



Annual Competitiveness Analysis and Impact of COVID-19 on Sub-National Economies of Indonesia

EDITORS

Zhang Xuyao

Doris Liew Wan Yin

Clarice Handoko



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About ACI

The Asia Competitiveness Institute (ACI) was established in August 2006 as a Research Centre at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS). It aims to build the intellectual leadership and network for understanding and developing competitiveness in the Asia region. ACI seeks to contribute to the enhancement of inclusive growth, living standards, and institutional governance through competitiveness research on sub-national economies in Asia. It identifies mitigating issues and challenges for potential public policy interventions through close collaboration with regional governments, business corporations, policy think-tanks, and academics. ACI's three key research pillars include (I) Sub-national economies level competitiveness analysis; (II) The development of digital economy and its implications in 16 Asia economies; and (III) Singapore's long-term growth strategies and public policy analysis.

ACI's value propositions may be encapsulated in its acronym:

Analytical inputs to initiate policies for policy-makers and business leaders in Asia

Capacity building to enable others through improvement in productivity and efficiency

Intellectual leadership to create pragmatic models of competitiveness and inclusive growth

Vision and Mission

- ACI's over-arching vision is to build up its research credibility with policy impact, contributing as a professional, world-class think-tank.
- ACI's mission is to establish our niche as a leading policy think-tank by identifying development trends, opportunities, and challenges among Asian economies and business corporations.
- ACI endeavours to articulate sound recommendations, promote discussion, and shape research agenda in the arena of public policy amongst Asian governments.
- ACI undertakes evidence-based analysis of public policy issues and decisions, in order to provide assessment of their effectiveness as well as economic and societal impact.

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Preface

The ongoing COVID-19 pandemic has transformed the economic landscape across the world. Economies have had to adapt their structure whilst ensuring the health of their populations. How will Indonesia adapt? As the largest economy and most populous nation in Southeast Asia, Indonesia has the potential to be an economic powerhouse in Asia alongside China and India. It is now facing significant challenges as a result of the pandemic.

While most studies on the Indonesian economy have been conducted at a national level, the Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS), has been paying greater attention to the subnational levels in Indonesia. Thus, ACI has been conducting empirical studies annually to analyse and rank the competitiveness of Indonesia's six regional and 34 provincial economies. The information and findings from this current study aims to aid policymakers in understanding each province's strengths and weaknesses, enabling them to enhance competitiveness at the provincial and regional levels. Noting how the country's provinces have been unequally impacted by the pandemic, the objective of this present study has become even more urgent as the 34 provinces chart their respective recovery trajectories.

Currently in its eighth iteration, this year's edition also features ACI's findings from a business expectations survey conducted from July to November 2020 as the repercussions of the pandemic became more clearly felt in the country and its businesses. The findings reveal that while firms of all sizes were affected by the pandemic in the first half of 2020, the information and communication technologies and healthcare sectors gained significantly.

Like many countries around the world, the Indonesian stakeholders of the ACI study are trying their best and are working optimistically towards an economic recovery, in the way each of their localities know how. For international stakeholders interested in Indonesia's socio-economic landscape, this book provides an analysis of the local situation as a compendium to gauge the country's prospects in the year ahead. I am confident that these insights will add to our understanding of the dynamics of competitiveness in the country.

Professor Paul Cheung

Director, Asia Competitiveness Institute
Lee Kuan Yew School of Public Policy
National University of Singapore

Executive Summary

Along with most countries in the world, Indonesia's economy received an unprecedented shock because of the COVID-19 pandemic. Just before the pandemic, in 2019, Indonesia's economic growth had steadily hovered around 5 percent. The country's economic stability was upended in 2020: GDP growth plunged to the country's lowest since the Asian Financial Crisis, at -5.32 percent. The pandemic's impact reverberated through the labour market, with unemployment rates increasing from 4.94 percent in February 2020 to 7.07 percent in August 2020. Poverty also rose from 9.78 to 10.19 percent from March to September 2020. While the number of COVID-19 cases continues to rise in the country - the cumulative number of cases surpassed 1 million on 26 January 2021 - the economy saw some improvements in Q4 2020, with growth increasing by 3.13 percent to -2.19 percent. This study on the competitiveness of 34 sub-national Indonesian economies by the Asia Competitiveness Institute is committed to tracking the country's diverse progress. This objective has been fundamental in light of the COVID-19 pandemic that has affected the archipelagic nation in different ways. Chapter 1 of the book provides a key guide to the various COVID-19 policies employed by the government to strike a fine balance between protecting public health and sustaining the economy. For international onlookers, the findings and recommendations will be valuable in gauging the aid afforded by the government to different demographics and sectors and, therefore, the opportunities available for them in the New Normal.

The annual competitiveness rankings update has seen a significant number of shifts this year. This is a welcomed change in the nation's bid to redistribute economic development outside the economic center of Jakarta and the Java region. East Kalimantan's progress is most salient, in part because it was slated to be Indonesia's new capital city by President Joko Widodo in 2017. As the prospective capital, infrastructure preparations underway before the pandemic resulted in a 14-rank jump for the province (from 22nd to 14th) under the Government and Institutional setting environment and a four-rank improvement (from 8th to 4th) under the Financial, Business and Manpower Conditions environment.

This iteration of the competitiveness update has also utilized the *What-If* simulation method to assess the early efficacies of the Palapa Ring Project. Completed in 2019, the national project sought to connect all regions of Indonesia with basic internet access. The case study affirmed that the infrastructure project would elevate the connectivity of border provinces of Indonesia. North Maluku presented the largest improvement; other outermost provinces like North Sumatra, Maluku, and West Kalimantan followed closely.

Responding to the economic plunge in 2020, ACI pivoted our survey process to gauge each provincial economy's dynamic situation. The findings from ACI's Business Expectations Survey conducted from July to September 2020 draw upon business owners' sentiments in 26 provinces. The results illustrate how deeply the economic disruption penetrated the economy: Both large corporations and Micro, Small, and Medium

Enterprises (MSMEs) were significantly affected, refuting the common expectation that large firms would be more resilient in times of a crisis.

The industry-differentiated impacts have also highlighted that some industries, like information and communication technologies, healthcare and finance stand to gain from the new economic landscape. Others, like tourism and their related service sectors do not have such an optimistic outlook considering the unpredictable return of travel.

The findings from this paper were used as a springboard for ACI's recent webinar on *Drivers of Indonesia's Economic Growth in 2021*. Representatives from the Embassy of the Republic of Indonesia, the Indonesian Employers' Association (APINDO), and academics from Indonesia and Singapore came together to assess how the latest stimulus and vaccination programmes could elevate businesses' prospects after a year of the pandemic.

ACI ultimately acknowledges that the complexity of Indonesia's economic recovery depends on policies that appropriately respond to each province's specific needs. To facilitate the necessary dialogues on each province's recovery beyond the pandemic, ACI organized a webinar series, *The Inaugural Provincial Dialogue on the Economy and Development 2020*, for a total of 19 provinces. Government officials from key planning agencies, leaders from each province's APINDO chapter and academics who have been tracking the respective local economies took part in it. The key takeaways from the webinars and local insights from ACI's academic collaborators are summarized in the provincial commentaries found in the final chapter of this book.

Acknowledgments

Since 2013, the Asia Competitiveness Institute (ACI) has been providing a yearly update to our flagship study on the provincial and regional competitiveness in Indonesia. This current study was supervised by Dr Zhang Xuyao, led by Doris Liew Wan Yin and Clarice Handoko, with the support of Hilda Kurniawati and Arief Rizky Bakhtiar. This project was initially facilitated by former Co-Director of ACI, Professor Tan Khee Giap.

This year's *Annual Competitiveness Analysis and Impact of COVID-19 on Sub-National Economies of Indonesia* includes a review of the Indonesian economy's situation during the unprecedented global pandemic. This would not have been possible without the timely participation of longstanding representatives from Indonesia's provincial governments, academics and business stakeholders from the Indonesian Employers' Association (APINDO) across 34 provinces of the country. Apart from their contributions to the perception-based data for the annual dataset, the team also greatly appreciates the insights they provided during the webinar series, *The Inaugural Provincial Dialogue on the Economy and Development 2020*.

Our research findings have also benefitted greatly from the constructive feedback and criticism of our preliminary findings presented during the *2019 World Bank – Asia Competitiveness Institute Annual Conference on “Urbanization Drive and Quality Adjusted Labour Contributions to GDP”* from 18-19 November 2019. We would like to thank Professor Firmansyah, the Deputy Dean (Academic and Student Affairs) of Diponegoro University, Central Java, Indonesia, whose discussion notes have been included in this book.

The coordination and execution of field trips would not have been possible without the research and administrative team at ACI, including Yap Xin Yi, Cai Jiao Tracy, Nurliyana Binte Yusoff, Dewi Jelina Ayu Binte Johari and Shanty Citra Eka Vebriani, for ensuring the smooth running of the fieldwork phase. We are also grateful for the efforts of our student research assistants: Andika Eka Satria, Hylda Damayanti Puspida, Tommy Des Muliarta, Dimas Fauzi and Tanya Edwina Belatur.

We would also like to note with great appreciation the contributions from ACI Director Professor Paul Cheung and the research staff, including Dr Xie Taojun, Dr Bian Xiaochen, Tan Kway Guan, Sky Chua Jun Jie, Sumedha Gupta, Mao Ke, Cheah Wen Chong and Sunena Gupta during the research process.

Last but not least, we are immensely grateful for the encouragement from Professor Danny Quah (Dean), Professor Khong Yuen Foong (Vice Dean, Research and Development), Kadir Suzaina (Vice Dean, Academic Affairs) and other colleagues from the Lee Kuan Yew School of Public Policy for making this effort possible. Ultimately, we are indebted to the generous research funding from the Singapore Ministry of Trade and Industry, without which we would not have been able to produce such an extensive research.

List of Abbreviations

ACI	Asia Competitiveness Institute
AFC	Asian Financial Crisis
AI	Artificial Intelligence
APBD	Provincial Budget (<i>Anggaran Pendapatan dan Belanja Daerah</i>)
APBN	State Budget (<i>Anggaran Pendapatan dan Belanja Negara</i>)
APINDO	Indonesian Employers' Association (Asosiasi Pengusaha Indonesia)
APTB	Integrated Bus Network (<i>Angkutan Perbatasan Terintegrasi Bus TransJakarta</i>)
ASEAN	Association of Southeast Asian Nations
BAPPENAS	National Development Planning Agency (<i>Badan Perencanaan Pembangunan Nasional</i>)
BBK	Batam, Bintan and Karimun
BI	Bank of Indonesia
BIG	Geospatial Information Agency (<i>Badan Informasi Geospasial</i>)
BKPM	Indonesian Investment Coordinating Board (<i>Badan Koordinasi Penanaman Modal</i>)
BPS	Central Bureau of Statistics (<i>Badan Pusat Statistik</i>)
BRICS	Brazil, Russia, India, China and South Africa
CEIC	Census and Economic Information Center
CIVETS	Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa
CMEA	Coordinating Ministry for Economic Affairs
COVID-19	Novel Coronavirus Disease
CPO	Crude Palm Oil
CV	Coefficient Variation
DAD	Dayak Customary Council (<i>Dewan Adat Dayak</i>)
DDI	Domestic Direct Investments
DI	Special Region (<i>Daerah Istimewa</i>)
DKI	Special Capital Region (<i>Daerah Khusus Ibukota</i>)
DPD	Regional Representative Council (<i>Dewan Perwakilan Daerah</i>)
DPR	People's Representative Council (<i>Dewan Perwakilan Rakyat</i>)
DPRD	Regional People's Representative Council (<i>Dewan Perwakilan Rakyat Daerah</i>)
E7	China, India, Brazil, Russia, Mexico, Indonesia and Turkey
EAGLEs	Initial grouping comprised of Brazil, China, Egypt, India, Indonesia, South Korea, Mexico, Russia, Taiwan, and Turkey. Members are updated frequently.
EoDB	Ease-of-Doing Business
EDB	Economic Development Board

EEZ	Exclusive Economic Zone
EU	European Union
FBMC	Financial, Businesses and Manpower Conditions
FDI	Foreign Direct Investments
Forkopimda	Regional Leaders Coordination Forum (<i>Forum Koordinasi Pimpinan Daerah</i>)
FTA	Free Trade Agreement
FTZ	Free Trade Zone
FRAND	Fair, Reasonable and Non-Discriminatory
G7	Group of Seven
Gerindra	Great Indonesia Movement Party (<i>Partai Gerakan Indonesia Raya</i>)
Golkar	Party of the Functional Group (<i>Partai Golongan Karya</i>)
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GERD	Gross Expenditure on Research and Development
GFC	Global Financial Crisis
GFCF	Gross Fixed Capital Formation
GIS	Government and Institutional Setting
GRDP	Gross Regional Domestic Product
GNI	Gross National Income
Hanura	People's Conscience Party (<i>Partai Hati Nurani Rakyat</i>)
HDI	Human Development Index
IAP	International Advisory Panel
ICOR	Incremental Capital Output Ratio
IDI	Indonesian Democracy Index
IHSG	Indonesian IDX Composite
IIPG	Indonesian Institute for Public Governance
ILO	International Labour Organisation
INDO- DAPOER	Indonesia Database for Policy and Economic Research
IMD	International Institute for Management Development
IMF	International Monetary Fund
JORR	Jakarta Outer Ring Road
KBM	New Independent City (<i>Kota Baru Mandiri</i>)
KEEZ	Kendal Exclusive Economic Zone
KIPI	International Port Industrial Area (<i>Kawasan Industry Pelabuhan Internasional</i>)
KPK	Corruption Eradication Commission (<i>Komisi Pemberantasan Korupsi</i>)
KPPOD	Regional Autonomy Watch (<i>Komite Pemantauan Pelaksanaan Otonomi Daerah</i>)
KSPI	Indonesian Trade Union Confederation
LKPD	Provincial Government Financial Report (<i>Laporan Keuangan Pemerintah Daerah</i>)

LKPP	Central Government Financial Report (<i>Laporan Keuangan Pemerintah Pusat</i>)
LKYSPP	Lee Kuan Yew School of Public Policy
LRT	Light Rail Transit
MBTK	Maloy Batuta Trans Kalimantan
MINT	Mexico, Indonesia, Nigeria and Turkey
MNC	Multi-National Corporation
MOU	Memorandum of Understanding
MP3EI	Masterplan for Acceleration and Expansion of Indonesia's Economic Development (<i>Master Plan Percepatan dan Perluasan Pembangunan Indonesia</i>)
MRT	Mass Rapid Transit
MS	Macroeconomic Stability
MSME	Micro, Small and Medium Enterprise
N-11	Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, Turkey, South Korea, Vietnam
NasDem	National Democrat Party (<i>Partai Nasional Demokrat</i>)
NCICD	National Capital Integrated Coast Development
NTFPs	Non-Timber Forest Products
NPL	Non-Performing Loans
NSDC	National SEZ Development Council
NU	Revival of the Ulama (<i>Nahdlatul Ulama</i>)
NUS	National University of Singapore
NWC	National Wage Council
OECD	Organisation for Economic Co-operation and Development
OJK	Monetary Authority of Indonesia
OLS	Ordinary Least Squares
ORTD	Online Real Time Digital
p.a.	Per Annum
PAN	National Mandate Party (<i>Partai Amanat Nasional</i>)
PBB	Crescent Star Party (<i>Partai Bulan Bintang</i>)
PDIP	Indonesian Democratic Party of Struggle (<i>Partai Demokrasi Indonesia-Perjuangan</i>)
PDR	People's Democratic Republic
PEN	National Economic Recovery
PKB	National Awakening Party (<i>Partai Kebangkitan Bangsa</i>)
PKPI	Indonesian Justice and Unity Party (<i>Partai Keadilan dan Persatuan Indonesia</i>)
PKS	Prosperous Justice Party (<i>Partai Keadilan Sejahtera</i>)
PLTA	Hydroelectric Power Plant (<i>Pembangkit Listrik Tenaga Air</i>)
PP	Government Regulation (<i>Peraturan Pemerintah</i>)
PPP	The United Development Party (<i>Partai Persatuan Pembangunan</i>)
PSBB	Large Scale Social Restriction

PSDC	Provincial SEZ Development Council
PSI	Indonesian Solidarity Party (<i>Partai Solidaritas Indonesia</i>)
PTEM	Productivity Tracking and Efficiency Monitoring
PTFI	PT Freeport Indonesia
PTSP	National Single Window for Investment (<i>Pelayanan Terpadu Satu Pintu</i>)
PVC	Present Value Constraint
PwC	PricewaterhouseCoopers
q-o-q	quarter-on-quarter
QALI	Quality Adjusted Labour Index
QLID	Quality of Life and Infrastructure Development
RPJMD	Regional Medium Term Development Planning (<i>Rencana Pembangunan Jangka Menengah Daerah</i>)
RPJMN	National Medium Term Development Plan (<i>Rencana Pembangunan Jangka Menengah Nasional</i>)
RUPM	General Investment Plan (<i>Rencana Umum Penanaman Modal</i>)
RZWP3K	Coastal and Small Islands Zonation Planning (<i>Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil</i>)
SAKIP	Government Performance. Accountability System (<i>Sistem Akuntabilitas Kinerja Instansi Pemerintah</i>)
SDG	Sustainable Development Goals
SEDA	Special Economic Development Areas
SEZ	Special Economic Zone
SIPD	Regional Development Information System (<i>Sistem Informasi Pembangunan Daerah</i>)
SM	Sei Mangkei
SME	Small and Medium Enterprise
SVI	Standard Value of Indicators
TK	Tanjung Kelayang
TL	Tanjung Lesung
UNDP	United Nations Development Programme
US	United States
VAT	Value-Added Tax
VECM	Vector Error Correction Model
VISTA	Vietnam, Indonesia, South Africa, Turkey and Argentina
WCY	World Competitiveness Yearbook
WEF	World Economic Forum
WHO	World Health Organization
y-o-y	year-on-year

List of Provinces

	Name of Province in English	Name of Province in Bahasa	Region
1	Aceh	Aceh	Sumatra
2	Bali	Bali	Bali-Nusa Tenggara
3	Bangka Belitung Islands	Kepulauan Bangka Belitung	Sumatra
4	Banten	Banten	Java
5	Bengkulu	Bengkulu	Sumatra
6	Central Java	Jawa Tengah	Java
7	Central Kalimantan	Kalimantan Tengah	Kalimantan
8	Central Sulawesi	Sulawesi Tengah	Sulawesi
9	DI Yogyakarta	DI Yogyakarta	Java
10	DKI Jakarta	DKI Jakarta	Java
11	East Java	Jawa Timur	Java
12	East Kalimantan	Kalimantan Timur	Kalimantan
13	East Nusa Tenggara	Nusa Tenggara Timur	Bali-Nusa Tenggara
14	Gorontalo	Gorontalo	Sulawesi
15	Jambi	Jambi	Sumatra
16	Lampung	Lampung	Sumatra
17	Maluku	Maluku	Maluku-Papua
18	North Kalimantan	Kalimantan Utara	Kalimantan
19	North Maluku	Maluku Utara	Maluku-Papua
20	North Sulawesi	Sulawesi Utara	Sulawesi
21	North Sumatra	Sumatera Utara	Sumatra
22	Papua	Papua	Maluku-Papua
23	Riau	Riau	Sumatra
24	Riau Islands	Kepulauan Riau	Sumatra
25	South Kalimantan	Kalimantan Selatan	Kalimantan
26	South Sulawesi	Sulawesi Selatan	Sulawesi
27	South Sumatra	Sumatera Selatan	Sumatra
28	Southeast Sulawesi	Sulawesi Tenggara	Sulawesi
29	West Java	Jawa Barat	Java
30	West Kalimantan	Kalimantan Barat	Kalimantan
31	West Nusa Tenggara	Nusa Tenggara Barat	Bali-Nusa Tenggara
32	West Papua	Papua Barat	Maluku-Papua
33	West Sulawesi	Sulawesi Barat	Sulawesi
34	West Sumatra	Sumatera Barat	Sumatra

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Chapter 1

Introduction

Doris Liew Wan Yin and Hilda Kurniawati

1.1 Structure and Content of the Book

This book introduces Indonesia's economy to the reader and presents the results of ACI's most updated series of research projects on Indonesia's sub-national economies. Aside from the annual competitiveness analysis and simulation studies of Indonesia's provinces and regions, this edition will include a survey analysis of Indonesia's businesses amid COVID-19 along with commentaries on the recent developments of selected Indonesian provinces in 2020.

The book comprises five chapters, including this introductory chapter that serves as a roadmap for the reader. The content of the next four chapters is summarized below to provide a snippet to the rest of the book.

Chapter 2 provides the annual update of Indonesia's provincial competitiveness analysis, which is one of ACI's flagship research projects. The index evaluates competitiveness as a composite of four environments, spanning: (i) Macroeconomic Stability, (ii) Government and Institutional Setting, (iii) Financial, Businesses and Manpower Conditions as well as (iv) Quality of Life and Infrastructure Development.

As shown in Table 1.1, the special capital region (DKI) Jakarta occupies first place in Overall Competitiveness, as it has been for the past eight years since the annual analysis was first published in 2013, while East Java remains as the second most competitive. Overall, it can be seen that provinces in the Java region tend to occupy the top-end of the table, with the top four provinces coming from there. Meanwhile, provinces in the Bali-Nusa Tenggara and Maluku-Papua regions tend to occupy the bottom-end. The performance of provinces in the Kalimantan, Sulawesi, Sumatra as well as Bali and Nusa Tenggara regions tends to be mixed.

Chapter 3 provides a competitiveness analysis of Indonesian regions. It applies the same framework used in Chapter 2 on six regions of Indonesia, where each region is an aggregation of several provinces based on their major island groupings. Consistent with the findings at the provincial level presented in Chapter 2, we observe that the Java region tops the performance on competitiveness, while the Maluku-Papua region holds the last place, as has been the case for the past few years. While the overall rankings remain

Table 1.5: Highlights of ACI's 2020 Overall Competitiveness Ranking of Indonesian Provinces, (Top-Five and Bottom-Five Provinces)

2020 Overall Competitiveness		Province	Region
Rank	Std. Scores		
1	2.629	DKI Jakarta	Java
2	2.241	East Java	Java
3	1.612	Central Java	Java
4	1.591	East Kalimantan	Kalimantan
5	1.551	West Java	Java
...
30	-1.058	Bangka Belitung Islands	Bali-Nusa Tenggara
31	-1.064	West Sulawesi	Sulawesi
32	-1.084	North Maluku	Maluku-Papua
33	-1.294	West Papua	Maluku-Papua
34	-1.301	East Nusa Tenggara	Bali-Nusa Tenggara

unchanged, 2020's results yield interesting observations at the environment level. Our findings here show that Kalimantan and Maluku-Papua regions are making headway towards higher competitiveness level. Readers interested to delve further into this discovery can find its evidence presented in Chapter 3.

Chapter 4 presents ACI's study on Indonesian firms' economic and business sentiments amidst the COVID-19 pandemic. The research team surveyed Indonesian firms in 26 provinces to assess their perceptions on business conditions and future recovery from the pandemic-induced economic downturn.

Chapter 5 provides an overview of recent developments in selected provinces of Indonesia. The chapter is co-written with ACI's longstanding academic partners in the provinces who have also made our yearly survey (discussed in Chapter 2) possible. In the compilation of commentaries, local academics provide key insights to the provincial variations and responses to COVID-19.

As Indonesia braces herself through the ongoing COVID-19 pandemic, it is important not to lose sight of her progress and her regional economy's diverse comparative advantage. ACI's contribution lies in the empirical and policy guidance it provides for Indonesia's policymakers, academics and business owners as they navigate through the crisis. This compilation of situational analysis, competitiveness review, business survey and local academic assessment serves as a useful toolkit for readers seeking to understand Indonesia's state of affairs and policy direction in the current crisis.

1.2 Indonesia in 2020

2020 marked an unprecedented year with the onset of the COVID-19 pandemic. First reported in Indonesia in the capital city of DKI Jakarta, the virus soon spread across the Indonesian islands, sparking a series of healthcare crisis. In a country where healthcare quality is low by international standards, the healthcare sector was severely underprepared to contain the pandemic.¹ A greater concern was the spread of the virus to the less developed parts of Indonesia with even weaker health infrastructure. The cumulative infection count surpassed one million persons, or 0.3 percent of its population, on 26 January 2021. At the same time, more than 28,000 deaths were recorded (COVID-19 Taskforce 2021). The weekly number of tests per confirmed case of infection hovered between 3.8 to 9.2 from March 2020 to February 2021. This is below the benchmark set by the World Health Organization (WHO) of between 10 to 30 tests administered per confirmed case (Ghebreyesus 2020), underlining a system that has much room for improvement.

Although the government has attempted to strike a balance between sustaining the economy and protecting public health, COVID-19 response measures have nevertheless impacted the economy negatively. The latest Gross Domestic Product (GDP) figure shows that Indonesia's economy has been in the red for three consecutive quarters since the second quarter of 2020 (BPS-Statistics Indonesia 2021).

Analysing Indonesia's economy will hence be useful for all stakeholders to navigate through the current crisis. National-level analyses of Indonesia's economy has, in the past, been conducted widely by global organizations such as the World Bank and World Economic Forum, but data and analysis is lacking at the sub-national level. The Asia Competitiveness Institute's (ACI) study on Indonesia's 34 provinces seeks to fill this knowledge gap.

1.2.1 COVID-19 Landscape in Indonesia

1.2.1.1 COVID-19 Timeline in Indonesia

On 2 March 2020, the first two COVID-19 cases were detected in the country (Ministry of Health 2020). The emergence of the disease in Indonesia pushed the authorities to acknowledge the pandemic as a Public Health Emergency on 31 March 2020 and the government released a Presidential Decree through the Government Regulation No. 21 of 2020 on Large Scale Social Restriction (PSBB) (See Figure 1). The regulation allows provincial governments to impose PSBB in times of emergency. PSBB involves school and workplace closure and restrictions of activities in public spaces (COVID19 Taskforce 2021). A second restriction was imposed during Eid-al-Fir that took place in May 2020. It is Indonesia's largest annual event celebrated by the Muslim majority. Traditionally, migrant workers would return to their home province for the celebration with their

¹ Indonesia is ranked 96 out of 140 countries under Health pillar in Global Competitiveness Report 2019 (World Economic Forum 2019).

families, resulting in the mass movement of millions from economic centres in the Java region to the rest of Indonesia (Rozié 2020). This mass movement of people across provinces would risk spreading the virus further, hence prompting the government to ban cross-province travel from 24-31 May 2020.

Figure 1.1: COVID-19 Timeline in Indonesia

Date	Timeline
2-Mar-20	First confirmed COVID-19 cases in Indonesia
31-Mar-20	Presidential Decree to enable provincial governments to impose Large Scale Social Restriction (PSBB)
24-Apr-20	Mudik Ban
31-May-20	Announced a National Economic Recovery Programme (PEN)
11-May-20	Increased PEN budget to Rp695.2 trillion (US\$ 49.5 billion)
16-Jun-20	Established the Committee for COVID-19 Mitigation and the National Economic Recovery (KPCPEN)
25-Jul-20	Jakarta reimposed Large Scale Social Restriction (PSBB) due to spike in the daily cases and fatalities in the Capital City
14-Sep-20	Mandatory requirements for Rapid Antigen Test for travelers coming to Jakarta and West Java, as well as PCR Swab test for Bali
18-Dec-20	Arrival of 1.8 million Sinovac COVID-19 vaccine in Indonesia
31-Dec-20	Closed borders to international visitors for two weeks to prevent the spread of the more contagious COVID-19 variant
1-Jan-21	Public activity restrictions (PPKM) enforced in Java and Bali
11-Jan-21	COVID-19 vaccination programme kicked off targeting 1.1 million health workers, marked by President Jokowi's first vaccine injection
-	PPKM in Java and Bali extended to Feb 8 due to continued high COVID-19 cases
25-Jan-21	Indonesia registered 1.012 million cumulative COVID-19 cases
13-Jan-21	The second stage of vaccination program kicked off, targeting elderly and public service workers
21-Jan-21	
27-Jan-21	
17-Feb-21	

Addressing the economic impacts of the pandemic, the national government introduced the National Economic Recovery (PEN) programme on 11 May 2020, under Government Regulation No. 23 of 2020, targeting affected firms, workers and households. The details of the programme will be outlined in the next section.

As the number of COVID-19 cases continued to rise, the national and provincial

governments implemented various movement restriction measures from the second half of 2020, with some of these set to continue into the first half of 2021. As shown in Figure 1.1, prominent measures include the PSBB in DKI Jakarta in September 2020, the mandatory negative test requirements for travellers entering Jakarta, West Java and Bali, and Restrictions on Community Activities (PPKM) like those in Java and Bali from 11 – 25 January 2021. In addition, the government closed the borders to international visitors from 1-14 January 2021 to prevent the spread of the new and more contagious B119 COVID-19 variant (COVID19 Taskforce 2021). Despite these measures, Indonesia's cases have continued to rise, reaching 1.012 million cases on 27 January 2021.

Nevertheless, the availability of vaccines offers hope that over the next couple of months, the number of COVID-19 infections could be reduced. Indonesia received 1.2 million doses of Sinovac vaccine in early December 2020 and obtained 1.8 million more on 31 December 2020 (COVID19 Taskforce 2021). The vaccination drive in Indonesia kicked off on 13 January 2021 and aimed to vaccinate 1.1 million health workers in its first phase. The second phase that began on 17 February 2021 at Tanah Abang Market aims to inoculate 55,000 traders, 16.9 million public service workers and 21.5 million elderly in Indonesia (COVID19 Taskforce 2021).

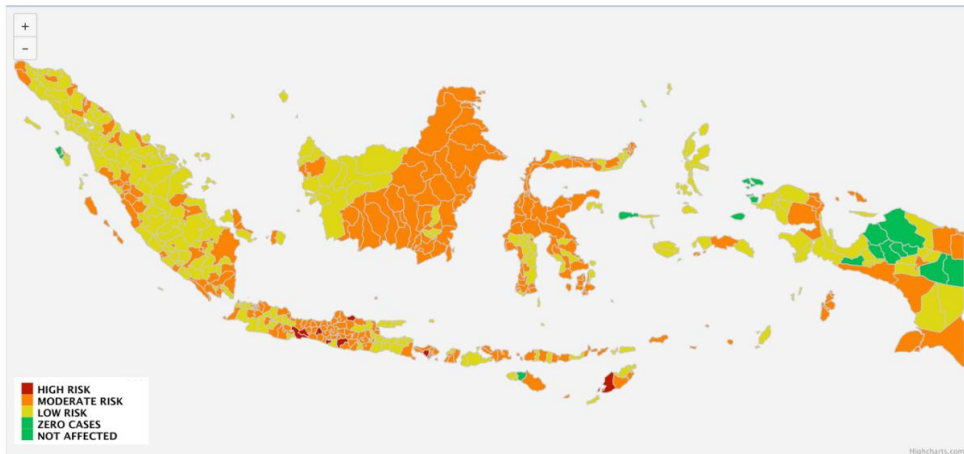
1.2.1.2 Distribution of COVID-19 Cases across Indonesia

As described in the earlier section, a high number of COVID-19 cases have been recorded in Indonesia. Notably, the distribution of cases has been highly uneven. As seen from the risk zonation map (Figure 1.2), places with high and moderate risks are more likely to be located in Java island. This is further illustrated in Figure 1.3 where COVID-19 cases are concentrated in several provinces, such as DKI Jakarta, West Java, Central Java, East Java and South Sulawesi. Common characteristics shared by these provinces are high population density, presence of industrial centres and high global interconnectedness.

According to the Indonesian Trade Union Confederation (KSPI), rapid transmission of the disease was found in several companies in the automotive and electronics sectors as well as in labour-intensive firms, such as textile, garment and shoe factories (CNN Indonesia 2020). These clusters mostly occurred in factories that are located in the industrial areas, such as Karawang, Bogor and Bekasi (West Java), Tangerang and Serang (Banten), as well as Sidoarjo (East Java). An example of such a cluster was an outbreak in 34 factories in Karawang Industrial Estate (West Java), which resulted in a sharp increase in the COVID-19 fatality rate (Republika 2020). These clusters were a corollary of poor health and safety distancing protocols in the industrial areas (CNN Indonesia 2020).

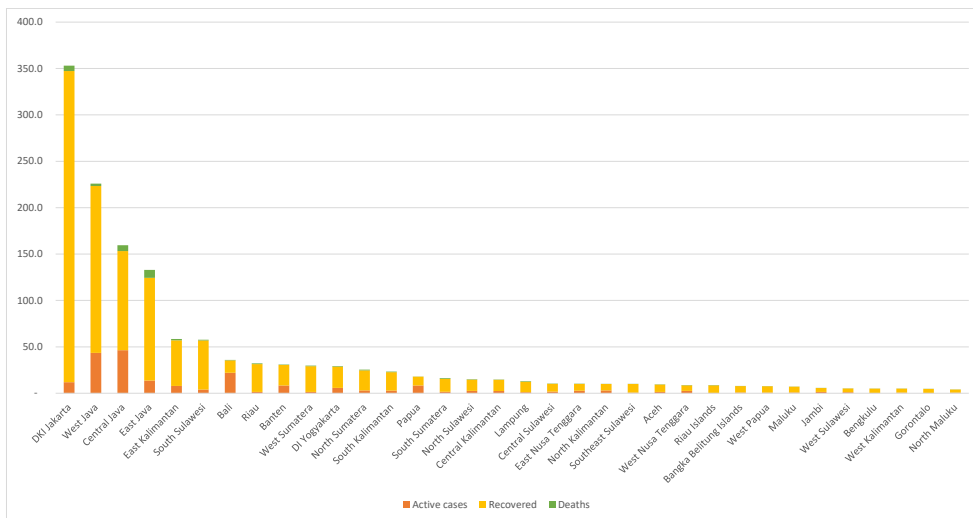
Global interconnectedness is also another important factor that may have increased the number of COVID-19 cases in these cities that saw greater volumes of international travel. According to Bowen and Laroe (2006), a similar scenario had played out during the 2003 SARS outbreak, where air transport was identified as one of the key factors for high disease transmissibility.

Figure 1.2: Risk Zonation of COVID-19 in Indonesia



Source: Covid19 Taskforce (2021)

Figure 1.3: COVID-19 Distribution across 34 Indonesian Provinces, by thousand cases



Source: Covid19 Taskforce (2021)

1.2.1.3 Indonesia’s National Policies and Stimulus Programme

The Indonesian government allocated Rp695.2 trillion for the National Economic Recovery (PEN) programme in June 2020. As of December 2020, the government had spent Rp579.8 trillion, or 83.4 percent of the total budget. Table 1.2 specifies a list of Indonesia’s national policies and stimulus programmes for COVID-19.

Table 1.6: COVID-19 National Policies and Stimulus Programmes

Policy Area	National Policies and Stimulus Programmes
Health sector	<ul style="list-style-type: none"> ● Purchase of essential medical equipment ● Upgrade of referral hospitals and quarantine facility, including <i>Wisma Atlet</i> ● Upgrade of referral hospitals and quarantine facility, including <i>Wisma Atlet</i> ● Health incentives for health workers in referral hospitals in central & district areas ● Death benefits for health workers ● Subsidies for Covid-19 patients' treatment fee
Social protection	<ul style="list-style-type: none"> ● Family Hope Programme (<i>Program Keluarga Harapan</i>) ● Basic food assistance programme (<i>Kartu Sembako</i>) ● Cash assistance (<i>Bantuan Sosial Tunai</i>) ● Electricity discounts ● Village fund programme (<i>Program Dana Desa</i>) ● Pre-employment cards (<i>Kartu Pra Kerja</i>)
MSME sector	<ul style="list-style-type: none"> ● Fund placement ● Interest subsidy ● Loan structuring and guarantee programme
Tax and fiscal incentives	<ul style="list-style-type: none"> ● Removal of individual income tax for particular sectors ● Removal of income tax on import and reduction in corporate income tax rates for small and medium industries ● Electricity discount for industries
Education sector	<ul style="list-style-type: none"> ● Internet quota subsidy for students and teachers

Health sector

The government spent Rp47.05 trillion for various health incentive programmes in 2020. Additionally, the government provided a monthly incentive for healthcare personnel working in the COVID-19 referral hospitals, ranging from Rp5-15 million per health worker, depending on their role and rank in the health service. Death insurance of up to Rp300 million per health worker was also provided. Both the 2020 State and Regional Budgets also allocated funds for COVID-19 treatment fees for their respective populations.

Social Protection

As of December 2020, the government had spent the budget of Rp220.39 trillion for various social protection programmes. The coverage and budget realization of these programmes are described in Table 1.3 below:

Table 1.7: Indonesia's COVID-19 Social Protection Programmes

Social protection program	Coverage	Budget Realization in 2020 (in IDR and percent of target)
Family Hope Programme (Program Keluarga Harapan/PKH)	10 million households	Rp36.71 trillion (100 percent)
Basic food cards (Kartu Sembako)	20 million households	Rp41.56 trillion (97.59 percent)
Cash assistance (Bantuan Sosial Tunai/BST)	10 million households	Rp31.58 trillion (97.55 percent)
Electricity discounts	31.2 million households	n/a
Village fund programme (Program Dana Desa)	11 million households	Rp47.5 trillion (66.3 percent)
Pre-employment cards (Kartu Pra Kerja)	5.6 million recipients	Rp29.4 trillion (98.91 percent)

Micro, Small and Medium Enterprises

Addressing the large percentage of MSMEs in Indonesia, the government has offered financial and loan assistance to affected MSMEs. The Ministry of Finance and Monetary Authority of Indonesia (OJK) implemented the Fund Placement and Provision of Interest Subsidies in June 2020. As of December 2020, aids for MSMEs given in the form of credit restructuring (presently valued at Rp361.98 trillion), interest subsidies (Rp2.5 billion in value so far) and other funding programmes have totalled Rp1 trillion.

Tax and fiscal incentives

The PEN also includes various tax and fiscal incentives. Broadly speaking, in 2020, it sought to ease the tax burdens of labour-intensive industries, the imports of select sectors and MSMEs. Rp20.4 trillion was set aside for these efforts. Additionally, the Ministry of Industry set aside some Rp1.85 trillion to provide industries with electricity discounts and a notable 50 percent discount off electricity bills for eligible businesses from April to September 2020.

Education sector

To support distance learning amid the pandemic, the Ministry of Education and Culture has provided internet quota subsidies for 21.7 million students, 2.8 million teachers, 2.7

million university students and 161,000 university lecturers. The internet data quota assistance provided by the government consists of the general quota and the learning quota. The general quota can be used to access all mobile applications, while learning quota can only be used to access learning pages and applications registered in the Ministry of Education and Culture's website. All students received a monthly learning quota of 35 gigabyte, while teachers and lecturers received 42 gigabyte and 50 gigabyte, respectively.

1.2.2 Challenges and Opportunities during COVID-19

This section aims to highlight the challenges Indonesia faced during the pandemic and identify opportunities for growth and recovery going forward.

1.2.2.1 Challenges During COVID-19: Identifying Indonesia's Systemic Weaknesses

Poor Healthcare System as an Impediment to Effective COVID-19 Response

The efficacy of the healthcare system is pivotal in the control of disease outbreak. Experiences worldwide show two important phases for outbreak management: i) the successful control of virus spread, and ii) the effective distribution of the vaccine.

During the first phase, Indonesia struggled to cope with the virus outbreak because the healthcare system had reached its full capacity. In 2017, several health indicators showed that Indonesia's healthcare capacity was low compared to the world average: 1.2 hospital beds per 1000 population (World average: 2.9) and 0.4 physicians per 1,000 population (World average: 1.6) (World Bank 2021). Indonesia's lack of healthcare efficacy can also be seen through its low COVID-19 test rate of 3.8 to 9.2 tests per confirmed infection case, below WHO's guideline of 10 to 30 tests per confirmed case needed to accurately reflect the extent of the outbreak (World Health Organization 2020). This healthcare constraint resulted in the rapid spread of the virus and daily cases continued to rise in the second half of 2020 till early 2021.

In late 2020, biotech firms announced successful trials of the COVID-19 vaccine, building optimism that the crisis may soon pass. Indonesia has currently secured 146 million Sinovac doses, enough to inoculate a quarter of its population if two doses are required per person (UNICEF 2021). This number, however, is still below the 60-90 percent needed to achieve herd immunity.² Indonesia kicked off the first phase of its vaccination drive on 13 January 2021 inoculating 1.5 million medical workers. The second phase which began on 17 February 2021 aims to vaccinate 55,000 traders, 16.9 million public service workers and 21.5 million of those who are above 60 years old (COVID19 Taskforce 2021).

Indonesia faces two constraints in its vaccination drive. The first is securing enough vaccines to inoculate a majority of its population as soon as possible. The Economist Intelligence Unit (2021) estimated that Indonesia will only be able to secure enough vaccines to inoculate its entire population by 2023. Secondly, it is logistically demanding

² The numbers depend on the Ro rate and vaccine efficacy. For more, see Anderson et al. (2020).

to store, transport and administer the vaccine across the vast archipelago with 34 provinces that span 17,500 islands. Transporting vaccines to remote parts of Indonesia, such as Jayapura, Papua, is costly and challenging (Hutton 2021).

COVID-19's Impact on Industries: The Case of Tourism and Manufacturing

The tourism and manufacturing industries are most affected by the pandemic. Tourism is one of the key drivers of economic growth and employment in the country, identified in its Medium-Term Development Plan (RPJMN) for 2015-2019 as a priority sector. The plan aimed to increase the contribution of tourism to the economy from 4.2 percent in 2014 to 8 percent by 2019 (National Development Planning Agency 2014). The emergence of the COVID-19 pandemic thwarted the continuation of this plan, as tourism's reliance on foreign visitors made it extremely susceptible to the effects of border closures and global human mobility restrictions. 2020's international air traffic dropped to an all-time low, from 1.29 million arrivals in January 2020, to 140-170 thousand per month from April to December 2020 (BPS-Statistics Indonesia 2021). GDP for tourism-reliant sectors such as accommodation, food and beverage contracted by 10.22 percent while transportation and storage experienced a contraction of 15.04 percent. The duration of this downturn remains uncertain and will depend heavily on 1) whether the current vaccination drives would allow for border reopening, and 2) the efficacy of Indonesia's strategy to revive the tourism industry.

Another important industry for the economy is manufacturing. Based on 2019 figures, the manufacturing sector contributed to a quarter of Indonesia's GDP, the highest sectoral contribution out of 17 recorded sectors. In the same year, this sector employed 14.88 percent of Indonesian workers (BPS-Statistics Indonesia 2019). In 2020, amidst the pandemic, the global supply chain disruption caused a supply shock of raw materials, thereby delaying or reducing production. The subsequent drop in domestic demand (demand shock) and exports also affected the revenue stream of manufacturing firms. In May 2020 for instance, Indonesia's exports constituted only USD10.5 billion, the lowest performance since 2016 (BPS-Statistics Indonesia 2021). The contraction also reverberated through the labour market as employment shrunk by 8.93 percent in 2020, compared to 2019. Despite a year of negative impacts, the current climate shows signs of optimism. As global demand has rebounded and trade activity is picking up, the manufacturing sector is expected to gradually recover in 2021 (World Bank 2020).

Education Setback: Learning Losses during School Closures

The pandemic has led to closure of educational institutions, pushing over 68 million Indonesian children out of the classroom (Yarrow et al. 2020). Remote learning models such as online classrooms and video lessons have replaced physical classroom interactions between teachers and students. Yet, Indonesia's disparate internet connectivity and students' unequal access to hardware and software technologies means that not all students will be able to access online lessons and resources such as these. While home internet penetration in more advanced provincial economies such as Central Java and East Kalimantan is quite high at 98.16 percent and 97.64 percent respectively, this

figure stands only at 81.86 percent and 85.22 percent in less advanced economies such as North Maluku and West Papua respectively (BPS-Statistics Indonesia 2020b). This stark divide in digital access has led to learning losses amongst children in low-income households and those who reside in the rural areas where technological infrastructure is poor.

Such learning losses will stunt human capital development in the country and affect the future projected income of Indonesian children. A World Bank report sheds light on the potential income loss: school closure through September 2020 is estimated to cause income losses of USD222.4 billion, or Rp3.3 trillion across 68 million Indonesian children (Yarrow et al. 2020). This figure represents 19.9 percent of its 2019 GDP. Furthermore, as children in low-income households are more likely to have their education disrupted, income losses amongst them will be disproportionately higher, potentially widening income inequality. The effects of learning loss provoked by the pandemic is expected to perpetuate inequality far into the future.

1.2.2.2 Growth Opportunities During and After COVID-19

Digital Integration: Building Block for Industry 4.0

During the pandemic, digital innovation built to virtually connect workers, students and consumers thrived. The change in daily routines of many Indonesians due to home confinement resulted in the creation of new tech firms to meet new demands. As a result, Indonesia's e-commerce market was expected to increase in size by 37.4% in 2020, reaching a valuation of Rp351.1 trillion (GlobalData 2021). The Information and Communication industry also grew by 10.58% in 2020, registering the fastest rate of increase in any given year (BPS-Indonesia 2021). This fast-growing e-commerce market attracted the attention of global tech giants. Seeing potential for its future growth, Google and Temasek plan to invest USD300 million in Tokopedia, an Indonesian e-commerce firm that has gained significant market share during the pandemic. Another global tech firm, Amazon, has also announced a USD2.85 billion investment to construct three data centres in West Java, Indonesia in 2021-2022 (Medina 2020). As this digitalization trend is likely to continue post-pandemic, foreign investments into the Indonesian tech sector are expected to remain strong.

The positive trajectory of the pandemic-induced digital acceleration is complemented by the Indonesian government's policies to further support the growth of the digital economy. The Indonesian President, Joko Widodo, issued five directives: 1) increase access and improve the country's digital infrastructure; 2) devise digital transportation roadmap in strategic sectors such as government, welfare provision, education, health and trade; 3) accelerate the setting up of Indonesia's National Data Centre; 4) prioritize human capital development in the digital sector; and 5) implement supporting regulations and funding schemes for digital transformation (Office of Assistance to Deputy Cabinet Secretary for State Documents & Translation 2020).

The Ministry of Finance has allocated funds in its 2021 budget for digital learning, building technological and ICT infrastructure to improve access and quality of education

services, strengthening digital infrastructure in logistics and connectivity, accelerating digital transformation in governance and public service delivery, fostering digital technopreneurship, improving agricultural productivity using new technology and equipment, and digitalizing law enforcement and procedure (e-court) (Ministry of Finance 2020).

Preparing for The Future of Work: Skilling and Reskilling of Indonesian Workforce

Indonesia's unemployment rates hit 7.07% in August 2020, the highest since 2015. Workers were retrenched across almost all the industries, including manufacturing, construction, accommodation and food services and finance (BPS-Statistics Indonesia 2020a). The Information and Communication industry, however, saw an increase in employment of 10,000 people by August 2020 due to Indonesia's digital transformation discussed in the previous section.

The adoption of Artificial Intelligence (AI), automation and robotics, accelerated during the pandemic, requires the skilling and reskilling of the workforce to meet future industrial needs. The vision of the Indonesian government is to provide opportunities for unemployed workers to train and reskill themselves for Industry 4.0. This will be important not only for Indonesia's immediate recovery but also its long-term growth. Investment to improve the digital knowledge of workers in resilient industries such as manufacturing, healthcare and digital services will ensure a sustained economic growth.

In Indonesia's medium-term national development plan of 2020-2024 (RPJMN 2020-2024), several key initiatives are aligned with this vision. One of them is the allocation of Rp29.1 trillion for the skilling and reskilling of workers in digital skills (National Development Planning Agency 2020). The 2021 budget (Ministry of Finance 2021) further allocates Rp55.9 trillion for national programmes prioritizing human capital development to meet post-COVID-19 industrial needs.

1.3 Overview of Indonesia's Recent Economic Developments

Sections 1.3.1 to 1.3.3 describe the trends in various aspects of the nation's economy during the pandemic year.

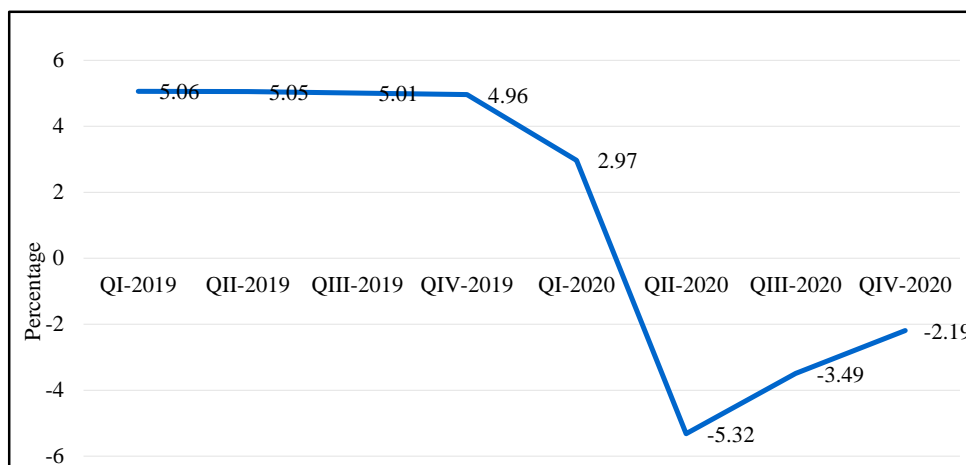
1.3.1 Growth Trends and Prospects

Measures taken by many governments in the world to mitigate the effects of the pandemic have put economic growth of countries with susceptible healthcare systems at risk (Blake and Wadhwa 2020). Economies dependent on tourism, global trade and foreign financing have also been severely disrupted in countries that experience high cases of COVID-19 (World Bank 2020). As we have seen, this is especially true for a country like Indonesia that relies heavily on global trade (37.3 percent of its GDP in 2019).

As shown in Figure 1.4, Indonesia's economic growth consistently hovered around

five percent prior to the pandemic (Q1 – Q4 2019). After COVID-19 officially emerged in March 2020, economic growth plunged to 2.97 percent in Q1 2020 and deteriorated further to -5.32 percent in Q2 2020. Nevertheless, even though growth remained negative, Q3 2020 and Q4 2020 saw some improvements, as it rose slightly to -3.49 percent and -2.19 percent respectively. In late 2020, Finance Minister Sri Mulyani noted that Indonesia is optimistic for a recovery in 2021, with the economy expected to grow 4.5 to 5.5 percent.

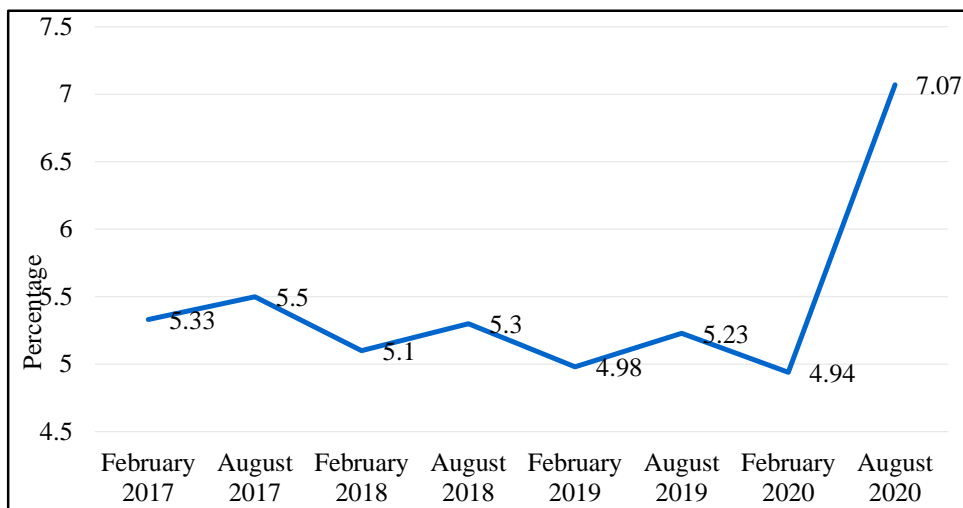
Figure 1.4: Quarterly GDP Growth (Y-o-Y), 2019 – 2020



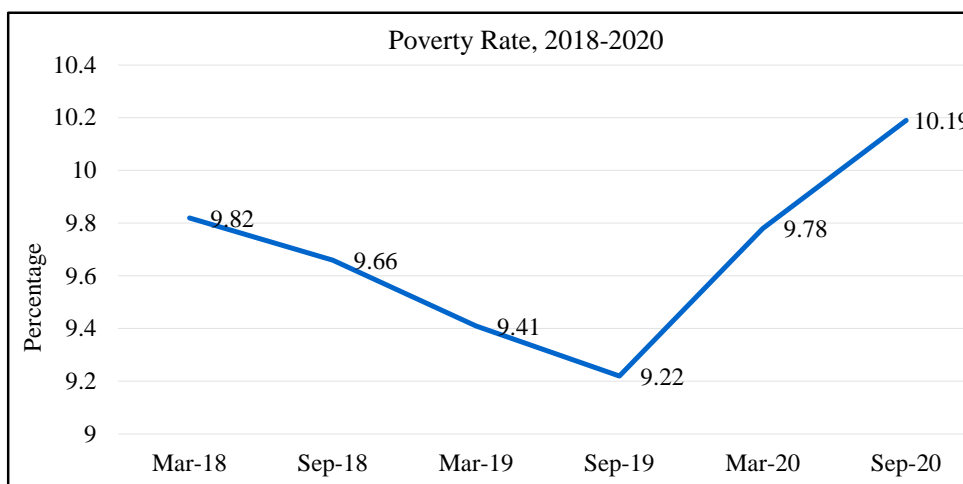
Source: BPS-Statistics Indonesia

The pandemic's effect on the labour market has been salient. Prior to the pandemic, Indonesia's unemployment rate had been decreasing. With the onset of the pandemic, unemployment escalated significantly from 4.94 percent in February 2020 to 7.07 percent in August 2020 (See Figure 1.5). According to BPS, the pandemic affected approximately 29 million workers in Indonesia, 2.56 million of whom were only recently retrenched. The sudden rise in unemployment also led to an increase in the poverty rate.³ Figure 1.6 illustrates that the pre-pandemic poverty rate in Indonesia had dropped from 9.82 percent in March 2018 to 9.22 percent in September 2019. However, these improvements were reversed over the course of 2020, with the poverty rate increasing from 9.78 percent to 10.19 percent in March and September 2020. In addition, data from the National Socio-Economic Survey data in September 2020 showed that Papua (26.8 percent), West Papua (21.7 percent) and East Nusa Tenggara (21.21 percent) were among the provinces with the highest poverty rates in Indonesia. These numbers show that the outermost regions of the country suffered most from the pandemic.

³ Poverty rate is measured by the percentage of population with income below the provincial poverty line. The provincial poverty line can be found at BPS-Statistics Indonesia.

Figure 1.5: Unemployment rate (Percentage), 2017-2020

Source: BPS-Statistics Indonesia

Figure 1.6: Poverty Rate (Percentage), 2018 – 2020

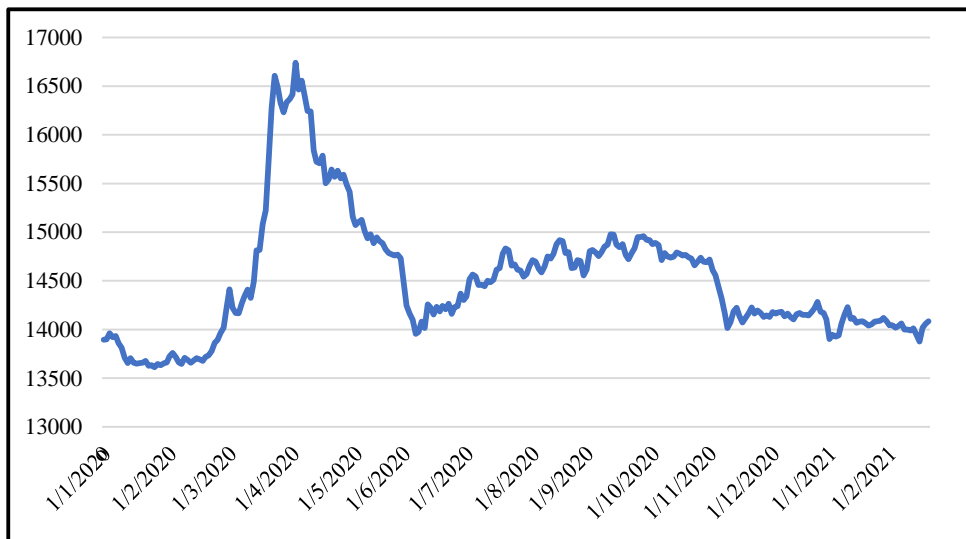
Source: BPS-Statistics Indonesia

Apart from that, the pandemic has also caused the rupiah to depreciate greatly against the dollar. As we can see from Figure 1.7, the Indonesia exchange rate stood at 14,000 (IDR/USD) at the beginning of 2020. Then, the rate depreciated sharply by 4.5 percent in April 2020 to a low of 16,608, the weakest since 1998. In February 2021, the currency recovered and returned to 14,000.

IHSG (Indonesian IDX composite) stood at 5,882 in February 2020, before falling sharply to its lowest (3,937) on 24 March 2020 (See Figure 1.8). On that day, as many as 8 out of 10 sectors in the IHSG weakened, led by miscellaneous industries (-4.57 percent) and the property sector (-2.92 percent). The continued decline of the IHSG was triggered

by low investor confidence due to: i) increasing number of COVID-19 cases in the country and ii) the adverse effects already caused by the pandemic (Mega Sekuritas 2020). As 90 percent of the domestic stock market was dominated by foreigners, the early economic effect from the pandemic resulted in panic selling and high outflow of foreign investments from Indonesia (CNN 2020). However, similar to the trend seen in the exchange rate, the IHSG was able to recover in early 2021, reaching an average level of Rp6,200. This recovery is likely to have been influenced by the January effect⁴ and positive sentiments toward the use of COVID-19 vaccines in Indonesia (Bisnis.com 2021).

Figure 1.7: Indonesia Exchange Rate against USD (IDR/USD), 2020-2021



Source: Bank Indonesia

As a continuation from the previous book, we will proceed to track and compare the economic progress between Indonesia and other fast emerging economies. Figure 1.9 illustrates the change in GDP from 2016 to 2020 in BRICS and MINT countries. Prior to 2020, most of the economies in these two regions were growing. The pandemic in 2020 caused all the economies, except China, to plunge to negative growth. The most affected country is India, where GDP growth fell from 4.2 percent in 2019 to -10.3 percent in 2020, a change of 14.5 percentage points. Indonesia's growth also dipped into the negative. However, at -1.5 percent GDP growth, it is the second least affected economy, compared to the other seven economies that have a growth rate of below -4 percent.

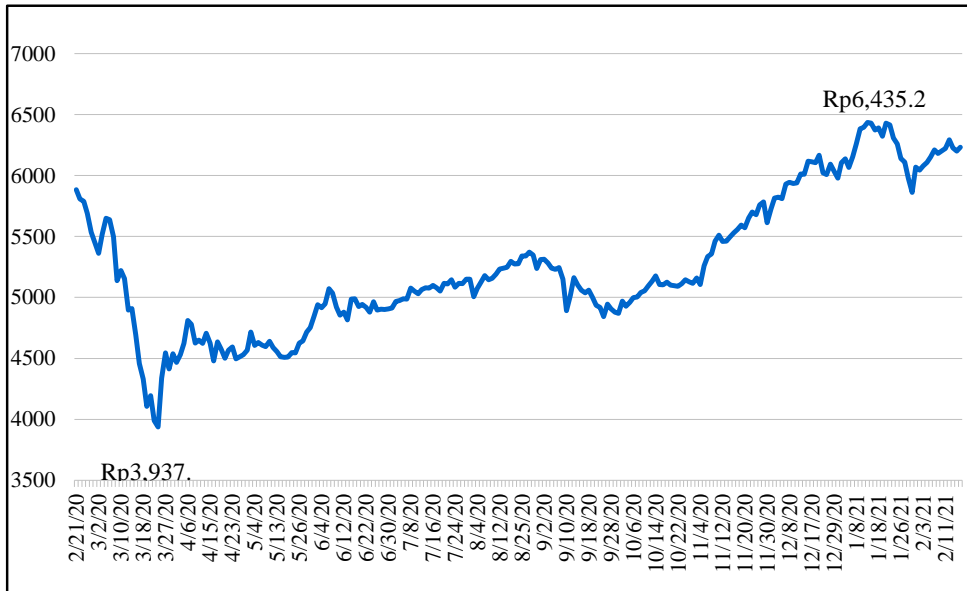
The impact of COVID-19 also reverberated through the Association of Southeast Asia Nations (ASEAN). Indonesia's economic deterioration in 2020 was moderate compared to other ASEAN members: It fared worse than Myanmar, Vietnam, Laos PDR and Brunei, but relatively less severe than the Philippines, Thailand, Malaysia, Singapore and Cambodia. As illustrated in Figure 1.10, the Philippines and Thailand were two of the

⁴ The January effect is a theory which postulates that stock prices take a dip in December and rise in January.

⁵ BRICS countries are Brazil, Russia, India, China, and South Africa.

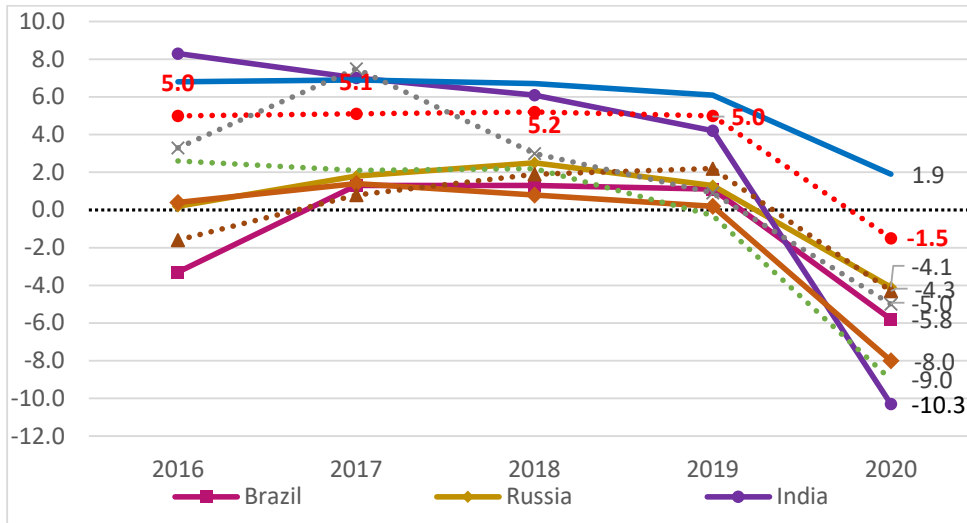
⁶ MINT countries are Mexico, Indonesia, Nigeria, Turkey.

Figure 1.8: IDX Composite, 2020-2021



Source: Bank Indonesia

Figure 1.9: GDP Growth Rate for Indonesia, BRICS⁵ Countries and MINT⁶ Countries (Percent), 2016-2020



Note: Figures for 2020 are based on preliminary data. Figures at the end of the line indicate growth rates in 2020. Dashed lines represent MINT countries.

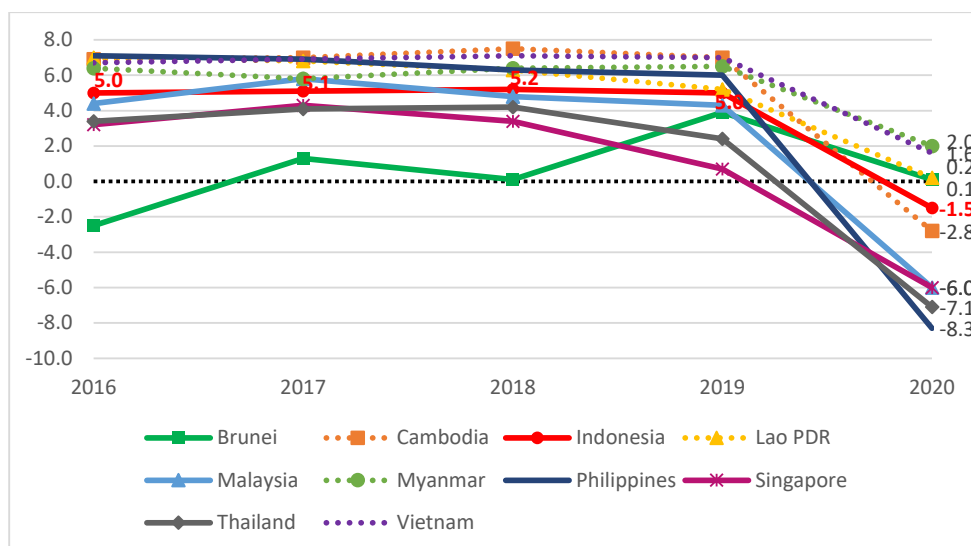
Source: International Monetary Fund

most heavily affected countries, with their GDP growth figures faltering at -8.3 percent and -7.1 percent respectively.

Figure 1.11 provides the breakdown of quarterly GDP composition by expenditure

type. This allows us to dive deeper into various aspects contributing to Indonesia's economic growth. The year 2020 saw the largest decline in household consumption, gross fixed capital formation, exports and imports, further reflecting the far-reaching effects of the pandemic. Government consumption, growing at 9.76 percent, marked the biggest increase in Q3 2020 out of all quarters from 2015-2020 due to the implementation of the COVID-19 fiscal stimulus program.

Figure 1.10: GDP Growth Rate for Indonesia and ASEAN-10 Countries (Percent), 2016-2020

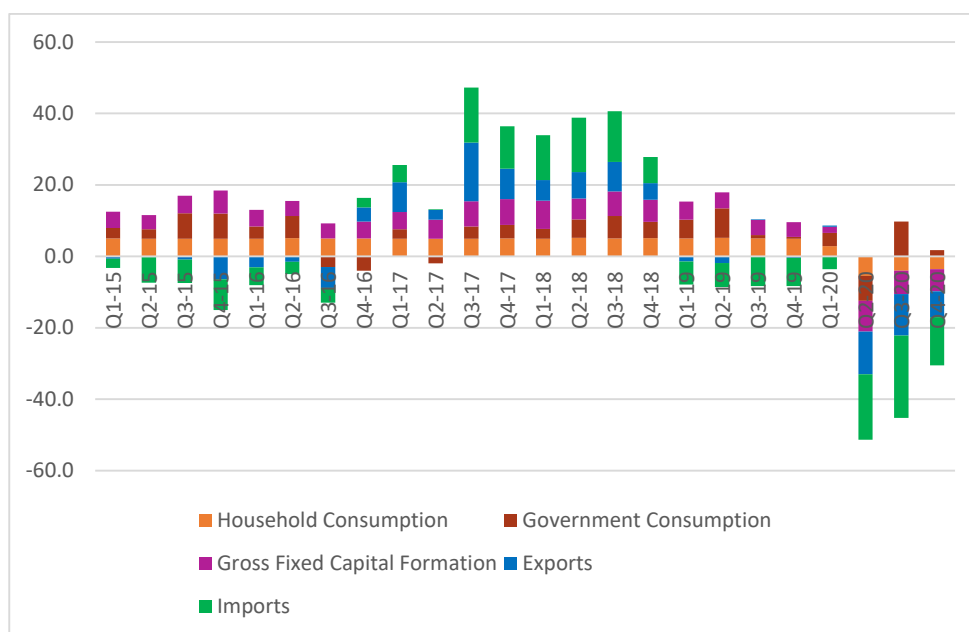


Note: Figures for 2020 are based on preliminary data. Figures at the end of the line indicate GDP growth rate in 2020. Dotted lines represent CLMV countries.

Source: International Monetary Fund

According to Figure 1.12, two sectors remained resilient in 2020. The most resilient sector was Information and Communication, which grew by 10.6 percent in 2020, higher than its 6-year average of 9.2 percent. Prior to 2020, this sector was also experiencing high growth of between 7 percent to 10 percent each year since 2015, illustrating the ongoing digitalization trend in Indonesia. The second most resilient sector was agriculture, forestry and fishery. It reaped a positive growth of 1.8 percent in 2020, albeit at a lower growth rate than previously.

The construction sector experienced the largest decline, deviating by nine percentage points from the year before. This is due to its labour-intensive nature, which made it highly vulnerable to the effect of various mobility restrictions put in place over the past year. The Wholesale and Retail Trade sector experienced the second biggest decline of 8.3 percentage (2019: 4.6 percent; 2020: -3.7 percent). This sector relies heavily on customer mobility and their spending power. The fall of these two factors due to COVID-19 may explain this drop.

Figure 1.11: GDP Growth Rate by Expenditure (Year on Year Percentage), Q1 of 2015 – Q4 of 2020

Note: Figures for 2020 are based on preliminary data.

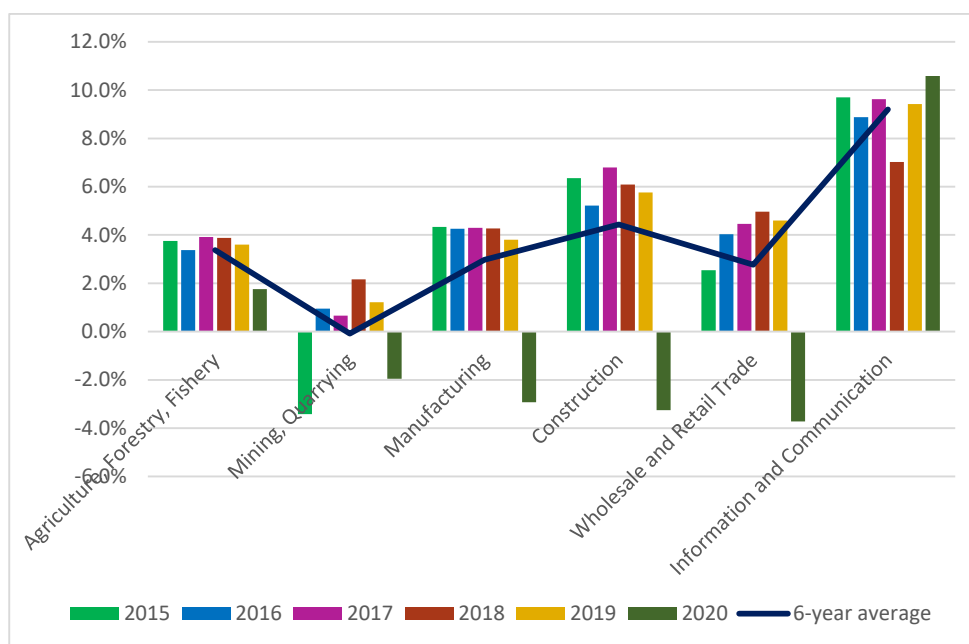
Source: BPS-Statistics Indonesia

1.3.2 Fiscal and Monetary Trends

A challenging year in 2020 warrants a closer inquiry on state finances. The degree of government expenditure on various fiscal stimulus and social support schemes is reflected in the balance sheet. Figure 1.13 shows the components of government expenditure from 2015-2020. As expected, it reflects additional spending during the pandemic. Total budget expansion in 2020 was at 10.2 percent, with additional spending allocated to personnel, goods, capital, interest payment, social assistance, grants and other expenditure.

At the same time, Indonesia was increasingly relying on tax revenue to fund its government operations. Income tax and taxes on luxury and value-added goods have always been the government's main source of revenue. Income tax increased from Rp818.6 trillion in 2019 to Rp929.9 trillion in 2020 while taxes on luxury and value-added goods increased from Rp592.8 trillion in 2019 to Rp685.9 trillion in 2020. Other tax-related revenue streams like domestic taxes increased to Rp207.3 trillion (2019: Rp192 trillion) while taxes on international trade increased to Rp42.6 trillion (2019: Rp39.8 trillion). Non-tax revenue and grants, however, experienced a decrease of 5 percent for the former and 62 percent for the latter.

Figure 1.15 illustrates Indonesia's inflation and central bank policy rate. The drop in domestic demand in 2020 resulted in low inflation rate of between 1.4 percent and -1.7 percent in the first half of 2020, below the central bank target of 3.5 ± 1 percent.

Figure 1.12: GDP Growth Rate for Top-Six Largest Industries (Year on Year Percentage), 2015-2020

Note: Figures for 2020 are based on preliminary data.

Source: BPS-Statistics Indonesia

Inflation picked up gradually in the second half of 2020 to 2.98 percent in November and December. However, this is still considered low compared to historical data. This shows that domestic demand, although it was slowly picking up, remained weak.

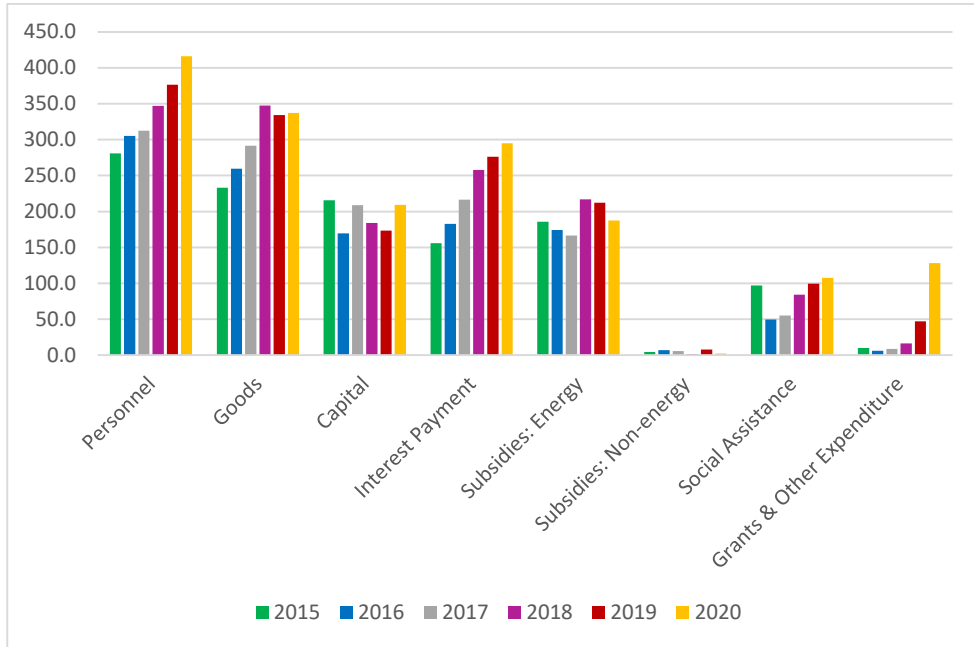
In response to the ongoing pandemic, the Central Bank of Indonesia (BI) embarked on monetary and macroprudential policies to strengthen macroeconomic stability, reduce volatility in the exchange and financial market, and support the functioning of intermediary banking (Bank Indonesia 2020). One of the most prominent strategies was reducing the BI 7-Day Reverse Repo Rate (BI7DRR).⁷ As reflected in Figure 1.15, this resulted in historically low BI7DRR throughout 2020. The rate dropped continuously, from 5 percent in the beginning of 2020 to 4.5 percent in March, 4.25 percent in June, 4 percent in July and 3.75 percent in December. It was in the interest of BI to keep policy rate low during this period to maintain a conducive environment for economic and business recovery (Bank Indonesia 2020).

1.3.3 Trade Performance and Investment Outlook

Indonesia's trade and investments are linked to the global business climate, and this is reflected in the economy's decrease in goods and services exports in 2020 (see Figure 1.16). Given the disruption of the global supply chain amid COVID-19, the year 2020

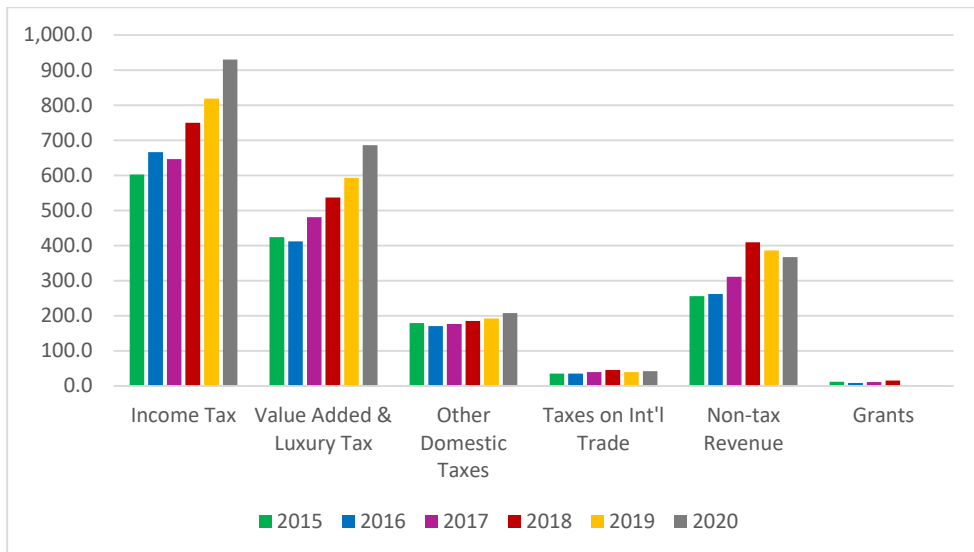
⁷ Bank Indonesia (BI)'s policy rate, commonly known as BI 7-Day Reverse Repo Rate or BI7DRR, serves as benchmark interest rate to inform public policy decisions.

Figure 1.13: Components of Actual Government Expenditure by Type (Rupiah Trillion)

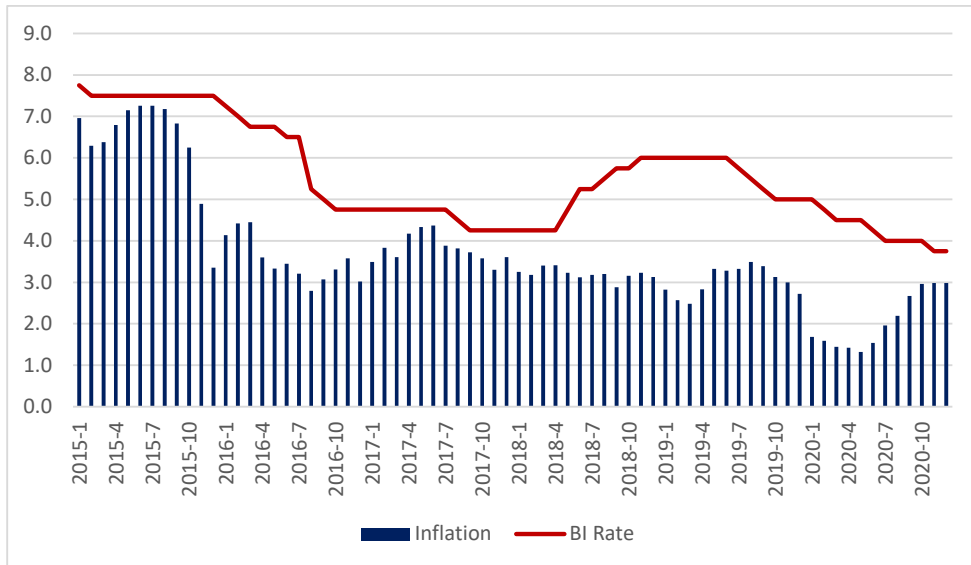


Note: Figures for 2020 are based on preliminary data.
 Source: 2020 Indonesian State Budget (APBN) report

Figure 1.14: Sources of Actual Government Revenue (Rupiah Trillion), 2014-2020

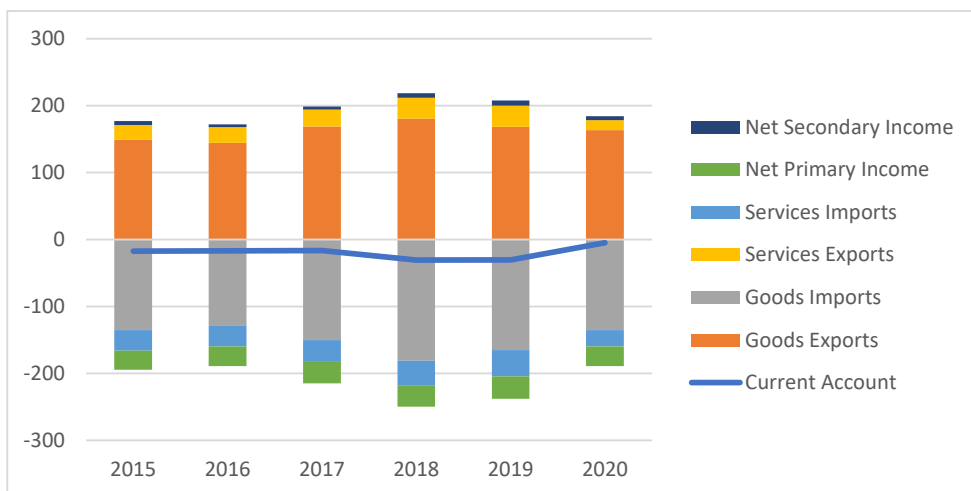


Note: Figures for 2020 are based on preliminary data.
 Source: 2020 Indonesian State Budget (APBN) report

Figure 1.15: Inflation and Central Bank Policy Rate (Percent), 2015-2020

Source: Bank Indonesia

marked the lowest exports. Goods exports declined from US\$168.5 billion to US\$163.3 billion by 2020 while services exports fell from US\$31.6 billion to US\$14.9 billion. Despite these declines, 2020's current account balance appeared substantially stronger than previous years'. This is because supplies from the local agriculture market substituted imported food to better serve its huge local consumer base (World Food Programme 2020). Thus, Indonesia's goods imports dropped by US\$29.8 billion in 2020.

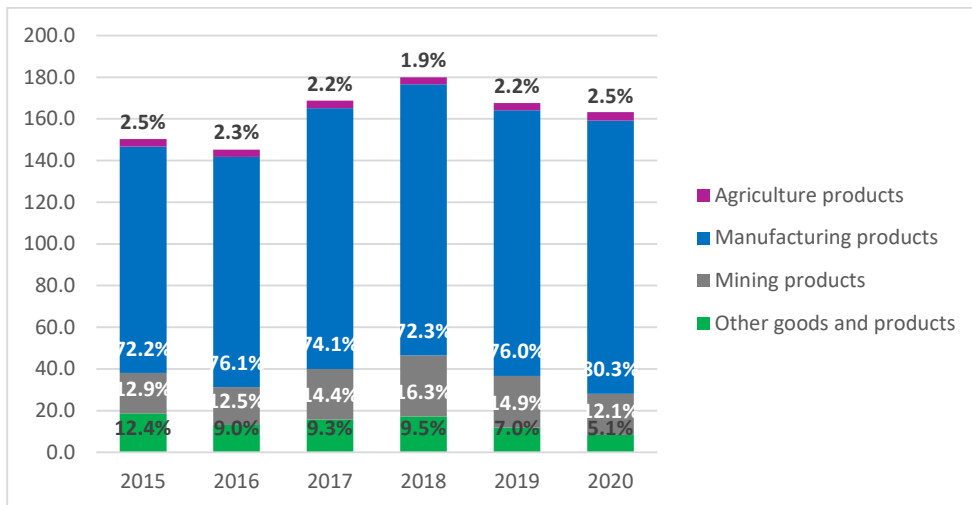
Figure 1.16: Current Account Components of Indonesia (US\$ Billion), 2015-2020

Note: Figures are in current prices. Figures for 2020 are based on preliminary data.

Source: Bank Indonesia

Figure 1.17 illustrates the value and share of goods exports by Indonesia. Manufacturing (e.g. garment) had the highest share of exported goods, increasing over two years to reach 80.3 percent in 2020. The export of agricultural products also increased its share from 2.2 percent in 2019 to 2.5 percent in 2020 due to higher global demand for food produced during COVID-19 (World Food Programme, 2020). On the other hand, the share of exports for mining products (e.g. nickel and gold) and for other goods and products (e.g. pulp and paper products) decreased in 2020.

Figure 1.17: Value and Share of Goods Exports By Type (US\$ Billion, Percent), 2015-2020



Note: Figures are in current prices. Figures for 2020 are based on preliminary data.

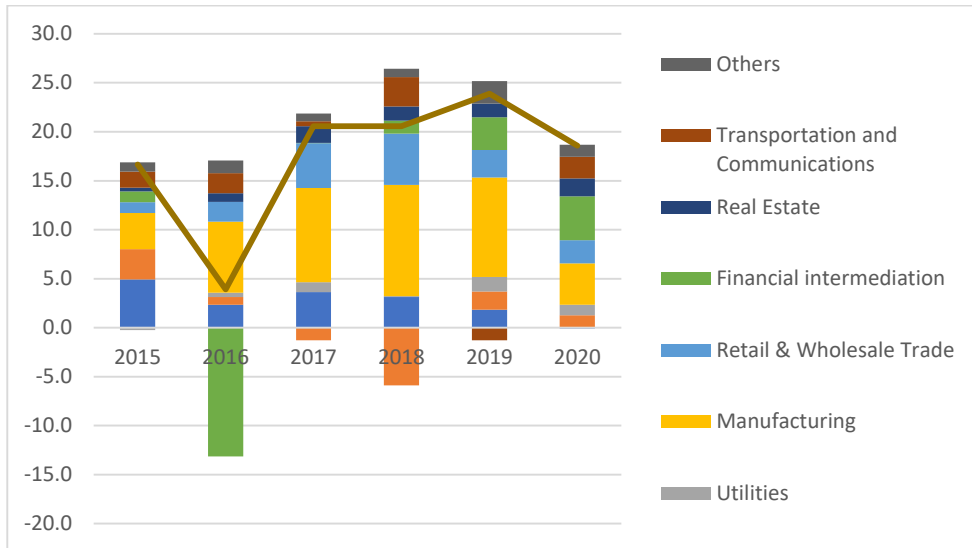
Source: BPS-Statistics Indonesia

Despite the pandemic, foreign investments in the country remained strong, with a total of US\$18.6 billion net injection of Foreign Direct Investments (FDI) in 2020, just slightly lower than the year before. It is also promising to see that all industries (except for agriculture) experienced a positive net FDI inflow. This signifies that investor confidence in Indonesia has remained strong during the current crisis, especially towards the transportation and communication sector (which includes ICT) that saw an increase from net outflow of US\$1.3 billion to net inflow of US\$2.2 billion (See Figure 1.18). As mentioned in section 1.2.2.2., the digitalization of Indonesia's businesses and initiatives taken to virtually connect workers, students and consumers have caught the eyes of global investors as they foresee that Indonesia's digital economy will continue to be the driver of its economic development.

The largest recipient of FDIs in Indonesia was the financial intermediation sector, where the net FDI inflows increased by 40 percent from US\$3.3 billion to US\$4.5 billion from 2019 to 2020. During the COVID-19 lockdown, customers and businesses flocked to e-commerce sites to buy and sell products and services. As take-up rate for e-payment grew and Indonesian consumers became open to digital finance, investors subsequently increased their investments to develop the country's financial technology. This trend is

likely to continue, with major banks such as Bank Jago ready to set up a digital bank in the country (Taja 2021).

Figure 1.18: Net FDI into Indonesia by Industry (US\$ Billion), 2015-2020



Note: Figures are in current prices. Figures for 2020 are based on preliminary data.

Source: Bank Indonesia

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