



INDONESIA
ECONOMIC
QUARTERLY

June 2019

Oceans of Opportunity

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Preface

The Indonesia Economic Quarterly (IEQ) has two main aims. First, it reports on the key developments in Indonesia's economy over the past three months, and places these in a longer-term and global context. Based on these developments and on policy changes over the period, the IEQ regularly updates the outlook for Indonesia's economy and social welfare. Second, the IEQ provides a more in-depth examination of selected economic and policy issues and an analysis of Indonesia's medium-term development challenges. It is intended for a wide audience, including policy makers, business leaders, financial market participants, and the community of analysts and professionals engaged in Indonesia's evolving economy.

The IEQ is a product of the World Bank's Jakarta office and receives editorial and strategic guidance from an editorial board chaired by Rodrigo A. Chaves, Country Director for Indonesia. The report is prepared by the Macroeconomics, Trade and Investment (MTI) Global Practice team, under the guidance of Ndiame Diop (Practice Manager) and Frederico Gil Sander (Lead Economist). Led by Derek H. C. Chen (Senior Economist and lead author), the core project team comprises Abigail, Arsianti, Dwi Endah Abriningrum, Magda Adriani, Francis Addeah Darko, Indira Maulani Hapsari, Jaffar Al-Rikabi, Ratih Dwi Rahmadanti, Maria Monica Wihardja, and Pui Shen Yoong. Administrative support is provided by Deviana Djalil. Dissemination is organized by Nugroho Sunjoyo, Jerry Kurniawan, and GB Surya Ningnagara under the guidance of Lestari Boediono Qureshi.

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Abbreviations

APBD	Anggaran Pendapatan Belanja Daerah	MAC	Marine and Coastal
APBN	Anggaran Pendapatan Belanja Negara	MCS	Monitoring, Control, and Surveillance
APEC	Asia – Pacific Economic Cooperation		
BI	Bank Indonesia	MoF	Ministry of Finance (Kemenkeu)
BLU	Badan Layanan Umum	MMAF	Ministry of Marine Affairs and Fisheries
BLUD	Badan Layanan Umum Daerah	MTP	Major Trading Partners
BPNT	Bantuan Pangan Non Tunai	Nesparnas	Neraca Satelit Pariwisata Nasional
BPS	Badan Pusat Statistik	NPISH	Non-Profit Institution Serving Households
CAD	Current Account Deficit	NPL	Non-Performing Loan
CAR	Capital Adequacy Ratio	OECD	Organization for Economic Cooperation Development
CEA	California Environmental Associates	O&G	Oil & Gas
CLIA	Cruise Lines International Association	PBI	Penerima Bantuan Iuran
EAP	East Asia and the Pacific	PIP	Program Indonesia Pintar
EMBI	Emerging Market Bond Index	PKH	Program Keluarga Harapan
EMCI	Emerging Market Currency Index	PMI	Purchasing Manager Index
EMDE	Emerging Market Developing Economics	PNBP	Penerimaan Negara Bukan Pajak
EPR	Extended Producer Responsibility	PNG	Papua New Guinea
FAO	Food and Agriculture Organization	RHS	Right Hand Side
FDI	Foreign Direct Investment	RPJMN	Rencana Pembangunan Jangka Menengah Nasional
FMP	Fisheries Management Plans	SBI	Sertifikat Bank Indonesia
FX	Foreign Exchange	Sakernas	Survei Angkatan Kerja Nasional
GDP	Gross Domestic Product	SEAFDEC	Southeast Asian Fisheries Development Center
GOI	Government of Indonesia	S&P	Standard and Poor's
GVA	Gross Value Added	SOEs	State-owned Enterprises
HBA	Harga Batubara Acuan	STO	Sustainable Tourism Observatories
ICRI	International Coral Reef Initiative	SUN	Surat Utang Negara
IMF	International Monetary Fund	Susenas	Survei Sosial Ekonomi Nasional
IPCC	International Panel on Climate Change	ToT	Terms of Trade
ISU	International Sustainability Unit	TPS	Transfer Points
IUCN	International Union for Conservation of Nature	UNESCO	United Nations Educational Scientific Cultural Organization
IUU	Illegal Unregulated and Unreported	UNWTO	United Nation World Tourism Organization
JKN	Jaminan Kesehatan Nasional	UNWTO	UNWTO International Network Sustainable Tourism Observation
KNP	Komodo National Park	INSTO	
LFPR	Labor Force Participation Rate	USD	U.S. Dollar
LGST	Luxury Goods Sales Taxes	VAT	Value Added Tax
LHS	Left Hand Side		
LKPP	Lembaga Kebijakan Pengadaan Baran/Jasa Pemerintah		
LNG	Liquified Natural Gas		

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Executive Summary: Oceans of Opportunity

In 2018, Indonesia's coordinated and prudent macroeconomic policy framework underpinned steady economic growth, amid global volatility and several natural disasters. Real GDP growth strengthened to 5.2 percent yoy in 2018 from 5.1 percent in 2017. Growth decelerated only slightly in Q1 2019, to 5.1 percent yoy. Quarterly GDP growth has been broadly stable, remaining within a narrow range of 4.9-5.3 percent yoy for 14 consecutive quarters.

The drivers of growth shifted in Q4 2018 and Q1 2019, as investment growth decelerated from multi-year highs, and both private and government consumption picked up. Investment slowed because of inventory destocking and easing fixed investment growth due to delays in new public projects in response to current account concerns, political uncertainty ahead of the general elections, and deteriorating prices of the country's key commodity exports and a maturing investment cycle in the mining sector (Figure ES.1). On the other hand, growth of private and government consumption gained on stronger spending by political parties and civil servant bonuses (Figure ES.2). Private consumption was also supported by low inflation and a buoyant labor market.

The current account deficit (CAD) widened in 2018 but showed signs of improvement in early 2019. The CAD widened to 3.0 percent of GDP in 2018, the largest since 2014, and reached 3.1 percent of GDP for the four quarters through Q1 2019. Despite this widening as a share of GDP, a sharper decline in imports reduced the CAD to USD 7.0 billion in Q1 from USD 9.2 billion in Q4 last year (Figure ES.3), suggesting a moderating trend. This recent improvement was driven by a turnaround in the goods trade balance from a deficit in Q4 2018 to a surplus in Q1, as imports fell more than exports. The overall balance of payments recorded a surplus in Q1. Consequently, Bank Indonesia's international reserves rose to USD 124.5 billion by the end of March 2019, sufficient to cover 6.8 months of imports and servicing government external debt.

Capital flows have improved since November 2018 and remained relatively benign into early 2019. Capital flows made a solid recovery from the global financial volatility

in mid-2018 that saw larger capital outflows from emerging markets (including Indonesia) than during the taper tantrum of 2013. With the U.S. Federal Reserve turning more dovish, Indonesia saw portfolio inflows persist into Q1 (Figure ES.4), which supported the Rupiah and government bonds. However, with the recent escalation in trade tensions, emerging market currencies are again under pressure as investors rebalance their portfolios toward traditional safe-haven assets. In May, portfolio outflows led the Rupiah to depreciate and the yield on benchmark 10-year sovereign bonds to widen.

In line with a relatively stable exchange rate, subdued oil prices, and stable domestic energy prices, headline inflation fell to an average of 2.6 percent in Q1, the lowest since Q4 2009 (Figure ES.5). Bank Indonesia (BI) kept the benchmark policy rate at 6 percent given the need to ensure stable capital flows but took accommodative measures to stimulate domestic demand.

The Government's fiscal position complemented prudent monetary and exchange rate policies to ensure stability. Despite the fiscal impact of natural disasters and the impending general elections, the fiscal deficit came in at 1.8 percent of GDP for 2018, which reduced financing needs and pressures on bond markets. Revenues increased by 16.6 percent yoy in 2018, in part due to tax administration and policy reforms. As a result, the tax-to-GDP¹ ratio rose to 10.2 percent, after five years of yoy declines. On the expenditure side, government spending rose by 10.3 percent yoy, with larger social, material, and personnel spending.

Revenue growth slowed in early 2019 while expenditures remained robust. Growth of revenue collections softened significantly, as value-added tax (VAT) collections contracted, and the growth of commodity-linked revenues and of non-oil and gas income taxes slowed (Figure ES.6). Meanwhile, year-to-April fiscal spending remained robust, due to higher disbursement of social spending, civil servant salaries and bonuses, and subsidies. Capital spending, however, contracted for the second consecutive year.

¹ Domestic and international taxes only, excluding non-tax revenues.

Table ES.1: Real GDP growth is projected to cool to 5.1 percent in 2019 with easing investment growth and modest support from the external sector

		2018	2019f	2020f
Real GDP	(Annual percent change)	5.2	5.1	5.2
Consumer price index	(Annual percent change)	3.2	3.0	3.1
Current account balance	(Percent of GDP)	-3.0	-2.8	-2.5
Government budget balance	(Percent of GDP)	-1.8	-2.1	-2.0

Source: Bank Indonesia; Central Bureau of Statistics (BPS); Ministry of Finance; World Bank staff calculations

Note: 2018 actual outcome; f stands for World Bank forecast

In light of unfavorable external conditions, economic growth is forecast to ease to 5.1 percent in 2019 and then recover to 5.2 percent in 2020 (Table ES.1). The modest acceleration in private consumption is expected to continue as inflation remains low and labor markets are strong. The fiscal position is expected to improve, allowing government investment to strengthen as infrastructure projects come back online and post-disaster reconstruction begins. Though slower, investment growth is expected to remain robust, especially after the elections, with reduced political uncertainty and more optimistic business sentiment on proposed reforms.² Amid deteriorating external conditions, export growth is forecast to be muted. Import growth is also expected to be weaker in line with slower investment growth and as government policies to manage imports are expected to remain in place in the near-term. Given the weakness in both imports and exports, the external sector will make at best a modest contribution to total output growth this year and the next.

Despite a weakening of the commodity terms of trade, the CAD is forecast to narrow to 2.8 percent of GDP in 2019 and further to 2.5 percent of GDP in 2020 on easing investment growth. In addition, a weaker exchange rate relative to 2018 will support the income

account balance. Downside risks to the growth outlook have increased with re-escalating trade tensions, likely to further weigh on world trade. Relatedly, slower global growth from weaker outturns among developed economies and China also poses substantial risks.

Indonesia's oceans can be leveraged to make a larger contribution to the economy, both through higher revenues from tourism and fisheries and by enhancing resilience to natural disasters and climate change. This edition therefore discusses the importance of the maritime economy to Indonesia's economic development and presents the challenges and opportunities the country faces in leveraging the maritime economy for greater prosperity.

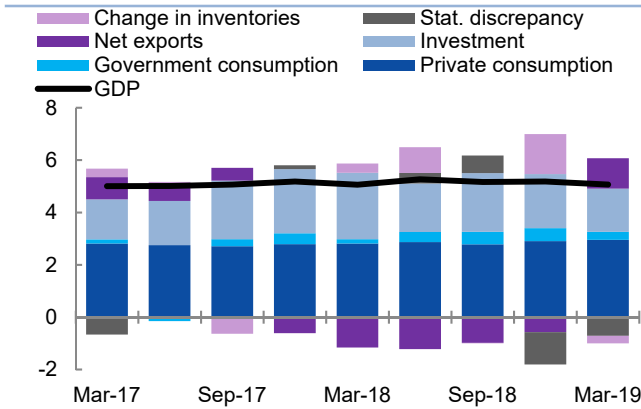
Indonesia's ocean ecosystems have tremendous economic potential that has yet to be fully harnessed. Its fisheries sector is the second largest in the world and plays a critical role providing food security and employment. Indonesia's tourism sector benefits heavily from the country's world-class marine and coastal (MAC) assets, with MAC tourism being a key driver of visitor growth.

However, poor management and marine debris threaten these invaluable national assets. Illegal, unregulated, and unreported fishing and inadequate management are diminishing the social and economic value of Indonesia's fisheries. Marine debris hurts fisheries, shipping, and MAC tourism growth, which may itself threaten ecosystems and damage the natural assets if not properly managed.

Realizing the full potential of these sectors will require reforms that improve natural resource management, conserve ecosystems, improve seafood quality, enhance the tourist experience, and create opportunities to more strongly brand Indonesia's MAC assets. It will also require cross-sector investments to protect MAC assets from marine debris. Through better policies, Indonesia can sustainably develop its oceans and harness the full potential of the Blue Economy.

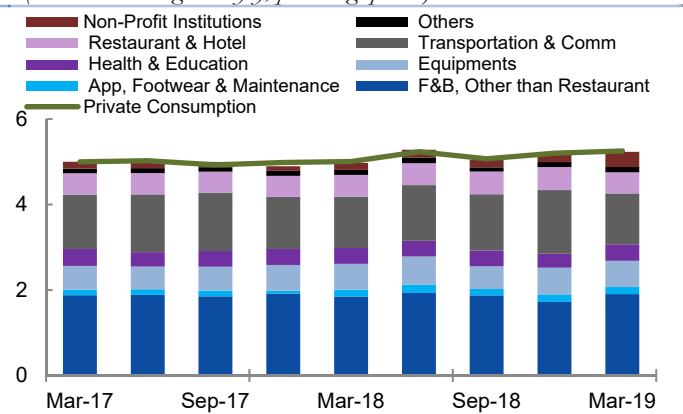
² [Rompies \(2019\)](#).

Figure ES.1: Weaker fixed investment and inventory drawdowns dragged on growth in Q1
(contribution to growth yoy, percentage points)



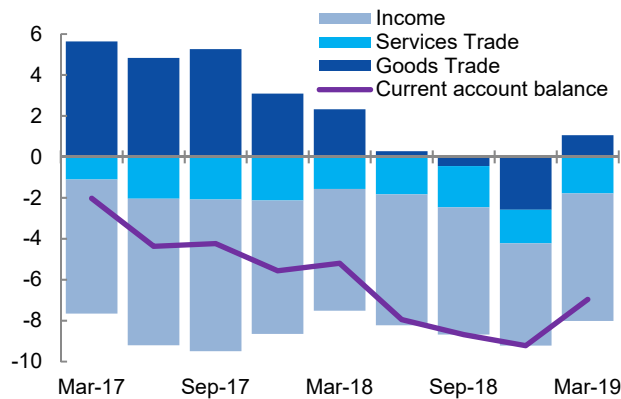
Source: Central Bureau of Statistics (BPS); World Bank staff calculations

Figure ES.2: Private consumption was robust, supported by stronger spending by non-profit institutions (political parties)
(contributions to growth yoy, percentage points)



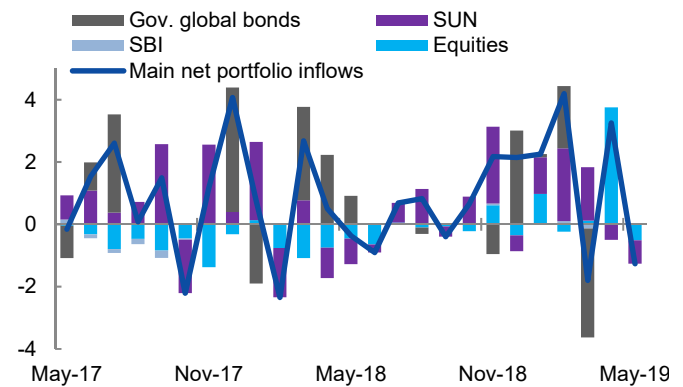
Source: BPS; World Bank staff calculations

Figure ES.3: The nominal current account deficit narrowed in Q1, in line with the slowdown in investment
(USD billion)



Source: Bank Indonesia (BI), World Bank staff calculations

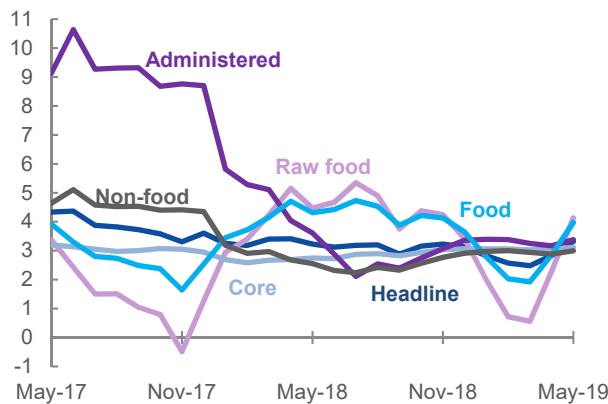
Figure ES.4: Portfolio flows swung to net outflows in May on renewed trade tensions
(USD billion)



Source: BI; World Bank; World Bank staff calculations

Note: Sertifikat Bank Indonesia (SBI) and Surat Utang Negara (SUN) are local currency bonds

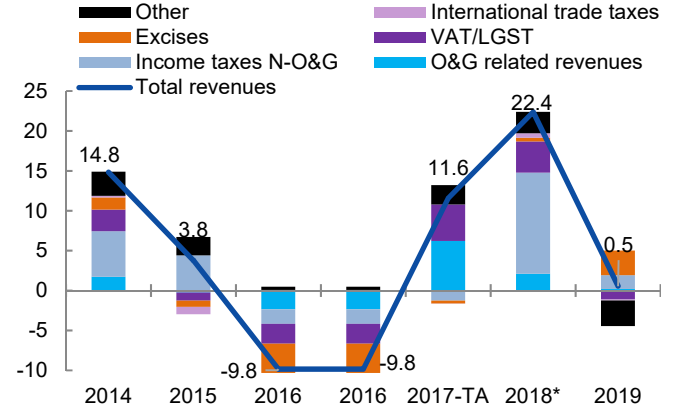
Figure ES.5: Easing food price inflation weighed on headline inflation in Q1 2019
(change yoy, percent; last observation May 2019)



Source: BPS; World Bank staff calculations

Note: See Figure A.25

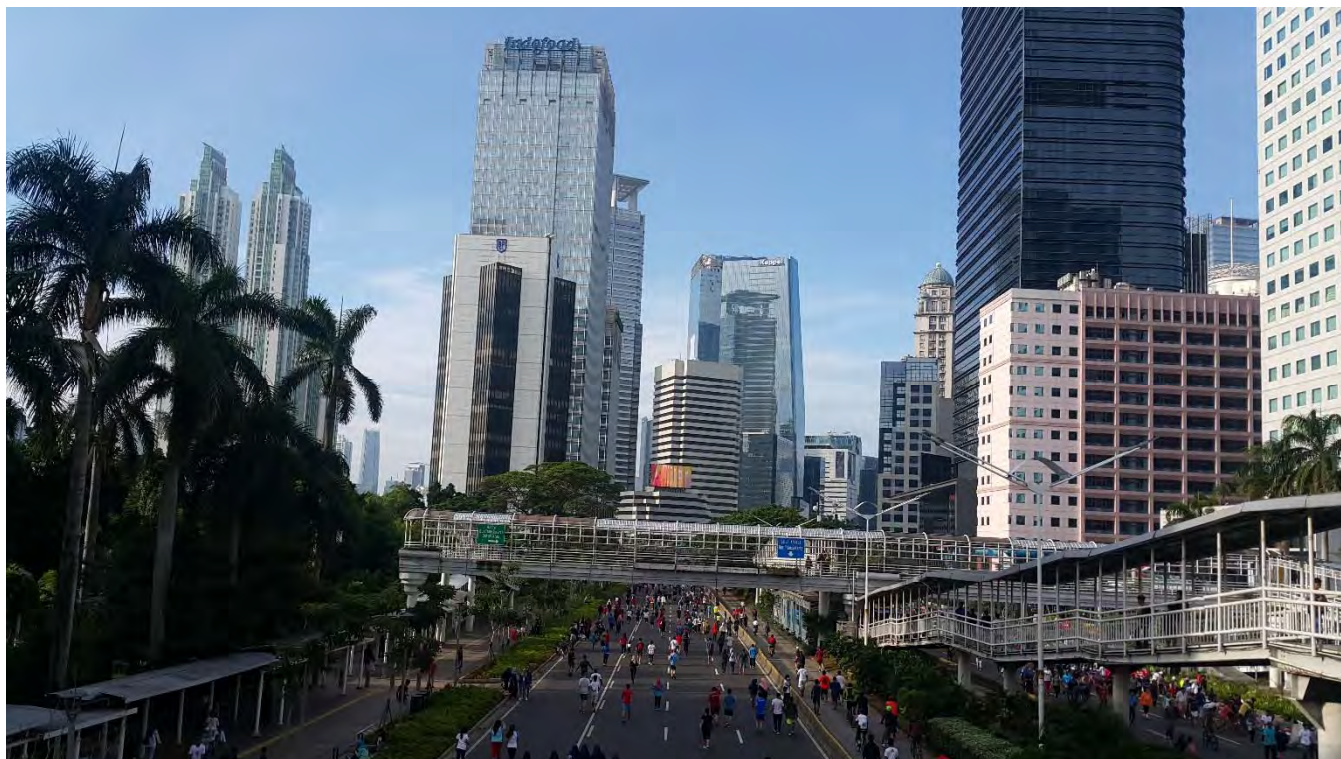
Figure ES.6: Revenue collections slowed as VAT collections contracted
(January–April revenue contribution to growth, yoy, percentage points)



Source: Source: Ministry of Finance; World Bank staff calculations

Note: See Figure A.36

A. Economic and Fiscal Update



1. Growth was stable despite weaker investment, but missing expectations

Growth remains remarkably stable

After 5 years of adjusting to lower commodity prices, economic growth remained relatively stable in 2018 at 5.2 percent year-on-year (yoy), on the back of solid domestic demand. Private consumption growth ticked upwards given low inflation and strong labor market conditions. Similarly, investment growth surged to a 6-year high in 2018 due to relatively robust commodity prices, particularly during the first half of the year, favorable domestic financing conditions, and continued infrastructure investments by state-owned enterprises (SOEs). Government consumption growth more than doubled partly due to strong personnel and material spending. In contrast to 2017, net exports contracted due to weakening external conditions and strong capital goods imports. On the production side, gross value added at producer prices grew by 5.0 percent yoy, driven by the service sector.

GDP growth remained stable at 5.1 percent in Q1 2019

In Q1 2019, the Indonesian economy grew 5.1 percent yoy, a tick slower than in Q4 2018, and below consensus forecasts, both of 5.2 percent (Figure A.1). On a qoq seasonally adjusted annualized basis, growth moderated to 4.9 percent from 5.1 percent in the previous quarter.³ GDP growth has been stable, remaining in a relatively narrow range of 4.9 to 5.3 percent for the past 14 quarters.

Due to delays in new public investment projects, uncertainty ahead of the general elections, as well as weaker commodity prices and a maturing investment cycle in the mining sector, investment growth softened, contributing to slower GDP growth. Following significant accumulation in Q4, inventories saw some drawdowns in Q1, further weighing on growth by

³ World Bank staff estimates using X12 seasonal adjustment.

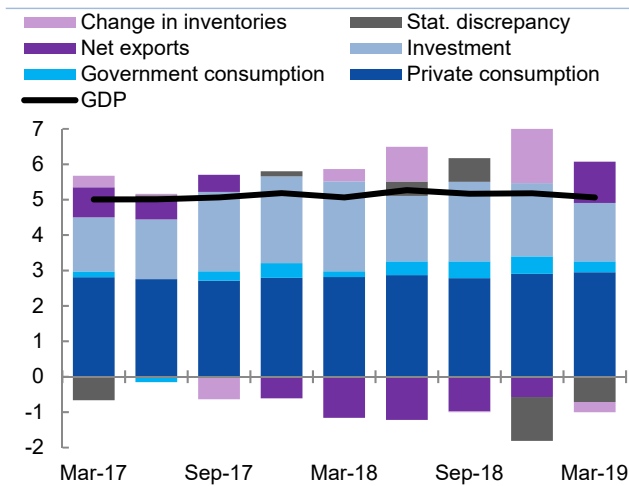
0.3 percentage points (pp). Consumption and net exports strengthened, however. Both private and government consumption growth gained on stronger spending from political parties and stronger personnel expenditures.

For the first time in ten quarters, both exports and imports declined; the former on the back of slower global economic growth and weaker world trade and the latter as investments slowed. The contraction in imports was almost four times higher than that in exports, leading net exports to support growth for the first time since Q3 2017.

On the production side, stronger growth was broad-based, with decelerations being recorded only for the agriculture, manufacturing, and electricity, gas, and water sectors. Gross value added (GVA) growth remained unchanged at 4.9 percent in Q1.

Figure A.1: Weaker investment and inventory destocking dragged growth slightly

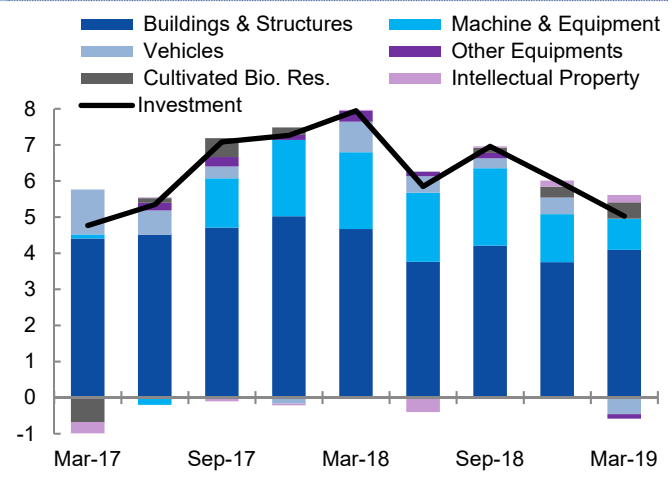
(contributions to growth yoy, percentage points)



Source: BPS; World Bank staff calculations

Figure A.2: Investment growth softened due to weakening machine and equipment investment and contraction in vehicle and other equipment investment

(contributions to growth yoy, percentage points)



Source: BPS; World Bank staff calculations

Investment growth continued to soften

Investment growth continued to cool down to 5.0 percent yoy from 6.0 percent in Q4 2018, in part because of postponed investment decisions ahead of the elections;⁴ weaker public infrastructure spending, in part due to current account concerns;⁵ and gradual deterioration in commodity prices⁶ (Figure A.2). A high base effect also contributed to the weaker outturn.⁷ Investments in buildings and structures remained the main contributor to overall investment growth at 4.1 pp up from 3.3 pp in Q4 2018. Growth in machine and equipment investment moderated significantly to 8.4 percent from 12.3 percent in Q4, ending the consecutive double-digit growth for the past six quarters. Investment in vehicles and other equipment contracted by 7.4 and 6.8 percent, respectively, reversing the positive growth seen at least in the past four quarters.

Private consumption accelerated to 5.3

Private consumption growth picked up to reach 5.3 percent in Q1 compared to 5.2 percent in Q4 2018 (Figure A.3), supported by a sharp increase in the consumption expenditure of political

⁴ [Bisnis \(2019\)](#).

⁵ Nominal public capital expenditure declined 15.1 percent yoy in Q1, indicating the cooling down of public infrastructure investment from the government. See detailed discussion in Section 6.

⁶ Prices of Indonesia’s main commodities that include coal, crude oil, palm oil, rubber, and base metals, contracted 8.5 on average percent yoy in Q1 2019

⁷ Investment growth in Q1 2018 was 7.9 percent, the highest in nearly 5 years.

percent as spending by political parties surged

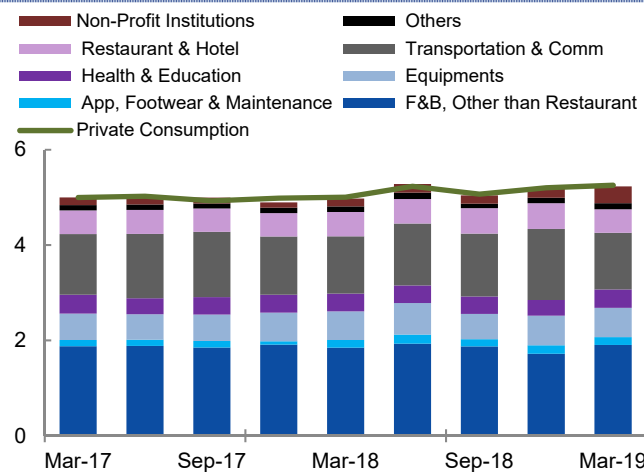
parties, which grew by 16.9 percent in Q1, against the 10.8 percent seen in Q4.⁸ Household consumption growth, however, slowed to 5.0 percent from 5.1 percent, due to softer consumption in services such as transportation and communication, as well as restaurant and hotel consumption. Within household consumption, consumption of food and beverages was once again the largest contributor to growth, while health and education consumption rose the fastest.

Government consumption growth strengthened, partly due to increased social spending

Monthly indicators also hint at the robust private consumption as retail sales growth nearly doubled to 8.8 percent in Q1 and motorcycle sales growth accelerated significantly to 16.1 percent in Q1 from 7.6 in the previous quarter. Consumer confidence was flat in Q1 but ticked up significantly in April and May, pointing to a continued robust private consumption in Q2.

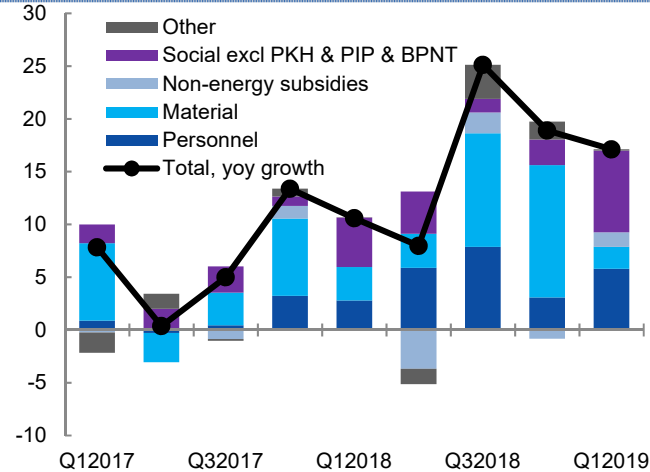
Real government consumption growth accelerated to 5.2 percent yoy from 4.6 percent in Q4 2018. The faster growth was partly driven by considerable disbursement for personnel spending. Higher in-kind transfers also supported government consumption. After seven quarters of strengthening growth, nominal government consumption rose 17.1 percent in Q1, a tick lower than the 18.9 percent in Q4 2018 (Figure A.4). Growth was driven by a higher nominal social spending of IDR 102 trillion, which was double the amount in the same period last year, as the government expanded disbursements for in-kind social transfers, and personnel and material spending (See Section A.6).

Figure A.3: Private consumption was robust, supported by stronger spending from political parties
(contributions to growth yoy, percentage points)



Source: BPS; World Bank staff calculations

Figure A.4: Growth in government consumption was mostly driven by social spending
(contributions to growth yoy, percentage points)



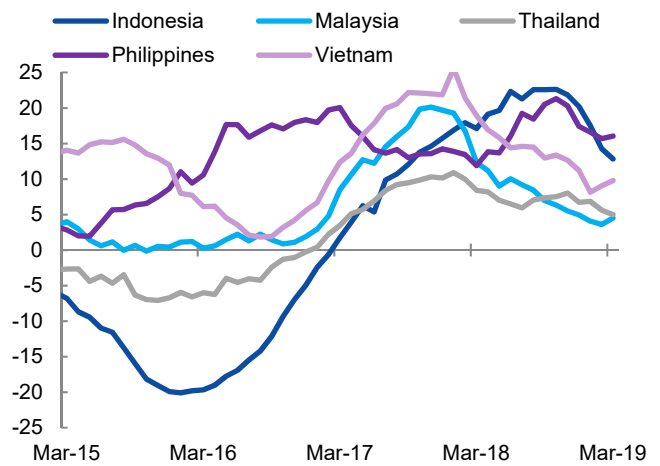
Source: Ministry of Finance, CEIC; World Bank staff calculations.
Note: Quarterly in-kind social spending imputed using shares of annual in-kind social spending for the respective years. PKH = Program Keluarga Harapan (direct cash transfers); PIP = Program Indonesia Pintar (Education subsidy); BPNT = Bantuan Pangan Non Tunai (non-cash food assistance).

⁸ The surge in this component of private consumption is expected to dissipate after the elections, similar to what was seen after the 2014 elections. NPISH grew 22.4 percent yoy in Q2 2014 during the election period, but moderated significantly to 5.8 percent in Q3 2014, after the election.

Both exports and imports contracted for the first time in ten quarters

In line with the deceleration in the world trade volume growth (see Box A.1) and slower global economic growth, Indonesia's exports and imports volume contracted. Trade eased not only in Indonesia, but also in several emerging market and developing economies (EMDEs), following the trade dispute between the United States and China⁹ (Figure A.5).

Figure A.5: In Q1, nominal imports growth softened in many emerging countries
(12 mma yoy growth, percent)

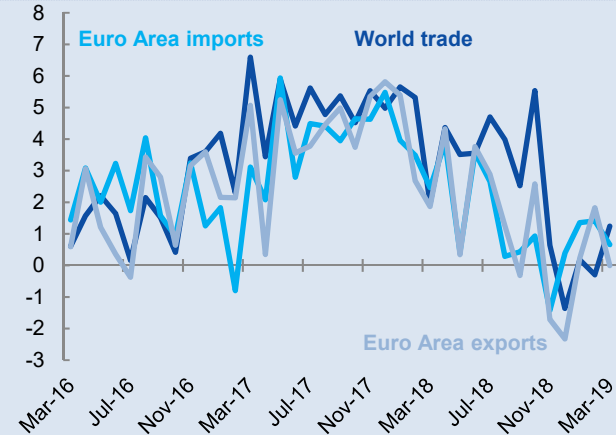


Source: CEIC; World Bank staff calculations

Box A.1: After a challenging 2018, the global economy showed further weakening this year

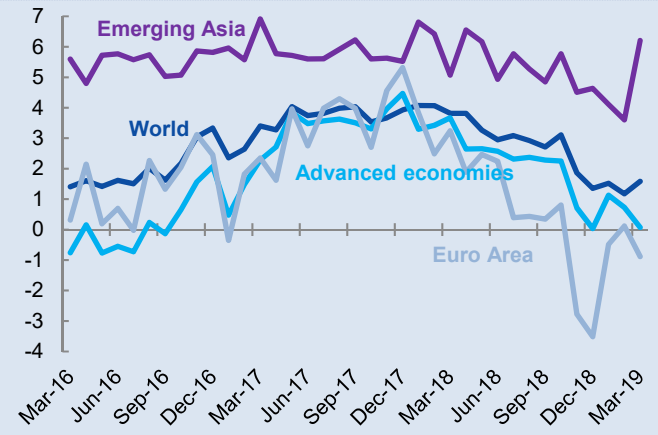
Global growth edged down to 3.0 percent yoy in 2018 from 3.1 in 2017, driven by sluggish economic performance in Europe and Japan, slower growth in China, and notable weakness in countries like Argentina and Turkey that faced currency and financial market turbulence. Global economic activity continued to soften at the beginning of this year due to heightened policy uncertainty, including recently renewed trade tensions, accompanied by a broad-based decline in confidence.¹

Figure A.6: Global trade growth decelerated in Q1...
(percent, yoy)



Source: CBP World Trade Monitor, World Bank staff calculations

Figure A.7: ...as industrial production growth softened
(percent, yoy)

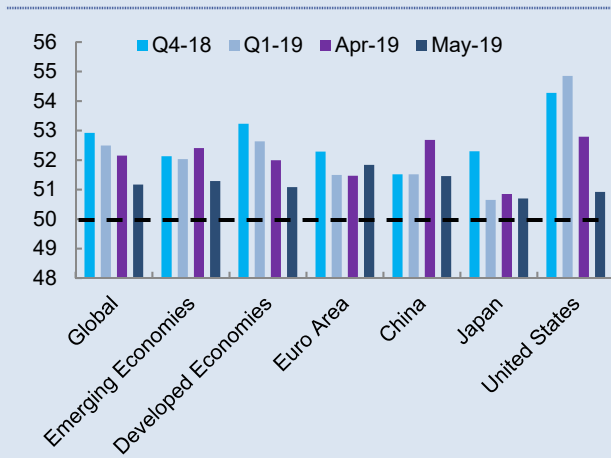


Source: CBP World Trade Monitor, World Bank staff calculations

A major factor driving the global growth slowdown in 2018 was world trade, which suffered in the midst of increasing protectionism, particularly rising tariffs between the United States and China, as well as slower global investment growth and increased trade policy uncertainty (Figure A.6). As a result, global trade growth experienced its sharpest deceleration since 2012, growing by just 4.1 percent in 2018 as compared to 5.5 percent in 2017². This slowdown in trade has continued in 2019, with Q1 experiencing growth of just 0.4 percent yoy compared to 1.6 percent in Q4 2018. Similarly, global industrial production growth declined, from an average of 2.1 percent in Q4 2018 to 1.4 percent in Q1 2019 (Figure A.7) and remains largely subdued in Q2. Business sentiment, as captured by the Composite Purchasing Managers' Index (PMI), softened in Q4 2018, Q1 2019 and the first two months of Q2, but were in most cases still above 50 – the threshold that represents expansion according to surveyed company decision makers, analysts and investors (Figure A.8).

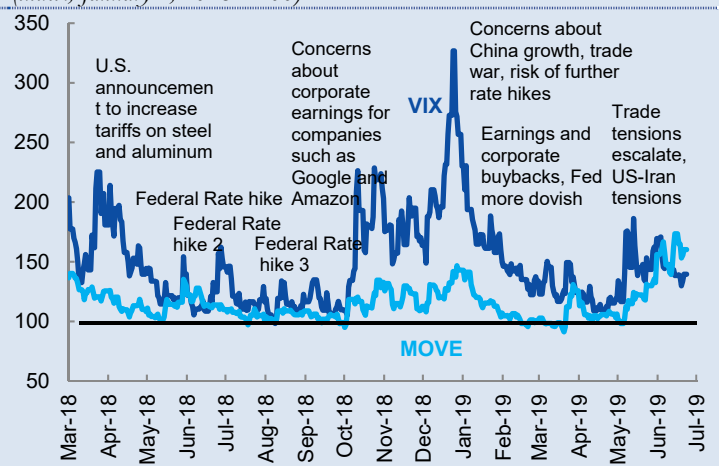
⁹ World Bank (2019a).

Figure A.8: Composite PMI outcomes show a mixed picture, but May data reflects growing concerns
(*growth yoy, percent*)



Source: Markit Economics, Haver, World Bank staff calculations
Note: Readings above 50 represent expansions and readings below 50 represent contractions

Figure A.9: After ending 2018 with wild volatility swings, markets were calm in Q1 2019, but volatility is returning with renewed trade tensions
(*index, January 1, 2018 =100*)



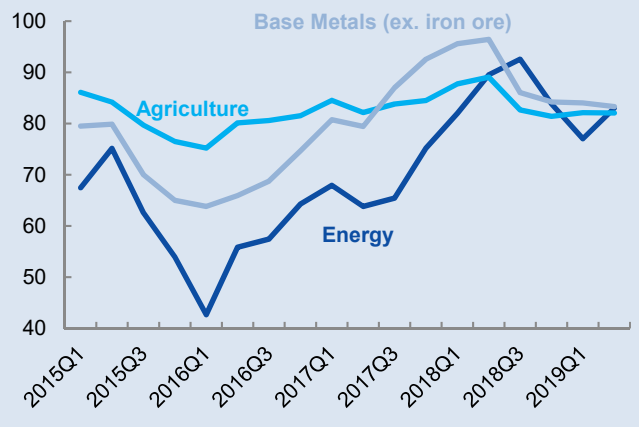
Source: Bloomberg; World Bank staff calculations

Faced with weakening activity and benign inflationary pressures across most major economies, central banks have continued supporting activity with accommodative policy rates and/or a more dovish policy stance signaled by the likes of the Federal Reserve and the European Central Bank. Similarly, fiscal policy in many countries has been expansionary, with countries including China, India, Japan and South Korea ramping up spending, and with some including China and India combining higher fiscal expenditures with tax cuts.³

In financial markets, global financing conditions rebounded in Q1 2019 and continued to loosen in Q2 (Figure A.9). The recovery followed a dramatic end to 2018, which saw global capital outflows from emerging markets exceed those during the 2013 Taper Tantrum, and the Dow and S&P 500 suffer their biggest Christmas Eve declines ever, following continued concerns around the impacts of the United States-China trade tensions.⁴ However, Q1 2019 saw a rapid turnaround, with the S&P 500 recovering more than 50 percent of its losses in the first 6 weeks of the year, buoyed by positive earnings and corporate buybacks and a shift in stance from the Federal Reserve as it abandoned projections of further rate hikes for the rest of the year.⁵ But with renewed trade tensions, calm waters have not persisted, and Q2 is ending with rising volatility.

After declining in Q4 2018 and Q1 2019 (Figure A.10), energy commodities have seen some recovery in recent months, while metals and agriculture prices are relatively flat year-to-date. Going forward, United States-China trade and political tensions will continue to make investors nervous, with worldwide implications, in particular, on trade in Asia.⁶ Other risk factors may arise from different developments, including the impact of a hard Brexit on the Euro area, or from sudden shocks impacting on commodity markets, such as the recent United States-Iran standoff at the Straits of Hormuz.

Figure A.10: Global commodity indices fell in Q4 2018 and Q1 2019, but are largely stabilizing in Q2
(*index based on nominal U.S. dollar, 2010=100*)



Source: WB Commodity Price Data, World Bank staff calculations

¹ World Bank (2019b).

² World Bank (2019a), pp. 4.

³ On China, see: [Chen and Woo \(2019\)](#); on India, see: [Sundaram \(2019\)](#), on Japan, see: [Kyodo \(2019\)](#); and on South Korea, see: [Choi \(2018\)](#).

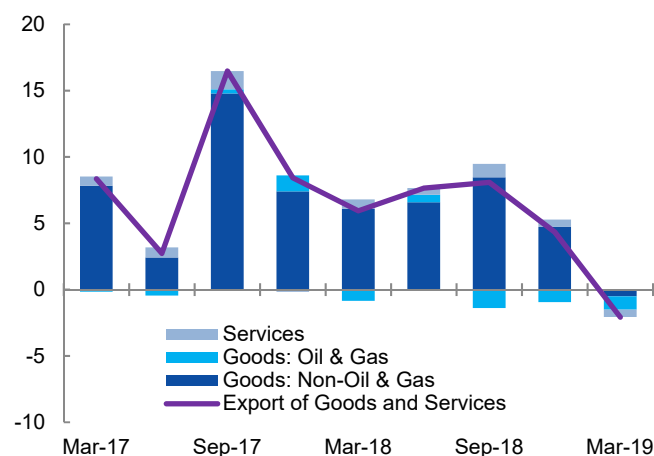
⁴ [Barbieri and Goldman \(2018\)](#).

⁵ Instant View [Reuters \(March 21, 2019\)](#).

⁶ On escalation in the trade tensions between the United States and China, see for example: [Westcott, Wang and Picheta \(2019\)](#); on how tensions go beyond trade, see for example: [da Costa \(2019\)](#).

Figure A.11: Real exports contracted for the first time in ten quarters...

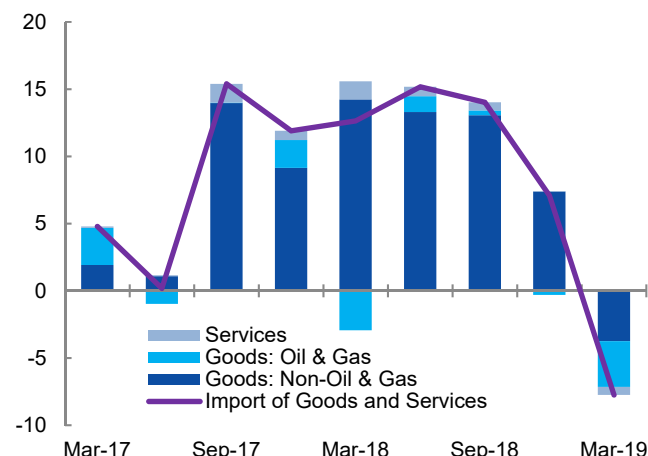
(contributions to growth yoy, percentage points)



Source: BPS; World Bank staff calculations

Figure A.12: ...and a similar trend was seen in real imports

(contributions to growth yoy, percentage points)



Source: BPS; World Bank staff calculations

Real imports contracted sharply

The contraction in real imports, which was also in light of slowing investment growth, was almost four times greater than that in real exports, leading net exports to support growth for the first time since Q3 2017. Despite robust domestic private consumption, real imports shrank 7.8 percent in Q1, mostly driven by the reduction in oil and gas imports by 22.9 percent, which was in turn partly due to the Government mandate to use biofuel in the diesel mix¹⁰ and Government policies to manage the imports of certain commodities, which has been implemented in the second half of 2018¹¹ (Figure A.11). Meanwhile, the contraction in exports was mostly due to oil and gas goods exports, dipping 0.7 percent after growing 6.0 percent in Q4 2018 (Figure A.12), in line with the reduction of Indonesia's oil lifting and the Government policy that prioritized domestically-produced oil for domestic consumption rather than for exports (Box A.2).¹²

Box A.2: Government policies on managing imports

In 2018, Indonesia's current account deficit widened to 3.0 percent of GDP, the widest since 2014, in line with strong import-intensive investments (Figure A.13). The following are selected policies that the GoI implemented in the second half of 2018 to manage imports in order to reduce the current account deficit:

1. **Income tax on selected imported goods¹**

The GoI issued a regulation to increase the income tax rate of imported goods² (Income Tax Article 22) for 1,147 consumer products in September 2018. Depending on the consumer product, the tax rate was increased by 2.5 percent to 7.5 percent³ of the import value. The regulation aimed to address the current account deficit by managing imports of consumer goods, while minimizing disruptions to investment.

2. **B20 Policy⁴**

In September 2018, the GoI mandated the use of biodiesel (B20), a blend of 20 percent palm oil and 80 percent of petroleum diesel, for all diesel fuel sold domestically. The regulation was aimed at reducing dependency on imported fuel by partly replacing it with local palm oil. Partly due to this regulation, the volume of diesel imports fell to 2.2 percent yoy for the last six months through Q1 2019, relative to an increase of 27.1 percent for the prior six months through Q3 2018. To date, this policy has not led to any significant decreases in palm oil exports as production increased (Figure A.14). The GoI also plans to increase the absorption of the palm oil in biodiesel by expanding the B20 to the B30⁵ beginning January 2020.

¹⁰ The Government, through the Minister of Energy Decree no 42/2018, instructed foreign oil and gas producers in the country to prioritize the sales of their production to Pertamina from September 2018

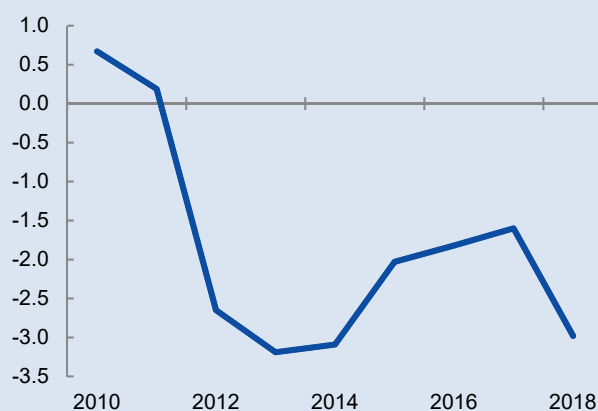
¹¹ [Bank Indonesia \(2019\)](#).

¹² [Bank Indonesia \(2019\)](#).

3. Prioritization of the Use of Crude Oil for the Domestic Demand⁶

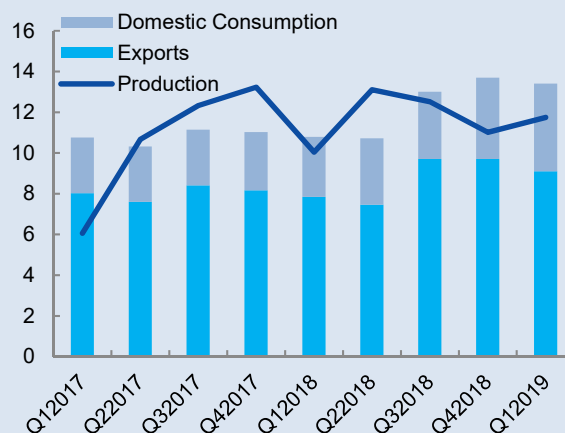
In addition to the Domestic Market Obligation (DMO) on crude oil production, the GoI issued a mandate for oil and gas contractors to offer their share of crude oil production to PT. Pertamina and other crude oil refining business entities, before any considerations for export. The regulation, which took effect since September 2018, requires PT Pertamina and crude oil refining business entities to adopt a Business-to-Business (B2B) scheme when negotiating the potential purchase. The regulation aimed to further reduce dependence on imported oil. While this regulation is likely to have contributed to reduced oil imports,⁷ it may have also disrupted crude oil exports, due to the effect of expanding domestic demand for crude.⁸ The crude oil deficit widened to 3.34 million tonnes for the October 2018-March 2019 period, compared to a deficit of 3.16 million tonnes the same period a year before.

Figure A.13: Current Account Balance, Annual
(percentage of GDP)



Source: Bank Indonesia, World Bank Staff Calculations

Figure A.14: Palm Oil, Volumes
(million tonnes)



Source: CEIC, World Bank Staff Calculations

Note: Production equals to domestic consumption + exports + change in palm oil inventories

¹The Minister of Finance Regulation No. 110 /PMK.010/2018

²The total tax of imported goods consists of three different tariffs and taxes: import duties, value added taxes and income tax withholding applied on the value of imported goods. In addition, if the imported goods are categorized as luxury goods, an additional luxury sales tax is also applied. Income tax withholding on imported goods serve as a 'prepayment' of corporate income taxes paid by businesses. This withholding mechanism is used in a few other countries, including Philippines, Pakistan, Uganda, Malawi and Jordan.

³[Kompas \(2019\)](#).

⁴Minister of Energy and Mineral Resources Regulation No. 41 / 2018

⁵A blend of 30 percent palm oil and 70 percent of petroleum diesel

⁶[Minister of Energy and Mineral Resources Regulation No. 42 / 2018](#), Seek (November 13, 2018).

⁷The volume of crude oil imports decreased by 44.0 percent in Q1 2019, compared to a decline of 9.2 percent in Q3 2018.

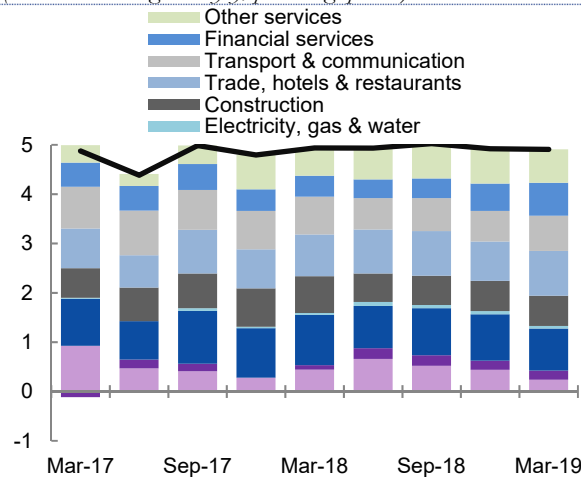
⁸Volumes of crude oil exports fell 67.9 percent yoy in Q1 2019 compared to a decline of 22.7 percent in Q3 2018 since the policy was implemented.

On the supply side, services drove growth as manufacturing and agriculture slowed

In gross value-added (GVA) terms, growth in Q1 was flat at 4.9 percent (Figure A.15). While the trade, hotels, and restaurants sector contributed the most to growth, followed by manufacturing sector in Q1, the transportation and communication as well as financial services sectors were the main drivers of growth. Growth in the manufacturing sector moderated, consistent with the continued weakening in machines and equipment investment, and contraction in vehicles and other equipment investment. Meanwhile, the agricultural sector grew the least and slower than in Q4 due to the shift in the harvest period between 2018 and 2019.¹³

Figure A.15: Trade, hotels, and restaurants contributed the most to growth

(contributions to growth yoy, percentage points)



Source: CEIC; World Bank staff calculations

Note: * Gross Value Added is the sum of value added in the agriculture, industry and services sectors. If the value added of these sectors is calculated at purchaser values, gross value added at factor cost is derived by subtracting net indirect taxes from GDP.

2. Prices of most key commodities declined compared to a year ago

Commodity prices fell across the board compared to a year ago, except for LNG and rubber

Out of Indonesia's six major commodity exports – palm oil, rubber, base metals, coal, crude oil and liquefied natural gas (LNG) – prices of all commodities except LNG and rubber fell in Q1, compared to the same period last year (Table A.1). Agricultural commodity prices declined for a sixth consecutive quarter. Although the B20 policy¹⁴ helped reduce stockpiles in Indonesia, still-high inventories in Malaysia continued to drag global crude palm oil prices down by 17 percent yoy, following a 23 percent decline in Q4 2018.¹⁵ Rubber prices also contracted by a lower magnitude, 4 percent yoy in Q1, compared to the 13 percent drop last quarter. More stable rubber prices are expected over the next few months as Indonesia, along with Malaysia and Thailand, agreed to cut rubber exports.¹⁶

Non-agricultural commodities also mostly presented a downward trajectory. Base metals fell for a second consecutive quarter by 12 percent yoy, compared to 9 percent in Q4 2018, in part due to the high base. The price of Australian coal fell by 7 percent after ten quarters of growth (Figure A.16), mostly due to Chinese-imposed restrictions on imports of Australian thermal coal since February. The Indonesian Government's Benchmark Thermal Coal Price (*Harga Batubara Acuan*, HBA) fell by a similar magnitude on weaker demand from China and India for Indonesia's lower-grade coal.¹⁷ Average crude oil prices also declined by 6 percent yoy after rising 7 percent in Q4 2018. However, prices continued to recover from the end-2018 plunge that was due to higher-than-expected global production. OPEC and partners have since adjusted supplies and output has declined in Venezuela and Iran, leading average prices to rise to USD

¹³ According to the Ministry of Agriculture, the peak of the harvest season in 2018 occurred in March (which accounted in the GDP Q1 calculation) while in 2019, it is expected to occur in April (which accounted in the GDP Q2 calculation), [Adharsyah \(2019\)](#).

¹⁴ Indonesia and Malaysia, the world's largest palm oil producers, mandate the use of palm oil in biodiesel for the transport sector. However, while Indonesia extended the B20 policy – a blend of 20 percent palm oil and 80 percent fossil fuel – to non-subsidized fuels beginning September 2018, Malaysia only fully enforced a similar B10 program in February 2019. [Ling and Yuan \(2019\)](#).

¹⁵ [The Star \(April 15, 2019\)](#).

¹⁶ [The Jakarta Post \(April 01, 2019\)](#).

¹⁷ [The Jakarta Post \(May 08, 2019\)](#).

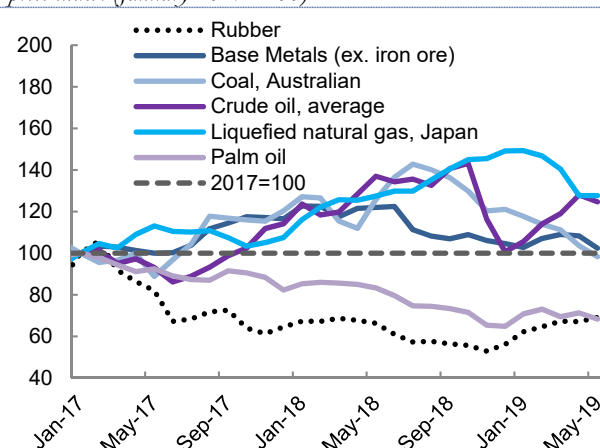
67/bbl in May 2019. Meanwhile, LNG prices rose 20 percent yoy in Q1, extending the double-digit growth seen since Q2 2017. However, this was half the pace seen in Q4 2018, in part due to warmer weather than usual in the Northern Hemisphere.¹⁸

Table A.1: Prices of Indonesia’s key commodities were generally lower than a year ago
prices of key commodities

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
Rubber (USD/kg)	1.7	1.7	1.5	1.4	1.7
Base metals (index)	95.6	96.4	86.0	84.2	84.0
Coal (USD/mt)	103.0	104.4	117.0	103.6	95.7
Crude oil average (USD/bbl)	64.6	71.4	73.0	64.3	60.5
LNG (USD/mmbtu)	9.8	10.3	10.9	11.8	11.7
Palm oil (USD/mt)	706.4	681.7	611.8	554.8	586.9

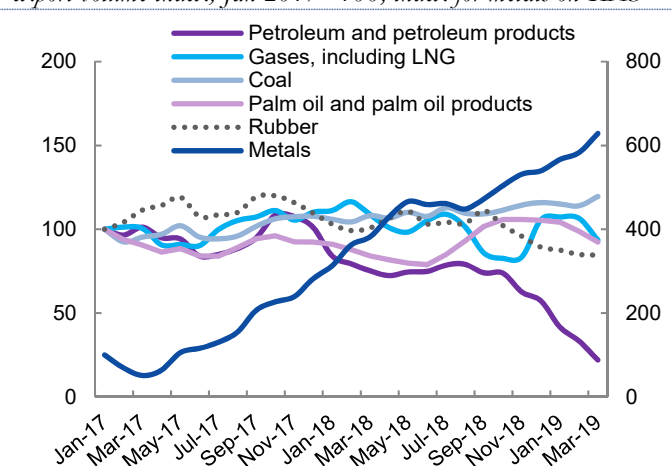
Source: World Bank Pink Sheet; World Bank staff calculations

Figure A.16: ...except for LNG, which rose, and rubber, which stabilized
price index (January 2017=100)



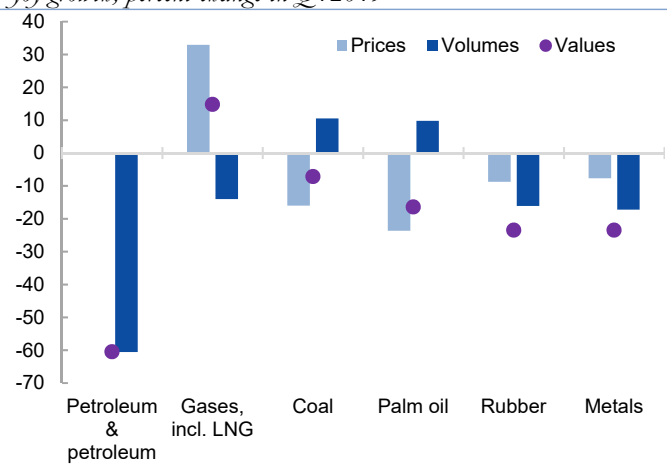
Source: World Bank Pink Sheet; World Bank staff calculations

Figure A.17: Export volumes of coal, palm oil, and base metals rose...
export volume index, Jan 2017=100; index for metals on RHS



Source: BPS; World Bank staff calculations

Figure A.18: ...but these increases were insufficient to offset price declines
yoy growth, percent change in Q12019



Source: BPS; World Bank staff calculations

Exports of coal, palm oil and metals rose in volume terms, but not sufficiently to counter price declines

Commodity export volumes presented a more mixed picture (Figure A.17). Export volumes of crude oil, gas and rubber declined, while coal, palm oil, and base metals rose. Exports of crude oil and gas fell by 70.7 percent and 13.8 percent respectively, almost double and triple the contractions seen last quarter. These declines are likely due to the fact that oil and gas production only reached 90 percent of the Government’s cumulative 2019 target in Q1 as several Pertamina-

¹⁸ [Lakshmi \(2019\)](#).

operated oil blocks, especially Mahakam,¹⁹ experienced declines in production.²⁰ In contrast, exports of base metals increased by 64.5 percent – a more moderate rate than previous quarters, as effects from the lifting of the mineral export ban continued to subside.²¹ Coal exports rose by 10.5 percent yoy in Q1, larger than the 7.6 percent expansion in Q4.²² Nonetheless, increases in export volumes were insufficient to offset declines in the price of coal, resulting in a decline in coal export values (Figure A.18). Similarly, palm oil export volumes rose by 9.8 percent on greater demand for biodiesel from China and the European Union,²³ but the increase was outweighed by price declines. Palm oil exports may tick up in the coming months as simplified export procedures take effect,²⁴ but will likely face demand-side headwinds as the European Union implements new regulations limiting the use of palm oil in biofuels from June.

3. The current account deficit improved as investment cooled

The current account deficit widened in 2018 to the largest since 2014 on strong capital goods imports

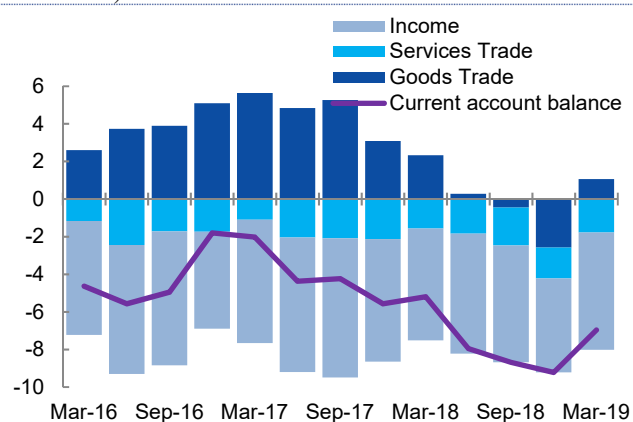
Largely due to strong capital goods imports that are commensurate with robust investment growth, the CAD widened to 3.0 percent of GDP in 2018, nearly double that in 2017 and the largest since 2014. While the surplus on the capital and financial accounts shrank from 2.8 percent in 2017 to 2.4 percent of GDP in 2018, there was a notable turnaround in Q4 with a rebound of portfolio investment amounting to USD 10.4 billion. In line with the reversal of capital flows, the Rupiah recovered from a trough of IDR 15,237 per USD in October last year to around IDR 14,400 per USD towards the end of the year. Correspondingly, international reserves rebounded from a low of USD 114.8 billion at the end of September 2018 to reach USD 120.7 billion in December, equivalent to 6.3 months of imports of goods and services.

The current account deficit narrowed as the trade balance turned into a surplus from a significant deficit last quarter

In line with the moderation in investment growth and thus lower imports of capital goods,²⁵ the CAD narrowed to USD 7.0 billion in Q1 from USD 9.2 billion in Q4 last year, but this was still larger than the USD 5.2 billion deficit in Q1 2018 (Figure A.19).

On a four-quarter rolling sum basis, the CAD continued to widen to 3.1 percent of GDP in Q1 from 3.0 percent of GDP in Q4 2018, a slower pace than the 0.3 pp per quarter average widening in 2018.

Figure A.19: Current account deficit narrowed in Q1, in line with the slowdown in investment
(USD billion)



Source: Bank Indonesia; World Bank staff calculations

¹⁹ Pertamina started to operate the Mahakam block in January 2018, taking over from French multinational Total. Pertamina blamed the low lifting from Mahakam on difficulties in building drilling wells in the area. [Iskana and Setiawan \(2019\)](#).

²⁰ Budget 2019 sets an oil and gas lifting target of 2.2 million barrels of oil equivalent per day (boepd); in Q1, production only reached 1.8 million boepd or 90 percent of the target. [Ananta \(2019\)](#).

²¹ From 2014 to 2017, Indonesia had a ban on unprocessed mineral exports, requiring miners to process their ore and concentrate before exporting. The ban was partially lifted at the beginning of 2017, following which export volumes of base metals surged triple digits in yoy terms every quarter from Q32017 to Q32018. Export of base metals recorded an increase of 91.1 percent in Q4.

²² The increase in coal exports is partly due to the 100 million ton increase in the coal export quota in September 2018. See World Bank (2018b).

²³ This is partly due to some frontloading of biodiesel imports into the European Union in advance of new regulations that came into effect on June 10, which limit the amount of palm oil used in biofuels for the transport industry. [The Star \(March 29, 2019\)](#).

²⁴ In March, the Ministry of Trade revoked a regulation (No 54/22015) to simplify the procedures for exporting palm oil, in part due to price declines and anti-palm oil campaigns in the European Union. [The Jakarta Post \(March 19, 2019\)](#).

²⁵ Imports of capital goods is dominated by machinery and equipment, one of the key components of investment.

The improvement in the current account balance was driven by a turnaround in the goods trade balance to a surplus of USD 1.1 billion from a deficit of USD 2.6 billion in Q4 2018, as imports fell, on easing investment growth (Table A.2). On a yoy basis, both goods exports and imports contracted, with a deeper contraction in exports.

The improvement in the goods trade balance was partially offset by slight deterioration in the services trade and income balances.²⁶ Despite the small decline in financial account surplus, the overall balance of payments still booked a surplus of USD 2.4 billion in Q1, and so BI continued to rebuild reserves. BI's international reserves rose to USD 124.5 billion at the end of March 2019 from USD 120.7 billion at the end of December 2018, sufficient to cover 6.8 months of imports and servicing government external debt.

Table A.2: Indonesia's Balance of Payments (BOP)

(USD billion unless otherwise indicated)

	Q1-2018	Q2-2018	Q3-2018	Q4-2018	Q1-2019
Nominal GDP	258.7	263.8	262.9	256.8	267.6
Overall Balance of Payments	(3.9)	(4.3)	(4.4)	5.4	2.4
As percent of GDP	(1.5)	(1.6)	(1.7)	2.1	0.9
As percent of GDP, four-quarter rolling sum	0.3	(0.2)	(1.1)	(0.7)	(0.1)
Current Account	(5.2)	(8.0)	(8.7)	(9.2)	(7.0)
As percent of current quarter GDP	(2.0)	(3.0)	(3.3)	(3.6)	(2.6)
As percent of GDP, four-quarter rolling sum	(1.9)	(2.2)	(2.6)	(3.0)	(3.1)
Goods Trade Balance	2.3	0.3	(0.5)	(2.6)	1.1
Services Trade Balance	(1.6)	(1.8)	(2.0)	(1.6)	(1.8)
Income	(5.9)	(6.4)	(6.2)	(5.0)	(6.2)
Capital and Financial Accounts	2.3	3.3	3.8	15.9	10.1
As percent of current quarter GDP	0.9	1.2	1.5	6.2	3.8
As percent of GDP, four-quarter rolling sum	2.4	2.1	1.6	2.4	3.1
Direct Investment	4.8	2.4	4.4	2.0	5.2
Portfolio Investment	(1.1)	0.1	(0.1)	10.5	5.4
Other Investment	(1.5)	0.7	(0.5)	3.5	(0.6)

Source: Bank Indonesia; World Bank staff calculations

Both total exports and imports declined in yoy terms

Nominal total exports and imports shrank but Q1 saw deeper contraction in total exports than in total imports. Total exports fell 7.9 percent yoy in Q1, faster than the decline of 1.0 percent last quarter, driven by declines in both goods and services exports. Total imports also dropped 5.1 percent after growing 9.0 percent in Q4 2018, mostly due to the fall in goods imports in Q1.

Goods exports continued to decline due to both internal and external factors...

In line with slower global trade²⁷ and weaker palm oil and coal prices from a year ago, nominal goods exports deteriorated further, contracting 8.6 percent yoy in Q1 after a drop of 1.4 percent in 2018 (Figure A.20). The decline in goods exports was broad-based, partly due to easing export commodity prices²⁸ and weakening demand from Indonesia's major trading partners (MTPs)²⁹. Other manufactured exports was the largest contributor in the decline in total goods exports, partly due to lower processed foods exports to the United States and Malaysia³⁰.

²⁶ The income deficit widened partly due to a stronger Rupiah, which increases the USD value of given IDR values of remittances.

²⁷ Export value growth deteriorated in East Asia and the Pacific countries, as did export volume growth (East Asia and Pacific Economic Update, April 2019). Nominal imports also weakened in the neighboring countries (see detailed discussion in Section 1).

²⁸ Prices of Indonesia's main commodity exports which include coal, crude oil, palm oil, rubber, and base metals, contracted on average 8.5 percent yoy in Q1 2019. See detailed discussion in Section 2.

²⁹ The World Bank projects that the average growth of Indonesia MTP economies will moderate to 3.1 percent in 2019 from 3.2 percent in 2018. Indonesia's MTPs comprises Australia, China, Germany, Japan, India, Netherland, Singapore, Korea, Malaysia, Philippines, Thailand, United States, and Vietnam.

³⁰ Bank Indonesia (2019).

...while goods imports contracted the first time in ten quarters, consistent with the easing in investment growth

As investment cooled, nominal goods imports dropped for the first time in ten quarters, driving the goods trade balance to a surplus (Figure A.21). Good imports fell sharply by 6.1 percent yoy in Q1, after jumping by 11.8 percent in Q4 2018, because of lower oil prices and continued government policies to curb imports.³¹ Imports of fuel and lubricants contracted the most, by 19.5 percent, followed by consumption goods imports that dropped 13.3 percent. The decline in consumption goods imports was due to the moderation in the import prices and decline in the volumes for cosmetics, plastic products, and footwear.³² Capital goods imports declined for the first time in seven quarters, in line with the slower investment growth, particularly investment in machine and equipment.³³

Figure A.20: Goods exports deteriorated further in all categories...

(contribution to growth yoy, percentage points)

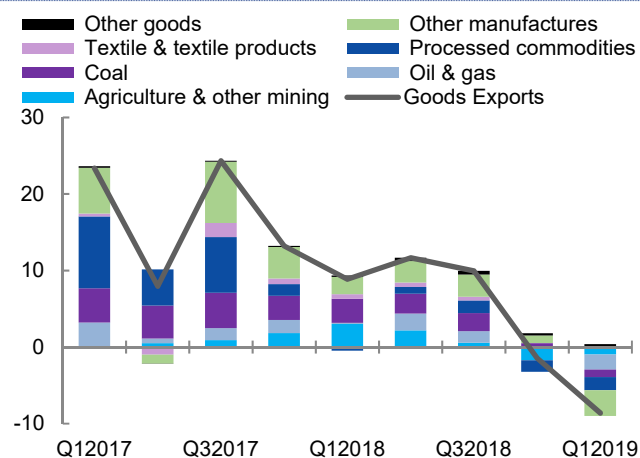
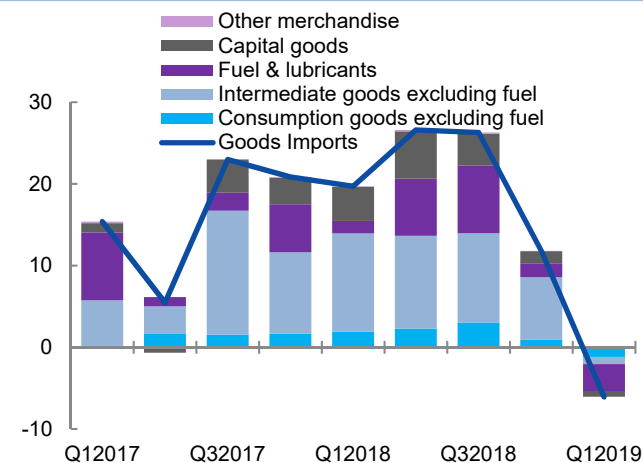


Figure A.21: ...and goods imports contracted for the first time in ten quarters.

(contribution to growth yoy, percentage points)



Source: Bank Indonesia; World Bank staff calculations

Note: The processed commodities category includes wood, palm oil, base metals, and rubber. The “other manufactures” category includes paper, paper products, furniture, plastics, processed foods, chemicals, and other goods.

Source: Bank Indonesia; World Bank; World Bank staff calculations

Both the services and income account deficit widened

Both the services trade and income account deficits widened in Q1 to USD 1.8 billion and USD 6.2 billion, respectively. The services trade deficit was larger than both in the previous quarter and Q1 2018, as services exports declined for the first time in 13 quarters, by 3.7 percent yoy, mostly due to lower travel exports as growth of foreign tourist arrivals moderated substantially. Services imports continued to deteriorate by 0.5 percent. Meanwhile, the deficit in the income account widened due to reduced income from direct investments, which was in turn because of dampened investment returns, especially for the property sector.³⁴ The stronger Rupiah compared to Q4³⁵ also contributed to higher USD profit remittances.

The financial account surplus declined but was still robust

The financial account surplus decreased to USD 10.1 billion in Q1, after soaring to a record-high of USD 15.9 billion in Q4. Net direct investment (direct investment in Indonesia less Indonesian direct investment abroad) more than doubled, but still could not compensate for the lower net portfolio investment and net other investment (Figure A.22). In addition, despite being substantially larger, net direct investment was still insufficient to finance the current account deficit. However, improvement in the CAD and increase in the net direct investment

³¹ The policies include the enactment of higher import duties for consumption goods, a mandate for production-sharing contractors to sell crude oil to Pertamina, and the Biodiesel 20 policy which stipulates that 20 percent of biofuel blend should be used in the domestic diesel mix.

³² Bank Indonesia (2019).

³³ The machine and equipment category dominates the imports of capital goods.

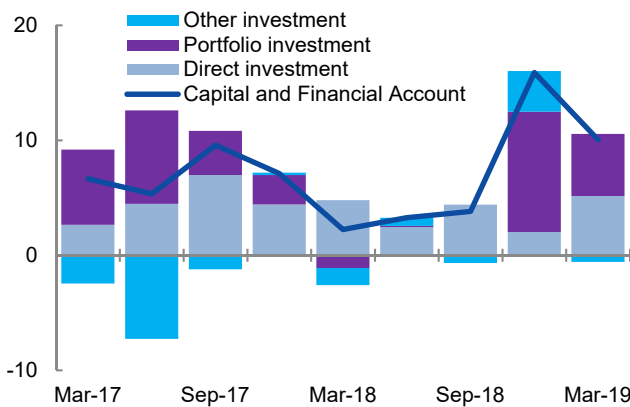
³⁴ Bank Indonesia (2019).

³⁵ See footnote 30. The Rupiah appreciated against the U.S. Dollar by 1.5 percent in nominal terms. See detailed discussion in Section 5.

led to a lower deficit in the basic balance (the sum of current account balance and total net direct investment) of USD 1.8 billion from USD 7.2 billion in Q4 2018.

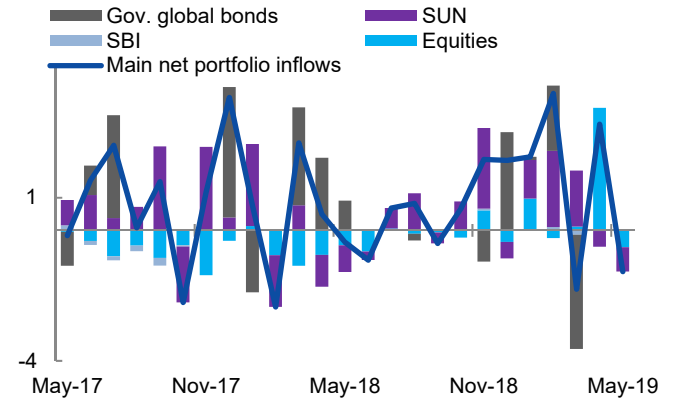
Net portfolio inflows in Q1 totaled USD 4.7 billion, marginally lower than the inflows in Q4 2018 of USD 5.0 billion, but significantly higher than the USD 1.1 billion in the same quarter last year (Figure A.23). This outcome was mostly a result of the government payments of foreign currency government debt issuance that was due in March 2019, but also due to lower private global bonds revenue flows and less favorable external conditions, particularly from the heightened global trade tensions. Other investments saw a turnaround and posted a deficit of USD 0.6 billion (Q4 2018: +3.5 billion), driven by a rise in private sector deposits in overseas banks and private sector loans to non-residents. Equity inflows in April surged due to positive sentiment among investors following initial election results,³⁶ but relapsed to outflows in May on account of renewed world trade tensions.

Figure A.22: The financial account slipped as net portfolio investment decreased in Q1...
(USD billion)



Source: Bank Indonesia; World Bank staff calculations

Figure A.23: ...and swung to outflows in May on renewed trade tensions
(USD billion)

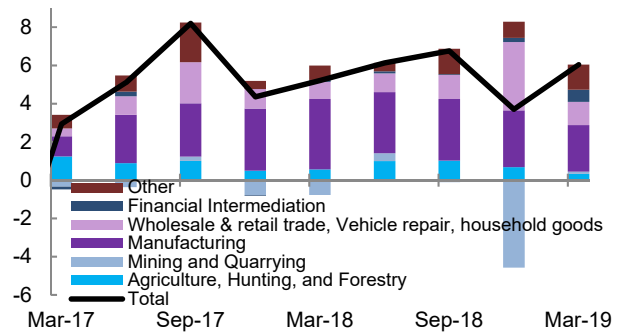


Source: Bank Indonesia; World Bank; World Bank staff calculations
Note: Sertifikat Bank Indonesia (SBI) and Surat Utang Negara (SUN) are local currency bonds

FDI returned to its average in the first three quarters of 2018...

Foreign direct investment (FDI) came in at USD 6.0 billion in Q1, after slipping to USD 3.7 billion in Q4 2018, but reverting to closer to its average for the first three quarters of 2018. This was mostly due to the turnaround on mining and quarrying investments where large divestments were seen in the previous quarter³⁷ (Figure A.24). Manufacturing as well as wholesale and retail trade continued to be the main beneficiaries of FDI, accounting for 60.3 percent of the total flows. The

Figure A.24: Foreign direct investment returned to its average for the first three quarters of 2018...
(USD billion)



Source: Bank Indonesia; World Bank staff calculations

³⁶ The initial election result was welcomed by investors and led to a surge in net foreign purchases in April. See [Tari \(2019\)](#).

³⁷ The large divestments in the mining sector in the previous quarter came from capital acquisition of foreign mining companies, PT. Freeport Indonesia, by Indonesia's state-owned enterprise, Inalum.

large FDI flows into the manufacturing sector were driven by global bond issuance and debt withdrawal from several automotive companies.³⁸

4. Headline inflation continued to ease due to declining food price inflation

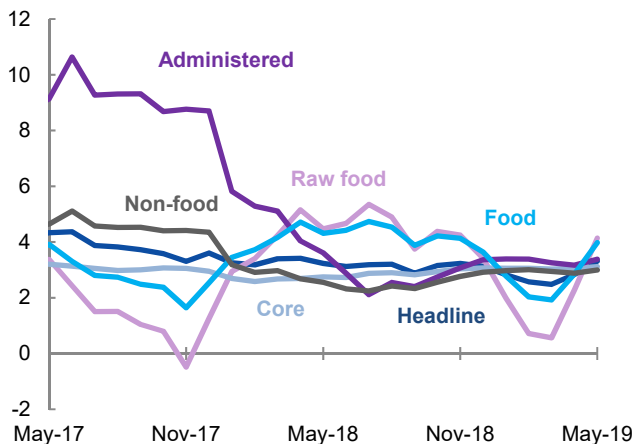
Inflationary pressures continued to weaken in Q1 partly due to low food price inflation

Reaching its lowest levels since Q4 2009, headline inflation fell from an average of 3.2 percent yoy in Q4 2018 to an average of 2.6 percent in Q1 2019, on the back of easing food³⁹ price inflation, which dropped to an average of 2.2 percent yoy in Q1 2019 from 4.0 percent in Q4 2018. Lower food price inflation was partially offset by an increase in non-food price inflation to 3.0 percent yoy in Q1 2019 from 2.7 percent in Q4 2018. Accordingly, core inflation, which excludes inflation from volatile and administered goods, remained broadly stable at an average of 3.1 percent yoy in Q1 2019. Meanwhile, despite lower energy prices, administered prices inched up to 3.3 percent yoy in Q1 2019, from 3.1 percent in Q4 2018, due to higher domestic airline fares (Figure A.25).⁴⁰

Partly due to increased food price pressures on account of Ramadan, monthly headline inflation rose to 3.3 percent yoy in May from 2.5 percent in March, which was the lowest in more than 9 years.

Figure A.25: Easing food price inflation weighed on headline inflation in Q1 2019

(change yoy, percent; last observation May 2019)

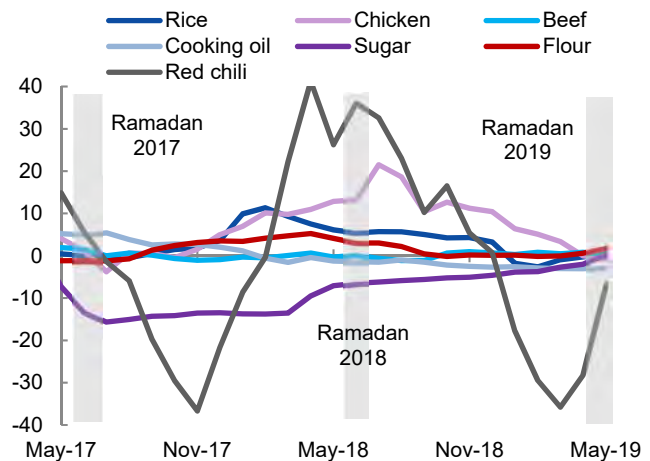


Source: BPS; World Bank staff calculations

Note: Food prices are a weighted average of the raw and processed food price components of the CPI.

Figure A.26: Key domestic food prices ticked up in May on account of upcoming Ramadan

(change yoy, percent)



Source: BPS; World Bank; World Bank staff calculations

Raw food prices drove the moderation in food inflation

Declining for the third consecutive quarter, raw food price inflation plunged from an average of 4.0 percent in Q4 2018 to an average of 1.1 percent in Q1, the lowest since Q4 2017 (Figure A.23), reflecting the declining prices of several staple foods such as rice, cooking oil, chili, sugar and flour (Figure A.26). Despite recent El Nino-related events⁴¹ which dampened agriculture output in the region, the supply of food in Indonesia remained stable in Q1 2019. This was due to the recently enhanced distribution network of new toll roads and sea lanes, effective government monitoring of food supplies, and timely import of food products in anticipation of higher demand during significant events, such as the April 2019 general elections.

³⁸ Bank Indonesia (2019).

³⁹ Includes both foodstuff and prepared food.

⁴⁰ Thomas (2019).

⁴¹ Becker (2019).

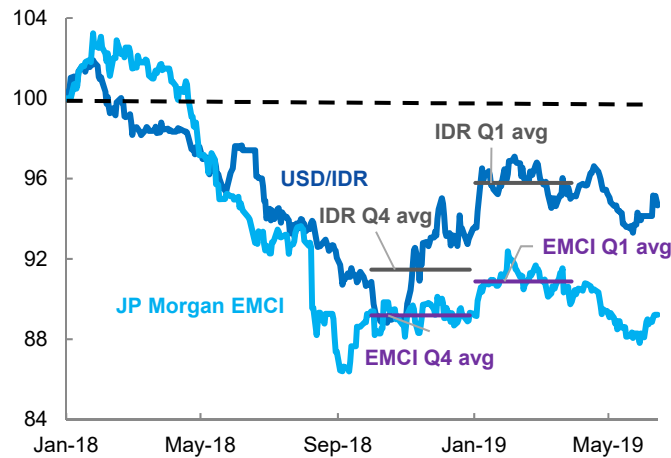
In May, prices of foodstuff rose 4.1 percent following a 0.6 percent increase in March in the prices of several key domestic food commodities, such as eggs and flour, partly due to the Muslim fasting month of Ramadan.

5. Macro-financial conditions remained stable in Q1

Capital flows continued to return in Q1, easing pressure off the Rupiah

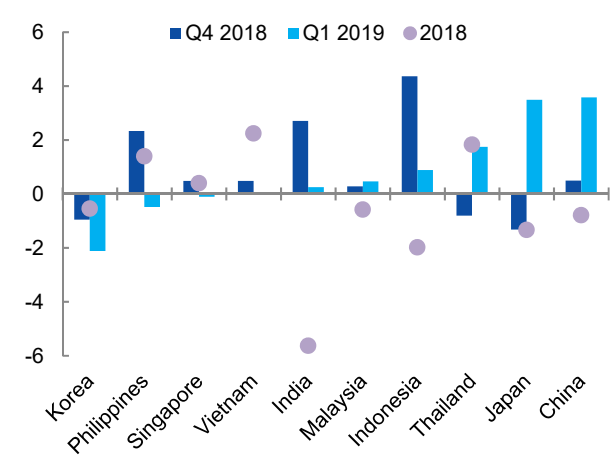
Extending the sharp turnaround in November 2018, Indonesia’s macro-financial conditions were relatively benign in Q1 as global financing conditions eased further. As the U.S. Federal Reserve turned more dovish, capital flows returned to Indonesia and other emerging markets (EM), leading the Rupiah to further recoup its losses from last year’s rout, when it depreciated by 6.9 percent against the U.S. Dollar. Bond yields also fell as investors searched for yield. Citing the need to maintain economic stability, BI kept the benchmark policy rate at 6 percent but took accommodative measures to stimulate domestic demand. Meanwhile, banks remain well-capitalized and the average non-performing loan (NPL) ratio is low. With renewed world trade tensions, some global financial volatility has re-emerged in recent weeks, putting some pressure on emerging market currencies and bond yields, including those of Indonesia.

Figure A.27: The Rupiah continued to recoup last year’s losses against the U.S. Dollar... (index, Jan 1, 2018 = 100)



Source: JP Morgan, Bank Indonesia, and World Bank staff calculations
 Note: Downward movement represents depreciation

Figure A.28: ...and appreciated in real effective terms (percent change)



Source: JP Morgan Real Effective Exchange Rate, CPI based (2010=100), and World Bank staff calculations
 Note: Downward movement represents depreciation

The Rupiah continued to appreciate against the U.S. dollar in Q1, albeit less than in Q4 2018

The Rupiah’s recovery vis-à-vis the U.S. Dollar continued in Q1 as Indonesia recorded net portfolio inflows of USD 4.7 billion.⁴² The Rupiah appreciated against the U.S. Dollar by 1.5 percent in nominal terms (Figure A.27), less than the 2.8 percent gain in Q4 2018. The currency also outperformed most other emerging market (EM) currencies, as the JP Morgan’s Emerging Market Currency Index (EMCI) appreciated by 0.8 percent in Q1. Although the Rupiah only appreciated by 0.9 percent in real effective exchange rate⁴³ terms, only the Thai Baht and Chinese Yuan performed better, while other EMs in the region experienced depreciations (Figure A.28).

The Rupiah depreciated by 1.0 percent in April and May as the resurfacing of United States-China trade tensions led investors to retreat to safe haven assets, withdrawing an estimated USD

⁴² See Section A.3.

⁴³ Real effective exchange rates are based on trade weighted averages of bilateral exchanges rates and adjusted by consumer prices.

1.2 billion of portfolio funds⁴⁴ from Indonesia in May. The EMCI depreciated by 2 percent over the same period, as emerging markets similarly recorded large net outflows of USD 5.7 billion. In addition, the servicing of offshore loans and dividend payments, which typically occur in Q2, partly led to the increased domestic demand for U.S. dollars⁴⁵ in Indonesia.

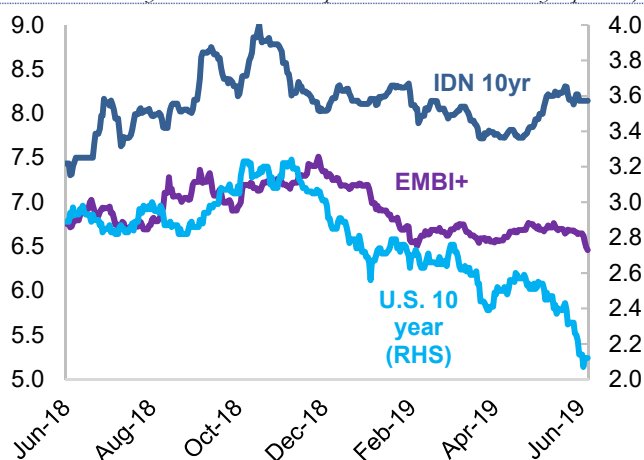
Bond yields fell in Q1, but maintained a constant spread vis-à-vis U.S. Treasury yields

Sovereign bond yields across all tenors fell in Q1, with the 10-year bond yields falling 32 basis points (bps), after declining by 20 bps in Q4 2018 (Figure A.29). The spread between IDR–USD 10-year yields remained stable at 54 bps, similar to the previous two quarters. In a sign of continued investor appetite for Indonesian bonds, all auctions were oversubscribed by an average of 2.5 times in Q1.⁴⁶ However, investor interest was equally strong in Malaysia and Vietnam, where yields on 10-year sovereign bonds fell by a similar magnitude, and even stronger in the Philippines, where they fell by 141 bps (Figure A.30). The Emerging Markets Bond Index Plus (EMBI+) declined by 64 bps in Q1. In April, 10-year bond yields remained largely flat in April, averaging 7.9 percent, as investors postponed investment decisions on account of the Indonesian general elections. In May, however, yields rose 35 bps on heightened uncertainty from rekindled U.S.-China trade tensions.

In line with the still positive growth outlook, Standard and Poor’s Global Ratings (S&P) recently in May upgraded Indonesia’s sovereign credit rating to 'BBB' (a notch above investment grade)⁴⁷ from 'BBB-' on strong growth prospects. This follows upgrades by Moody’s (April 2018), the Ratings and Investment Agency (March 2018), Japan Credit Rating Agency (February 2018) and Fitch (December 2017).

Figure A.29: Bond yields fell in Q1, but the spread vis-à-vis the U.S. Treasury yield remained stable

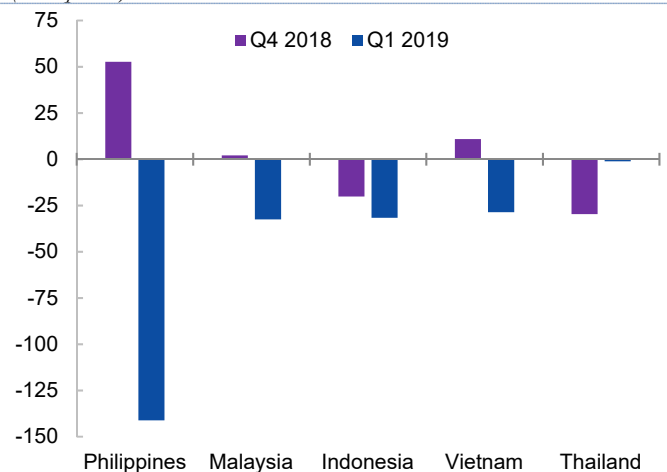
(LHS: IDN 10-year and EMBI+, percent; RHS: U.S. 10-yr, percent)



Source: JP Morgan, CEIC, World Bank staff calculations
 Note: EMBI+ is a JP Morgan emerging market bond index yield to maturity

Figure A.30: Yields on 10-year sovereign bonds from Indonesia, Malaysia, and Vietnam fell in Q1

(basis points)



Source: CEIC, Bank Indonesia, and World Bank staff calculations

Overall lending rates remain low, and average credit

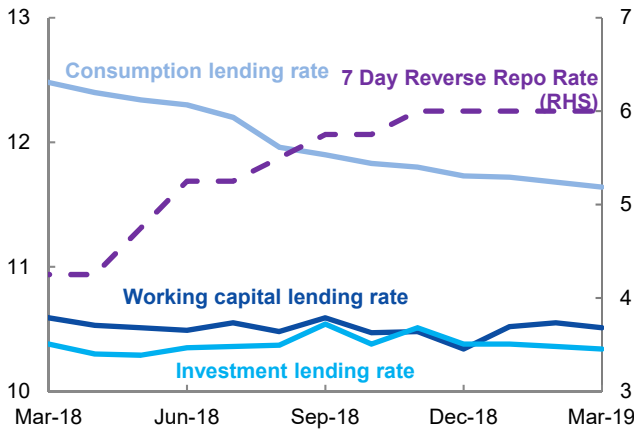
Despite headline inflation being at its lowest since Q4 2009 (see Section A.4), monetary policy has been on hold and largely neutral as BI focused on maintaining external stability and domestic demand. BI has held the 7-day Reverse Repo rate at 6 percent (Figure A.31), as well as the deposit and lending facility rates at 5.25 and 6.75 percent respectively, since December 2018.

⁴⁴ World Bank staff calculations using data from the International Institute of Finance.
⁴⁵ Indeed, the Rupiah depreciated by a similar magnitude over the same period last year.
⁴⁶ World Bank staff calculations based on press releases from the Ministry of Finance.
⁴⁷ Equivalent to Moody’s Baa2 and Fitch’s BBB.

growth has plateaued...

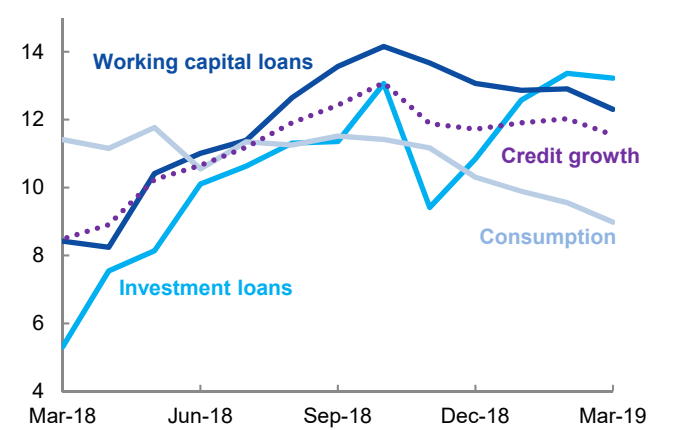
Most other central banks in the region have also held, although a few did ease rates in May.⁴⁸ Despite last year's tightening cycle,⁴⁹ average lending rates⁵⁰ have remained low at 10.9 percent, unchanged from Q4 2018, suggesting that banks continue to absorb higher borrowing costs.⁵¹ However, credit growth moderated to 11.8 percent yoy on average in Q1 (Figure A.32) from 12.2 percent in Q4 2018 as consumer loans trended downwards. Investment loan growth nonetheless remained strong, picking up to 13.1 percent yoy in Q1 compared to 11.1 percent previously, indicating investment is increasingly being financed by bank lending.⁵²

Figure A.31: Overall lending rates remain low... (percent)



Source: CEIC, Bank Indonesia, and World Bank staff calculations

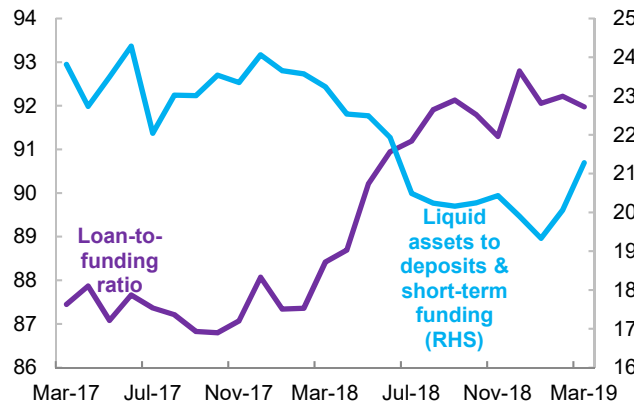
Figure A.32: ...while average credit growth plateaued (yoy growth, percent)



Source: CEIC, Bank Indonesia, and World Bank staff calculations

Figure A.33: Banking sector liquidity has stabilized, but remains sluggish

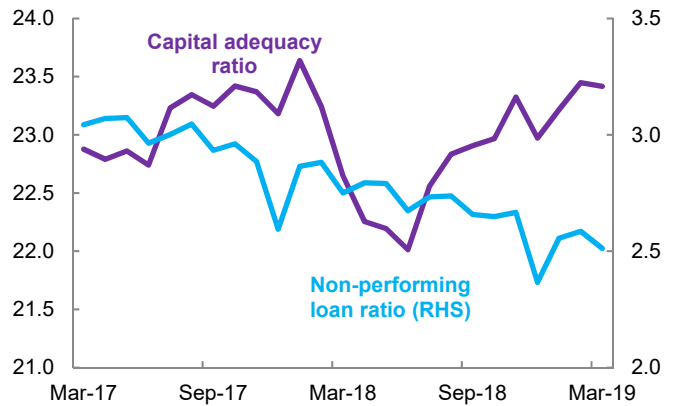
(LHS: Loan to funding ratio, percent; RHS: liquid assets to deposits and short-term funding, percent)



Source: Bank Indonesia and OJK, World Bank staff calculations

Figure A.34: Banks remain well-capitalized and the average NPL ratio is low

(LHS: Capital adequacy ratio, percent; RHS: non-performing loan ratio, percent)



Source: OJK, CEIC, and World Bank staff calculations

⁴⁸ Philippines' Bangko Nga Sentral lowered rates by 25 bps on May 5th, followed by Bank Negara Malaysia on May 7th, also by 25 bps.

⁴⁹ Bank Indonesia raised policy rates six times in 2018 by a cumulative 175 bps.

⁵⁰ The average of lending rates for consumption, working capital, and investment loans. Working capital loans are short-term credits given to finance the working capital needs of a debtor, e.g., property or agribusiness loans; investment loans are medium- to long-term credits to purchase capital goods and services required for a new business or project. Source: BPS.

⁵¹ Indonesian banks are able to absorb the higher borrowing costs because of high net interest margins of 5.1 percent, much higher than neighboring countries such as Thailand (2.9 percent), Malaysia (2.1 percent) and Singapore (1.5 percent). Source: World Bank Finstats and OJK.

⁵² This is in line with the rotation of investment away from mining, which tends to self-fund via retaining earnings, to non-mining investment, which traditionally relies more on bank financing.

...in part due to dwindling banking liquidity compared to a year ago.

Still-sluggish banking liquidity also contributed to the slower credit growth. Despite BI's efforts to shore up liquidity, the ratio of liquid assets to deposits and short-term funding⁵³ remained stable at 20.2 percent in Q1, unchanged from the previous two quarters. The loan-to-funding ratio⁵⁴ reached 92.1 percent, also unchanged from Q4 2018 (Figure A.33). To spur bank lending, BI announced that it would increase the frequency of open-market operations through FX swaps and repo term auctions, among other measures.⁵⁵ Other financial stability indicators remain adequate: the gross non-performing loan (NPL) ratio remained on a declining trend, hovering around 2.6 percent⁵⁶ in Q1, on par with Q4 2018, whereas the capital adequacy ratio (CAR) averaged 23 percent, well above the minimum regulatory CAR of 12 percent (Figure A.34).

6. Weaker revenues, strong spending, in the lead up to Indonesia's 2019 elections

Strong revenues in 2018 gave way to some weakening this year while expenditures rose prior to elections

The fiscal deficit came in at 1.8 percent of GDP for 2018, the lowest since 2012, due to strengthened fiscal revenue collections and despite the fiscal impact of natural disasters. The Central Government debt-to-GDP ratio increased slightly to 29.8 percent, reflecting in part rising interest rates and currency depreciation. However, the momentum in revenue collections slowed in the first four months of 2019, as total revenue collections softened to the lowest in three years on weaker VAT, commodities-linked revenues and non-oil and gas (O&G) income taxes. By contrast, expenditures grew at the fastest pace in the past three years. This was due to higher disbursement of social spending, personnel, and subsidies in the quarter preceding Indonesia's first ever simultaneous presidential and parliamentary elections.⁵⁷ Capital spending, however, contracted for the second consecutive year.

The 2018 fiscal deficit narrowed thanks to a jump in revenue collection

Revenues collections increased 16.6 percent yoy in 2018 compared to 2017, on the back of tax administration and tax policy reforms and a cyclical increase in commodity prices. As a result, the tax-to-GDP⁵⁸ ratio rose to 10.2 percent from 9.9 percent in 2017, after five years of yoy declines. On the expenditure side, government spending rose by 10.3 percent yoy compared to 2017, driven by the growth of material, energy subsidies, and personnel spending. For the first time since reforms were enacted in 2014-2015, expenditures on energy subsidies rose from 0.7 percent of GDP in 2017 to 1.0 percent of GDP in 2018. Nonetheless, the Government managed to contain spending by under-executing the capital budget and using contingency funds within the approved budget envelope for energy subsidies and natural disasters.⁵⁹ As a result of strong revenues and contained spending, the Government achieved a fiscal deficit of 1.8 percent of GDP in 2018,⁶⁰ the smallest since 2012.

The debt ratio increased slightly in

Total Central Government debt amounted to IDR 4,418.3 trillion by end-2018, equivalent to 29.8 percent of GDP. This represented an increase of 0.4 percentage points from 2017 (Figure

⁵³ Ratio of liquid assets to total deposits and short-term funding (liabilities to Bank Indonesia and interbank liabilities) for all commercial banks.

⁵⁴ Ratio of total credit to total third-party funds and issued securities for all commercial banks.

⁵⁵ Other notable measures include increasing the supply of domestic non-deliverable forwards by simplifying regulations and lowering the cost of the National Clearance System. [Bank Indonesia \(2019\)](#).

⁵⁶ The NPL ratio is higher among some groups of banks, especially regional development banks.

⁵⁷ In previous years, the timing of the presidential elections and parliamentary elections differed. The 2019 elections were the first in Indonesia's history that witnessed both elections on the same day.

⁵⁸ Domestic and international taxes only, excluding non-tax revenues.

⁵⁹ Preliminary estimates of the impact from the West Nusa Tenggara (Lombok) earthquakes and the Central Sulawesi (Palu) earthquake and tsunami, amounted to at least USD 2.2 billion in direct damages and USD 0.8 billion in economic losses. Total reconstruction needs are projected at about USD 3.4 billion (0.3 percent of GDP) between 2019 and 2021. These amounts exclude damages and losses from the Sunda Strait tsunami (Anak Krakatau), the estimates for which are still pending.

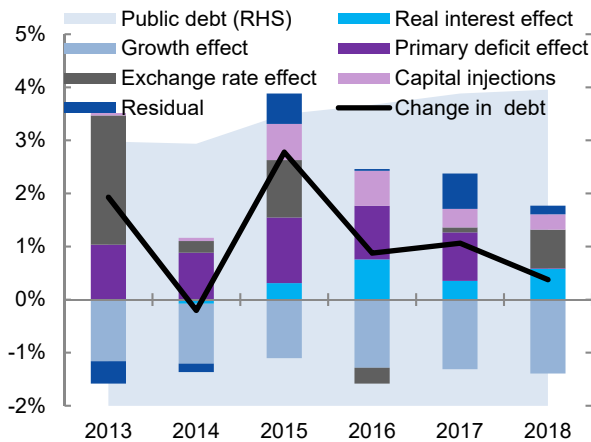
⁶⁰ The primary fiscal deficit was recorded at 0.1 percent of GDP, the lowest since 2012.

2018 in part due to rising real interest rates and exchange rate depreciation

A.35). Sustained GDP growth put downward pressure on the growth of the debt-to-GDP ratio, but rising real interest rates⁶¹ and the depreciation of the Rupiah against major currencies in 2018 led to an increase in debt-to-GDP. The reduction in large debt-financed capital injections into infrastructure State-Owned Enterprises (SOEs) and Public Service Agencies (*Badan Layanan Umum* or BLUs) in 2018 compared to 2015 and 2016 also helped contain the rise in the debt-to-GDP level.⁶²

Figure A.35: Central Government debt-to-GDP increased slightly due to rising interest rates and currency depreciation

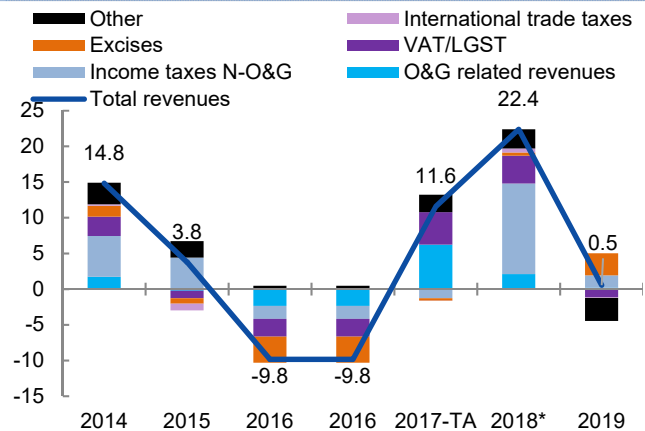
(percentage point contribution to increase in debt, percent of GDP)



Source: Ministry of Finance, LKPP, World Bank staff calculations

Figure A.36: Revenue collections slowed as VAT collections contracted

(January–April revenue contribution to growth, yoy, percentage points)



Source: Ministry of Finance; World Bank staff calculations

Note: O&G related revenues refer to oil and gas income tax, dividends and royalties (non-tax revenues), N-O&G stands for non-oil and gas income tax; VAT/LGST stands for value-added tax/luxury goods sales tax; “Other” includes: land/property taxes, other tax revenues; non-oil and gas non-tax revenues; other non-tax revenues (profits of public enterprises, revenues from Public Service Agency [BLU], and other non-tax revenues [PNBP]); and grants.
2017-TA means that total revenues exclude redemption fees collected under the Tax Amnesty Program. 2018* is a yoy comparison against 2017-TA.

Revenue growth at the beginning of 2019 slowed as collections from VAT contracted

Growth of revenue collections from January-April 2019 plunged to the lowest in three years, after reaching a record high of 22.4 percent for the same period last year. Total revenue grew only by 0.5 percent yoy (Figure A.36), mainly due to contraction of value-added taxes and other taxes, as well as slower growth of commodity-linked revenues and of non-O&G income taxes. While a high base effect is one explanatory factor⁶³, slower tax performance was also tied to the weakening of value-added taxes/luxury goods sales taxes (VAT/LGST), which contracted for the first time since 2015, by 4.4 percent. Both domestic and import VAT, the lion’s share of VAT collections, experienced slower growth. This was due primarily to (i) slowing imports and lower commodity prices; (ii) the Government’s target of improving services to businesses through accelerated VAT refunds;⁶⁴ and (iii) the changing pattern of domestic private

⁶¹ Higher interest rates reflect a normalization of global interest rates and a shift to commercial borrowing by the Government.

⁶² The decomposition of the debt-to-GDP ratio into its drivers (real interest rates, real GDP growth, exchange rate, primary fiscal balance and a residual) is explained in the IMF’s “Staff Guidance Note for Public Debt Sustainability Analysis for Market-Access Countries.” Annex I. [see Tiwari \(2019\)](#).

⁶³ Non-O&G income taxes grew by 32.3 percent from January to April 2018 due to the strong performance of corporate taxes (Article 29) on the back of strong growth in the manufacturing sector over the same period in 2018.

⁶⁴ Import and domestic VAT contracted at -10.5 percent and -7.9 percent, respectively. In January-April 2019, total refunds increased by 38 percent yoy compared to the same period in 2018, which was driven by accelerated VAT refunds that grew by 88 percent yoy.

consumption ahead of the general elections.⁶⁵ In addition, lower profits from SOEs dragged the growth of other taxes. Meanwhile, excise taxes registered their strongest performance at 82.2 percent growth due to a shift in the bulk of tobacco excise payment from year-end to year-beginning, as companies benefited from the government's decision to maintain the 2018 tobacco tariffs in 2019.⁶⁶

Government spending grew rapidly, particularly driven by social spending, personnel, and subsidies

Total Government spending from January to April stood at IDR 632 trillion or 25.7 percent of total budget, on par with the budget execution rate in the previous year at 8.4 percent yoy (Figure A.37). Spending growth was noticeably strong mainly due to a pick-up in social spending, personnel, and subsidies, which together contributed 8.2pp to spending growth over this period. This reflected the Government's policy of supporting growth by stimulating demand from the middle class in the lead up to the general elections. Social spending grew by 75.7 percent yoy (Figure A.38) as the Government disbursed more than half of the social budget in the first four month of the year, mainly through the Family Hope Program (*Program Keluarga Harapan* or PKH).⁶⁷ Moreover, advance payments for the Subsidized Health Premium program (*Penerima Bantuan Iuran* or PBI-JKN) beneficiaries has partly accelerated expenditure execution. Personnel spending grew by 11.9 percent, more than triple the growth in the same period last year, due to higher civil servants' salaries and performance allowances.⁶⁸ Meanwhile, growth of subsidies stayed robust at 49.2 percent yoy due to higher realization of energy subsidies and faster disbursement of subsidies for fertilizer and credit programs.⁶⁹

Capital spending remained sluggish for a second consecutive year

The Government underspent its capital budget for the second consecutive year. Capital spending contracted by 15.1 percent yoy from January to April, following the contraction of 2.4 percent over the same period last year. The slowdown is partly linked to restrictions in imports of capital goods due to concerns over the widening of the current account deficit,⁷⁰ but other factors are also at play.⁷¹

⁶⁵ During election periods, consumption from non-profit institutions serving households tends to increase, but these institutions are largely VAT-exempted, hence the negative impact on VAT collections. As noted in section 1, household consumption growth also slowed in this period, impacting domestic VAT collections.

⁶⁶ In previous years, the Government increased the tobacco excise on an annual basis. This meant that it was cheaper for tobacco companies to purchase tobacco excise stamps for anticipated production and sales in the new year at the end of the previous year. The incentives changed in 2019 as tobacco excise tariffs were kept unchanged from 2018. See [Kemenkeu \(2019\)](#); and [Kontan \(April 24, 2019\)](#).

⁶⁷ This was mainly driven by the new addition of non-flat indices to the PKH beneficiaries. The new indices expand PKH benefits between 30 to 110 percent compared to regular allocations to families that fit the criteria in the new indexes. Specifically, the indexes adjust the PKH's benefit of IDR 1.8 million per family per year to the following: (i) families with pregnant women, children under five, elderly people or persons with disabilities will receive additional IDR 2.4 million per person per year ; (ii) families with elementary-school-age, junior-high-school-age, and high-school-age children will get additional IDR 0.9 million, IDR 1.5 million, and IDR 2 million per person per year, respectively; (iii) each family will get additional permanent assistance of IDR 550,000 per year; while (iv) families living in difficult and remote areas will get additional permanent assistance of IDR 1 million per year. See: <https://nasional.kontan.co.id/news/dana-bantuan-pkh-akan-cair-mulai-pekan-ketiga-januari>

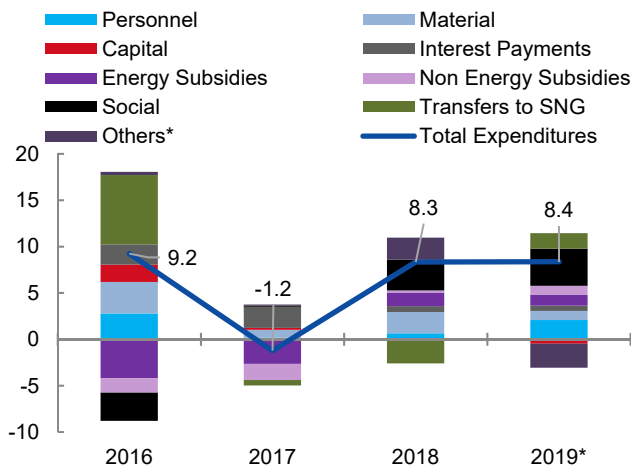
⁶⁸ [Riana \(2019\)](#); [Koran Jakarta \(April 18, 2019\)](#).

⁶⁹ APBN Kita (May, 2019).

⁷⁰ See detailed discussion in Section A.1.

⁷¹ Slower capital expenditure growth contrasts with the fact that capital-intensive ministries such as the Ministry of Public Works and Ministry of Transportation were still contracting out more than half their projects. Late procurement, a challenge in previous years prior to Government reform in 2017-2018, no longer appears to be a binding constraint. According to some reports, contractors are completing their work but have not filed their payment claims. See [Merdeka \(March 25, 2019\)](#); [Azka \(2019\)](#). For references on project delays, see [Sidik \(February 11, 2019\)](#); and [Aldin \(2019\)](#).

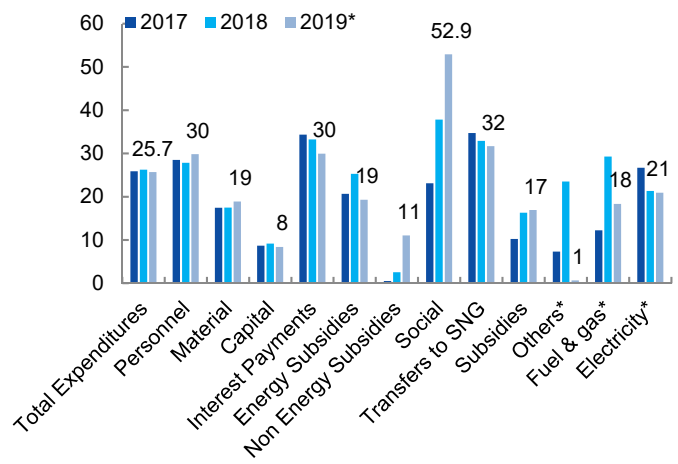
Figure A.37: Government expenditures growth was mainly driven by higher social spending
(January-April expenditure contribution to growth, yoy, percentage points)



Source: Ministry of Finance, World Bank staff calculations

Notes: *Fuel and gas for 2018 is not the figure published by the Government's APBN Kita, as it excludes arrears payments which are added back to the "Others" spending category as per the budget classification. *Others from 2017 onwards includes arrears payments from previous energy subsidies

Figure A.38: Larger disbursement of the social budget occurred
(January-April expenditure as percent of budget allocation, percent)



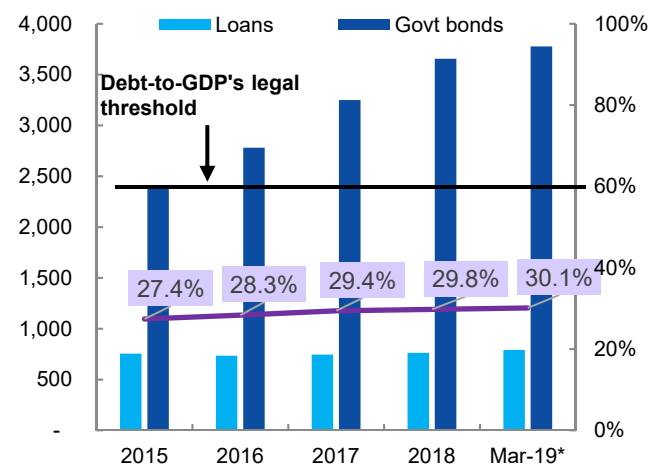
The cumulative fiscal deficit is larger than last year in nominal terms

With higher spending growth, the cumulative fiscal deficit reached IDR 101 trillion by end-April 2019 compared to IDR 55.1 trillion for the same period in 2018. Meanwhile, the total net financing was at IDR 143.8 trillion, in anticipation of project financing and refinancing needs.⁷²

Central Government debt levels remain manageable

While increasing modestly in recent years, total Central Government debt until end of March 2019 reached IDR 4,567.3 trillion, equivalent to 30.1 percent of GDP⁷³, well below the legal threshold of 60 percent (Figure A.39). With more than half of the total debt stock denominated in domestic currency bonds and only 9.9 percent⁷⁴ having a short-term maturity, exposure to exchange-rate and refinancing risks is prudently managed.

Figure A.39: Government debt stock position end-March
(IDR nominal trillion, percent of GDP, RHS)



Source: Ministry of Finance, LKPP, World Bank staff calculations

Note: *With exception of 2019, 2015-2018 debt stock position is by end-of December. The 2019 GDP is Government's projections, estimated in end-of April using interpolations method.

⁷² Profil Utang Pemerintah Pusat (April, 2019).

⁷³ Based on the Government's projection for 2019 nominal GDP, which was estimated at the end of April using interpolation.

⁷⁴ Ibid.

7. Labor market conditions remain buoyant

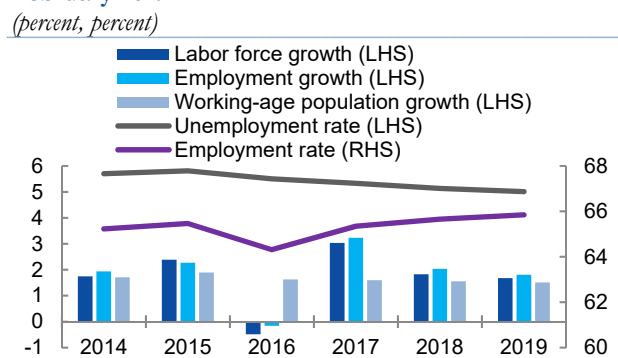
Indonesia's labor market remained buoyant with...

In line with robust economic growth and strong domestic demand, Indonesia's labor market conditions remained buoyant at the beginning of 2019. The employment rate rose to another record high in February 2019, while the unemployment rate fell to a record low. With the labor force growing more rapidly than the working-age population, the labor force participation rate rose to a four-year high in February 2019. At the same time, employee wages saw a recovery with average net monthly employee wages growing 5.2 percent yoy after a decline last year.

... record high employment rates...

The overall employment rate inched up to a record high of 65.8 percent yoy in February 2019, up from 65.7 percent in February 2018 (Figure A.40).⁷⁵⁷⁶ After growing by 2.0 percent in February 2018, employment grew by a further 1.8 percent to reach an all-time high of 129.4 million. During this time, 2.3 million jobs were created, lower than the 2.5 million jobs created a year ago but more than the number of new labor market entrants (Table A.3). On an industry basis, the wholesale and retail trade industry contributed most to employment growth by creating more than 923,000 jobs. Similarly, the accommodation and food and beverage industry added around 700,000 jobs⁷⁷ and construction added 560,000 positions.⁷⁸ These three industries together accounted for 95 percent of new jobs. In line with continued rural-urban migration, the agriculture industry, which employs nearly 30 percent of all workers, saw a small decline in employment.

Figure A.40: Employment rate reached a record high and the unemployment rate was a record low in February 2019



Source: National Labor Force Survey (Survei Angkatan Kerja Nasional, Sakernas), World Bank staff calculations
Note: Includes February readings only

Table A.3: The wholesale and retail trade, accommodation and food and beverage, and construction industries accounted for 95 percent of job creation in February 2019

Industries	Feb 2018 Employment Share	Feb 2018 Employment Growth Rate	Feb 2018 Job creation (millions)	Feb 2019 Employment Share	Feb 2019 Employment Growth Rate	Feb 2019 Job creation (millions)
Total Employment	100.0	2.0	2.5	100.0	1.8	2.3
Wholesale/Retail Trade; Vehicle Repair	18.5	1.3	0.3	18.9	3.9	0.9
Accommodation/Food Service Activities	4.9	11.1	0.6	5.4	11.2	0.7
Construction	5.6	-1.5	-0.1	5.9	8.0	0.6
Manufacturing	14.1	4.9	0.8	14.1	1.7	0.3
Education	5.0	-1.3	-0.1	5.1	4.6	0.3
Business Activities	1.2	9.4	0.1	1.3	6.8	0.1
Transportation and Storage	4.0	3.2	0.2	4.0	2.1	0.1

⁷⁵ Indonesian labor market statistics are published twice a year in February and August. However, comparisons of February and August data values are avoided as there are seasonal differences, such as in crop seasons, which would affect workforce employment and other labor market statistics.

⁷⁶ The employment rate is the number of employed workers divided by the total working-age population. Its recorded value tends to be higher in the February Sakernas than the August Sakernas.

⁷⁷ While changes in employment creation in most sectors in 2018 are likely due to short-term sectoral and labor market dynamics, employment creation in the wholesale and retail trade, restaurants and hotels industries have been steadily increasing since 2013, from around 589,000 additional employment in 2013, 1.5 million in 2017, to 2.6 million in 2018. A key contributing factor to this continued growth is the booming online digital platform and the tourism industry, which account for around 85 percent of employment in these two industries in 2016 (Nesparnas 2017).

⁷⁸ Both the wholesale and retail trade industry and the accommodation, food, and beverage industry are low-wage industries with wages are below the national average wage of IDR 2.8 million.

Financial/Insurance Activities	1.3	-5.4	-0.1	1.4	5.0	0.1
Real Estate Activities	0.2	-19.5	-0.1	0.3	26.7	0.1
Mining & Quarrying	1.1	1.9	0.0	1.1	-1.0	0.0
Water Supply/Sewerage/Waste Management/Remediation	0.3	20.3	0.1	0.3	-3.6	0.0
Human Health/Social Work Activities	1.6	9.2	0.2	1.5	-1.7	0.0
Electricity and Gas	0.3	14.5	0.0	0.2	-9.9	0.0
Information and Communication	0.8	17.6	0.1	0.7	-5.8	-0.1
Public Admin/Defense/Compulsory Social Sec	4.2	6.4	0.3	4.0	-3.7	-0.2
Agriculture, Forestry, Hunting/Fishery	30.5	-2.5	-1.0	29.5	-1.5	-0.6
Other Services Activities	6.4	14.3	1.0	4.6	-27.2	-2.2

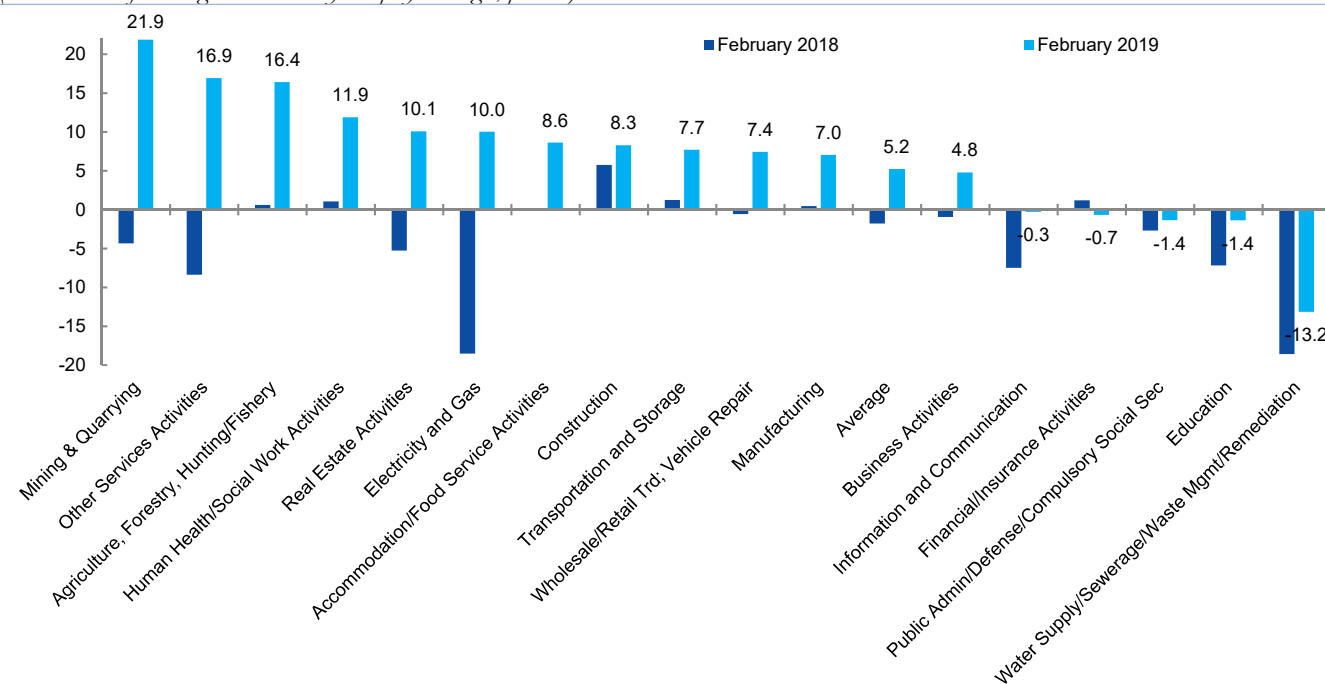
Source: National Labor Force Survey (Survei Angkatan Kerja Nasional, Sakernas), World Bank staff calculations.

... and record low unemployment rates

The record high employment rate was matched by the unemployment rate falling to a record low of 5.0 percent in February 2018 from 5.1 percent a year ago. The number of unemployed people fell by 51,260 to 6.8 million in February from 6.9 million in the same month last year. However, the rural–urban disparity persists with the urban unemployment rate at 6.3 percent, almost double the rural unemployment rate of 3.5 percent. The overall unemployment rate has been consistently declining since 2015, despite the growing labor force, which totaled 136.2 million in February this year, an increase of 2.2 million (1.7 percent) from a year ago. With the working-age population growing at only 1.5 percent, the Labor Force Participation Rate (LFPR) accordingly ticked up from 69.2 percent in February 2018 to 69.3 percent in February this year, a four-year high. The higher LFPR is also in line with robust economic activity, motivating people to join the labor force. Significant gender disparity still exists, with the male LFPR at 83.2 percent while the female LFPR is at 55.5 percent.

Figure A.41: Most industries saw nominal wage increases this year

(Growth rate of Average Net Monthly Employee Wages, percent)



Source: National Labor Force Survey (Survei Angkatan Kerja Nasional, Sakernas), World Bank staff calculations.

Nominal wages recovered with a number of industries

In contrast to February 2018, employee wages saw a recovery with average net monthly employee wages increasing 5.2 percent yoy (Figure A.41), significantly better than the 1.8 percent decline registered in February 2018, coupled with an inflation rate of 3.2 percent. The wage

having double-digit wage increases

increase was broad-based, with only a handful of industries showing lower wages relative to last year. Mining and quarrying workers saw the largest wage increase of more than 20 percent. Agriculture and forestry, electricity and gas, real estate, and health services were other industries that experienced double-digit wage growth. Industries with significant employment shares, such as manufacturing and wholesale and retail trade, saw wage increases of more than 7 percent.

Despite the robust labor market outturn, structural issues in jobs remain

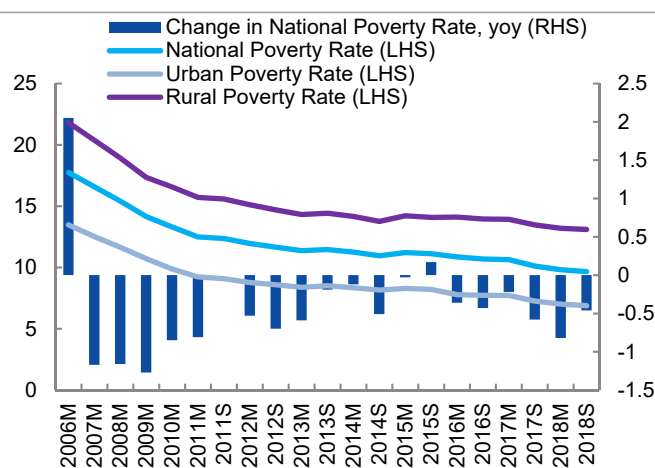
Despite the robust labor market outturn in February 2019, the labor market continues to have structural issues. These include relatively low-quality job creation as most new jobs are in relatively low-wage sectors, high youth unemployment rate (19.7 percent in August 2018),⁷⁹ low female labor force participation, and the gender wage gap with male wages being 20 to 25 percent higher than female wages.⁸⁰

8. Poverty and inequality continue to decline in Indonesia

The poverty rate reached a record low of 9.7 percent in September 2018

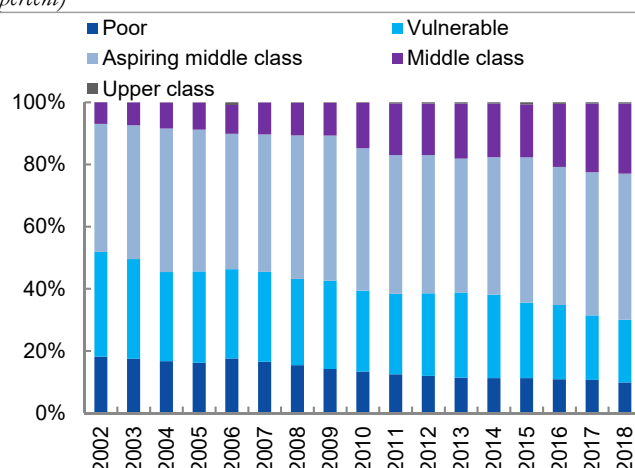
Indonesia’s poverty rate fell from 10.1 percent in September 2017 to 9.7 percent in September 2018, a historic low (Figure A.42). In absolute terms, the number of poor people declined from 27.6 million in September 2017 to 25.7 million in September 2018. The poverty gap, which measures the extent to which the expenditure of poor households falls below the poverty line, also fell from 1.8 percent in September 2017 to 1.6 percent in September 2018⁸¹. Although poverty has been declining, the rate of the decline has slowed in recent years.⁸² Growth, rather than changes in the consumption distribution, continues to remain the main driver of the observed decline in poverty.

Figure A.42: Poverty continues to fall
(poverty rate, percent, LHS; change in poverty, percentage points, RHS)



Source: National Socio-Economic Survey (Survei Sosial Ekonomi Nasional, Susenas). M=March, S=September

Figure A.43: Vulnerability is still high, but the middle class is expanding
(percent)



Source: National Socio-Economic Survey (Survei Sosial Ekonomi Nasional, Susenas).

⁷⁹ Youth is defined as those 15-24 years old.

⁸⁰ A forthcoming WB study will present analysis on this topic of gender disparity in wages. Mincerian regressions using 2016 to 2018 Sakernas data were estimated to determine the return to years of education, years of experience, and training for wage employees. Regressions controlled for occupational status, “completed training with certificate”, gender, disability, sector and rural–urban and were estimated by sector for all sectors.

⁸¹ The poverty gap depicts the depth of poverty or the average minimum cost of eliminating poverty, hence the fall in the poverty gap means that, on average, the poor people in September 2018 are less poor than those in September 2017. This implies that it is easier/cheaper to eliminate poverty in September 2018 than it was in September 2017.

⁸² Between 2012 and 2018, the poverty rate based on the national poverty line decreased by only 0.4 percentage points on average per year compared to the average of 1 percentage point annual decline between 2007 and 2012.

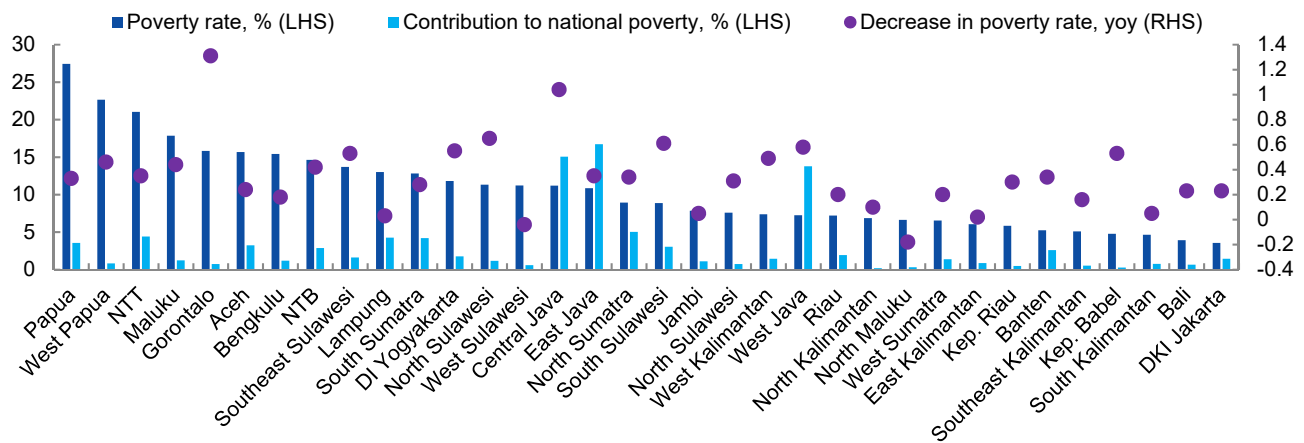
Over 20 percent of the population is at risk of falling into poverty, but the economically secure population is also expanding

Vulnerability – the proportion of households living just above the poverty line – has also continued to decline from 33.7 percent in 2002 to 20.2 percent in 2018, which indicates that one-fifth of the population are at risk of falling into poverty (Figure A.43). Hence, in addition to lifting the 9.7 percent of the population out of poverty, there is a need for pragmatic measures to be put in place to keep the vulnerable 20.2 percent of the population out of poverty. The middle class⁸³ has, however, been growing by 10 percent every year, from 7.0 percent of the population in 2002 to 22.5 percent in 2018. The expanding middle class will be a major driver of economic growth as it results in improved entrepreneurship and job creation, as well as improved social cohesion and political stability.⁸⁴

Poverty is still largely a rural phenomenon but the share of urban population in the total number of poor people is increasing

Poverty is still more prevalent in rural areas in absolute terms and in terms of population shares. In September 2018, poverty rate in rural areas was 13.1 percent, nearly double that of the 6.9 percent in urban areas; and 60.5 percent of the poor lived in rural areas. Also, out of the 1.8 million people that were lifted out of poverty between September 2017 and September 2018, 84.6 percent lived in rural areas. Poverty is more predominant in the rural areas because there is relatively limited access to income-generating opportunities, markets, health, and educational facilities in rural than in urban areas. It should, however, be noted that although poverty is more prevalent in rural areas, the share of the urban population in the total number of poor people has gradually increased – from 34.7 percent in March 2002 to 39.5 percent in September 2018. This is primarily due to urbanization, that is, the relocation of rural dwellers to urban areas.

Figure A.44: Although poverty declined nationally, the reduction was not uniform across the provinces
(poverty rate, percent; decrease in poverty, percentage points)



Source: National Socio-Economic Survey (Survei Sosial Ekonomi Nasional, Susenas)

While the national poverty rate declined, a few provinces saw an increase in poverty

The reduction in poverty at the national level was not uniform across the provinces of Indonesia (Figure A.44). In fact, poverty increased slightly in two provinces: West Sulawesi and North Maluku. The largest yoy reduction in poverty in the year to September 2018 occurred in Gorontalo (1.3 percentage points) followed by Central Java, North Sulawesi, South Sulawesi, West Java, South Sulawesi, and Babel Islands. The rest of the provinces recorded poverty reductions of less than 0.5 percentage point over the same time period. Most of the poor were located in the Java Islands, but the poverty rate is highest in Papua (27.4 percent in Papua and 22.7 percent in West Papua).

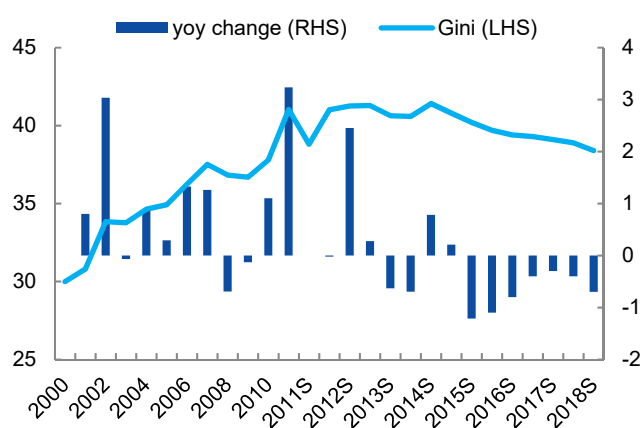
⁸³ The middle class is the section of the population that is economically secure, with little chance of falling into poverty.

⁸⁴ World Bank (2018a). The aspiring middle class – who have escaped poverty but are not yet economically secure, with a greater-than-10-percent chance of being vulnerable next year – has also increased slightly from 41.1 percent in 2002 to 47 percent in 2018.

Inequality also continued to fall, primarily because of increases in the share of the bottom and middle 40 percent in national consumption

Inequality also continued to decline, due mainly to increases in the share of the bottom and middle 40 percent in national consumption (Figure A.45 and Table A.4). Inequality at the national level, measured by the Gini coefficient, declined from 39.1 in September 2017 to 38.4 in September 2018, thus continuing the downward trend that began in 2014. However, similar to the trend in poverty, the decline in inequality was not uniform. Across the urban–rural split, inequality decreased substantially (40.4 to 39.1) in urban areas but remained almost the same (32.0 to 31.9) in rural areas. The urban–rural differential in inequality decline resulted from substantially larger shares of the bottom and middle 40 percent in urban consumption, in contrast to the rural population, where the share of the top 20 percent in rural consumption rose.

Figure A.45: Inequality continued to fall
(share of national consumption, percent)



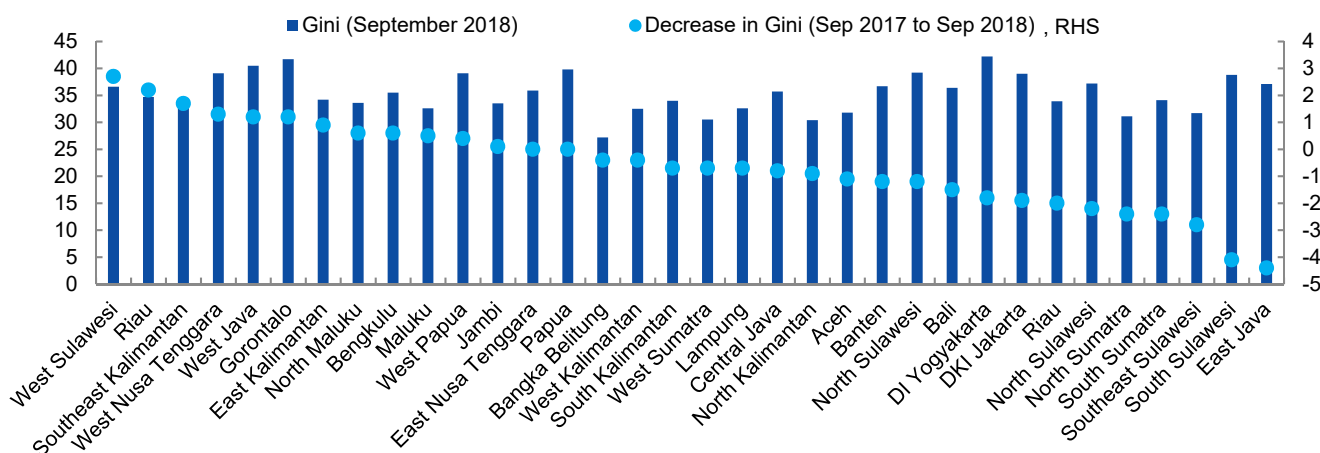
Source: Susenas
Note: M = March and S = September

Table A.4: The fall in inequality at the national level was driven by increases in the consumption shares of the Bottom and Middle 40 percent
(share of national consumption, percent)

	Period	Bottom 40	Middle 40	Top 20
National	Sep 2017	17.2	36.7	46.1
	Sep 2018	17.5	37.0	45.6
	Δ 2018-2017	+0.3	+0.3	-0.5
Urban	Sep 2017	16.3	36.7	46.9
	Sep 2018	16.8	37.5	45.8
	Δ 2018-2017	+0.5	+0.8	-1.1
Rural	Sep 2017	20.3	40.0	39.7
	Sep 2018	20.4	39.8	39.8
	Δ 2018-2017	+0.1	-0.2	+0.1

Source: Susenas

Figure A.46: The fall in inequality was not uniform across provinces
(inequality rate, percent, LHS; decrease in inequality, percentage points, RHS)



Source: National Socio-Economic Survey (Survei Sosial Ekonomi Nasional, Susenas)

The decline in inequality was not

The decline in inequality was also not uniform across provinces, which implies that more customized approaches to inequality reduction are required for certain provinces (Figure A.46).

uniform across provinces

Across 33 provinces, inequality worsened in 12: Riau, Jambi, Bengkulu, West Java, West Nusa Tenggara, South East Kalimantan, East Kalimantan, Gorontalo, West Sulawesi, Maluku, North Maluku, and West Papua; and remained unchanged in 2 provinces (East Nusa Tenggara and Papua). The largest decline on inequality occurred in West Sulawesi (2.7 points), Riau (2.2 points), South East Kalimantan (1.7 points), West Nusa Tenggara (1.3 points), West Java (1.2 points) and Gorontalo (1.2 points). The reduction in inequality for the remaining provinces was below 1 Gini point.

9. Economic growth outlook and risks**The outlook continues to be positive; however, significant downside risks persist**

Despite being projected to be lower than before, Indonesia's growth outlook remains positive in line with the recent S&P rating upgrade. The economy is expected to be lifted by robust domestic demand, underpinned by strong fundamentals coupled with a coordinated and prudent macro-fiscal-exchange rate policy framework. Furthermore, some support from the external sector is expected for at least the near term, despite external conditions becoming even less conducive in recent weeks. Risks to the growth outlook have become even more tilted towards the downside, with renewed and escalating trade tensions likely to further weigh on world trade. Relatedly, slower global growth from weaker outturns among developed economies and China also pose substantial risks.

Table A.5: Key economic indicators*(growth yoy, percent, unless otherwise indicated)*

	Annual			Revision from previous IEQ
	2018	2019f	2020f	2019
1. Main economic indicators				
Gross Domestic Product (GDP)	5.2	5.1	5.2	-0.1
Private consumption	5.1	5.2	5.2	0.0
Government consumption	4.8	5.1	5.0	-0.2
Gross fixed capital formation	6.7	5.0	5.2	-2.5
Exports of goods and services	6.5	2.6	3.5	-4.6
Imports of goods and services	12.0	0.0	3.2	-10.7
2. Other economic indicators				
Consumer price index	3.2	3.0	3.1	-0.5
3. Economic Assumptions				
Exchange rate (IDR/USD)	14237	14186	14475	-74
Indonesian crude price (USD/bbl)	67.5	64.3	63.3	-2.4

Source: BPS; Bank Indonesia; CEIC; World Bank staff projections

Note: 2018 figures are actual outcomes; f stands for forecast. Statistical discrepancies and changes in inventories are not presented in this table. All GDP components are based on the latest GDP data. Exchange rate and crude oil price assumptions are average annual data. Revisions are relative to projections in the December 2018 edition of the Indonesia Economic Quarterly.

Growth is expected to ease to 5.1 percent in 2019 on more unfavorable external conditions

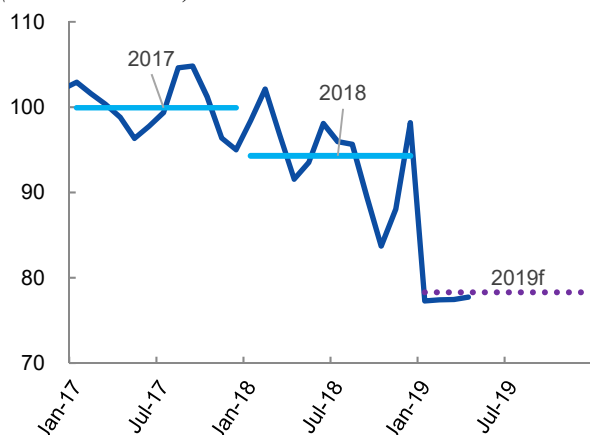
Given the weaker-than-expected outturn in Q1 and renewed trade tensions, economic growth in 2019 is forecast to ease to 5.1 percent and then tick up to 5.2 percent in 2020 (Table A.5). The modest acceleration in private consumption is expected to continue due to the general elections, low inflation, and buoyant labor market conditions. Despite lower-than-expected year-to-date revenue collections, ongoing fiscal reforms are projected to expand the fiscal space, allowing government investment to strengthen as infrastructure projects come back online and post-disaster reconstruction begins. While notably slower than last year's six-year high, investment growth is expected to remain robust, especially after the elections with reduced political uncertainty and more optimistic business sentiment on the proposed structural reforms. Government consumption is also expected to strengthen as the Government embarks on new

programs to boost human capital investment.⁸⁵ Amid deteriorating global conditions, slower world trade, and slower growth of Indonesia's major trading partners, exports growth is forecast to be muted. Import growth is also expected to be weaker, in line with slower but still robust investment growth and as government policies to curb imports are expected to remain in place in the near-term. Export growth is also projected to exceed import growth and thus the external sector will support total output growth for this year and the next.

The terms-of-trade are projected to deteriorate significantly in 2019

Figure A.47: Indonesia's terms of trade are projected to deteriorate in 2019...

(index: 2017=100)



Source: BPS; World Bank; World Bank staff calculations

Note: The net trade-weighted price index is constructed over Indonesia's six major export commodities (rubber, base metals, coal, oil, LNG, and palm oil). 2017 and 2018 are historical; 2019 is forecasted.

Table A.6: ...as prices of all its major commodities except rubber are expected to ease prices, historical and forecast

	2017	2018	2019f	2020f
Rubber (USD/kg)	2.0	1.6	1.7	1.8
Base metals (index)	84.9	90.6	87.4	89
Coal, Australian (USD/mt)	88.5	107	94	90
Crude oil average (USD/bbl)	52.3	68.3	66	65
LNG Japan, (USD/mt)	8.6	10.7	7.4	7.5
Palm oil (USD/mt)	751	639	600	623

Source: World Bank Commodity Markets Outlook, April 2019

Note: f stands for forecast.

Lower prices of Indonesia's major commodities lead to a projected weaker terms-of-trade in 2019

Indonesia's terms-of-trade (ToT)⁸⁶ are expected to be significantly lower in 2019 than in 2018 (Figure A.47). Indonesia's net trade-commodity price index⁸⁷ is expected to decline by 16 points in 2019 due to the lower projected prices of its key commodities, especially of coal (Table A.6). Coal prices are expected to decline as advanced economies shift to natural gas for electricity generation, and environmental considerations reduce demand from China and India. Crude oil prices have also been revised downwards due to a weaker-than-expected global growth outlook and greater-than-anticipated U.S. production. However, since Indonesia is a net importer of oil, lower oil prices will improve the country's terms-of-trade.

The current account deficit is expected to narrow in 2019

The current account deficit is projected to improve in 2019

In line with weakening global trade, growth of total exports and imports values are expected to be relatively muted, particularly in the near term. Despite slower projected growth among Indonesia's MTPs and a weakening of the commodity terms-of-trade, the CAD is forecast to narrow to 2.8 percent of GDP in 2019 and further to 2.5 percent of GDP in 2020 on easing

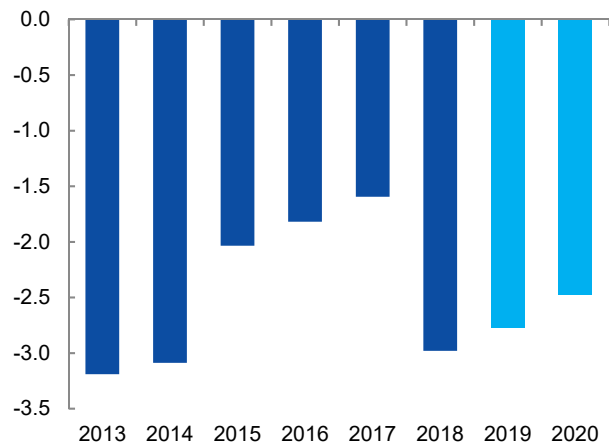
⁸⁵ Selected programs mentioned in President Jokowi's campaign speeches include the Smart Indonesia Scholarship Card for Tertiary Education, the Pre-Employment Card for recent university graduates seeking employment and the Affordable Food Card targeted to low income households for purchasing food at subsidized prices. See [The Jakarta Post \(December 04, 2018\)](#); [Tempo \(February 25, 2019\)](#).

⁸⁶ Terms of trade (TOT) refers to the relative price of imports in terms of exports and is defined as the ratio of export prices to import prices. It can be interpreted as the amount of import goods that an economy can purchase per unit of export good.

⁸⁷ The Net Trade-Commodity Price Index (NTI) is defined as: $NTI_t = \frac{Weight_{i,p} \times Price_{i,t}}{Price_{i,t}}$ where $Weight_{i,p} = \frac{(E_{i,t}) - (I_{i,t})}{\sum (E_{N,t}) - \sum (I_{N,t})}$ and $i =$ commodity type; $t =$ month; $p =$ period cycle (ex. 5 year average); $N =$ number of commodities; $T =$ base year; $E =$ value of export; $I =$ value of import. This edition of the IEQ updates the base year of the index to 2017 (in previous editions, 2015 was used as the base year).

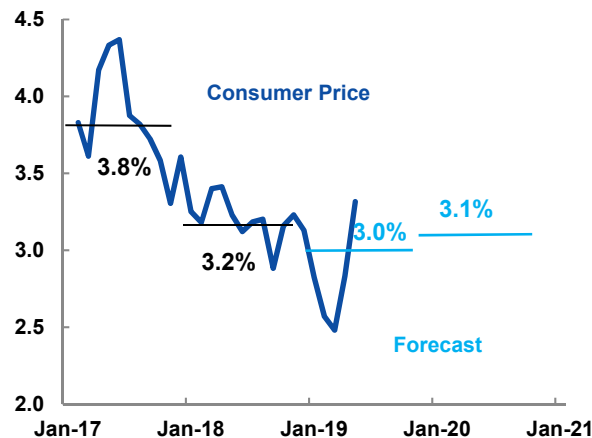
investment growth and as government policies to discourage imports remain in place, especially in the near term (Figure A.48).

Figure A.48: The current account deficit is expected to narrow in 2019 and 2020 as import-intensive investment eases
(percent of GDP)



Source: Bank Indonesia; World Bank staff calculations

Figure A.49: Headline inflation expected to ease as food prices moderated
(change yoy, percent; last observation May 2019)



Source: BPS; World Bank staff calculations

Inflation is expected to remain moderate ahead of Ramadan and Eid-ul-Fitr

The Muslim festivities of Ramadan and Eid-ul-Fitr in May and June are expected to exert the usual seasonal increase in inflationary pressures due to higher consumption demand for food and non-food goods. However, inflationary effects this year are likely to be more muted due to easing foodstuff price inflation, as relatively favorable weather conditions, combined with ample supplies, are expected to keep food prices relatively stable.⁸⁸ In addition, domestic rice prices are expected to remain steady in the coming months as rice⁸⁹ crops saw their peak harvest in April and May, thereby boosting domestic rice supply. Furthermore, Indonesia’s National Food Logistic Agency (Bulog) has maintained sufficient stocks of rice to last until the end of this year.⁹⁰

The easing food price inflation is expected to offset the seasonal increase in transportation costs.⁹¹ Together with a relatively stable exchange rate and subdued commodity prices, overall pressures on headline inflation are expected to be largely contained. Annual average headline inflation rate is therefore projected to be at 3.0 percent yoy in 2019, inching up to 3.1 percent in 2020, remaining within Bank Indonesia’s target band of 2.5-4.5 percent (Figure A.49).

⁸⁸ [Xinhuanet \(May 23, 2019\)](#).

⁸⁹ Rice is the most important crop in the Indonesia. BPS data showed that the weight of rice is 3.8 percent in the total consumption or 20.2 percent in the food basket.

⁹⁰ Bulog jamin stock beras Aman, tak akan impor sampai akhir tahun 2019, see [Merdeka \(May 03, 2019\)](#)

⁹¹ Due to increase in air fares since the end of 2018. See detailed discussion in Section 4.

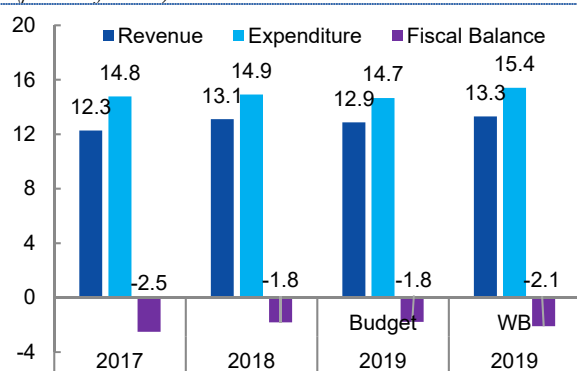
Government budget deficit is set to widen in 2019

The fiscal deficit is projected to widen slightly to 2.1 percent of GDP in 2019

Consistent with the macroeconomic outlook for 2019, and due in part to the impact of continued tax reforms,⁹² total Central Government revenues are projected to grow 13.3 percent of GDP. Meanwhile, total Government expenditures are forecast to increase 15.4 percent of GDP. Thus, the fiscal deficit is set to widen slightly to 2.1 percent of GDP in 2019, 0.3 percentage point higher than in 2018, but lower than the annual deficits recorded for the years 2013 through 2017 (Figure A.50, Table A.7).⁹³

Figure A.50: The World Bank projects a fiscal deficit of 2.1 percent of GDP in 2019

(percent of GDP)



Source: Ministry of Finance, World Bank staff calculations

Note: 2017–2018 are actual audited figures

Table A.7: World Bank fiscal budget projections

(IDR trillion, unless otherwise indicated)

	2017	2018	2019	2019	Budget 2019 vs Actual 2018 (% change)	WB 2019* vs Budget 2019 (% change)
	Actual	Actual	Budget	World Bank		
A. Revenues	1,666	1,944	2,165	2,106	11.4	-2.7
1. Tax revenues	1,344	1,519	1,786	1,679	17.6	-5.9
Oil & Gas Income taxes	50	65	66	64	1.5	-3.0
Non-Oil & Gas taxes, o/w:	1,101	1,248	1,511	1,409	21.1	-6.8
Non-Oil & Gas Income taxes	596	685	828	774	20.1	-6.5
VAT/LGST	481	537	655	607	22.0	-7.3
Land and building tax	17	19	19	20	0	5.3
Other taxes	7	7	9	7	28.6	-22.2
Excises	153	160	166	160	3.8	-3.6
International trade taxes	39	46	43	46	-6.5	7.0
2. Non-tax revenues	311	409	378	424	-7.8	12.2
Natural resources revenues	111	181	191	180	5.5	-5.8
Oil & Gas	82	143	160	139	11.9	-13.1
Non-Oil & Gas	29	38	31	40	18.4	29.0
Other non-tax revenues	200	229	188	244	-17.9	29.8
3. Grants	12	16	0	3	-100.0	200.0
B. Expenditures	2,007	2,213	2,461	2,442	11.2	-0.8
1. Central government	1,265	1,455	1,634	1,365	12.3	-16.5
Personnel	313	347	382	370	10.1	-3.1
Material	291	347	345	371	-0.6	7.5
Capital	209	184	189	287	2.7	51.9
Interest payments	217	258	276	255	7.0	-7.6
Subsidies, o/w:	166	251	224	226	-10.8	0.9
Energy	98	154	160	157	4.0	-1.9
Fuel	47	97	101	96	4.1	-5.0
Electricity	51	57	59	61	3.5	3.4
Non-energy	69	63	64	69	3.2	7.8

⁹² These include the revenue gains from expected reforms such as revenue administrative reforms that target higher compliance rates.

⁹³ This projection rests on the assumption that the Government does not undertake a significant revision of the Budget mid-year. Instead of narrowing its fiscal deficit, the Government may instead choose to increase spending mid-year, in line with an upward revision of the oil price assumption in its Budget, especially if revenue collections continue to perform strongly.

Grants	5	2	2	2	0	0
Social	55	84	102	92	21.4	-9.8
Other	9	16	114	17	612.5	-85.0
2. Transfers to regions	742	758	827	822	9.1	-0.6
C. Overall Balance	-341	-269	-296	-336	10.0	13.5
D. Financing	367	306	296	313	-3.3	5.7
<i>Memo items (as % of GDP)</i>						
Total Revenues	12.3	13.1	13.5	13.3		
Tax Revenues	9.9	10.2	11.1	10.6		
Non-Tax Revenues	2.3	2.8	2.4	2.7		
Total Expenditure	14.8	14.9	15.3	15.4		
CG Expenditure	9.3	9.8	10.2	8.6		
Transfer to regions and Village Fund	5.5	5.1	5.1	5.2		
Overall Balance	-2.5	-1.8	-1.8	-2.1		
Assumptions:						
Real GDP growth rate (%)	5.1	5.2	5.3	5.1		
CPI (%)	3.8	3.2	3.5	3.0		
Exchange rate (IDR/USD)	13,384	14,427	15,000	14,186		
Crude-oil price (USD/barrel)	51.2	48.0	70.0	64.3		

Source: Ministry of Finance and WB Staff calculations.

Downside risks have recently increased with renewed and escalating trade tensions

External risks have recently heightened with the re-escalation of trade tensions

Downside risks to Indonesia's growth outlook remain substantial amid renewed global uncertainty. In light of the recent re-escalation of trade tensions, uncertainties surrounding global trade policy have again heightened and continue to pose risks to world trade and China's growth outlook. Malaysia, Vietnam, and other regional economies that partake in regional supply chains could also experience slower growth if Chinese growth slows significantly. Further escalation of such trade disputes could weigh on regional growth and therefore on Indonesia's economic growth through weaker exports and dampened commodity prices.

Unfavorable external conditions can trigger another emerging market asset selloff, hiking borrowing costs, and dampening investment

After a solid recovery from last year's emerging market selloff, emerging market currencies are again under pressure as investors rebalance their portfolios with traditional safe-haven assets such as U.S. treasuries in lieu of emerging market assets. The Rupiah depreciated as much as 2.1 percent while the yield on benchmark 10-year sovereign bonds surged to a high of 21 basis points in May. Higher bond yields and the consequent higher borrowing costs could dampen the recent credit recovery and further weigh on private investment and economic growth. This persistent risk of renewed financial volatility justifies Bank Indonesia's continued cautious approach to the policy rate and the pre-funding of government borrowing needs, as well as the need to maintain a healthy level of foreign reserves whenever the opportunity arises.

Weaker-than-expected investor confidence will dim prospects

The growth outlook is also predicated on robust investment growth. Investment is in turn underpinned by continued strong investor confidence on the resilience of the Indonesian economy and the growth enhancing reforms that are expected to be undertaken by the Government. Should the reforms not materialize or if investor confidence is shaken for other reasons, investment growth will be lower than expected, dampening overall growth.

Monetary and fiscal policy could be further tightened, weighing on growth

With the re-escalation of trade tensions, there is a risk that pressures from capital outflows could intensify, weighing on the Rupiah and Indonesian bond prices. In the face of accelerated capital outflows, the Government is likely to further tighten both monetary and fiscal policy to stem the outflows, weighing on growth in the immediate and medium-term.

Medium-term structural reforms such as collecting more revenue remain critical for enhancing potential growth

Despite recent progress, Indonesia should continue undertaking reforms to collecting more revenue

Reforms to collect more revenue are critical to expanding the necessary fiscal space for priority expenditures aimed at enhancing potential growth and providing basic services for all. While improving the quality of spending is important for supporting priority development areas, there are constraints imposed by Indonesia's limited public spending envelope. Indonesia's public spending stood at 14.9 percent of GDP in 2018, compared to an average of 35.4 percent of GDP in other emerging markets. Given the fiscal rule to keep the deficit below 3 percent of GDP, increasing public expenditure significantly is only possible if more revenue is collected. Despite recent improvements in revenue collection, Indonesia's tax-to-GDP ratio of 10.2 percent of GDP in 2018 is still one of the lowest among its regional and emerging market peers. Weaker oil prices contribute to this low ratio. But more importantly, the country has a large gap between actual and potential revenue, with collection rates for major taxes estimated to be around 50 percent of potential tax revenues. Tax policy gaps and weak revenue administrative capacity, partly due to an outdated and inadequate core tax IT system, account for this large tax gap. Tax policy and administration reforms are thus needed to increase the tax-to-GDP ratio over the medium term, and to create fiscal space for spending on development priorities and for achieving development outcomes.

B. Oceans of opportunity: reforms for a sustainable blue economy in Indonesia



Indonesia—the largest archipelagic country on Earth—is home to ocean ecosystems of tremendous economic potential. Indonesia's fisheries sector is the second largest in the world and plays a critical role in providing food security and employment. Indonesia's tourism sector benefits heavily from the country's world-class marine and coastal (MAC) assets, with MAC tourism being a key driver of visitor growth. However, recent analysis suggests that Indonesia's ocean-related sectors are generating returns below their potential. Deficiencies in fisheries management are diminishing the long-term productivity and economic value of Indonesia's fishery assets. If not sustainably managed, rapid MAC tourism growth will threaten ecosystems and damage the natural assets that attract visitors. Realizing the full potential of these sectors will require reforms that improve natural resource management, conserve ecosystems, develop seafood supply chains, improve the tourist experience, and create opportunities to more strongly brand Indonesia's MAC assets. It will also require cross-sector investments and policies to protect MAC assets from threats such as marine debris that harm the tourism, fishing, and shipping industries. Through these steps and others, Indonesia can sustainably develop its oceans and harness the full potential of the Blue Economy.

Indonesia's ocean ecosystems have tremendous economic potential

With more than 17,000 islands, 108,000 kilometers of coastline, and two-thirds of its territory at sea, oceans are central to Indonesia's identity and prosperity. Indonesia's oceans confer an unparalleled source of comparative economic advantage and are estimated to support more than USD 280 billion⁹⁴ of economic activity annually. Yet, the evidence presented in this article shows that Indonesia's oceans have more to offer. Realizing this potential will deliver increased growth, jobs, food security, and reductions in the current account deficit, protect ecosystems for future generations, and further Indonesia's ambition of becoming a global “maritime nexus.” This article provides the rationale and path forward for achieving these goals via an integrated, multi-sectoral “Blue Economy” strategy. It begins with a discussion of the potential economic opportunities within two key sectors—fisheries and tourism—which have clear prospects for

⁹⁴ Total estimated value of ocean-based and ocean-related economic sectors in 2013, in 2019 USD. This includes: marine construction (35 percent), marine manufacturing industries (26 percent), minerals, oil and gas (16 percent), fisheries and aquaculture (11 percent), marine tourism and recreation (10 percent), marine transportation (1 percent), and defense and government (less than 1 percent). See Ebarvia (2016).

growth and job creation, but for which resource use sustainability and environmental protection are crucial. Marine plastics pollution is a growing and severe threat to the development of both sectors, and this article next discusses options to address this central challenge to Indonesia’s oceans. It concludes with a description of the potential elements of an integrated *Blue Economy* strategy.

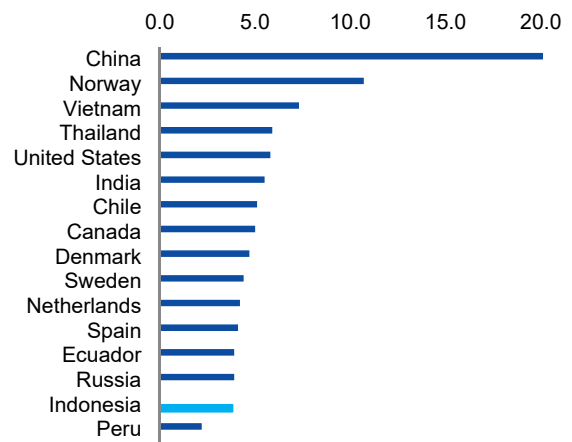
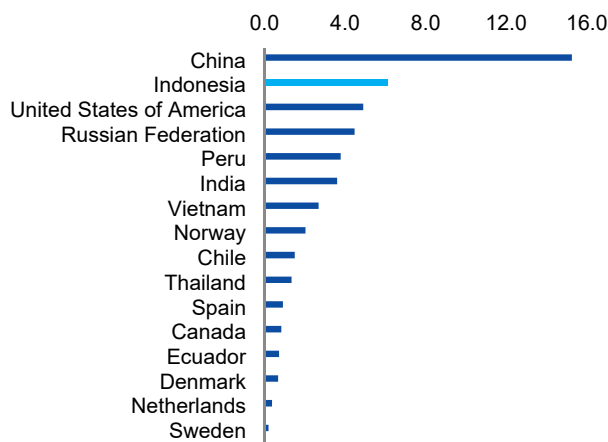
1. Indonesia can get more from its fisheries sector through improved management

As the world’s second largest fish producer, fisheries play a critical role for Indonesia’s food security and economy

Between 2013 and 2017, Indonesia harvested an average of 6.1 million metric tons of marine fish annually, second only to China (Figure B.1). Marine capture fisheries and aquaculture together employ around 7 million Indonesians,⁹⁵ representing a crucial source of employment for Indonesia’s coastal populations. Indonesia is considered the world’s eighth most fish-dependent country:⁹⁶ fish contribute 52 percent of all animal-based protein in the Indonesian diet, well above the global average of 16 percent. In 2018, the sector contributed over USD 26.9 billion to the national economy, or around 2.6 percent of GDP, a larger proportion than in regional peers, including China (1.4 percent), the Philippines (1.5 percent), Malaysia (1.1 percent), and Thailand (0.67 percent).⁹⁷ Fisheries contributed to export earnings worth around USD 4.1 billion (2.4 percent of Indonesia’s export total) in 2017, supplying around 2.6 percent of the global market (Figure B.2).⁹⁸

Figure B.1: Indonesia is the world’s second largest marine capture fish producing nation
2016 production, million metric tons

Figure B.2: Indonesia’s fishery export earnings are ranked 14th globally
2016 fisheries export value, billion USD



Source: FAO FishStat Database 2019
<http://www.fao.org/fishery/statistics/en>

Despite current high production, long-term growth is not assured

Yet, marine pollution (one type of which—marine plastic debris—is discussed in Section 3 below) and overfishing threaten the growth in the social and economic value of Indonesia’s marine fisheries. Fisheries are natural assets that, if managed well, provide a flow of present and future economic returns. Mismanagement, such as harvesting above sustainable limits (overfishing), undermines long-term returns by shrinking the size of the fish stock and reducing future productivity. This lowers the benefits accruing across generations, even if it boosts revenues in the short term. This pattern is seen in many countries: marine fisheries production

⁹⁵ Wild-capture fisheries and aquaculture sectors employ approximately 2.7 million and 3.3 million workers, respectively, in addition to over 1 million workers in the processing and marketing of fisheries products. See CEA (2018).

⁹⁶ Bennett et al. (2018).

⁹⁷ Data for China and Thailand (2016) is from CIEC (2019); data for Philippines and Malaysia (2015) is from SEAFDEC (2019).

⁹⁸ FAO (2018a).

globally has plateaued due to overfishing and is now likely in decline.^{99,100} While Indonesia's marine capture fisheries output continues to rise slowly, and initiatives such as a crackdown on illegal, unreported, and unregulated (IUU) foreign fishing have shown results, management practices are not yet optimized for the best long-term returns. Recent analysis suggests that improvements to fisheries management—such as those described below—would add value of up to USD 3.3 billion per year within ten years, relative to a scenario in which current practices continue.¹⁰¹

Many of Indonesia's fish stocks are depleted due to historical and ongoing overfishing

Realizing this potential value will require policies that help rebuild fish stocks following past overfishing; and prevent its reoccurrence in the future. In 2017, data from the National Commission on Stock Assessments showed that nearly half of the nation's wild fish stocks were overfished, meaning that their stocks have been partially depleted and their current and future productivity has been undermined.^{102,103} This occurred due to IUU fishing, as well as legal fishing that at times has occurred at unsustainable levels. While the level of severity varies by region and fishery, overfishing has impacted stocks in almost all parts of the country.

Deficiencies in fisheries data contribute to reduced management effectiveness

Data deficiencies have contributed to the problem. Timely information on stock levels and fishing effort are critical for evidence-based decisions, yet the data available are often insufficient for species-level management.¹⁰⁴ Insufficient coordination between provinces and levels of government is also implicated: stocks cross jurisdictions, and provinces that introduce harvest controls are disadvantaged when other provinces do not do likewise. As a result of these issues and others, Indonesia is ranked 22nd out of the largest 28 marine fishing nations for fishery management effectiveness—the degree to which management objectives are achieved via research, management systems, and enforcement.¹⁰⁵

In addition to lost revenues, overfishing risks livelihoods and food security in vulnerable coastal communities

The importance of fisheries management extends beyond commercial sector returns. Fisheries provide supporting income for coastal households, often in the form of part-time or seasonal work. Studies in communities that are highly dependent on fish for protein and income have shown that overfishing increases conflict between fishers, raises poverty rates, and erodes communities' food security.^{106,107} These impacts compound the already-elevated levels of poverty found within the small-scale fishing sector: the poverty rate¹⁰⁸ among fishing households in West Sumatra, for example, is around 70 percent higher than the cross-sector average found in comparable areas.¹⁰⁹ While the policies required to combat rural coastal poverty extend beyond fisheries, healthy fish stocks are an important asset for poverty reduction.

Indonesia's strong stance on illegal, unreported, and unregulated (IUU) fishing by foreign

Overfishing has occurred due to the activities of illegal foreign vessels, and due to an insufficiently robust regulatory framework for domestic fishing activities. The Government of Indonesia (GoI) has taken strong action to address the former. In 2014, the Ministry of Marine Affairs and Fisheries (MMAF) began seizing and sinking illegal foreign vessels, sending 539 to

⁹⁹ FAO (2018b).

¹⁰⁰ Pauly and Zeller (2016).

¹⁰¹ Based on analysis underpinning Costello et al. (2016) (pers. comm.).

¹⁰² Marine and Fisheries Ministerial Decree 50/Kepmen-Kp/2017 reports on estimates of the potential, total allowable catch, and level of utilization by fisheries management area.

¹⁰³ CEA (2018).

¹⁰⁴ *Ibid.*

¹⁰⁵ These 28 countries together account for 80 percent of the total global catch. See Melnychuk et al. (2017).

¹⁰⁶ Pomeroy et al. (2007).

¹⁰⁷ Muawanah et al. (2012).

¹⁰⁸ Number of poor households (*rumah tangga miskin*) and chronically poor households (*rumah tangga sangat miskin*) as defined by BPS classification criteria.

¹⁰⁹ Stanford et al. (2013).

vessels has reduced losses and pressure on stocks

the bottom of the ocean to date and sending a strong message of deterrence.¹¹⁰ Concurrently, at-sea transfers of fish—a method sometimes used by fishers to avoid detection and regulation—were banned. A comprehensive analysis using both satellite and vessel monitoring data showed that these efforts were highly successful, with a 90 percent reduction in foreign IUU, and a 25-40 percent reduction in the total pressure on fish stocks within Indonesia's waters since 2014.¹¹¹ This step went a considerable way to stemming losses from IUU (estimated in 2014 to be worth roughly one-third of the value of the annual reported marine catch^{112,113}) and has created an opportunity to rebuild stocks for long-term economic gains in the domestic fisheries sector.

But unmanaged expansion of the domestic fleet risks negating sustained increases in harvests

On the other hand, pressure on fish stocks from the domestic fleet has increased, with the number of small vessels now growing with the explicit encouragement of national policy.¹¹⁴ The GoI is in the process of expanding the domestic fleet by providing 2,515 new nearshore ocean-going vessels and over 18,000 sets of gear to replace foreign fishing boats and create local employment in remote areas. To avoid replacing one form of overfishing with another, the GoI aims to stop short of replacing the expelled foreign capacity entirely. The new vessels have a smaller size distribution than the foreign vessels they replace, and so if deployed strategically as part of a comprehensive fishery development plan, the net effect is expected to be a 25 percent reduction in overall fishing pressure.¹¹⁵

Implementing domestic reforms can lock in the benefits of Indonesia's strong anti-IUU policies for future generations

To be successful, such a development plan requires broader management reforms to prevent creeping capacity increases, minimize IUU fishing within the domestic fleet, and prevent future overfishing. Indonesia's fishers receive a range of fuel, credit, and gear subsidies, most of which are not tied to sustainability requirements. Like the new vessels, these encourage growth in the fleet and thus increase the pressure on stocks.¹¹⁶ Furthermore, as the number of vessels increases, competition between them for the remaining stocks are likely to cause cost increases, further undermining fishers' livelihoods and preventing fisheries from delivering their maximum value over time. The experience of the United States is instructive: in 1976, the Magnuson–Stevens Act brought illegal foreign fishing to a halt. Yet, subsequent over-investment in domestic capacity undermined the initial gains, necessitating painful stock rebuilding that continues to suppress catches to this day.¹¹⁷ Implementing domestic reforms is necessary to avoid this risk, and to lock in the benefits of Indonesia's strong anti-IUU policies for future generations.

Three areas of reform can prevent overfishing and increase returns: (1) strengthening frameworks for decision-making...

While there are many policy options to maximize the economic and social value of fisheries, three broad categories of reform are needed. The first and most fundamental is completing Indonesia's decentralized fishery management architecture. Whether through the existing Fishery Management Areas (*Wilayah Pengelolaan Perikanan*) or through alternative structures, the sector requires a framework for decision-making that more effectively brings together governments, industry, and other stakeholders, clarifies roles and responsibilities, and improves coordination. This includes coordinating Fisheries Management Plans (FMPs) across jurisdictions, and ensuring that FMPs reflect scientific recommendations.

¹¹⁰ The ship-sinking policy's impact on marine pollution is less positive. One such type of pollution, marine plastic debris, is the focus of section 3 below.

¹¹¹ Cabral et al. (2018).

¹¹² Busro (2017).

¹¹³ The value of the unreported harvest in 2014 was estimated at USD 3.53 billion (in 2019 USD) across Indonesia. See Sea Around Us (2019).

¹¹⁴ Cabral et al. (2018).

¹¹⁵ Measured in terms of boat capacity. See Cabral et al. (2018).

¹¹⁶ In addition to increasing fishing pressure, input-based fishing subsidies tend to be relatively inefficient at supporting fisher incomes. Payments that support efficient business operations and skills development have lower impacts and deliver higher benefits to fishers. See OECD (2019).

¹¹⁷ Pew (2011).

...(2) improving fishery data for evidence-based management...

Second, investment in fishery research, monitoring, and reporting is needed to better inform harvest limits. Indonesia can build on its existing strong fishery research capacity to develop more detailed area-specific and species-specific stock assessments, as well as draw on alternative forms of fishery information well-suited to the challenges of data collection across expansive and remote coastal areas. Potential areas of expansion and innovation include greater use of onboard observers, e-monitoring, and e-catch documentation, as well as improved verification and integration of industry data for use in the fishery management planning process.

... and (3) implementing fishery-specific management plans with stronger monitoring, control and surveillance

Third, improved monitoring, control, and surveillance (MCS) is needed to ensure that management decisions and FMPs are adhered to, with defined consequences (such as stock or area closures) if harvest limits are exceeded. Building upon Indonesia's success in tackling foreign IUU fishing, a larger proportion of the overall fleet—importantly, the small vessel category that catches around 50 percent of the total harvest¹¹⁸—must be brought under evidence-based harvest controls over time. Improved MCS should include further phase-outs of destructive gear types, support for Indonesia's rapidly growing marine protected areas, and further expansion of co-management with local communities in near-shore areas. Managers could also consider trialing rights-based fishery management approaches such as “catch-shares” in select commercial fisheries. These approaches allocate fishing rights (“quotas”) to vessels, companies, or individuals to reduce inefficient competition that otherwise undermine economic returns in fisheries.^{119,120} In parallel, stronger pollution control measures should be incorporated into the regulatory framework to address damaging fishing-related debris such as discarded nets (discussed further in section 3).

These reforms complement investments already underway...

Improved fisheries management will complement investments already underway. These include the provision of incentives for supply-chain strengthening, development of new electronic traceability systems and investments in public port infrastructure.¹²¹ Such improvements help Indonesia's fishers generate more value from each unit of harvest, and are essential to maximize the economic returns achieved through the above three areas of management reform. By corollary, it is only with long-term sustainable stocks that returns to these supply-chain investments will be realized. Robust fisheries management underpins and complements these efforts, ensuring healthy stocks and harvests for supply-chains, and a regulatory framework that provides investors with confidence. Improved fisheries management is also important in the context of Indonesia's growing aquaculture industry (see Box B.1), which draws on marine and coastal resources, increases the demand for fishmeal, and shares elements of the same supply-chains.

...and underpin efforts to increase fisheries' fiscal contribution

Improved fisheries management also complements efforts to increase the public-revenue contribution from fisheries. The sector currently contributes non-tax state revenue (*Penerimaan Negara Bukan Pajak, PNBP*) in the form of commercial levies.¹²² In 2017, fisheries PNBP amounted to USD 36.4 million, the highest in the past ten years due to regulatory changes in

¹¹⁸ CEA (2018).

¹¹⁹ Costello et al. (2008).

¹²⁰ Birkenbach et al. (2017).

¹²¹ For example, new technologies being trialed by the Ministry of Marine Affairs and Fisheries such as e-logbook—an app-based tool for recording and verifying fishing activity—can help modernize data collection among Indonesia's small-scale fishers and help managers understand the condition of stocks. Similar technologies, if sufficiently integrated with existing data systems, can help fishers access better prices and satisfy traceability requirements for premium markets. Other policy initiatives include incentives for private sector investment in refrigeration facilities, establishment of decentralized export hubs, and continued growth in the marine protected area network. The GoI is promoting exports by investing to improve product quality, marketing, and supply chain management.

¹²² Commercial fisheries charges (*Pungutan Pengusahaan Perikanan*) are based on vessel licenses and the type of fishing gear used. Fishery levies (*Pungutan Hasil Perikanan*) are more like royalties, calculated as a function of production, boat size, and fish price.

2015. However, this remains a small proportion of total PNP relative to other resources sectors such as forestry and mining, representing only 0.17 percent of the total in 2017. Tax revenue is similarly low: USD 80.2 million was collective in 2017 from around 4,000 listed taxpayers, and between 2011 and 2016, the fisheries sector's ratio of tax-to-GDP contribution (0.26 percent) was well below the national cross-sector average (11 percent).¹²³ Further adjustments to fiscal instruments¹²⁴ could increase revenues. Importantly, adjustments to revenue formulas could help incentivize prioritization of higher output and value—rather than higher fishing effort—benefiting stocks and thus productivity long-term. Well-managed fisheries with healthy stocks are integral to an increased fiscal contribution, as they are for broader social and economic returns for Indonesia.

Box B.1: Aquaculture: A key driver of the Blue Economy

Indonesia's aquaculture sector is amongst the fastest growing in the world. While marine capture fisheries production grew slowly over the last decade, from 5.0 million metric tons in 2010 to around 6.2 million in 2017, Indonesia's aquaculture production more than doubled over the same period, from 2.4 million to 6.1 million metric tons, with around 3.3 million people directly employed. Of the total aquaculture production, around 43 percent is from the rapidly growing marine aquaculture sector, worth over USD 6 billion per year. The growth of Indonesia's seaweed cultivation is even more dramatic, increasing from less than 4 million metric tons in 2010 to 9.7 million in 2017, and accounting for over 35 percent of global production.¹ By value, the most important aquaculture product is shrimp, which contributed USD 1.7 billion to export earnings in 2018.

With strong demand for fish products but declining wild capture globally, there is great potential for further aquaculture growth. The GoI estimates that 26 million hectares of coastal land are suitable for aquaculture expansion. However, much of this land includes ecologically sensitive mangrove and coral reef habitats. With these habitats having high biodiversity value, contributing to climate change resilience, and providing critical ecosystem services that underpin fishery, tourism, and other economic sectors, aquaculture expansion must be based on sound marine spatial planning and must be integrated with other sector development priorities. The environmental impacts of aquaculture (such as those caused by inappropriate use of feed and antibiotics) must also be anticipated and managed.

The greatest economic returns are likely to be achieved through intensification of existing farms rather than through habitat conversion to create new farms. Three-quarters of Indonesia's aquaculture farms currently use traditional extensive production techniques, while only ten percent use modern intensive technologies. Considerable production increases could be realized from existing farms while avoiding the economic and environmental costs of converting new habitats. Opportunities for growth exist around improving brood stock genetic quality to increase yields and reducing the cost of feeds.

¹ FAO FishStat Database (2019). <http://www.fao.org/fishery/statistics/en>

2. To be a leading tourism destination, Indonesia must ensure that its marine and coastal assets are managed sustainably

Globally, marine and coastal tourism is a fast-growing While substantial, the value of fisheries is eclipsed by marine and coastal (MAC) tourism,¹²⁵ which represents around 26 percent of ocean-related value-added globally.¹²⁶ According to OECD estimates, MAC tourism is projected to become the largest ocean-related sector by 2030, surpassing the slower-growing offshore oil and gas sector.¹²⁷ During the same period (2010-

¹²³ CEA (2018).

¹²⁴ This is the subject of recently-commenced work by the Fiscal Policy Agency of the Ministry of Finance in partnership with the World Bank.

¹²⁵ Marine and coastal tourism are distinct but closely related concepts that encompass a wide range of activities, assets, and income-earning opportunities. Marine tourism refers to activities occurring on, or connected to, the sea and marine environment, including cruises and sailing, nautical sports and water-based activities such as scuba diving, underwater fishing, water skiing and windsurfing, tours to maritime parks, wildlife mammal watching, etc. Coastal tourism refers to on-shore activities for which the water-based elements are the predominant attraction—swimming, sunbathing, coastal walks, etc.—and also encompasses tourism in resorts and vacation homes located near a coastline.

¹²⁶ OECD (2016).

¹²⁷ Off-shore oil and gas is projected to become 21 percent of the value-added of the ocean economy in 2030, down from an estimated 34 percent in 2010. During the same period, MAC tourism's share is projected to remain at 26 percent. See OECD (2016).

segment of the ocean economy 2030), projections by UNWTO suggested that international tourist arrivals will grow by 3.3 percent annually. To date, the industry has outperformed these projections. China continues to lead global outbound travel, which in turn benefits near-by Asian destinations (EAP destinations are projected to grow above the world average).¹²⁸ MAC tourism, which includes cruise tourism, is projected to be a relatively strong-performing segment of the tourism industry, in large part due to the expected high growth of cruise tourism—in 2019, an estimated 30 million travelers are expected to cruise, up 6 percent from 28.2 million in 2018.¹²⁹

With world-class marine and coastal assets, Indonesia's MAC tourism is already a key driver of visitor growth and tourism revenues Containing the world's highest coral diversity, or 76 percent of the world's coral species and 37 percent of the world's coral reef fish species, the Coral Triangle is well-positioned to capture a large share of this growth. The Coral Triangle spans six countries,¹³⁰ but the largest area falls within Indonesian territorial waters.¹³¹ Indonesia's current coral reef tourism is estimated at an annual value of USD 3.1 billion.¹³² With more than 17,000 islands and one of the world's longest coastlines, the archipelago's overall MAC tourism potential is immensely promising. In 2016, 44 percent of foreign visitors surveyed indicated that they undertook, amongst other activities, marine tourism activities.¹³³ Out of all overnight stays of international, cruise, and domestic visitors in Indonesia, an estimated 29 percent are in coastal and non-urban destinations.¹³⁴

The GoI has identified MAC tourism as a driver of national tourism development Out of the ten tourism destinations chosen for priority development by the GoI, seven have key MAC sites or assets. Through the development of these destinations, the GoI aims to increase MAC-related international arrivals, including Chinese outbound travelers. Much of this growth is envisioned to come from increased coastal tourism, but rising cruise ship and yacht activity is also expected to play a key role. In recent years, the GoI has simplified regulations related to yachting, cruise, and recreational fishing.¹³⁵ Furthermore, it has organized professional surfing competitions, yacht rallies, and free-diving competitions, with the aim of promoting Indonesia's position as a leading MAC tourism destination.¹³⁶ The development of certified diving products and training of local dive guides is also a priority, given Indonesia's world-renowned dive sites.

The economic potential of MAC tourism is vulnerable to climate change and other environmental factors However, growth is not assured. The natural assets that attract MAC tourism, such as coral reefs, coastlines, and beaches, are at risk of degradation from intensifying weather and climate extremes, rising sea levels, and oceanic acidification. Island nations such as Indonesia are especially economically exposed to these climate risks given their high reliance on vulnerable ocean resources.¹³⁷ With sea surface temperatures projected to increase, more than 80 percent of Indonesia's coral reefs will experience thermal stress sufficient to induce severe bleaching in at least five out of ten years in the 2030s.¹³⁸ Meanwhile, global warming of 2°C is projected to

¹²⁸ Rates of growth were 7.0 percent in 2017 and 5.6 percent in 2018. See UNWTO (2011; 2019).

¹²⁹ CLIA (2019).

¹³⁰ Indonesia, the Philippines, Malaysia, Papua New Guinea, Solomon Islands, and Timor-Leste.

¹³¹ UN Environment et al. (2018).

¹³² This estimate refers to the value of tourism that is directly related to the coral reef, which consists of two components: (1) "on-reef" tourism, such as diving and snorkeling; and (2) "reef-adjacent" tourism, which refers to activities/attractions not occurring on the reef but directly related to the reef environment, such as sandy beaches, sheltered water, and attractive views. It excludes, however, the value of broader non reef-related coastal tourism. See Spalding et al. (2017).

¹³³ Ministry of Tourism (2016). In 2015 and 2014, this percentage of visitors undertaking marine tourism activities was 39 percent.

¹³⁴ Spalding et al. (2017).

¹³⁵ Examples include: Presidential Regulation No. 105/2015 on Foreign Yacht Visits to Indonesia; and the Regulation of The Minister of Transportation No. 123/2016 Regarding an Amendment to the Regulation of The Minister of Transportation No. 171/2015 Regarding Procedures for Services for Foreign Yachts in Indonesia at 19 Entry/Exit Points.

¹³⁶ For example, the Sabang International Freediving Competition of 2018. See also: World Surf League (May 26, 2018).

¹³⁷ IPCC (2014).

¹³⁸ Burke et al. (2012).

result in the loss of more than 99 percent of the world’s coral reefs.¹³⁹ Recent surveys by the Indonesian Institute of Sciences show that around one-third of Indonesia’s reefs are already in poor condition due to climate change and other human-related factors. The accumulation of marine debris is another acute threat to Indonesia’s coastal assets (discussed in Section 3).

Gaps in basic infrastructure and services also contribute to degradation of MAC assets

In some cases, Indonesia’s MAC assets are also impacted by insufficient basic infrastructure and services for local residents, which undermines environmental sustainability, health, hygiene, and cleanliness, diminishing the destinations’ attractiveness for tourists. For example, Lombok’s tourist areas are characterized by low average household access to piped water supply (45 percent of households have access), sanitation (48 percent), and solid waste collection services (26 percent). In most of Lombok’s key tourism areas, 95 percent of projected basic infrastructure gaps are linked to household needs, with the remainder covering growing visitor and business needs.¹⁴⁰ The impact of these deficiencies on tourist perception can be seen in online reviews: topics of dissatisfaction expressed on TripAdvisor by users of beaches along Lombok’s less-explored southern coast include the poor state of local sanitation and noticeable marine and coastal pollution.¹⁴¹

Moreover, unless managed, MAC tourism growth can itself exacerbate environmental pressures

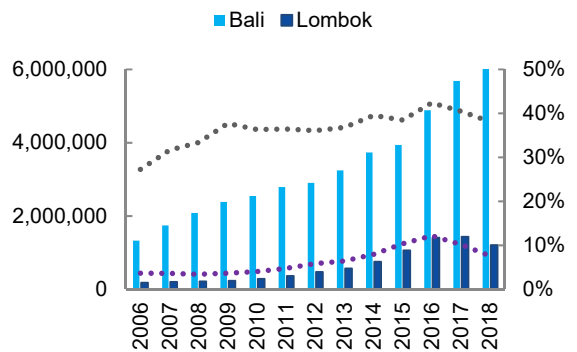
With more visitors comes more pressure on fragile on-shore and off-shore ecosystems, increased consumption of energy and water, and increased waste production. Unless properly managed, this visitor traffic and associated pollution can: (i) strain local infrastructure and public services; (ii) contribute to increased waste, nutrient, and sediment inputs into coastal and marine ecosystems; and (iii) lead to land use change, coastal urbanization and loss of natural capital in coastal areas, especially coastal wetlands.¹⁴²

Over-tourism in some MAC destinations is beginning to damage natural assets

Over the past ten years, Indonesia’s coastal tourism destinations have attracted an increasing share of international visitors—in 2017, Bali and Lombok alone received around 50 percent of all foreign visitors (Figure B.3). This concentration of visitor growth in parts of Bali and Lombok has led to problems of overcrowding, pollution, critical user-generated reviews and media reporting, which could cause a deterioration in visitor satisfaction over time.

Figure B.3: Bali and Lombok receive around half of Indonesia’s foreign visitors

number of international arrivals (bars, LHS), proportion of international arrivals, percent (lines, RHS)¹⁴³



Source: World Bank staff calculations based on BPS data

The environmental impacts associated with over-tourism impose economic costs

In recent years, environmental pollution and damage from tourism growth has forced several world-renowned destinations elsewhere in Southeast Asia to temporarily close. Maya Beach, Koh Phi Phi, Thailand, was closed for four months in 2018 in an attempt to heal the damage caused by up to 5,000 visitors and 200 boats per day.¹⁴⁴ The impact of litter, sunscreen, and boat pollution is estimated by the Thai National Parks Department to have damaged 80 percent of

¹³⁹ IPCC (2018).

¹⁴⁰ Horwath (2017) and World Bank staff calculations.

¹⁴¹ An analysis of user-generated reviews in all available languages, of three beach attractions along the southern coast of Lombok, on the travel website TripAdvisor (as of October 31, 2016) indicated the lack of cleanliness and raw sewage as reasons for dissatisfaction.

¹⁴² Attri (2018).

¹⁴³ Lombok data includes all of Nusa Tenggara Barat province, of which Lombok accounts for around 98 percent of visitors.

¹⁴⁴ Ellis-Petersen (2018).

the bay's coral. The cost of the required shutdown is high, given the estimated revenue of USD 12.6 million that the bay's visitors generate each year. Boracay Island, Philippines, a destination which previously attracted more than 1.7 million visitors per year, was closed for six months in 2018 due to deteriorating environmental conditions. The shutdown was prompted by direct dumping of sewerage from hotels, which have since been upgraded with sewage treatment facilities as a condition of operation, and the destination has re-opened with stricter management of tourism infrastructure and activities. One estimate places the cost of this six-month closure to the Philippines economy at USD 37.6 million.¹⁴⁵

Sustainable development of Indonesia's MAC tourism will require monitoring of environmental impacts,...

Effective environmental impact monitoring systems are needed at MAC destinations to detect problems early and inform mitigation measures. Recognizing these threats, the GoI has encouraged the establishment of Sustainable Tourism Observatories (STOs) in priority destinations to monitor risks to natural and cultural assets and identify growing pressure points. These observatories, supported by the Ministry of Tourism, are tasked to monitor selected indicators of 'sustainable tourism' in key tourism areas.¹⁴⁶ Over time, such STOs or other similar institutions for environmental impact monitoring should become standard practice in popular MAC destinations.

... management of visitor flow, ...

For MAC destinations that are either at risk of overcrowding or already showing signs of environmental degradation, measures to limit or better manage the flow of visitors are required. These could include: (i) use of tiered pricing with higher access fees for more fragile areas (for example, as applied in the more fragile upper areas of the Annapurna Conservation Area in Nepal); (ii) "congestion pricing", whereby above-average entrance fees are charged for certain tourist sites during peak demand periods; (iii) setting minimum expenditure thresholds for tour access (for example, as is practiced in Bhutan); (iv) the use of new technologies to control crowd flows such as scheduling apps that allocate visitors to specific time slots at key attractions; and (v) the development of alternative tourism attractions to divert and re-distribute visitors away from popular but environmentally-fragile attractions.

... adaptive management strategies, ...

"Carrying capacity" management strategies—restricting the number of visitors to an absolute limit—are appealing, but have limitations, since: (i) the impact of tourism depends not only on absolute numbers of tourists but also on tourist behavior, infrastructure, and management; (ii) local residents also create potentially negative impacts and use resources (Box B.2); and (iii) the quality of the visitor experience does not necessarily improve as a result. Instead, employing adaptive management strategies based on "limits of acceptable change" could help ensure that the destination values that attract tourists are identified, monitored, and maintained over time. Results from monitoring may then be used to adapt strategies to maintain optimum ecological conditions.¹⁴⁷

... and investment in basic services and infrastructure for residents and tourists

Finally, public investment in basic services infrastructure and systems must be increased to help manage pollution and waste generation in MAC sites, which is often predominantly a result of basic infrastructure gaps for residents but is also exacerbated by growing tourism activity. The Ministry of Public Works and Housing, as part of the government's tourism development program, already has active investment programs to expand the quality and coverage of basic services across Indonesia. Going forward, these investments will have to be targeted and scaled up in those key tourism areas (including MAC tourism areas) that receive high visitor traffic. The GoI is currently taking an integrated tourism master planning approach for priority development of selected destinations. This approach aims to mobilize central, provincial and

¹⁴⁵ de Vera (2018).

¹⁴⁶ UNWTO (2004).

¹⁴⁷ Twining-Ward et al (2018).

local government funds, as well as private resources, toward a common objective in each of the destinations. To ensure implementation, the GoI has recently established institutional arrangements and enhanced collaboration amongst various institutions.¹⁴⁸

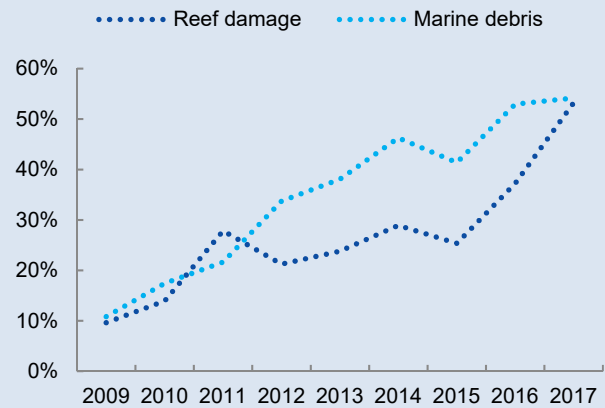
Box B.2: Komodo National Park

Komodo National Park's (KNP) universal values are its superlative land- and seascapes and its biodiversity, especially the Komodo dragon.¹ The UNESCO World Heritage Site is well preserved and considered largely intact,² and is drawing an increasing number of visitors, from 32,000 in 2009 to almost 120,000 in 2017. However, the site's seascape is facing emerging negative impacts and threats to its marine species from population growth and unsustainable resource use, particularly illegal and destructive fishing practices. The increasing levels of visitation within and around the park may have added further pressure. The proportion of visitors encountering reef damage and marine debris grew from less than 10 percent in 2009 to over 50 percent in 2017 (Figure B.4).³ Improvements to management strategies can help protect KNP's outstanding values and reduce the possibility of these threats deterring visitors in the future.

¹ UNESCO (2013).
² IUCN (2017).
³ Harvey et al. (2018).

Figure B.4: The proportion of visitors encountering reef damage or marine debris at Komodo National Park has increased

proportion of visitors encountering impacts



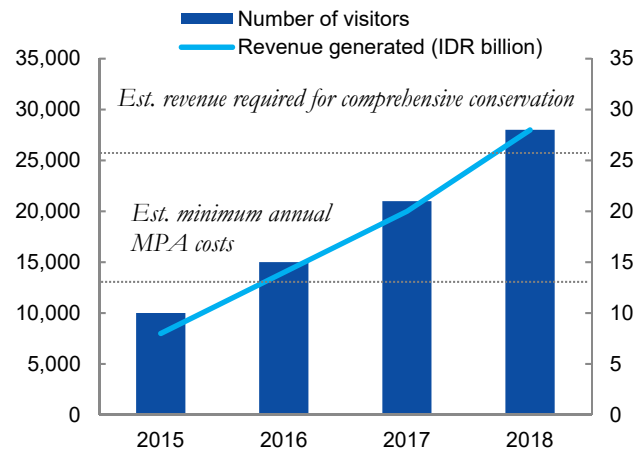
Source: Harvey et al. (2018)

Monetization of MAC sites can provide additional resources to support the preservation of MAC assets

The monetization of MAC sites and assets by designating them as protected areas (with proper zoning and enforcement mechanisms¹⁴⁹) and charging visitor access fees is one approach to financing their protection and promoting sustainability. This can include private initiatives such as those in Papua New Guinea (PNG) operated by the PNG Dive and Surf Associations, and in Fiji operated by the Mamanuca Environment Society, where revenues collected from visitors are shared with resource owners and channeled to programs to protect the reefs. In Indonesia, visitors to Raja Ampat's five marine protected areas pay an "ecosystem services" fee of IDR 500,000-1,000,000 that is administered by a Regional Public Service Agency (BLUD) under the regency Marine and Fisheries Agency.¹⁵⁰ In 2018, these visitor fees generated revenues exceeding

Figure B.5: Number of visitors and revenue collected in Raja Ampat Conservation Area

number of visitors (bars, LHS), income generated (line, RHS)



Source: Papua Barat Tourism data

¹⁴⁸ See BPIW (2019) for more details.

¹⁴⁹ Zoning refers to the activities permitted in different parts of a protected area, for example, natural resources management, cultural activities, visitor use, facilities placement, among others.

¹⁵⁰ Regent Regulation No. 18 Year 2014 on the Environmental Service Fee by the Marine Protected Area Technical Management Authority under the Raja Ampat Marine and Fisheries Agency.

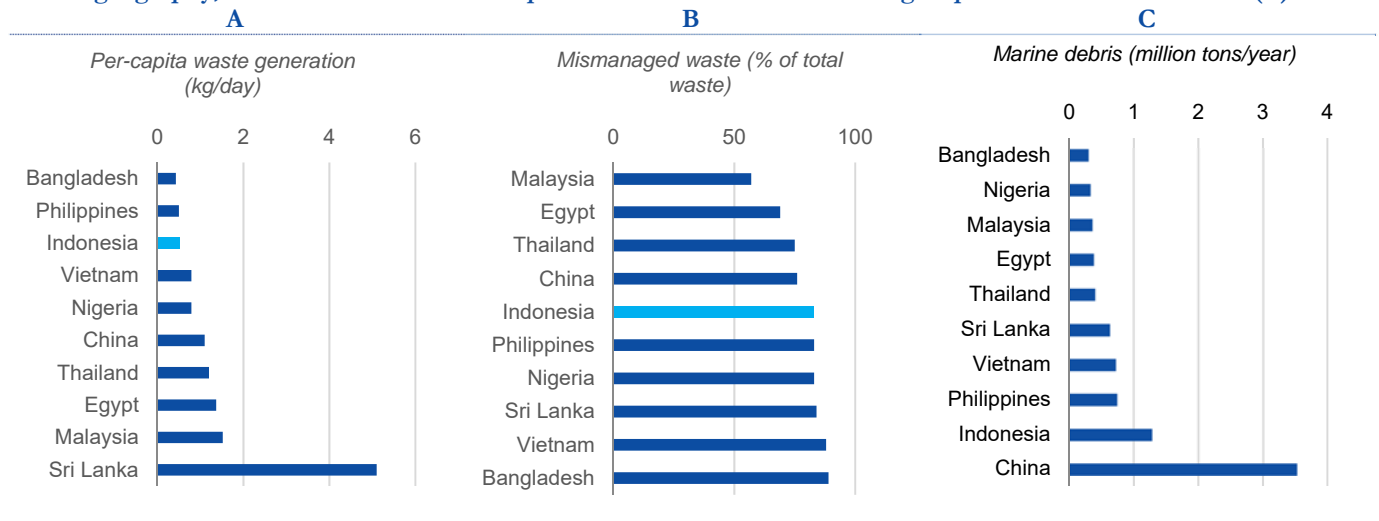
IDR 28 billion, fully covering the minimum annual MPA management costs of IDR 14 billion even after deduction of a 30 percent contribution to the local government in support of community development initiatives (Figure B.5.). However, comprehensive conservation and rehabilitation efforts require more than double this amount, or up to IDR 30 billion. Furthermore, protection cannot be solely dependent on the ability of a given asset to generate income. Many MAC sites are effectively “open to all,” making it difficult to collect revenues and manage access, while others do not receive sufficient visitor numbers for meaningful revenue raising. A system-wide approach to financing is needed in which visitor fee revenue is collected where possible, with a focus on maximizing revenue through appropriate pricing, rather than through maximizing tourist numbers. Additional public funding will be needed to underpin conservation and management efforts at both revenue and non-revenue sites more broadly.

3. Marine plastic debris represents a significant risk to Indonesia’s ocean sectors, including fisheries and tourism

Marine debris causes damage to marine ecosystems that exceeds USD 13 billion annually worldwide

Realizing the opportunities from fisheries and tourism development requires efforts to address a range of environmental challenges. One such challenge, of growing concern worldwide, is marine plastic debris. Recent modelling suggests that between 4.8 and 12.7 million metric tons of plastic debris flow into the world’s oceans each year,¹⁵¹ and the rate of this “leakage” is increasing.¹⁵² It impacts wildlife, human health, and maritime economies, particularly fisheries, coastal tourism, and commercial shipping. Eighty percent of the world’s marine debris is terrestrial in origin, with the remaining 20 percent originating from shipping and fishing activities.¹⁵³ The annual global damage of plastics to marine ecosystems is estimated to exceed USD 13 billion; while the cost of marine plastics to the tourism, fishing, and shipping industries in the Asia-Pacific Economic Cooperation (APEC) region alone is estimated at over USD 1.3 billion per year.¹⁵⁴

Figure B.6: Despite having one of the lowest per-capita rates of waste generation amongst the world’s top ten marine debris producers (A), a high proportion of Indonesia’s total waste is classified as “mismanaged” (B) which along with its coastal geography, contributes to Indonesia’s position as the world’s second largest producer of marine debris (C)



Source: Jambeck et al. (2015)

¹⁵¹ Jambeck et al. (2015).

¹⁵² Hoornweg et al. (2013).

¹⁵³ Eunomia Research and Consulting (2016).

¹⁵⁴ Raynaud (2014).

Indonesia is the world’s second largest producer of marine plastic pollution, generating up to 1.3 million tons every year

The greatest volumes of marine debris are produced by countries that have large populations, rapid rates of economic growth, limited waste management infrastructure, and high coastal exposure.¹⁵⁵ In a 2015 study, Indonesia was ranked second globally, behind China, but ahead of the Philippines, Vietnam, Thailand, and Malaysia (Figure B.6). These six countries combined were estimated to contribute more than 50 percent of the total plastic waste in the world’s oceans.¹⁵⁶ In 2010, Indonesia had a population of 187 million living within 50 km of the coast, generating 3.22 million metric tons per year of mismanaged municipal plastic waste and leaking an estimated 0.5 to 1.3 million tons of plastic into the ocean annually.¹⁵⁷

Despite modest per-capita waste generation, high rates of waste mismanagement are found in many Indonesian cities

Mismanaged municipal solid waste is the single largest source of marine debris. Current estimates show that about 105,000 metric tons of municipal solid waste¹⁵⁸ are generated every day in Indonesia’s urban areas, and this figure is expected to increase to 150,000 tons by 2025.¹⁵⁹ Approximately 40 percent of this waste is generated by households.¹⁶⁰ Recycling is largely an informal sector activity that captures 15 percent of total waste, with formal recycling systems capturing less than 5 percent of waste generated.¹⁶¹ Enforcement of solid waste laws and standards (from city-level violations to individual polluters) is limited. A 2018 analysis of 15 cities in western and central Indonesia by the World Bank found that rates of unmanaged waste vary considerably between cities (Figure B.7), and that debris in waterways primarily comprises plastic bags (16 percent), packaging, and other types of plastics such as rubber sandals, toys, and cups (Figure B.8).¹⁶² A large proportion of this mismanaged waste enters waterways and eventually Indonesia’s oceans.

Figure B.7: Rates of waste mismanagement vary considerably between Indonesia’s cities
(metric tons/day)

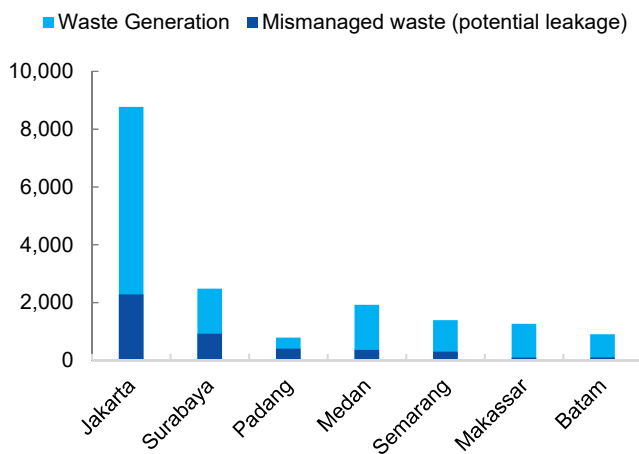
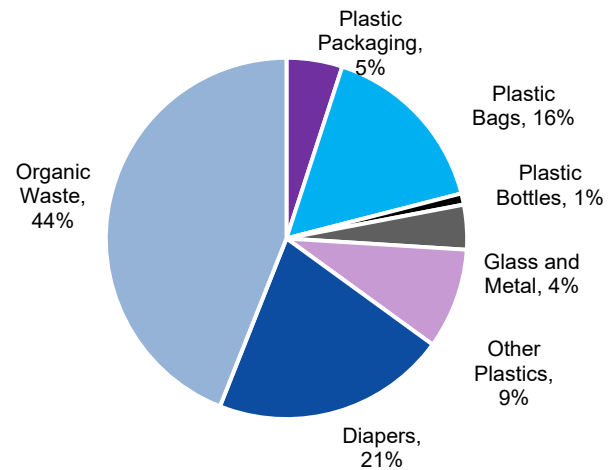


Figure B.8: Composition of waste found in waterways in 15 cities
(percent)



Source: Shuker and Cadman (2018)

¹⁵⁵ Jambeck et al. (2015).

¹⁵⁶ In a subsequent assessment (Lebreton and Andrady, 2019), Indonesia was ranked ninth in terms of mismanaged plastic waste generated. Note that this is a different outcome—mismanaged waste rather than ocean leakage—from that used for the ranking by Jambeck et al. (2015). Mismanaged waste is an indicator of potential for marine debris leakage.

¹⁵⁷ Jambeck et al. (2015).

¹⁵⁸ Waste that is similar in nature to household waste and thus excludes waste categories such as hazardous waste, healthcare waste, construction and demolition waste, and most types of industrial waste.

¹⁵⁹ World Bank (2012).

¹⁶⁰ The remaining percentage is produced by a variety of sources, such as markets (20 percent), streets (9 percent), public facilities (9 percent), offices (8 percent), and industry (6 percent). See Shuker and Cadman (2018).

¹⁶¹ Shuker and Cadman (2018).

¹⁶² *Ibid.*

Marine debris poses a risk to Indonesia's fisheries, ...

Marine debris is hazardous to fish stocks due to entanglement and ingestion. A recent study found particles of plastic debris (“microplastics”)¹⁶³ in 28 percent of individual fish and 55 percent of all species sampled from fish markets in Makassar.¹⁶⁴ While little is known about the long-term health impacts of plastics pollution, plastics contain chemicals known to cause toxicological impacts in humans, including reproductive and development abnormalities, increased rates of cardiovascular disease, and type-2 diabetes.^{165,166,167} With over half of the animal protein consumed in Indonesia provided by fish and seafood, growing per-capita fish consumption, and Indonesia’s position as a major exporter of seafood to global markets, research is needed to evaluate the potential public-health risks posed by plastic debris.

... shipping,

Marine debris is also a threat to navigation and affects recreational, commercial, and fishing vessels. Larger pieces of debris causes damage to vessels by blocking cooling systems or becoming entangled in propellers,¹⁶⁸ with the most severe impacts on the small vessels with outboard motors that are in widespread use amongst Indonesia’s small-scale coastal fisheries.¹⁶⁹ The cost of marine debris damage to shipping and fishery sectors, based on insurance claims alone,¹⁷⁰ is around USD 280 million per year for countries in the APEC region.¹⁷¹ While little is known about the cost of marine debris on shipping in Indonesia, it is likely to pose a growing challenge as Indonesia develops its national shipping lanes and positions itself as a global maritime axis.

... and marine tourism development goals

Tourism is clearly vulnerable to marine debris impacts as well, with both direct costs of cleanup and indirect costs from lost visitor revenue. Just as iconic tourism sites in the Philippines and Thailand were closed by pollution impacts (as discussed above), in 2017 Bali declared a “garbage emergency” as popular beaches such as Jimbaran, Kuta, and Seminyak became overwhelmed by plastic waste. At the peak of the subsequent clean up, workers were removing as much as 100 metric tons of waste per day.¹⁷² A recent study by the Making Oceans Plastic Free Initiative estimated that plastic bag pollution causes revenue losses of USD 140 million annually to Indonesia’s tourism sector, with USD 55 million from Bali alone.¹⁷³

The costs of action are smaller than the estimated environmental costs of inaction

There is a strong economic rationale for investment in waste management to avoid these and other costs. Based on estimates for five countries (China, Indonesia, Philippines, Thailand, and Vietnam), the economic cost of each metric ton of mixed household waste that is not collected but is instead burned in backyards, dumped or discharged in waterways is around USD 375.¹⁷⁴ In comparison, the World Bank estimates the cost of universal (full coverage) waste collection and adequate treatment or disposal to eliminate waste leakages to waterways at between USD 50-100 per metric ton in middle income countries.

Indonesia's ambitious National Action Plan targets a 70 percent reduction

Recognizing these challenges, solid waste management is high on the national agenda. Launched in June 2017, the National Action Plan on Marine Debris aims to achieve the ambitious goal of reducing marine debris by 70 percent by 2025. Achieving this goal will require concerted efforts from national policymakers and local governments across five reform areas, or “pillars” (a)

¹⁶³ When plastics are exposed to sunlight and wave action, they degrade into microplastics—plastic particles under 5 mm in size. Microplastics harm marine organisms, which mistake them for food, and can be subsequently consumed by humans if harvested as seafood.

¹⁶⁴ Rochman et al. (2015).

¹⁶⁵ Swan (2008).

¹⁶⁶ Swan et al. (2005).

¹⁶⁷ Lang et al. (2008).

¹⁶⁸ Hall (2000).

¹⁶⁹ McIlgorm et al. (2009).

¹⁷⁰ Takehama (1989).

¹⁷¹ McIlgorm et al. (2011).

¹⁷² Oliphant (2017).

¹⁷³ Making Oceans Plastic Free Initiative (2017).

¹⁷⁴ McKinsey Center for Business and Environment (2016).

in marine debris by 2025 via ... improving behavioral change, (b) reducing land-based leakage, (c) reducing sea-based leakage, (d) reducing plastic production and use, and (e) enhancing funding mechanisms, policy reform, and law enforcement.

improving behavioral change, ... Behavior change strategies, such as the recent Clean Indonesia campaign (“*Gerakan Indonesia Bersih*”) are promoting reduced plastics usage (especially single-use plastics), along with increased recycling and proper disposal practices. Successful examples of change already exist, such as in Malang, where recycling rates of more than 50 percent are achieved. The waste sector there has adopted the practice of ensuring that public outreach campaigns are local and targeted. For example, different messaging and strategies are used in inner cities and suburban areas. Other local initiatives such as community waste banks (“*bank sampah*”) have contributed to localized waste reductions and increased incomes.¹⁷⁵ Behavior change is also promoted through community-led clean-ups. Past campaigns with slogans such as “*bersih itu sehat*” (to be clean is to be healthy) have garnered wide-ranging attention. In Bali, the “garbage emergency” of 2017 sparked the “Bali’s Biggest Clean-up” event, which took place in some 115 locations around the island and mobilized over 15,000 people.¹⁷⁶

... reducing land-based leakage, targeting coastal and riverside cities, ... Around 80 percent of marine plastics originate from the mismanagement of waste on land. In other words, Indonesia could achieve its targeted 70 percent reduction in marine debris solely by capturing municipal solid waste that is not currently collected and halting leakages from poorly managed waste facilities such as transfer points, treatment facilities, and waste disposal sites. The GoI, through the Ministry of Public Works and supported by the Ministry of Environment and Forestry, the Ministry of Home Affairs, and the Ministry of National Development Planning, is developing a national platform to assist cities to improve solid waste management using the national budget (ABPN) and international donor funding.

Unfortunately, international experience (for example, within EU accession countries) shows that achieving universal waste collection in urban areas alone can take up to ten years to achieve, even when strong support programs are in place. The total investment needed in Indonesia’s urban areas alone is likely to exceed USD 5 billion, a sum that will be difficult to mobilize by 2025. However, Indonesia could achieve the greatest reductions in plastics leakages by focusing on coastal cities and river floodplains, and by moving waste management infrastructure away from waterways. A good example is the *Citarum Harum Program* that is now applying this approach to cities along the Citarum River.

Box B.3: Technology and innovation for customized solutions

Recognizing the magnitude of its plastic pollution issue, Indonesia is piloting a range of innovative technologies and incentive measures. These include encouraging manufacturers to maximize recycled plastics as input materials, producing more biodegradable plastics from cassava and seaweed, promoting waste-to-energy options, and incorporating low-value plastic waste into road and building material. Given the diversity of cities in terms of their waste production and composition, financial resources, and management capacity, city-specific solutions will need to be developed.

...reducing sea-based leakage, ... Well-proven solutions to reduce plastic waste discharges from maritime activities include harbor reception facilities that receive solid waste from ships, as well as measures to prevent the disposal of fishing gear at sea. Abandoned fishing nets in particular have devastating impacts on marine life. Highly successful refund systems for end-of-life fishing gear, such as those adopted by

¹⁷⁵ Waste banks are community-based recycling schemes where waste deposits are sold for recycling, providing cash returns for members after covering operating costs. Waste banks have been shown to promote waste segregation, reduce inorganic waste, and encourage composting. See Halimatussadiyah et al. (2016).

¹⁷⁶ Taylor (2018).

countries surrounding the North Sea, provide effective models that could be investigated and adapted for Indonesia.

...reducing plastic production and use, with economic disincentives...

Pilots are underway in several cities to put in place bans and taxes that will help reduce waste from single-use plastics and over-packaging, and encourage reuse (see Box B.3 and Box B.4). In 2016, Jakarta imposed an IDR 200 (approx. USD 0.01) tax on plastic bags, but following the completion of the three-month pilot, and despite an estimated 55 percent reduction in plastic waste during the project's short duration, some retailers refused to continue the initiative in part due to the lack of a supporting regulatory framework.¹⁷⁷ An excise tax on plastic producers has been proposed as a potential alternative, and the Ministry of Finance estimates that such a tax would generate IDR 500 billion (USD 34.5 million) in revenue annually. The World Bank's *hotspots* study¹⁷⁸ found that 21 percent of plastic waste extracted from waterways consisted of plastic bags and single-use plastic packaging materials and thus the impact of bans and taxes on these materials could be significant.

Box B.4: Single-use plastic bans

In December 2018, Bali Governor Wayan Koster introduced an all-encompassing ban against single-use plastic, including plastic bags, Styrofoam, and straws. Retailers in the city of Denpasar have already adopted the rule, which came into force across the whole island in June 2019. The ban has an ambitious target of reducing marine plastic debris by 70 percent within the year.

The new regulation follows in the footsteps of decrees issued in Banjarmasin and Balikpapan, Kalimantan, as well as in Bogor, West Java, that banned the use of plastic bags. Jakarta, which accounts for approximately 20-30 percent of Indonesia's plastic waste, is preparing to introduce a similar rule in 2019.

... and incentives, ...

The Ministry of Environment and Forestry is working to make consumer goods manufacturers more responsible for managing the waste from their product packaging through an Extended Producer Responsibility (EPR) regulation later in 2019. This would oblige producers and retailers to include a higher proportion of recyclable material in product packaging and oblige greater responsibility for the management of waste from their products. EPR schemes have shown success globally. Most countries have started with EPR for beverage packaging, which may also be a suitable entry-point for Indonesia. It should be noted that incentive measures such as EPR and taxes involve a chain of producers, wholesalers, retailers and customers, each with different and sometimes conflicting interests. For such financial instruments to be applied, a regulatory structure is required to collect the fees and feed them back to the product chain. Such a structure should be prepared in consultation with stakeholders and preferably tested in a pilot stage.

... and enhancing funding mechanisms, policy reform, and law enforcement

The actions presented under the National Action Plan for Marine Debris can only be successful when supported by policy reforms, strong regulation and oversight. Mechanisms to support implementing parties, including the local governments of Indonesia's cities and *kabupaten*, are also needed. Thus far, the track record of investments in Indonesia's waste sector from the national budget has been mixed. Recent World Bank analysis found that a large proportion (more than 70 percent) of the local disposal cells and treatment facilities that have been built with central government financing function poorly within a few years of commissioning and hand-over to the local government. Broadly acknowledged reasons include: (i) lack of operational capacity; (ii) lack of operational budget; (iii) poor integration of community-level collection systems and city-level transport, treatment, and disposal systems; and (iv) limited

¹⁷⁷ This highlights the importance of a robust legal and regulatory framework for bans on single-use plastic and waste-associated taxes. A further example is seen in Bali's single-use plastics ban, where a judicial review has been brought over whether Bali Governor Regulation No. 97/2018 regarding single-use plastic is aligned with Law No. 18/2008 on waste management. Robust and clear legal frameworks help stakeholders anticipate and mitigate risks, including legal challenges.

¹⁷⁸ Shuker and Cadman (2018).

repercussions for poor waste management performance. An important contributing factor is the level of local operational budget (APBD) towards waste management, which varies widely across Indonesia (0.5-6.7 percent of APBD). Based on the experience of Indonesian cities with adequate waste services, four percent of APBD appears to be a good benchmark to ensure that operations can be sustained.

4. Close ecological and economic links between ocean sectors mean that the reforms in each sector can deliver benefits more broadly

Realizing the full potential of Indonesia's ocean economy will require sector reforms as well as cross-sector investments and coordination

Harnessing the potential of Indonesia's oceans will require cross-sector collaboration and coordination around priorities. Continued reform in the fisheries sector—through improved science and data, decision-making structures, and harvest controls with strong enforcement—have the potential to increase the sector's contribution and prevent long-term reductions in fisheries productivity. Protecting MAC assets as the basis for enhanced tourism can ensure that tourism growth is sustainable. Initiatives that reduce the threat of marine debris to Indonesia's spectacular MAC resources are vital complements to these efforts. Importantly, there are spillover benefits between these sectors. For example, conservation measures that protect MAC assets such as coral reefs also support productive fisheries. Cross-sectoral investments, with plans for coordination around key priorities, will be critical given the interdependence of ocean-related sectors.

There are a range of innovative financing opportunities both within and across these sectors

These intersectoral linkages provide innovative options for financing the investments that will be required. For example, the economic value of Indonesia's reefs for tourism, estimated at over USD 3 billion per year, can support visitor fees and tourism taxes that could help finance ecosystem conservation. Studies show that revenue potential, as determined by visitors' willingness to pay at key MAC sites, is much higher than is currently collected.¹⁷⁹ Such revenues could also contribute to waste management efforts. Tax revenues raised as part of incentive mechanisms to lower plastics use could be employed to finance plastic cleanup efforts in tourist hotspots. More broadly, in Indonesia's context of significant gaps in basic infrastructure and services (which contribute to the degradation of MAC assets), public investment in basic infrastructure and services will remain key (predominantly for residents but also for a growing tourism industry). Meanwhile, fisheries' current contribution to fiscal revenues is low; revenue-raising could be facilitated by improvements to the systems and policies required for stronger MCS. Adjustments to revenue raising formulas can also help incentivize prioritization of higher output and value—rather than higher fishing effort—benefiting stocks and thus productivity long-term.

A *Blue Economy* strategy can help achieve policy integration for sustainable development

In recognition of these sectors' interdependence, the GoI should pursue a *Blue Economy* strategy, where the development of ocean sectors is sustainable and integrated. This can be achieved through improved use of tools such as marine spatial planning, integrated coastal zone management, integrated tourism master plans,¹⁸⁰ fisheries management plans, and the strengthening of management for the country's rapidly expanding network of marine protected areas. A *Blue Economy* strategy further allows for the future integration of additional activities within existing policy and strategic frameworks. These could include offshore energy, bioprospecting, and desalination, among others yet to be developed.

¹⁷⁹ Pascoe et al. (2014).

¹⁸⁰ For tourism development in general, the GoI is already taking an integrated approach by using integrated tourism master plans for each destination to improve inter-ministry/agency, central-local, and public-private collaboration. The GoI's tourism development program consists of four integrated components: (i) increase institutional capacity; (ii) improve tourism-relevant road quality and basic services accessibility; (iii) promote local participation in the tourism economy (skills, firm capabilities, and community engagement); and (iv) enhance the enabling environment for private investment and business entry. This program currently includes one MAC destination (Lombok). Expansion to further MAC destinations, such as Labuan Bajo and Komodo National Park, is under preparation. See BPIW (2019).

With these steps, Indonesia's ocean sectors will have a promising future

The GoI has shown strong commitment to integrated development in its efforts to realize the country's ambition of becoming a global "maritime nexus." The challenges remain substantial: both upscaling of existing efforts and implementation of new ideas is required. However, the success of current initiatives, public enthusiasm, and positive global trends in these sectors make this an opportune time to lock-in gains and position Indonesia's ocean economy for decades of sustainable growth to come.

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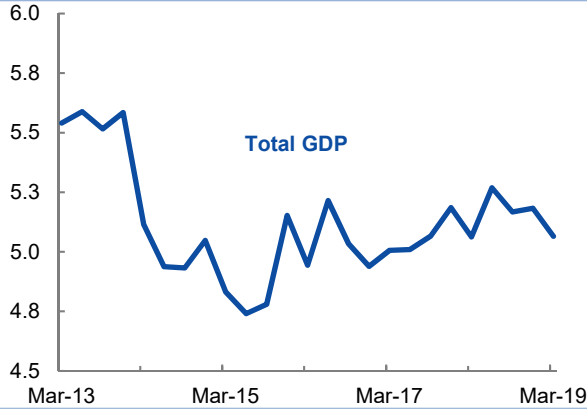
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<http://insto.unwto.org/observatories/>.

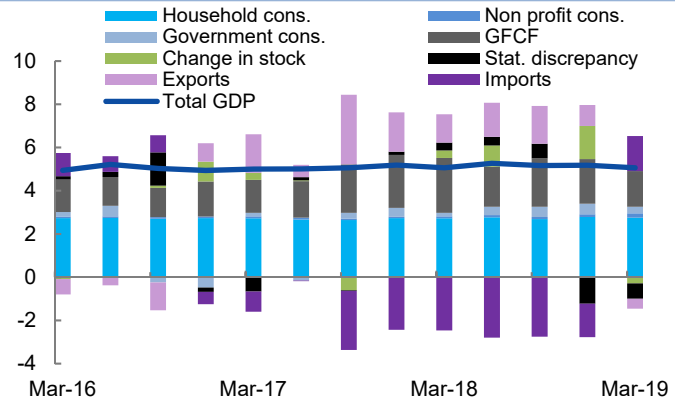
APPENDIX: A SNAPSHOT OF INDONESIAN ECONOMIC INDICATORS

Appendix Figure 1: Real GDP growth
(growth quarterly yoy, percent)



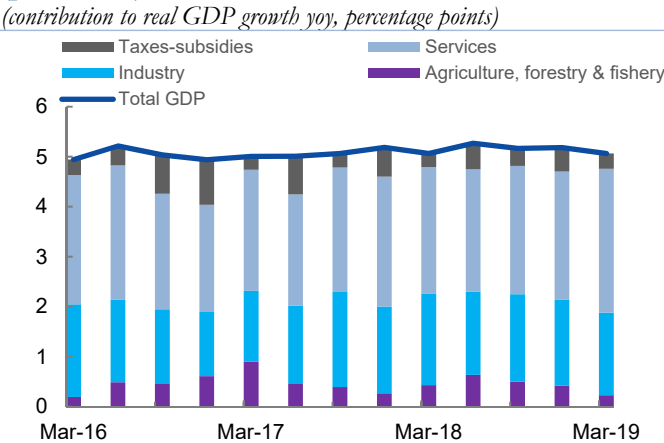
Source: BPS; World Bank staff calculations

Appendix Figure 2: Contribution to GDP growth (expenditure)
(contribution to real GDP growth yoy, percentage points)



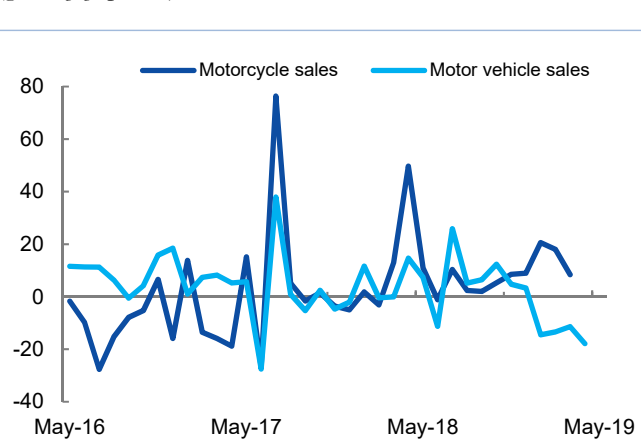
Source: BPS; World Bank staff calculations

Appendix Figure 3: Contribution to GDP growth (production)
(contribution to real GDP growth yoy, percentage points)



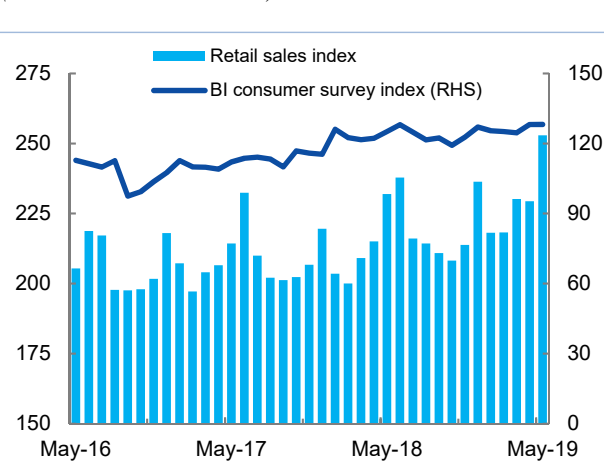
Source: BPS; World Bank staff calculations

Appendix Figure 4: Motor cycle and motor vehicle sales
(growth yoy, percent)



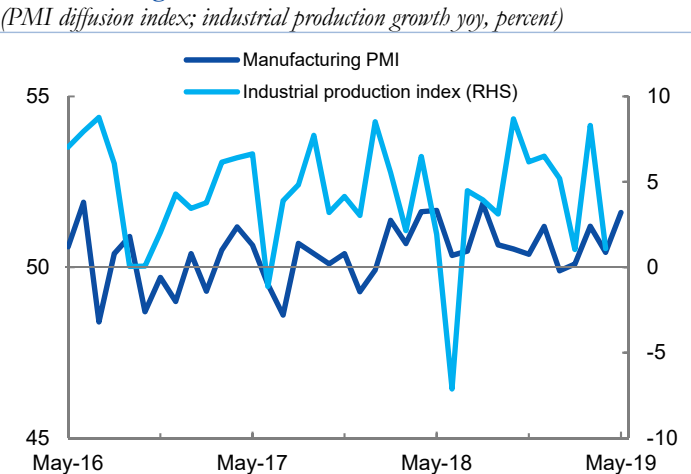
Source: BPS; World Bank staff calculations

Appendix Figure 5: Consumer indicators
(retail sales index 2010=100)



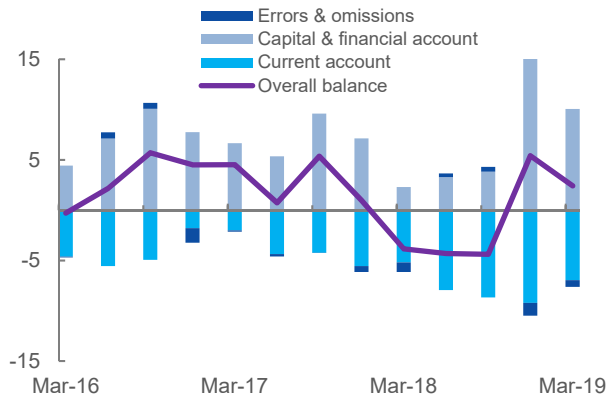
Source: BI

Appendix Figure 6: Industrial production indicators and manufacturing PMI
(PMI diffusion index; industrial production growth yoy, percent)



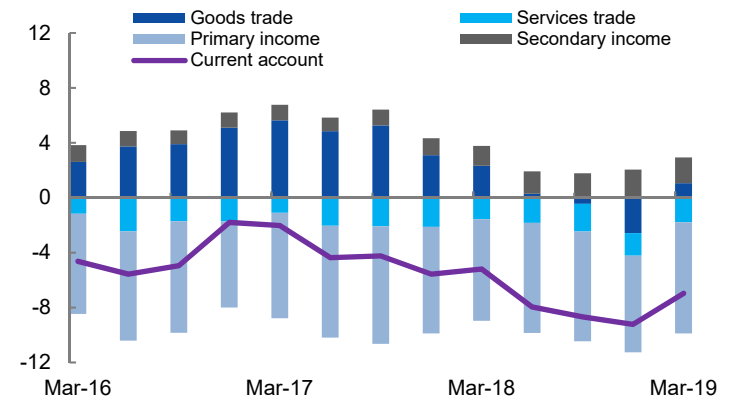
Source: BPS; Nikkei/Markit; World Bank staff calculations
Note: Manufacturing PMI above 50 indicates expansion

Appendix Figure 7: Balance of payments
(USD billion)



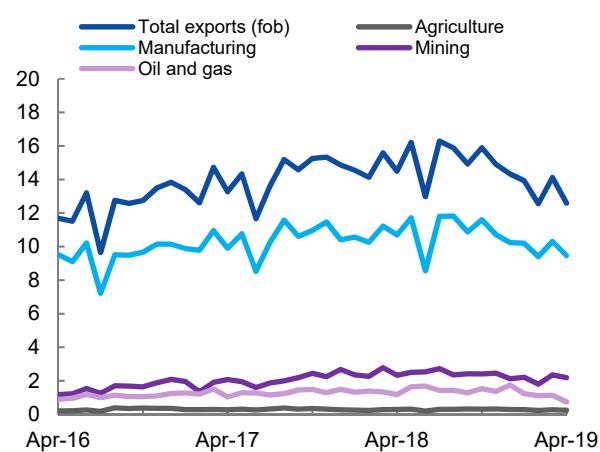
Source: BI

Appendix Figure 8: BOP: Current account
(USD billion)



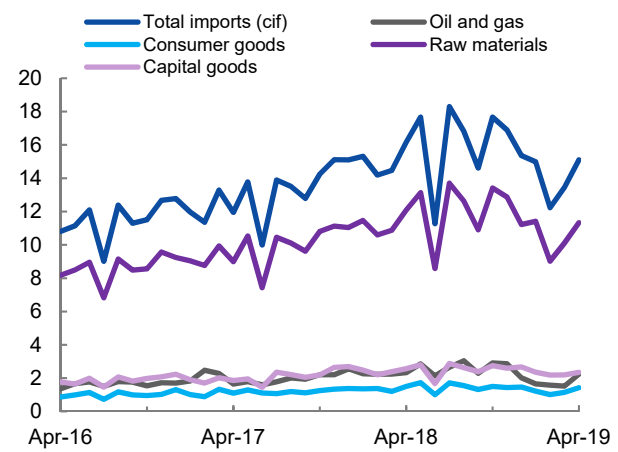
Source: BI

Appendix Figure 9: Exports of goods
(USD billion)



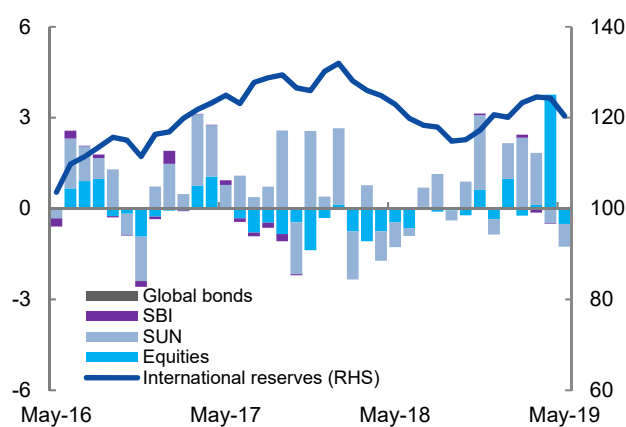
Source: BPS

Appendix Figure 10: Imports of goods
(USD billion)



Source: BPS

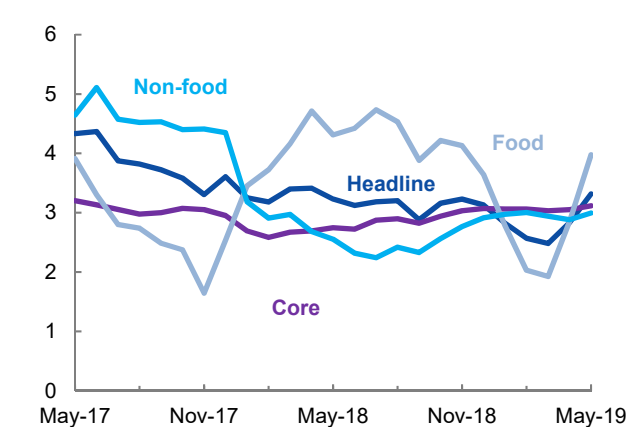
Appendix Figure 11: Reserves and capital flows
(USD billion)



Source: BI; Ministry of Finance (MoF)

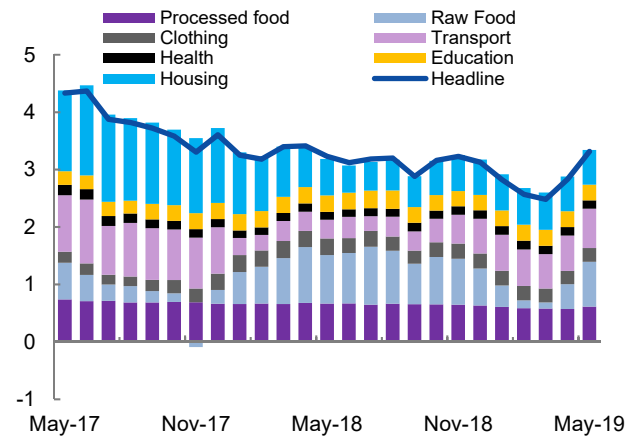
Note: SUN is government securities, SBI is BI certificates

Appendix Figure 12: CPI inflation
(growth yoy, percent)



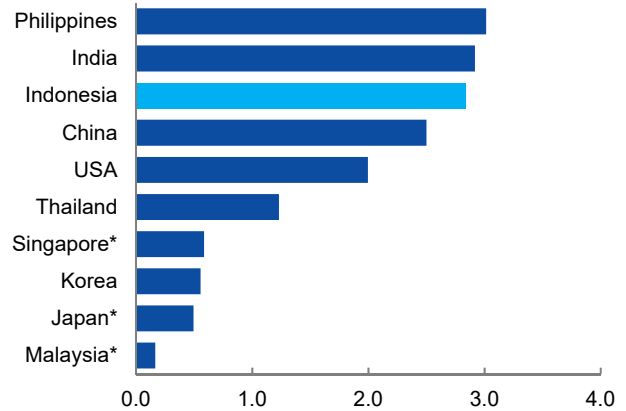
Source: BPS; BI; World Bank staff calculations

Appendix Figure 13: Monthly breakdown of CPI inflation
(contribution to growth yoy, percentage points)



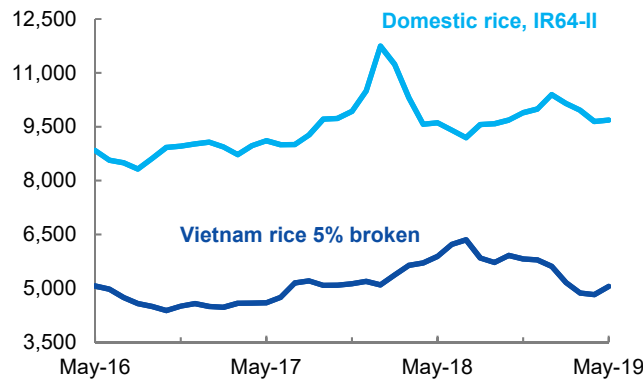
Source: BPS; World Bank staff calculations

Appendix Figure 14: CPI inflation comparison across countries
(growth yoy, percent)



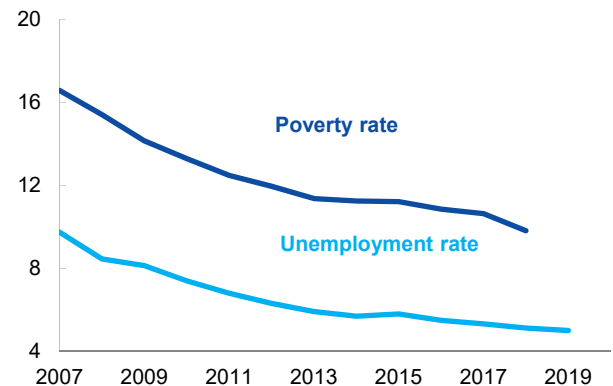
Source: BPS; CEIC; World Bank staff calculations
Note: May 2019, * April 2019 data

Appendix Figure 15: Domestic and international rice prices
(wholesale price, in IDR per kg)



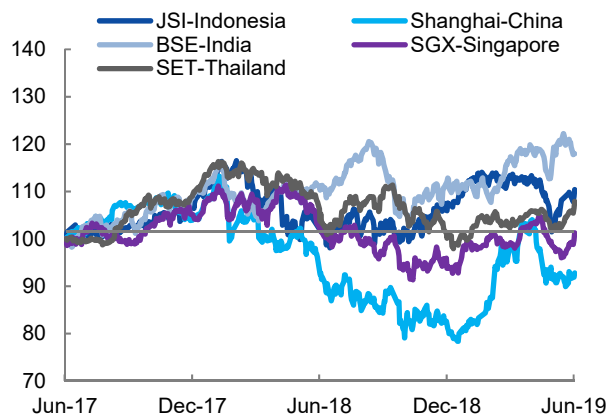
Source: Cipinang wholesale rice market; FAO
Note: "5% broken" refers to the quality of milled rice. 5 percent being the proportion of grains broken during the processing stage

Appendix Figure 16: Poverty and unemployment rates
(percent)



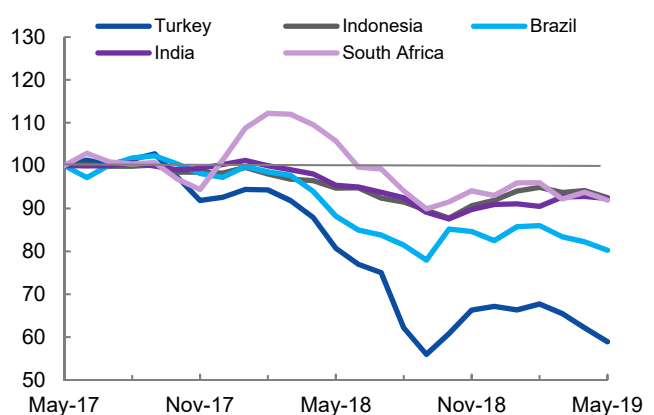
Source: BPS
Note: Poverty line based on national poverty line
Poverty rate refers to March data, Unemployment rate refers to February data

Appendix Figure 17: Regional equity indices
(daily index, 19 June 2017=100)



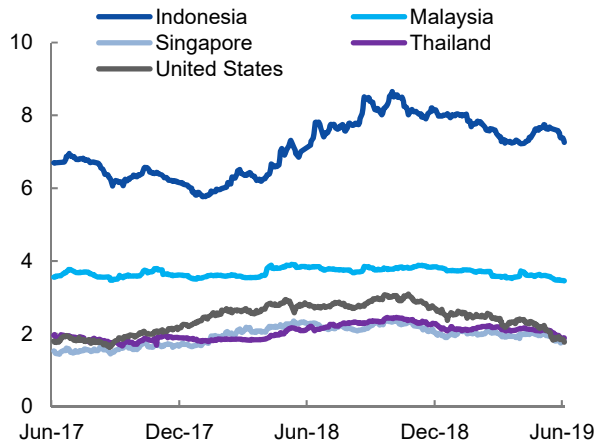
Source: CEIC; World Bank staff calculations

Appendix Figure 18: Spot exchange rates of selected currencies against USD
(monthly index, 1 May 2017=100)



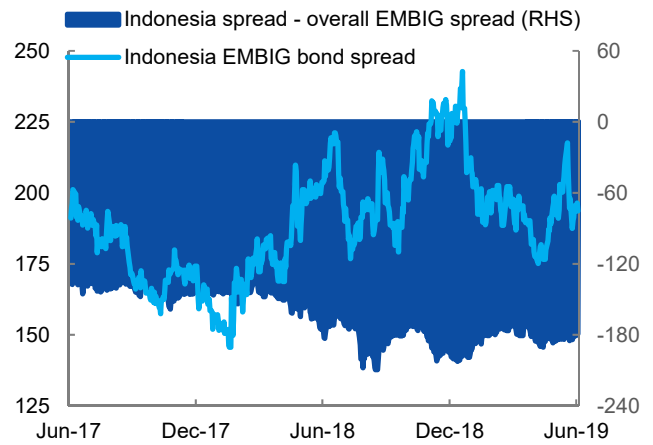
Source: CEIC; World Bank staff calculations

Appendix Figure 19: 5-year local currency government bond yields
(percent)



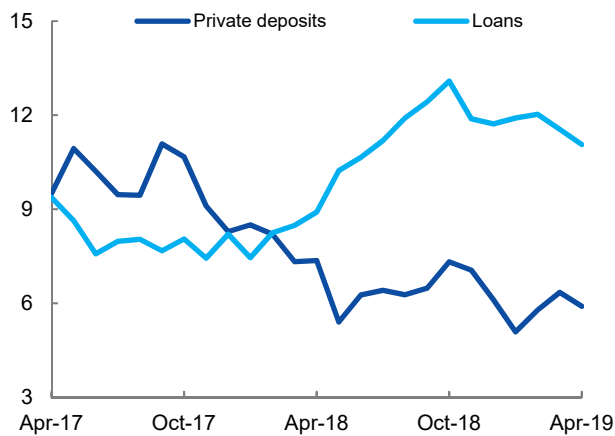
Source: CEIC

Appendix Figure 20: Sovereign USD bond EMBIG spread
(basis points)



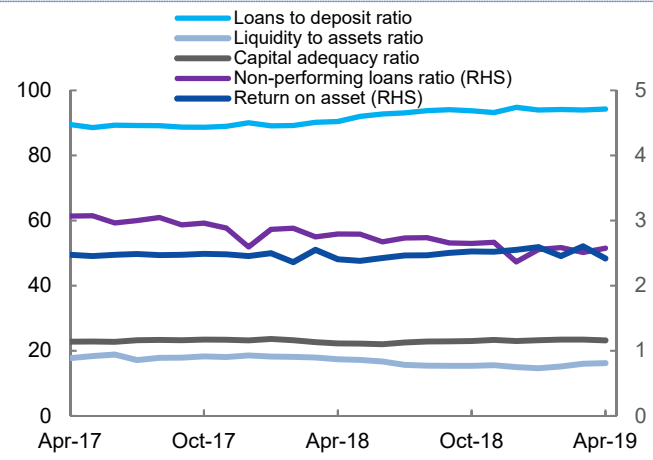
Source: JP Morgan

Appendix Figure 21: Commercial and rural credit and deposit growth
(growth yoy, percent)



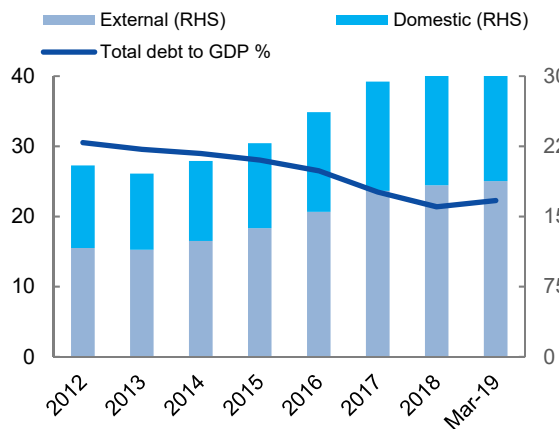
Source: BI; World Bank staff calculations

Appendix Figure 22: Banking sector indicators
(monthly, percent)



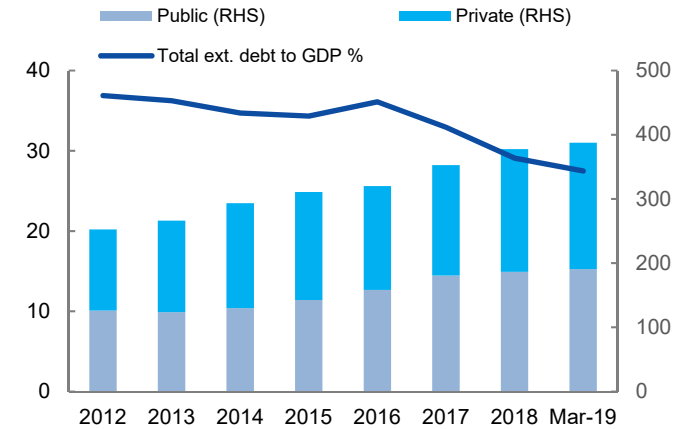
Source: BI; World Bank staff calculations

Appendix Figure 23: Government debt
(percent of GDP, LHS; USD billion, RHS)



Source: BI; MoF; World Bank staff calculations

Appendix Figure 24: External debt
(percent of GDP, LHS; USD billion, RHS)



Source: BI; World Bank staff calculations

Appendix Table 1: Budget outcomes

(IDR trillion)

	2012	2013	2014	2015	2016	2017	2018
	Actual	Actual	Actual	Actual	Actual	Actual	Actual
A. State revenue and grants	1,338	1,439	1,550	1,508	1,556	1,666	1,944
1. Tax revenue	981	1,077	1,147	1,240	1,285	1,344	1,519
2. Non-tax revenue	352	355	399	256	262	311	409
B. Expenditure	1,491	1,651	1,777	1,807	1,864	2,007	2,213
1. Central government	1,011	1,137	1,204	1,183	1,154	1,265	1,455
2. Transfers to the regions	481	513	574	623	710	742	758
C. Primary balance	-53	-99	-93	-142	-126	-124	-11
D. SURPLUS / DEFICIT	-153	-212	-227	-298	-308	-341	-269
(percent of GDP)	-1.9	-2.3	-2.2	-2.6	-2.5	-2.5	-1.8

Source: MoF; World Bank staff calculations

Note: Budget balance as percentage of GDP uses the revised and rebased GDP

Appendix Table 2: Balance of payments

(USD billion)

	2016	2017	2018	2017		2018				2019
				Q3	Q4	Q1	Q2	Q3	Q4	Q1
Balance of payments	26.2	11.6	-7.1	5.4	1.0	-3.9	-4.3	-4.4	5.4	2.4
Percent of GDP	1.0	1.1	-0.7	2.0	0.4	-1.5	-1.6	-1.7	2.1	0.9
Current account	-62.0	-16.2	-31.1	-4.2	-5.6	-5.2	-8.0	-8.7	-9.2	-7.0
Percent of GDP	-2.3	-1.6	-3.0	-1.6	-2.2	-2.0	-3.0	-3.3	-3.6	-2.6
Trade balance	10.6	11.4	-7.5	3.2	1.0	0.8	-1.6	-2.5	-4.2	-0.7
Net income & current transfers	-72.5	-27.6	-23.5	-7.4	-6.5	-5.9	-6.4	-6.2	-5.0	-6.2
Capital & Financial Account	91.1	28.7	25.3	9.6	7.1	2.3	3.3	3.8	15.9	10.1
Percent of GDP	3.4	2.8	2.4	3.7	2.8	0.9	1.2	1.5	6.2	3.8
Direct investment	41.6	18.5	13.7	7.0	4.4	4.8	2.4	4.4	2.0	5.2
Portfolio investment	61.2	21.1	9.3	3.8	2.6	-1.1	0.1	-0.1	10.5	5.4
Other investment	-11.6	-10.7	2.2	-1.2	0.2	-1.5	0.7	-0.5	3.5	-0.6
Errors & omissions	-2.9	-1.0	-1.4	0.0	-0.6	-1.0	0.4	0.5	-1.3	-0.7
Foreign reserves*	116.4	130.2	120.7	129.4	130.2	126.0	119.8	114.8	120.7	124.5

Source: BI; BPS; World Bank staff calculations

Note: * Reserves at end-period

Appendix Table 3: Indonesia's historical macroeconomic indicators at a glance

	2000	2011	2012	2013	2014	2015	2016	2017	2018
National Accounts (% change)¹									
Real GDP	4.9	6.2	6.0	5.6	5.0	4.9	5.0	5.1	5.2
Real investment	11.4	8.9	9.1	5.0	4.4	5.0	4.5	6.2	6.7
Real consumption	4.6	5.1	5.4	5.7	4.7	4.9	4.3	4.6	5.1
Private	3.7	5.1	5.5	5.5	5.3	4.8	5.0	5.0	5.1
Government	14.2	5.5	4.5	6.7	1.2	5.3	-0.1	2.1	4.8
Real exports, GNFS	30.6	14.8	1.6	4.2	1.1	-2.1	-1.7	8.9	6.5
Real imports, GNFS	26.6	15.0	8.0	1.9	2.1	-6.2	-2.4	8.1	12.0
Investment	16.7	8.9	9.1	5.0	4.4	5.0	4.5	6.2	6.7
Nominal GDP (USD billion)	165	893	918	915	891	861	932	1,015	1,042
GDP per capita (USD)	857	3,688	3,741	3,668	3,532	3,370	3,602	3,877	3,932
Central Government Budget (% GDP)²									
Revenue and grants	20.8	15.5	15.5	15.1	14.7	13.1	12.5	12.3	13.1
Non-tax revenue	9.0	4.2	4.1	3.7	3.8	2.2	2.1	2.3	2.7
Tax revenue	11.7	11.2	11.4	11.3	10.9	10.8	10.4	9.9	10.3
Expenditure	22.4	16.5	17.3	17.3	16.8	15.7	15.0	14.8	14.8
Consumption	4.0	3.8	3.9	4.1	4.0	4.5	4.6	4.4	4.6
Capital	2.6	1.5	1.7	1.9	1.4	1.9	1.4	1.5	1.2
Interest	5.1	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.7
Subsidies	6.3	3.8	4.0	3.7	3.7	1.6	1.4	1.2	1.5
Budget balance	-1.6	-1.1	-1.8	-2.2	-2.1	-2.6	-2.5	-2.5	-1.8
Government debt	97.9	23.1	23.0	24.9	24.7	27.5	28.3	29.4	29.8
o/w external government debt	51.4	10.2	9.9	11.2	10.2	12.7	12.4	12.4	12.5
Total external debt (including private sector)	87.1	25.2	27.5	29.1	32.9	36.6	34.7	37.1	39.5
Balance of Payments (% GDP)³									
Overall balance of payments	..	1.3	0.0	-0.8	1.7	-0.1	1.3	1.1	-0.7
Current account balance	4.8	0.2	-2.7	-3.2	-3.1	-2.0	-1.8	-1.6	-3.0
Exports GNFS	42.8	23.8	23.0	22.5	22.3	19.9	18.0	19.1	20.0
Imports GNFS	33.9	21.2	23.2	23.2	22.7	19.3	17.1	18.0	20.7
Trade balance	8.9	2.7	-0.2	-0.7	-0.3	0.6	0.9	1.1	-0.7
Financial account balance	..	1.5	2.7	2.4	5.0	2.0	3.1	2.8	2.4
Direct investment	-2.8	1.3	1.5	1.3	1.7	1.2	1.7	1.8	1.3
Gross official reserves (USD billion)	29.4	110	113	99	112	106	116	130	121
Monetary (% change)³									
GDP deflator ¹	20.4	7.5	3.8	5.0	5.4	4.0	2.4	4.3	3.8
Bank Indonesia interest key rate (%)	..	..	..	..	..	6.3	4.8	4.3	6.0
Domestic credit (eop)	..	24.6	23.1	21.6	11.6	10.4	7.9	8.2	11.8
Nominal exchange rate (average, IDR/USD)	8,392	8,776	9,384	10,460	11,869	13,389	13,309	13,381	14,238
Prices (% change)¹									
Consumer price Index (eop)	9.4	3.8	3.7	8.1	8.4	3.4	3.0	3.6	3.1
Consumer price Index (average)	3.7	5.3	4.0	6.4	6.4	6.4	3.5	3.8	3.2
Indonesia crude oil price (USD per barrel, eop) ⁴	28	112	113	107	60	36	51	61	55

Source: ¹ BPS and World Bank staff calculations, using revised and 2010 rebased figures. ² MoF and World Bank staff calculations, ³ BI, ⁴ CEIC

Appendix Table 4: Indonesia's development indicators at a glance

	2000	2011	2012	2013	2014	2015	2016	2017	2018
National Accounts (% change)¹									
Real GDP	4.9	6.2	6.0	5.6	5.0	4.9	5.0	5.1	5.2
Real investment	11.4	8.9	9.1	5.0	4.4	5.0	4.5	6.2	6.7
Real consumption	4.6	5.1	5.4	5.7	4.7	4.9	4.3	4.6	5.1
Private	3.7	5.1	5.5	5.5	5.3	4.8	5.0	5.0	5.1
Government	14.2	5.5	4.5	6.7	1.2	5.3	-0.1	2.1	4.8
Real exports, GNFS	30.6	14.8	1.6	4.2	1.1	-2.1	-1.7	8.9	6.5
Real imports, GNFS	26.6	15.0	8.0	1.9	2.1	-6.2	-2.4	8.1	12.0
Investment	16.7	8.9	9.1	5.0	4.4	5.0	4.5	6.2	6.7
Nominal GDP (USD billion)	165	893	918	915	891	861	932	1,015	1,042
GDP per capita (USD)	857	3,688	3,741	3,668	3,532	3,370	3,602	3,877	3,932
Central Government Budget (% GDP)²									
Revenue and grants	20.8	15.5	15.5	15.1	14.7	13.1	12.5	12.3	13.1
Non-tax revenue	9.0	4.2	4.1	3.7	3.8	2.2	2.1	2.3	2.7
Tax revenue	11.7	11.2	11.4	11.3	10.9	10.8	10.4	9.9	10.3
Expenditure	22.4	16.5	17.3	17.3	16.8	15.7	15.0	14.8	14.8
Consumption	4.0	3.8	3.9	4.1	4.0	4.5	4.6	4.4	4.6
Capital	2.6	1.5	1.7	1.9	1.4	1.9	1.4	1.5	1.2
Interest	5.1	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.7
Subsidies	6.3	3.8	4.0	3.7	3.7	1.6	1.4	1.2	1.5
Budget balance	-1.6	-1.1	-1.8	-2.2	-2.1	-2.6	-2.5	-2.5	-1.8
Government debt	97.9	23.1	23.0	24.9	24.7	27.5	28.3	29.4	29.8
o/w external government debt	51.4	10.2	9.9	11.2	10.2	12.7	12.4	12.4	12.5
Total external debt (including private sector)	87.1	25.2	27.5	29.1	32.9	36.6	34.7	37.1	39.5
Balance of Payments (% GDP)³									
Overall balance of payments	..	1.3	0.0	-0.8	1.7	-0.1	1.3	1.1	-0.7
Current account balance	4.8	0.2	-2.7	-3.2	-3.1	-2.0	-1.8	-1.6	-3.0
Exports GNFS	42.8	23.8	23.0	22.5	22.3	19.9	18.0	19.1	20.0
Imports GNFS	33.9	21.2	23.2	23.2	22.7	19.3	17.1	18.0	20.7
Trade balance	8.9	2.7	-0.2	-0.7	-0.3	0.6	0.9	1.1	-0.7
Financial account balance	..	1.5	2.7	2.4	5.0	2.0	3.1	2.8	2.4
Direct investment	-2.8	1.3	1.5	1.3	1.7	1.2	1.7	1.8	1.3
Gross official reserves (USD billion)	29.4	110	113	99	112	106	116	130	121
Monetary (% change)³									
GDP deflator ¹	20.4	7.5	3.8	5.0	5.4	4.0	2.4	4.3	3.8
Bank Indonesia interest key rate (%)	..	..	..	..	..	6.3	4.8	4.3	6.0
Domestic credit (eop)	..	24.6	23.1	21.6	11.6	10.4	7.9	8.2	11.8
Nominal exchange rate (average, IDR/USD)	8,392	8,776	9,384	10,460	11,869	13,389	13,309	13,381	14,238
Prices (% change)¹									
Consumer price Index (eop)	9.4	3.8	3.7	8.1	8.4	3.4	3.0	3.6	3.1
Consumer price Index (average)	3.7	5.3	4.0	6.4	6.4	6.4	3.5	3.8	3.2
Indonesia crude oil price (USD per barrel, eop) ⁴	28	112	113	107	60	36	51	61	55

Source: ¹ World Development Indicators; ² BPS (Sakernas); ³ BPS (Susenas) and World Bank; ⁴ MoF and World Bank staff calculations, Social assistance includes spending on Raskin, health insurance for the poor, scholarship for the poor, family hope program (PKH), cash for work (PKT, 2018), and remaining MOSA and social protection function expenditures and actuals; ⁵ MoF; ⁶ Inter-Parliamentary Union.



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