responsible corporate practices. With more than 9,500 companies and 3,000 non-business signatories based in over 160 countries, and more than 70 Local Networks, it is the largest corporate sustainability initiative in the world.

In Australia, the business-led Global Compact Network Australia (GCNA) brings together participants to the UN Global Compact, including a number of Australia's leading companies, civil society organisations and universities in a platform for dialogue, learning, influence and action that is practical and leading edge. We guide businesses on how a principles-based approach to doing business by advancing the Ten Principles and the contributing to the UN Sustainable Development Goals (SDGs) drives long-term business success.

Through our significant partnership with the Department of Foreign Affairs and Trade (DFAT) and our broader relationship with the Australian Government on private sector engagement, we also provide a leading platform for business-government engagement on policy development in corporate sustainability.

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The Ten Principles of the United Nations Global Compact

The Ten Principles of the United Nations Global Compact are derived from: the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.

HUMAN RIGHTS

1. Businesses should support and respect the protection of internationally proclaimed human rights; and
2. make sure that they are not complicit in human rights abuses.

LABOUR

3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. the elimination of all forms of forced and compulsory labour;
5. the effective abolition of child labour; and
6. the elimination of discrimination in respect of employment and occupation.

ENVIRONMENT

7. Businesses should support a precautionary approach to environmental challenges;
8. undertake initiatives to promote greater environmental responsibility; and
9. encourage the development and diffusion of environmentally friendly technologies.

ANTI-CORRUPTION

10. Businesses should work against corruption in all its forms, including extortion and bribery.

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