

アジア開発銀行（ADB） チーフエコノミストとしての4年間

澤田康幸
東京大学

アウトライン

1. ADBの経済調査・地域統合局 (ERCD)
2. 主なKnowledge products
3. コロナ対応
4. 新しい方向性
5. 学界と政策の橋渡し

アウトライン

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5. 学界と政策の橋渡し

アジア開発銀行 (ADB) の概容

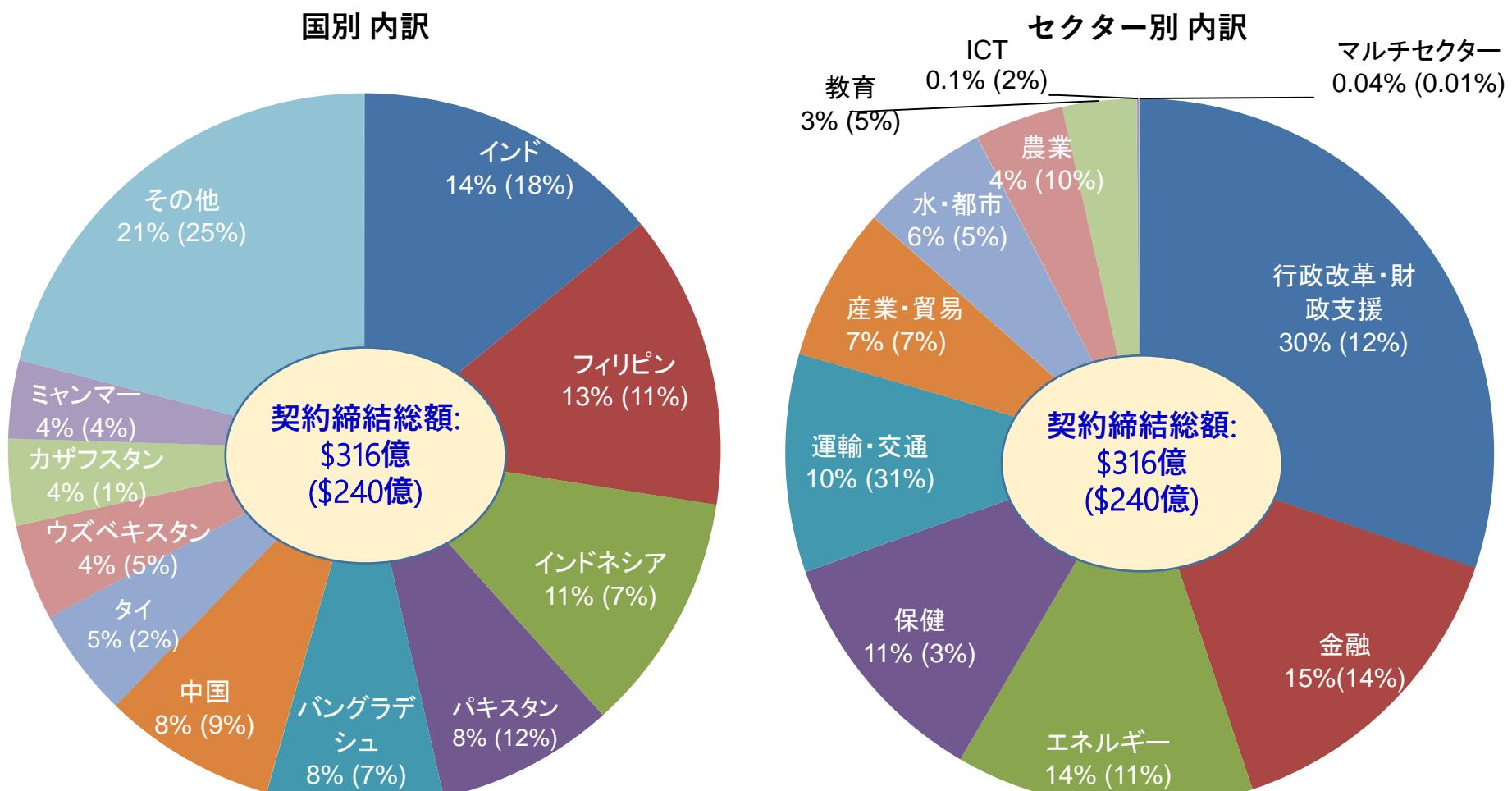
本部	フィリピン マニラ
設立	1966年
加盟国	68カ国・地域(域内国:49、域外國:19) 原加盟国:31(域内国:19、域外國:12)
債券発行	ドイツ(1969年)、オーストリア(1970年) 日本(1970年)、米国(1971年)
主な役割	(i) 資金と知識の提供、(ii)より良い政策の促進、(iii) 地域協力・友好の推進、を通じてアジア太平洋地域の途上国の発展を支援
職員数	3,659人(うち専門職員1,327人)

アジア開発銀行域内メンバー(49ヶ国・地域)



ADBの業務実績

2020年の契約締結額の国別、セクター別内訳(金額ベース)
(通常資本財源 (OCR)、アジア開発基金 (ADF)、特別基金)



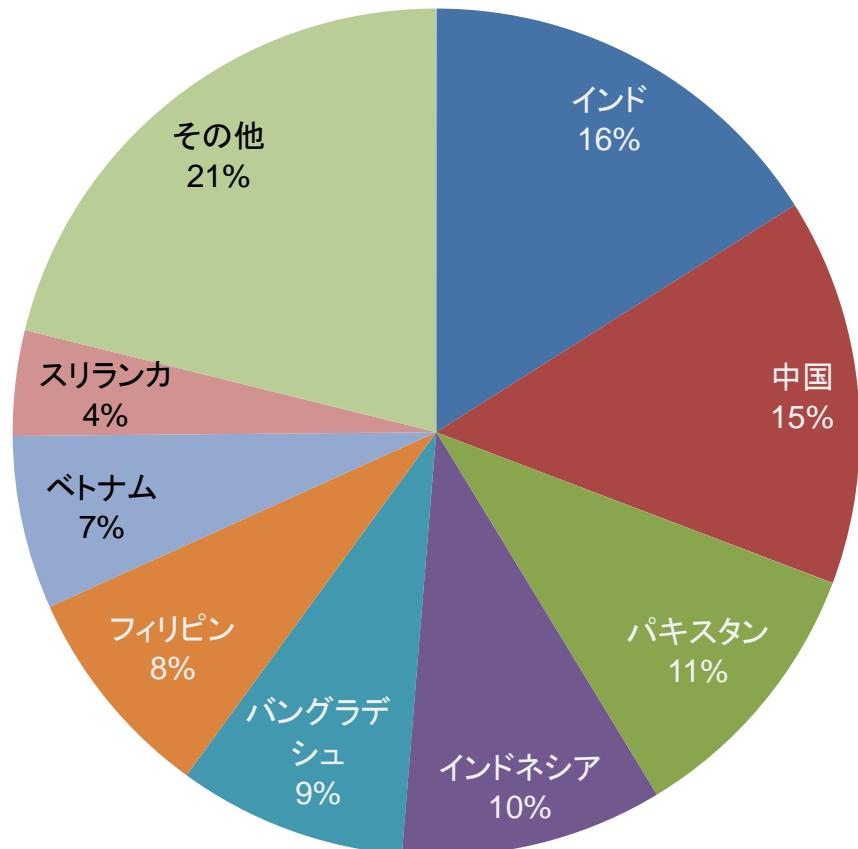
注: 融資、グラント、出資、保証案件、技術協力から成る。民間セクター向け短期融資(貿易金融・サプライチェーン金融、マイクロファイナンス金融機関向け保証プログラム)を含む数字(2019年: 21.4億ドル; 2020年: 30.7億ドル、内53%が金融、47%が産業・貿易)

ADBの業務実績：融資残高（2020年末）

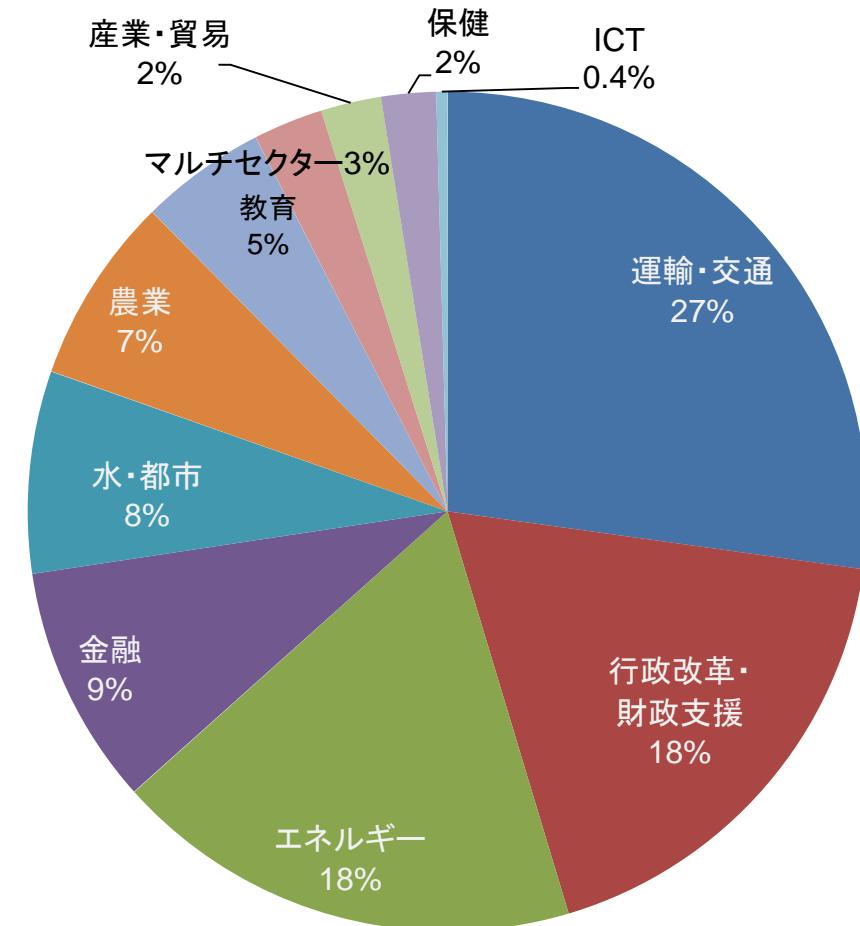
通常資本財源（OCR）およびアジア開発基金（ADF）

2020年第末の融資残高は2019年末の1,146億5,000万ドルから1,305億3,000万ドルに増加

国別 内訳



セクター別 内訳



注: 民間セクター向け短期融資プログラムは含まない。

ADBの開発戦略 ストラテジー2030



豊かでインクルーシブ、強靭で持続可能な成長を達成するための5優先事項

1. 地域協力・統合のさらなる深化

- 地域貿易・投資の強化、域内バリューチェーンの多様化、国境を超える公衆衛生管理の強化

2. 人的資本と社会的保護への投資

- 悪化する不平等、機会の格差への対応、保健システムの強化、ジェンダー平等に向けた取り組みを加速

3. グリーンで強靭なインフラの促進

- 気候変動・環境に配慮しながら、経済活動を活性化、雇用を創出

4. デジタル化の推進

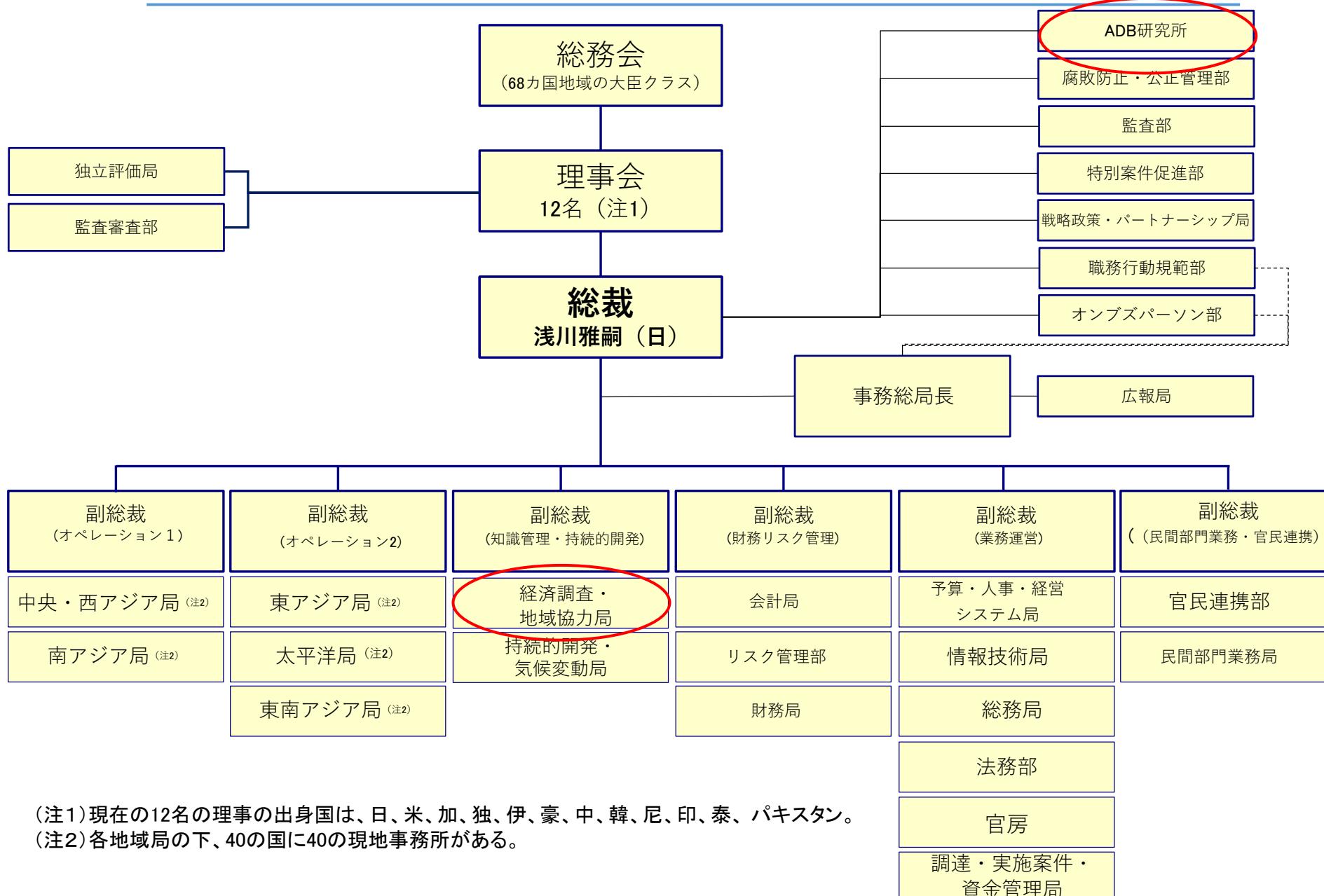
- デジタル経済への移行の加速
- デジタルデバイドの解消、サイバーセキュリティの強化

5. 国内資金動員 (Domestic Resource Mobilization: DRM) の強化

- SDGs達成のための安定的かつ持続可能な財源を確保
 - 多国籍企業による租税回避を許す税の抜け穴への対応
- ❖ ADBは「国内資金動員と国際税務協力の強化を支援する域内ハブ」を新設

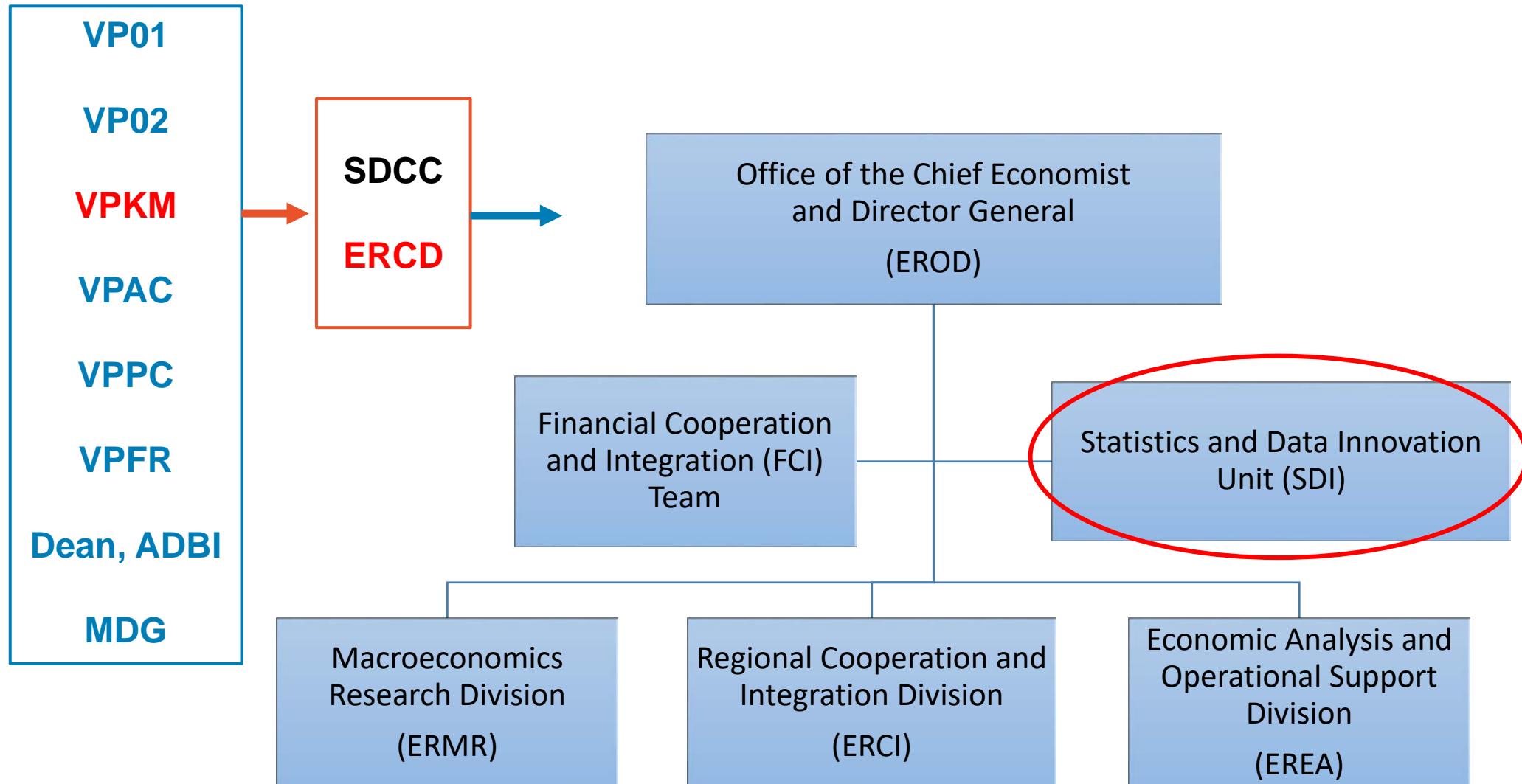
アジア開発銀行組織図

(2021年7月)



經濟調查・地域協力局 (ERCD)

President



ADB CE/ERCD DG のJD

- Lead the planning, implementation and supervision of ERCD in support of ADB goals
 1. Promote short, medium, and long term **economic research** on the Asia-Pacific region;
 2. Act as the **chief spokesperson** of ADB on development issues of critical importance to the region;
 3. Keep **ADB's Board and Senior Management informed** of emerging policy developments and challenges
 4. Report to the VP Knowledge Management (VPKM) and will **supervise** International Staff, National Staff, and Administrative Staff.

2020 Highlights 2021 Plans **ERCD**



Research **Post-COVID-19 analyses and support**

In collaboration
with RDs and
SDCC

Anticipating 2021 Agenda



Research **Using frontier technologies for poverty reduction projects and policies**

Implementation of TAs funded
by JFPR, Korea's e-Asia, and
PRCF, and others)



Partnership **Collaboration with external knowledge partners, and ADB clients**

Research partnerships
with OECD, WTO, PIDS,
and others

Achievements in 2020



Flagship & key studies

- ADO, ADO Update
- Key Indicators, Key indicators database
- Asian Development Review



COVID-19 analyses

- Impact assessments and cost-benefit analyses of control policies
- Policy database
- Cross-country analyses
- Policy briefs, blogs



COVID-19 support

- Country-specific support (PHI, INO)
- MSME rapid surveys
- DSA
- Bayan-bayanihan poverty targeting

New Initiatives

Asian Impact Webinar (inc. Distinguished Speaker Program)

RCI-POD Webinar

Online capacity building

Knowledge Management Roadmap

Challenges & Support needed

WFH and maintaining wellness

One ADB support

Raise KPS quality and CPS support

Systematic collaboration
with SDCC, RDs, ADBI

Effective KPS dissemination

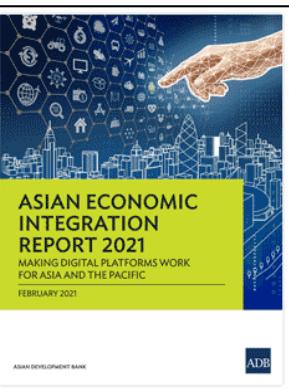
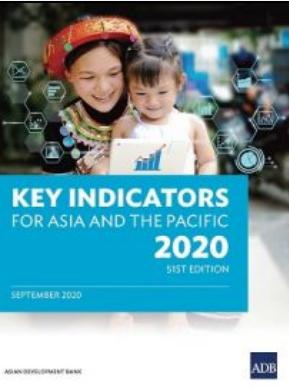
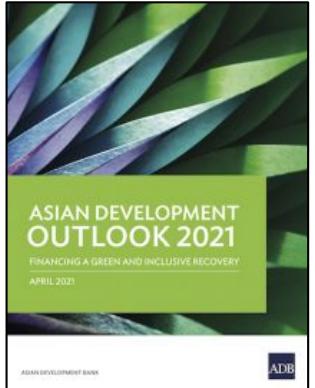
Support from DOC

Enhance knowledge relationship with DMCs and others

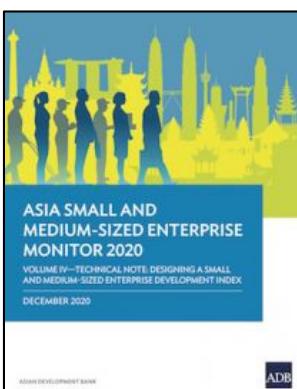
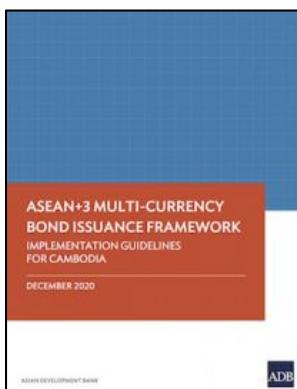
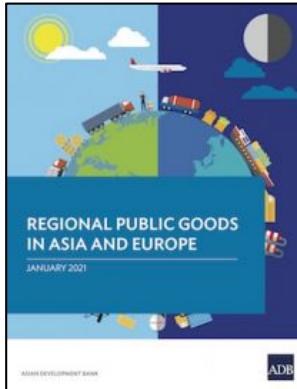
President and VP
(KM&SD) to
champion initiatives

Examples of key ERCD outputs

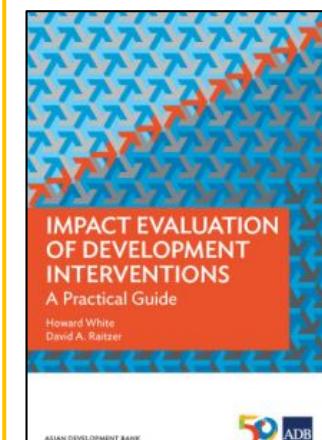
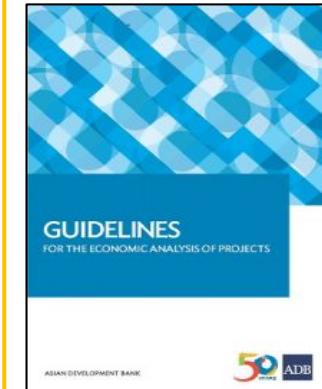
REGULAR PUBLICATIONS



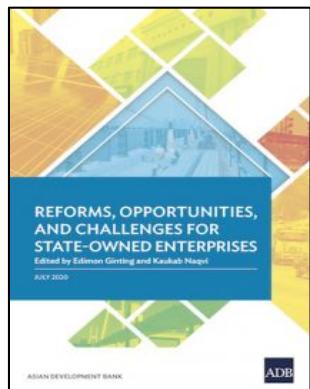
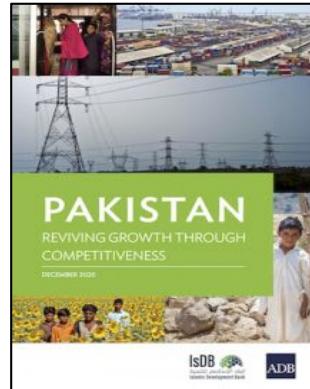
OTHER PUBLICATIONS



MANUALS



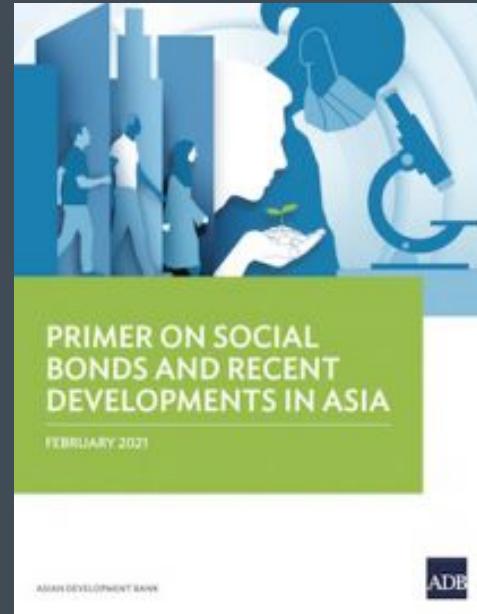
DIAGNOSTICS



ERMR

(macroeconomic research)

- *Asian Development Outlook (ADO), Update, Supplements*
- Macroeconomic monitoring, forecasting, analysis/research
- Theme chapters on development issues
- Capacity building in DMCs and RDs/RMs
 - Macroeconomic surveillance and analysis
 - Bond market monitoring and research for *Asia Bond Monitor*



Economics

This template looks at the potential economy- and sector-specific impact of the COVID-19 outbreak. It provides an update to a version released in March 6, 2020. The scenarios and estimates are revised to reflect the escalating and broadening reach of the health crisis. The analysis calculates the overall impact for the developing Asian economies of Bangladesh; Brunei Darussalam; Bhutan; Fiji; Hong Kong, China; Indonesia; India; Kazakhstan; Kyrgyz Republic; Cambodia; Republic of Korea; Sri Lanka; Maldives; Mongolia; Malaysia; Nepal; Pakistan; Philippines; Singapore; Thailand; Taipei, China; and Viet Nam.

Please see the 'Read Me' worksheet for further details.

Data and Resources

- COVID-19 Economic Impact Assessment Template, as of June 2020 (XLSM)
- COVID-19 Economic Impact Assessment Template, as of 28 March 2020 (CSV)
- COVID-19 Economic Impact Assessment Template, as of 28 March 2020 (XLSX)
- COVID-19 Economic Impact Assessment Template (CSV)
- COVID-19 Economic Impact Assessment Template (XLSX)



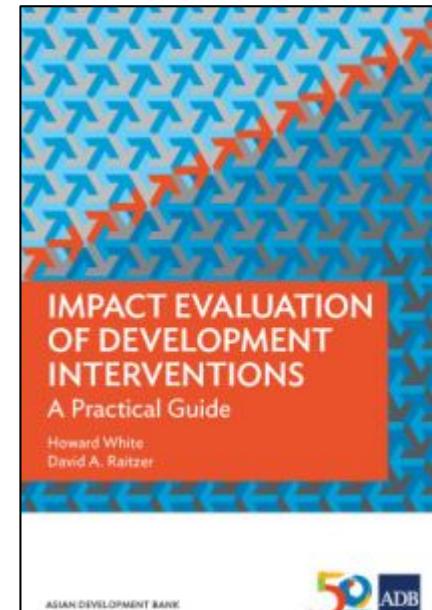
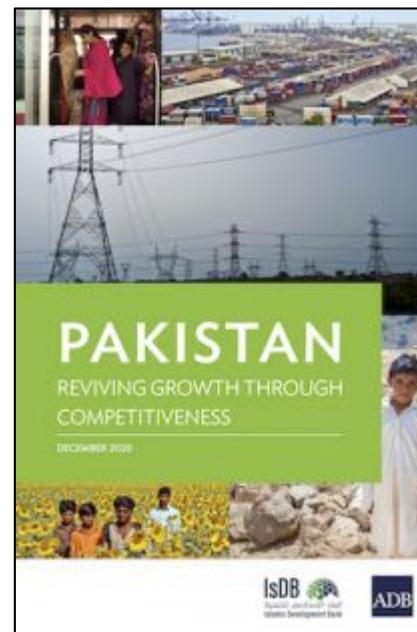
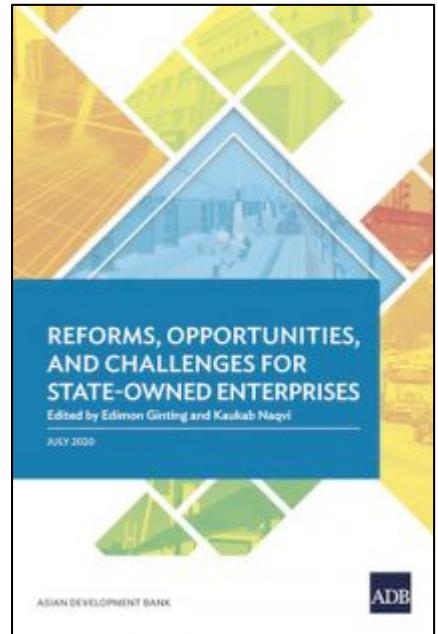
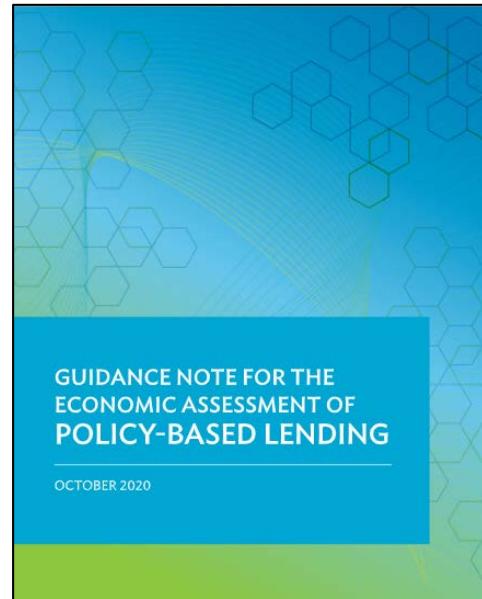
List of ADO / ADO Update theme topics

Update 2021	Transforming Asian Agriculture	Update 2007	Export dynamics in East Asia
2021	Financing a Green and Inclusive Recovery	2007	Growth amid change
Update 2020	Wellness in Worrying Times	Update 2006	Developing Asia's imprint on global commodity markets
2020	What Drives Innovation in Asia?	2006	Routes for Asia's trade
Update 2019	Fostering Growth and Inclusion in Asia's Cities	Update 2005	The challenge of higher oil prices
2019	Strengthening Disaster Resilience	2005	Promoting competition for long-term development
Update 2018	Maintaining Stability Amid Heightened Uncertainty	Update 2004	Economic scenarios for Asia
2018	How Technology Affects Jobs	2004	Foreign direct investment in developing Asia
Update 2017	Public-private partnership for Asia's sustainable development	Update 2003	Assessing the impact and cost of SARS in developing Asia
2017	Transcending the middle-income challenge	2003	Competitiveness in developing Asia
Update 2016	Meeting the low-carbon growth challenge	2002	Preferential trade agreements in Asia and the Pacific
2016	Asia's potential growth	2001	Asia's globalization challenge
Update 2015	Enabling women, energizing Asia	Update 2000	IT and development
2015	Financing Asia's future growth	2000	As the century turns: The social challenge in Asia
Update 2014	Asia in global value chains	1999	Economic openness: growth and recovery in Asia
2014	Fiscal policy for inclusive growth	1998	Population and human resources
Update 2013	Governance and public service delivery	1997	World trading environment and developing Asia
2013	Asia's energy challenge	1996	Regional cooperation in Asia
Update 2012	Services and Asia's future growth	1995	The financial sector and Asian development: historical experiences and prospects
2012	Confronting rising inequality in Asia	1994	Urban poverty in Asia
Update 2011	Preparing for demographic transition	1993	Asian economies in transition
2011	South-South economic links	1992	Rural poverty in Asia
Update 2010	The future of growth in Asia	1991	Environment and development in Asia
2010	Macroeconomic management beyond the crisis	1990	Informal finance in Asia
Update 2009	Broadening openness for a resilient Asia	1989	The development of human capital
2009	Rebalancing Asia's growth		
Update 2008	Responding to commodity shocks (Global price rises and impact on developing Asia)		
2008	Workers in Asia		

EREA

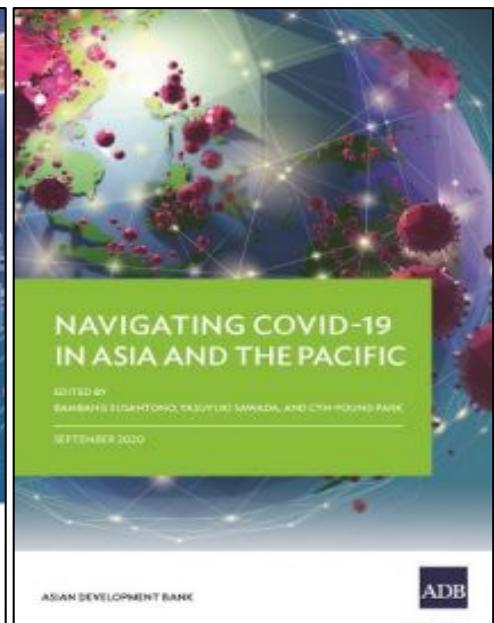
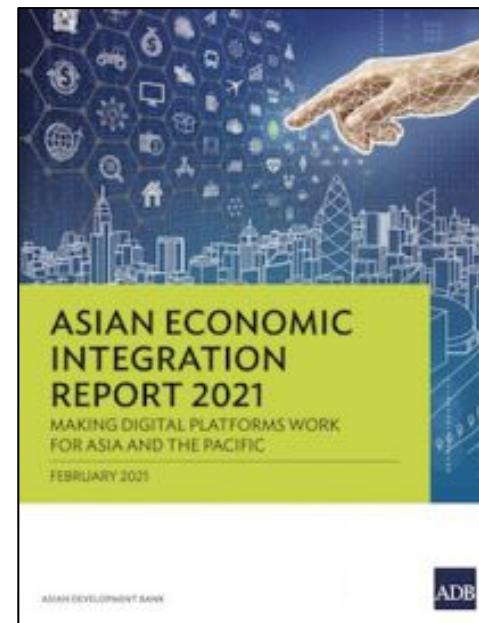
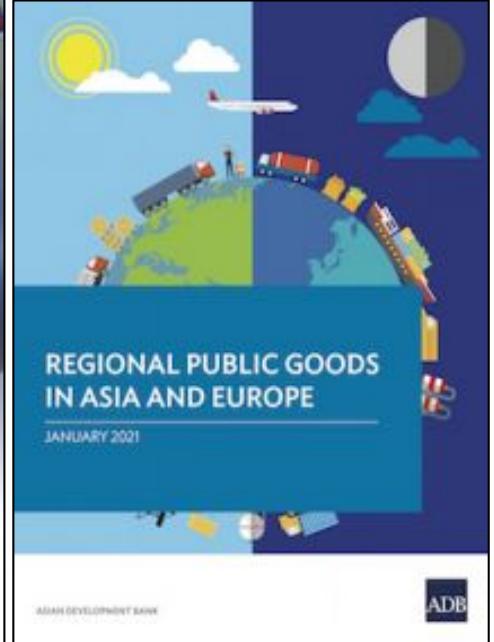
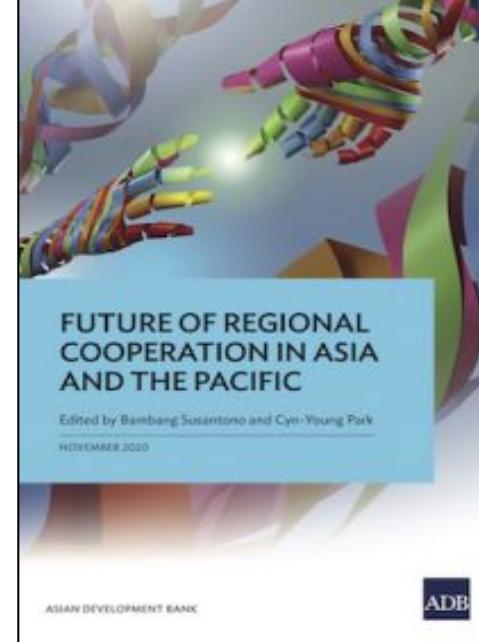
(economic analysis & operational support)

- ADB project economic analysis
- Diagnostic studies: Country, sector, and thematic
- Impact evaluation
- Capacity building
 - Project economic analysis
 - Impact evaluation



ERCI (regional cooperation & integration)

- Asian Economic Integration Report
- Policy research and knowledge work on RCI (Aid for Trade, Trade Facilitation, Trade Finance, etc.)
- Support for regional forums (ASEAN, ASEAN+3, and APEC)
- Capacity building and knowledge services
 - ✓ Financial surveillance and monitoring (EWS, RFSN, Disaster risk, etc.)
 - ✓ Trade facilitation agreement
 - ✓ Database on RCI

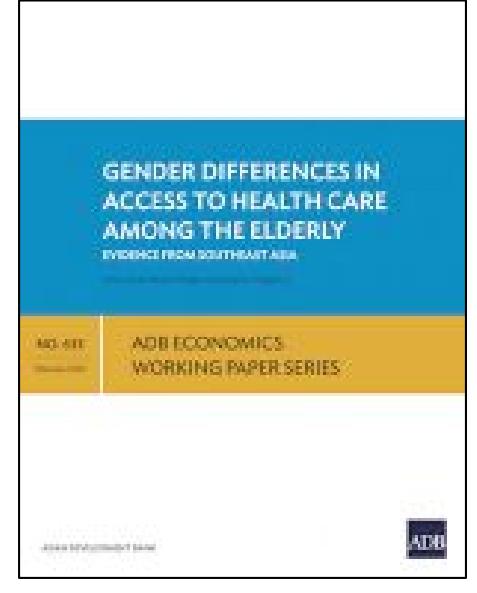


List of AEIR theme chapters

2021	Making Digital Platforms Work for Asia and the Pacific
2019/2020	Demographic Change, Productivity, and the Role of Technology
2018	Toward the Optimal Provision of Regional Public Goods in Asia and the Pacific
2017	The Era of Financial Interconnectedness: How Can Asia Strengthen Financial Resilience?
2016	What Drives Foreign Direct Investment in Asia and the Pacific?
2015	How Can Special Economic Zones Catalyze Economic Development?

EROD (front office)

- Provides leadership and strategic directions
- Supervises implementation of department work plan
- Leads and undertakes research initiatives
- Manages the ADB COVID-19 Policy Database
- Oversees the publication of the Asian Development Review and ADB Economics Working Paper Series
- Undertakes debt sustainability assessments



The image shows the landing page of the ADB COVID-19 Policy Database. The header reads "ADB COVID-19 Policy Database". Below it is a paragraph about the database's purpose: "This database provides information on the key economic measures that authorities are taking to combat the COVID-19 pandemic. Measures are classified according to how they work their way through the financial system, and how they affect the financial positions of different sectors of society. The database also tracks non-economic measures." There is a blue button labeled "Read the Background Document". Below the button are social media icons for Facebook, Twitter, and LinkedIn. At the bottom, there is a "Project Team" section listing names of the project team members.

A collage of four images illustrating the impact of COVID-19: a man spraying disinfectant on a street, a person wearing a mask in a shop, a tree with pink blossoms, and a person wearing a mask outdoors.

FCI (financial cooperation & integration)

❖ Secretariat of ASEAN+3 Asian Bond Markets Initiative

- Integrate ASEAN+3 financial markets to recycle funds within the region: ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF); KYC process for taxation; green, social and sustainability bond market practices; and settlement linkages
- In-depth legal and technical analyses to support market developments

❖ Support to ASEAN Financial Integration

- Capacity building to ASEAN central banks and securities market regulators
- Participation in regional regulatory discussion

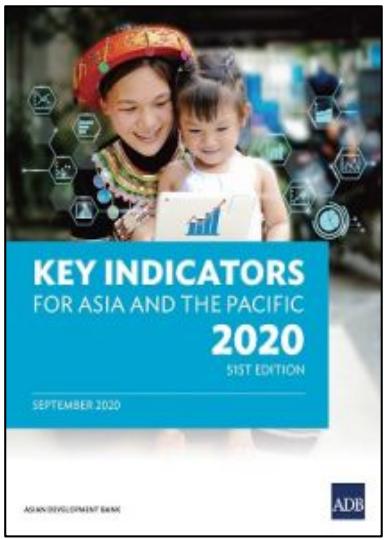


❖ Collaboration with Regional Departments and SDCC

- Support to bond market development in Viet Nam, Cambodia, Myanmar, Lao PDR, and Mongolia
- Fintech and data management

❖ SME Monitor with the view from financial cooperation and integration

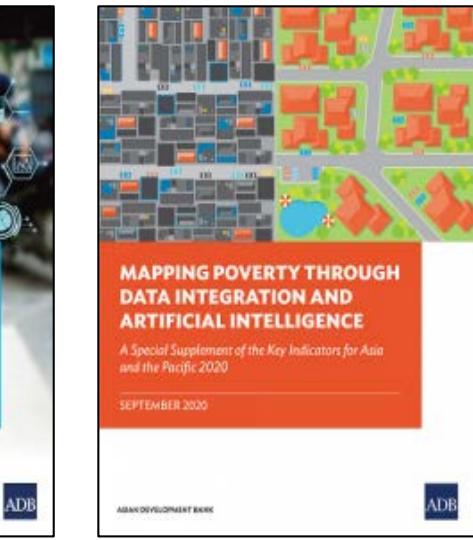
- Detailed analyses to support operations



**KEY INDICATORS
FOR ASIA AND THE PACIFIC
2020**
51ST EDITION

SEPTEMBER 2020

ASIAN DEVELOPMENT BANK

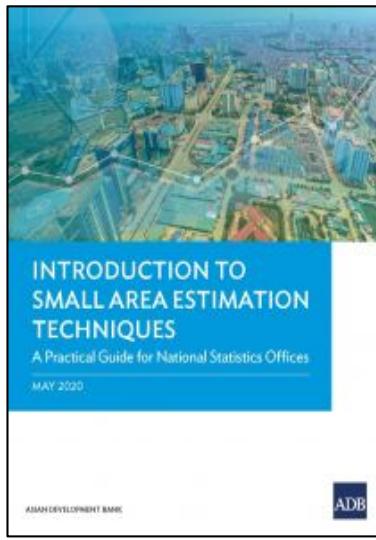


**MAPPING POVERTY THROUGH
DATA INTEGRATION AND
ARTIFICIAL INTELLIGENCE**

A Special Supplement of the Key Indicators for Asia and the Pacific 2020

SEPTEMBER 2020

ASIAN DEVELOPMENT BANK

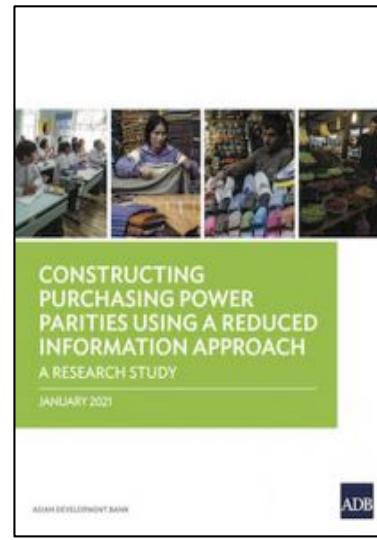


**INTRODUCTION TO
SMALL AREA ESTIMATION
TECHNIQUES**

A Practical Guide for National Statistics Offices

MAY 2020

ASIAN DEVELOPMENT BANK



**CONSTRUCTING
PURCHASING POWER
PARITIES USING A REDUCED
INFORMATION APPROACH**

JANUARY 2021

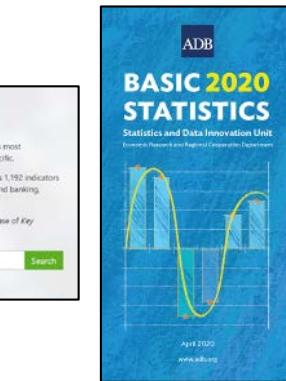
ASIAN DEVELOPMENT BANK

Welcome to the Key Indicators Database

The Key Indicators Database (KID) is ADB's central statistical database and one of the world's most comprehensive resources for macroeconomic and social indicators from across Asia and the Pacific. Containing data on 49 ADB regional member economies from 2000 onwards, the KID provides 1,192 indicators relating to national accounts, prices, government finance, trade, balance of payments, money and banking, external debt, population, labor force, and social indicators.

Data were last updated on 01 January 2021. The data are updated annually in line with the release of Key Indicators for Asia and the Pacific.

Search data e.g. Indicator Name, Country Name



ADB

BASIC 2020 STATISTICS

Statistics and Data Innovation Unit

Economic Research and Regional Cooperation Department

April 2020

www.adb.org

- Supports statistical capacity building of DMCs, including Big Data and new technologies in data collection and dissemination
- Participates in international statistics initiatives
- Conducts research on development insights from statistical innovations
- Key Indicators and statistical database
- Supports operations with data and advice

SDIU
(statistics and data innovation unit)

List of KI special chapters/special supplements

2021	Capturing the Digital Economy: A Proposed Measurement Framework and Its Applications
2020	Mapping Poverty through Data Integration and Artificial Intelligence (Special Supplement)
2019	The CAPI Effect: Boosting Survey Data through Mobile Technology (Special Supplement)
2018	Technological Innovation for Agricultural Statistics (Special Supplement)
2017	Meeting Asia's Infrastructure Needs
2016	(TRANSITION PERIOD FOR THE KI PUBLICATION)
2015	A Smarter Future: Skills, Education, and Growth in Asia
2014	Poverty in Asia: A Deeper Look
2013	Asia's Economic Transformation: Where to, How, and How Fast?
2012	Green Urbanization in Asia
2011	Toward Higher Quality Employment in Asia
2010	The Rise of Asia's Middle Class
2009	Enterprises in Asia: Fostering Dynamism in SMEs
2008	Comparing Poverty Across Countries: The Role of Purchasing Power Parities
2007	Inequality in Asia
2006	Measuring Policy Effectiveness in Health and Education
2005	Labor Markets in Asia: Promoting Full, Productive and Decent Employment
2004	Poverty in Asia: Measurement, Estimates and Prospects
2003	Education for Global Participation
2002	Population and Human Resource Trends and Challenges
2001	Growth and Change in Asia and the Pacific

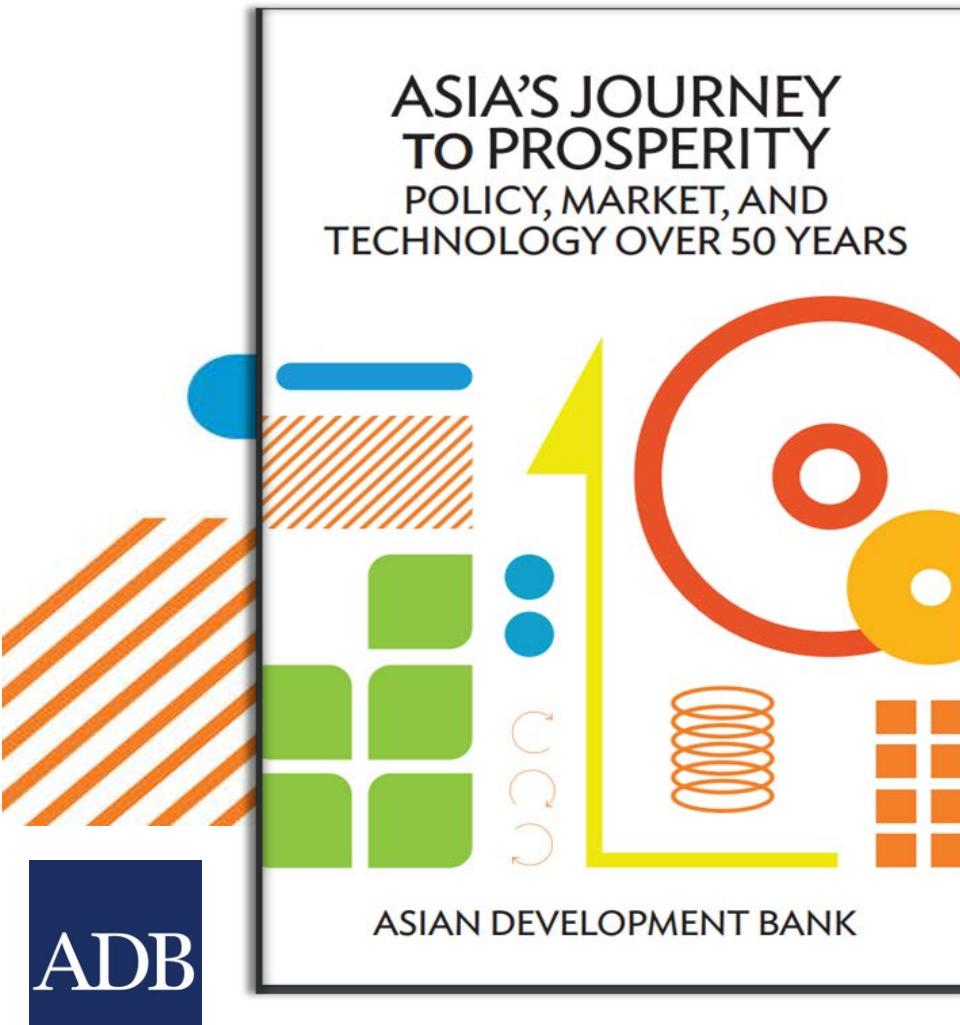
アウトライン

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主なKnowledge products

- 「アジア太平洋地域の開発の50年」
 - 補論「アジアにおける災害レジリエンス」
- 特集号などで取り組んだトピック例：
 - 中進国の罠
 - インフラ投資ギャップ
 - 第四次産業革命
 - マクロプルーデンス政策
 - 高齢化と地域統合
 - 防災・減災
 - 都市化
- 特集号などで取り組んだトピック例：
 - イノベーション
 - ウェルネス
 - 米中貿易紛争
 - デジタル化
 - グリーンファイナンス
 - コロナ禍による成長・雇用・デジタル化貧困・送金・サプライチェーンへの影響
 - GVC
 - フィンテック
 - ADB COVID-19 Policy Database

アジア開発史 政策・市場・技術発展の50年を振り返る



- <https://www.adb.org/publications/asias-journey-to-prosperity>

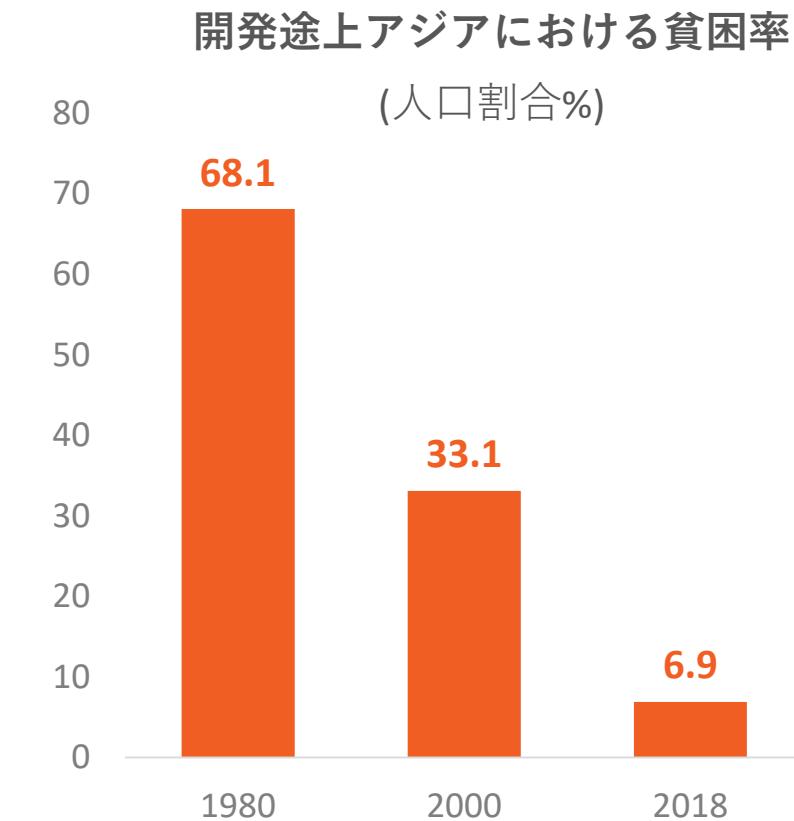
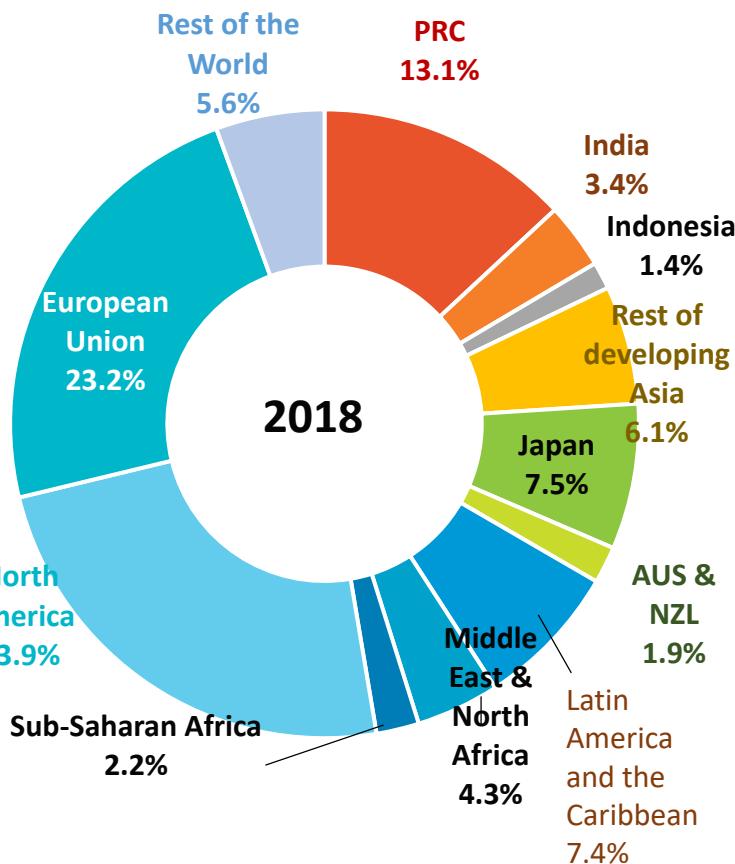
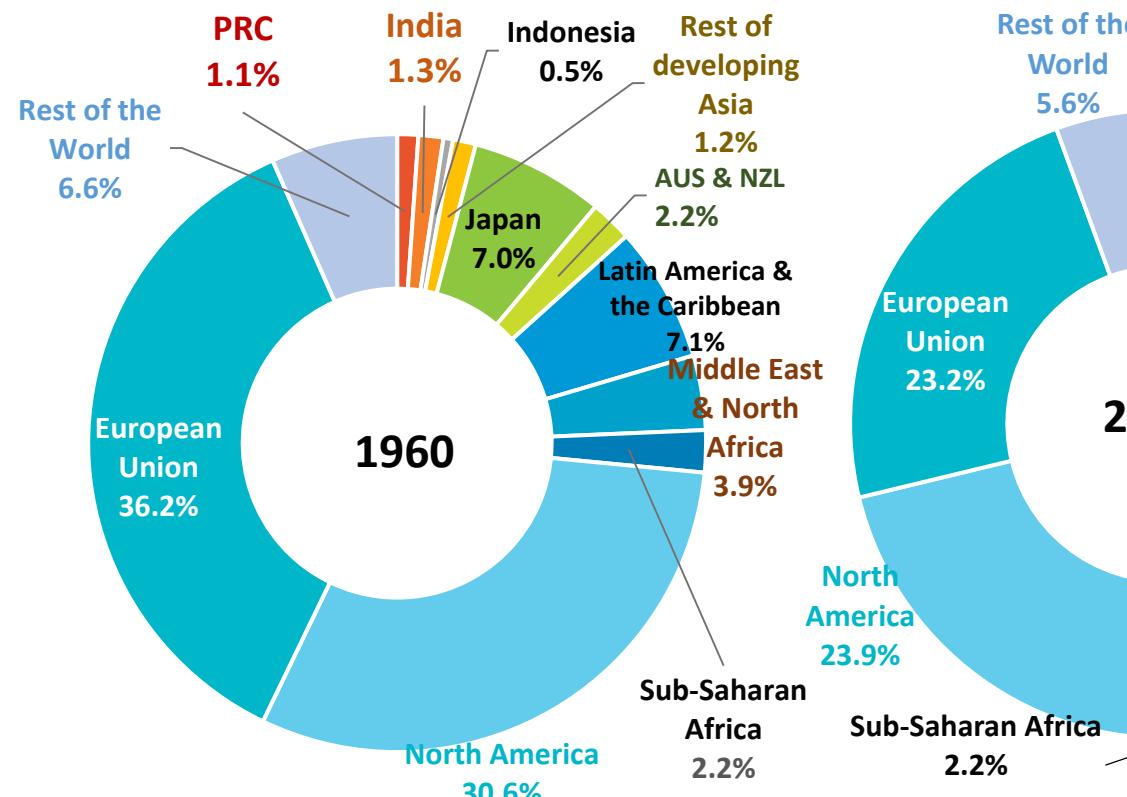
目次

1. アジア開発の50年：概観
2. 市場・国家と制度の役割
3. 構造転換のダイナミクス
- 4. 農業の近代化と農村の開発**
5. 成長の原動力としての技術的進歩
- 6. 教育・保健と人口動態**
7. 投資・貯蓄・金融
- 8. インフラ開発**
9. 貿易・外国直接投資・経済開放
10. マクロ経済安定化の取り組み
- 11. 貧困削減と所得分配**
- 12. ジェンダーと開発**
- 13. 環境の持続可能性と気候変動**
- 14. 多国間・二国間開発資金の貢献**
- 15. アジアにおける地域協力・統合の強化**

注) 太字は、「東アジアの奇跡」では取り上げられていないトピック

アジアにおける発展の主要成果

- 前例のない高度成長が、世界経済におけるアジアのシェアを飛躍的に高め、社会開発指標を目覚ましく改善した。



将来を見据えた政府のサポートを持ちつつ 市場メカニズムを活用

- 過去50年の間に、アジアにおける開発政策は、政府主導の工業化政策から、より市場メカニズムに基づいた成長へとシフトした

1940年代終盤-1950年代終盤:

大戦後の政治的独立・復興・政府主導の工業政策、特に輸入代替工業化政策

1950年代終盤-1970年代終盤:

NIESと日本では輸出振興と市場に基づいた政策が採用される一方、中国やその他途上国では政府の介入と内向き戦略が維持され

1970年代終盤-1990年代初頭:

“東アジアの奇跡”が認知され、中国・ベトナム・インド・中央アジア諸国で開放・市場志向の改革が開始

1990年代初頭-2007年:

開放・市場志向改革の推進、貿易・資本移動の拡大、アジア通貨危機と危機後の改革

2008年-現在:

世界金融危機、世界経済の牽引役としてのアジア、包摂性のある成長とよいガバナンスの推進、政府の役割再考



ASIAN DEVELOPMENT OUTLOOK 2017 **UPDATE**

SUSTAINING DEVELOPMENT THROUGH
PUBLIC-PRIVATE PARTNERSHIP



Asia's infrastructure needs dwarf traditional funding sources

\$1.7 trillion annual investment needed through 2030

\$ trillion in 2015 prices

1.2

\$ 0.98
[56%]

0.8

\$ 0.60
[32%]

0.4

\$ 0.15
[9%]

0.0

\$ 0.05
[3%]

Energy

Transportation

ICT

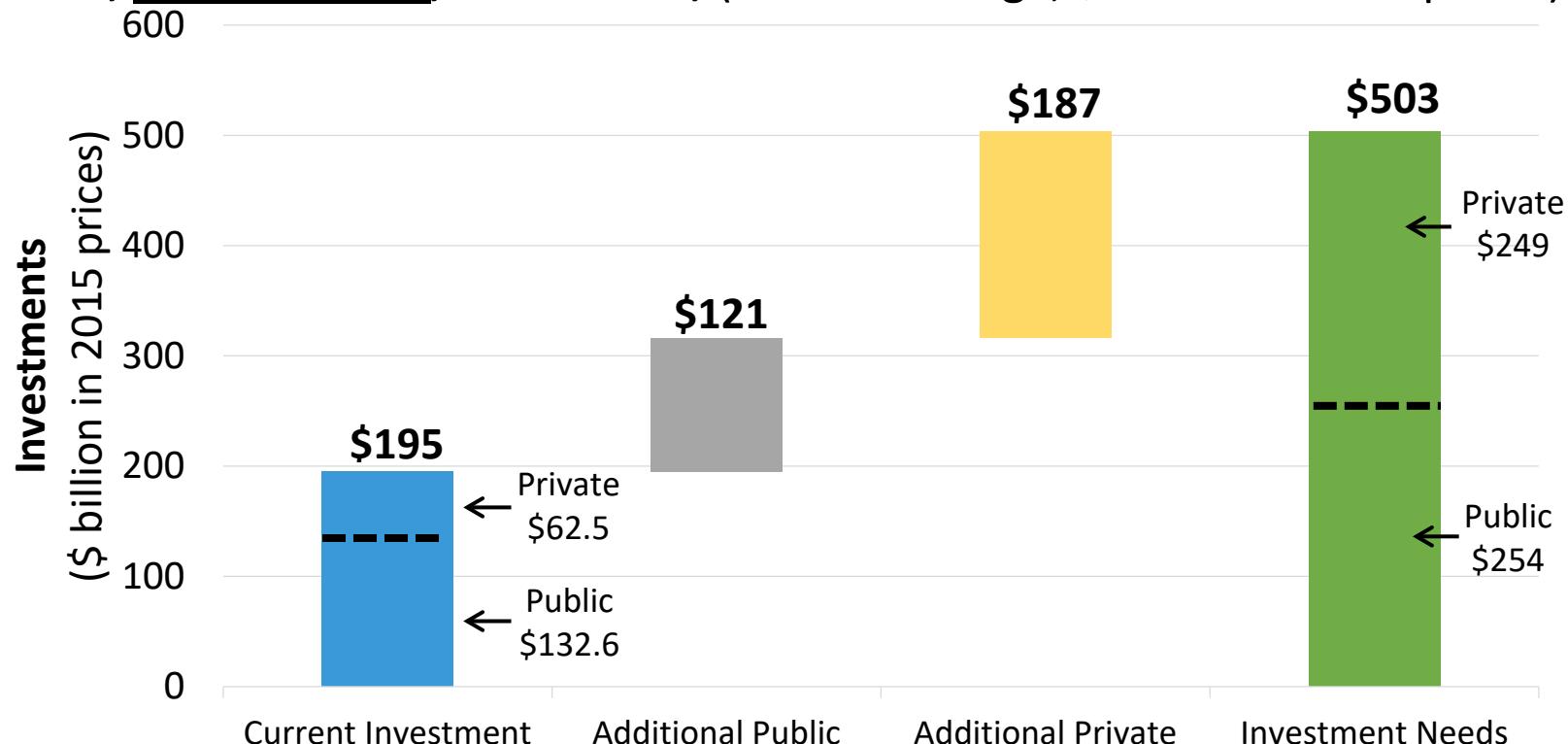
Water

ICT = Information and Communication Technology

Source: ADB estimates based on country sources and Private Participation in Infrastructure Database, World Bank; World Development Indicators, World Bank.

How big are infrastructure investment gaps and how the gaps can be filled?

Infrastructure investment by financing source, 24 economies with adequate data, excluding PRC, 2016–2020, (annual average, \$ billion in 2015 prices)



Note: Numbers may not add up to total due to rounding.

Source: Meeting Asia's Infrastructure Needs, 2017, ADB.

PPP success depends on the 3 Ps:

suitable
Projects

qualified
Partners

right
Process

- Net social benefits
- Sufficient private sector interest
- With scope for innovation and efficiency gains
- Verifiable performance

- Technical expertise
- Experienced and reputable
- Access to private finance

- Optimal risk allocation
- Effective and enforceable contracts
- Transparent bidding process
- Credible revenue expectations

アジア経済見通し2019年改訂版

アジアの都市：インクルーシブ（包摂的）な成長へ向けて

ASIAN DEVELOPMENT OUTLOOK 2019 UPDATE

FOSTERING GROWTH AND INCLUSION IN ASIA'S CITIES

YASUYUKI SAWADA

Chief Economist,
Economic Research and Regional Cooperation Department
Asian Development Bank

#ADO2019

ADB

最大のリスクは、米中貿易紛争の深刻化

Chronology of US-PRC trade conflict, 2018-2019

US actions:

Value of total imports from PRC (2018):
\$539.7 bn

Est. value of tariff-affected imports from PRC:
(22 Jan/23 Mar)
\$3.4 bn

\$46.6 bn
(6 Jul/23 Aug)

\$260 bn
(24 Sep)

\$260 bn
(10 May)

\$374 bn
(1 Sep)

still to be implemented

\$374 bn
(15 Oct)

\$536.1 bn
(15 Dec)

Tariff Rates:
0%-10%
11%-15%
16%-25%
26%-30%

PRC actions:

Value of total Imports from the US(2018):
\$155.1 bn

Est. value of tariff-affected imports from US:
(2 Apr)
\$3 bn

\$53 bn
(6 Jul/23 Aug)

\$113 bn
(24 Sep)

\$113 bn
(1 Jun)

\$117.8 bn
(1 Sep)

\$120.5 bn
(15 Dec)

0%-10%
11%-15%
16%-25%
26%-30%

2018

2019

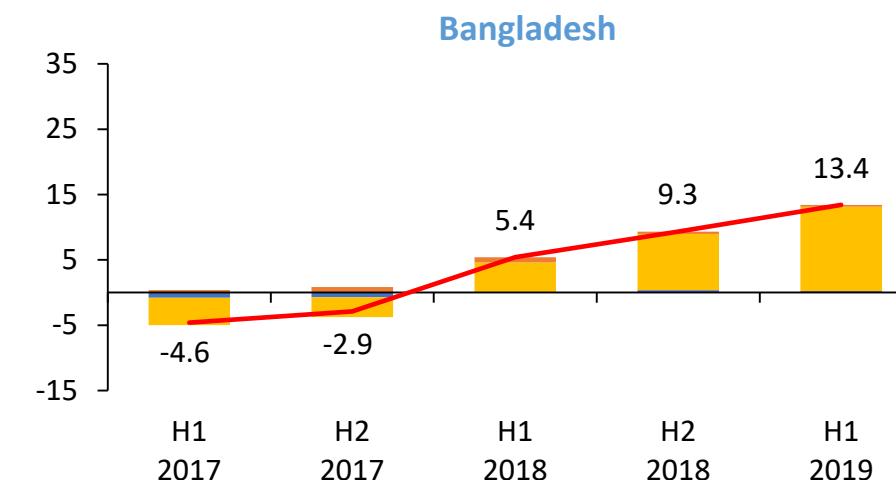
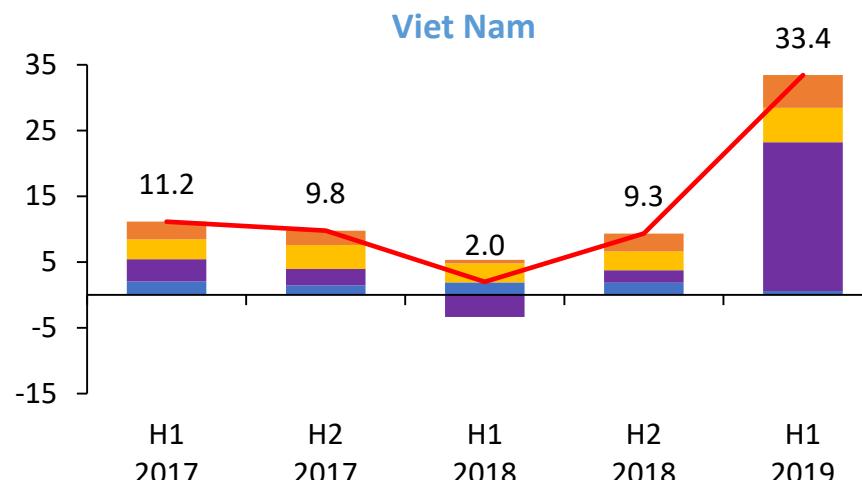
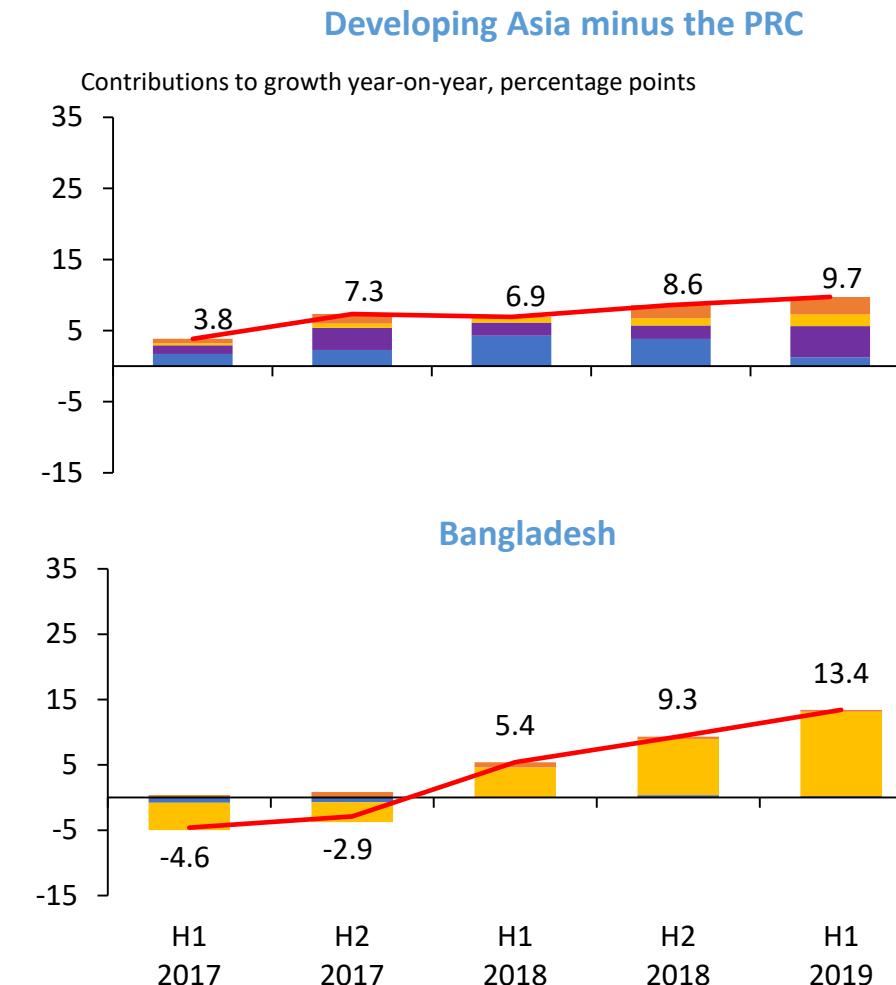
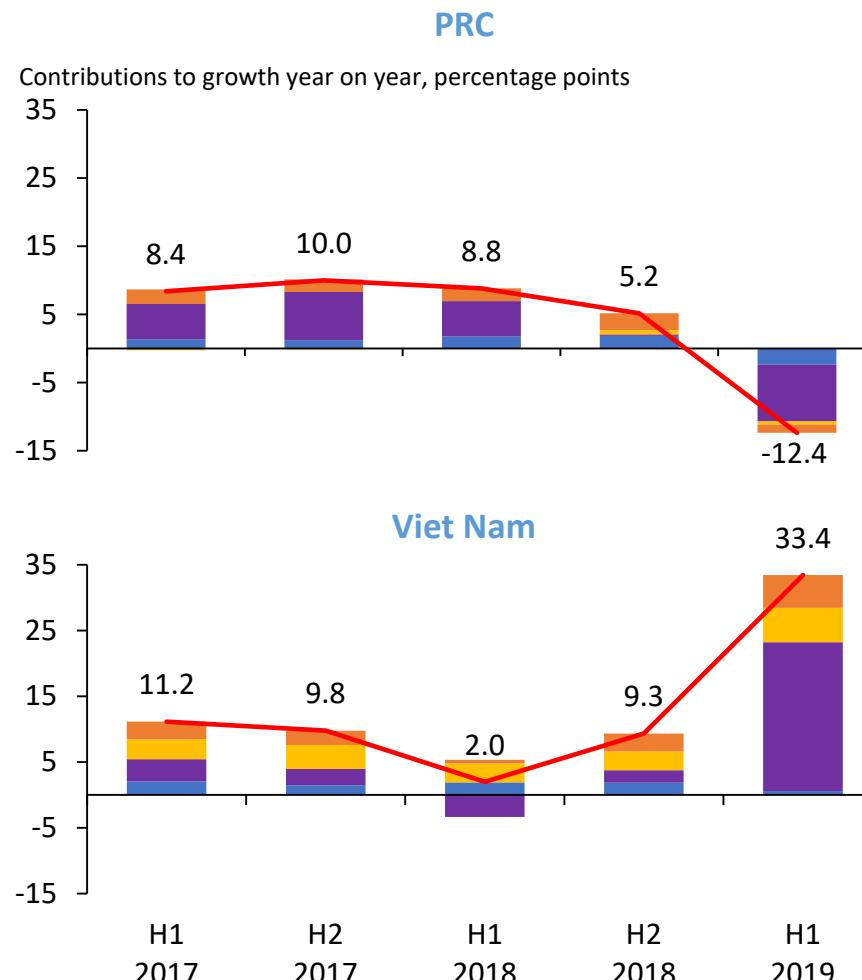
Notes: Bubbles with broken lines (---) show the value of all imports in 2018. Shaded bubbles show the portion affected by tariffs, and shade darkness indicates tariff intensity. The months refer to when the tariffs were implemented.

Source: ADB staff estimates.

中国から他国への貿易シフトが顕著...

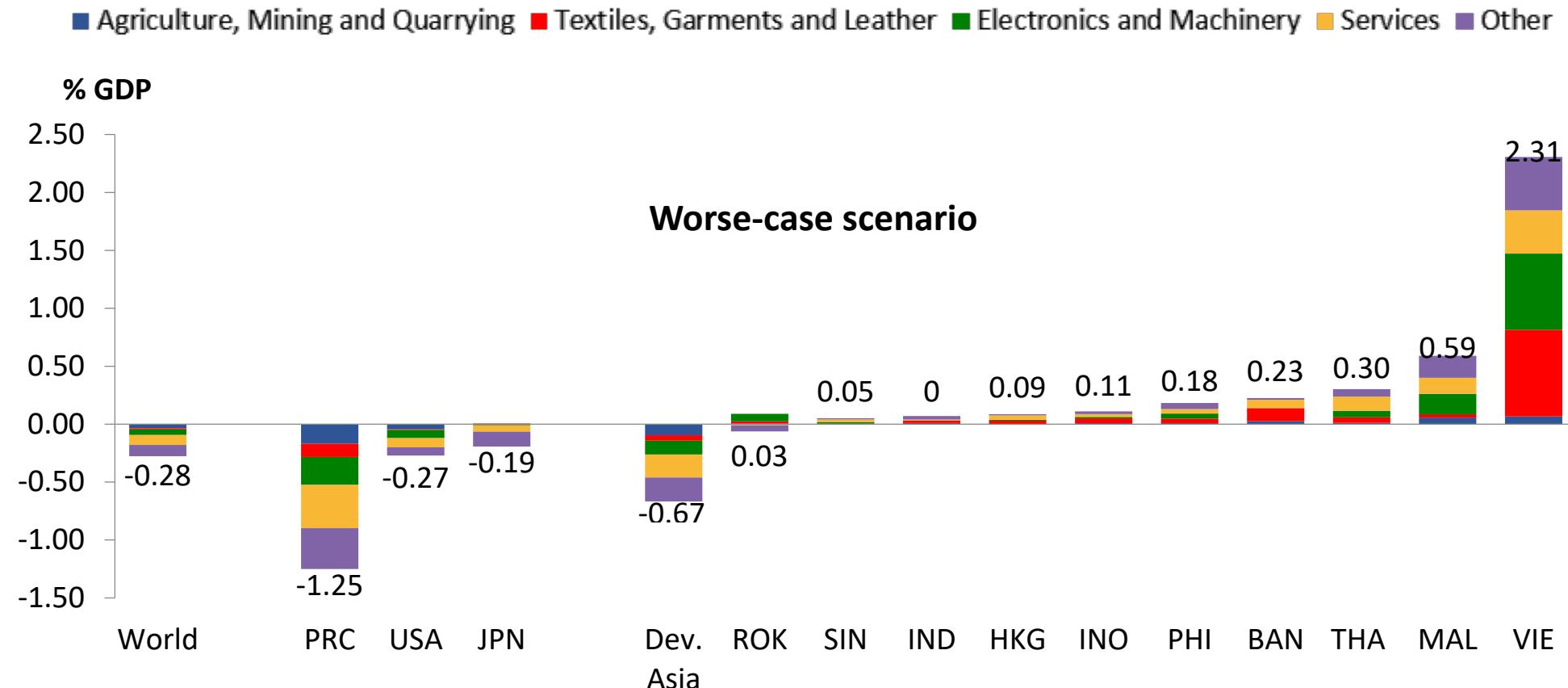
US imports from selected DMCs, 2017-2019

Agriculture, Mining and Quarrying Electronics and Machinery Textile, Garments, Footwear, and Leather Others Import growth (%, y-o-y)



貿易紛争が深刻化すれば、貿易シフトによる成長効果、拡大の可能性

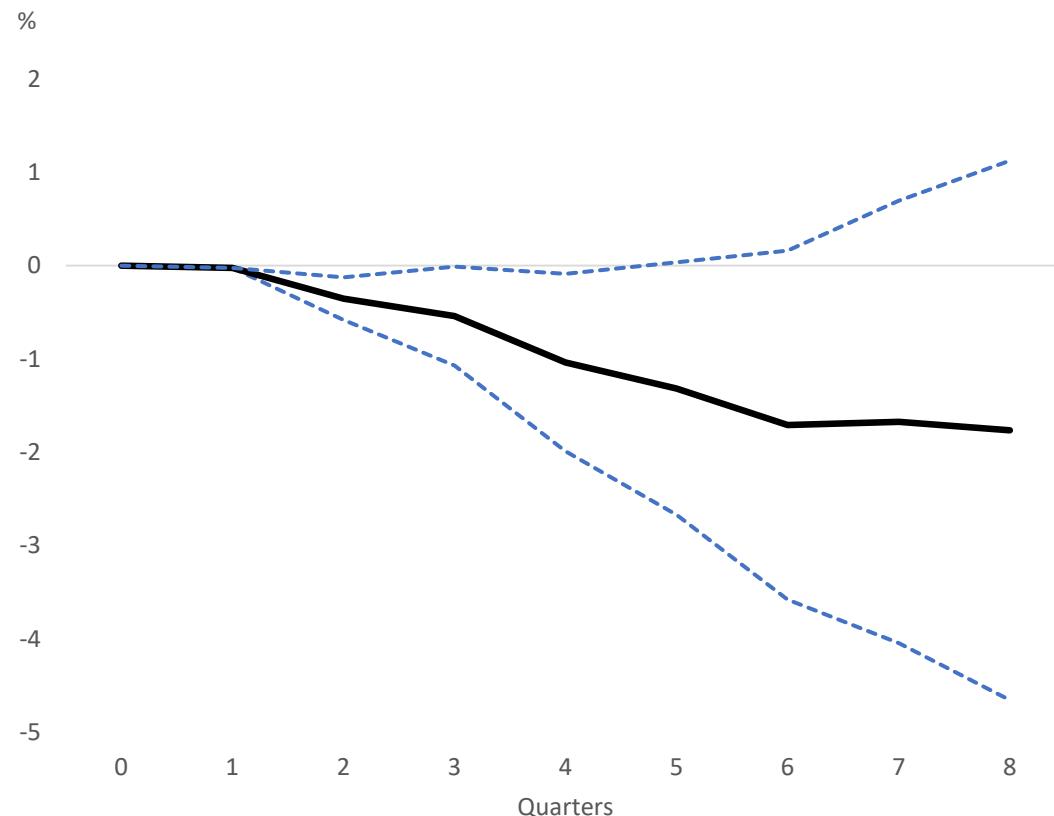
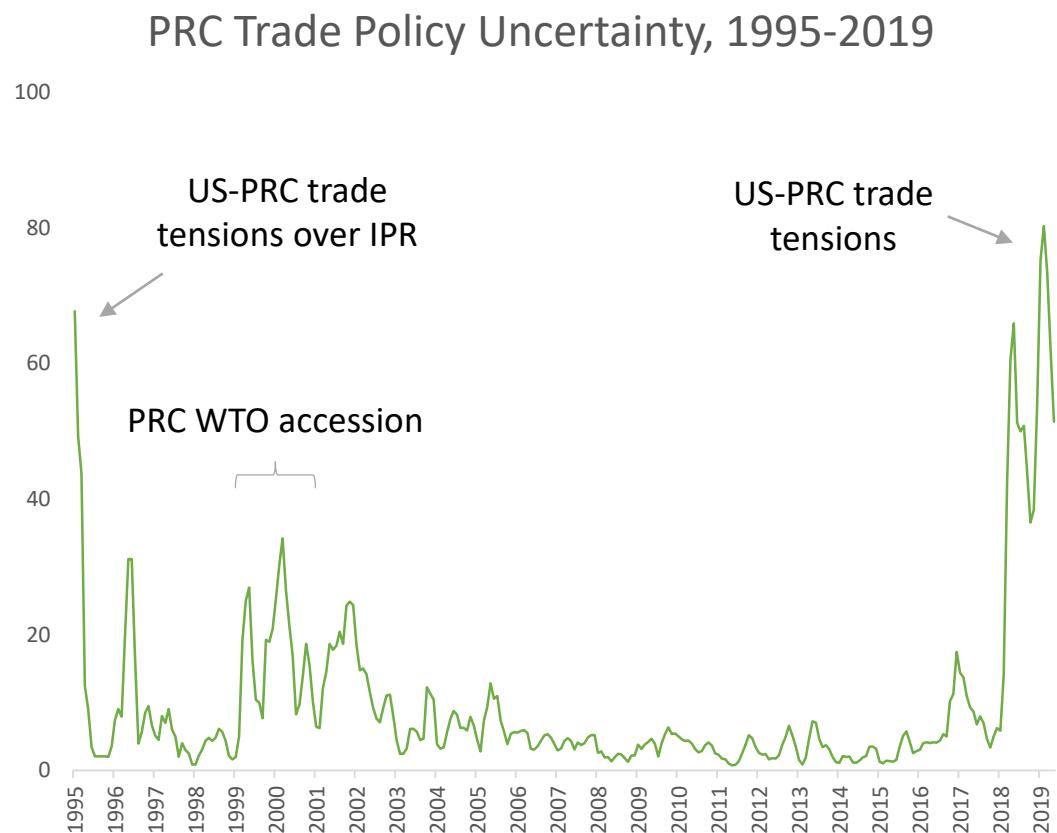
Medium term impact of the trade conflict on GDP



Note: BAN = Bangladesh; PRC = People's Republic of China; HKG = Hong Kong, China; INO = Indonesia; IND = India; JPN= Japan; ROK = the Republic of Korea; MAL = Malaysia; PHI = the Philippines; SIN = Singapore; THA = Thailand; USA = United States of America; VIE = Viet Nam. Current scenario includes all tariffs implemented as of September 1, 2019. Worse-case scenario includes bilateral escalation (30% tariffs on all US-PRC merchandise trade) and trade war in autos and auto parts.
Source: ADB estimates.

しかし、貿易政策の不確実性急上昇

...投資抑制につながりうる



Asian Development Outlook 2018

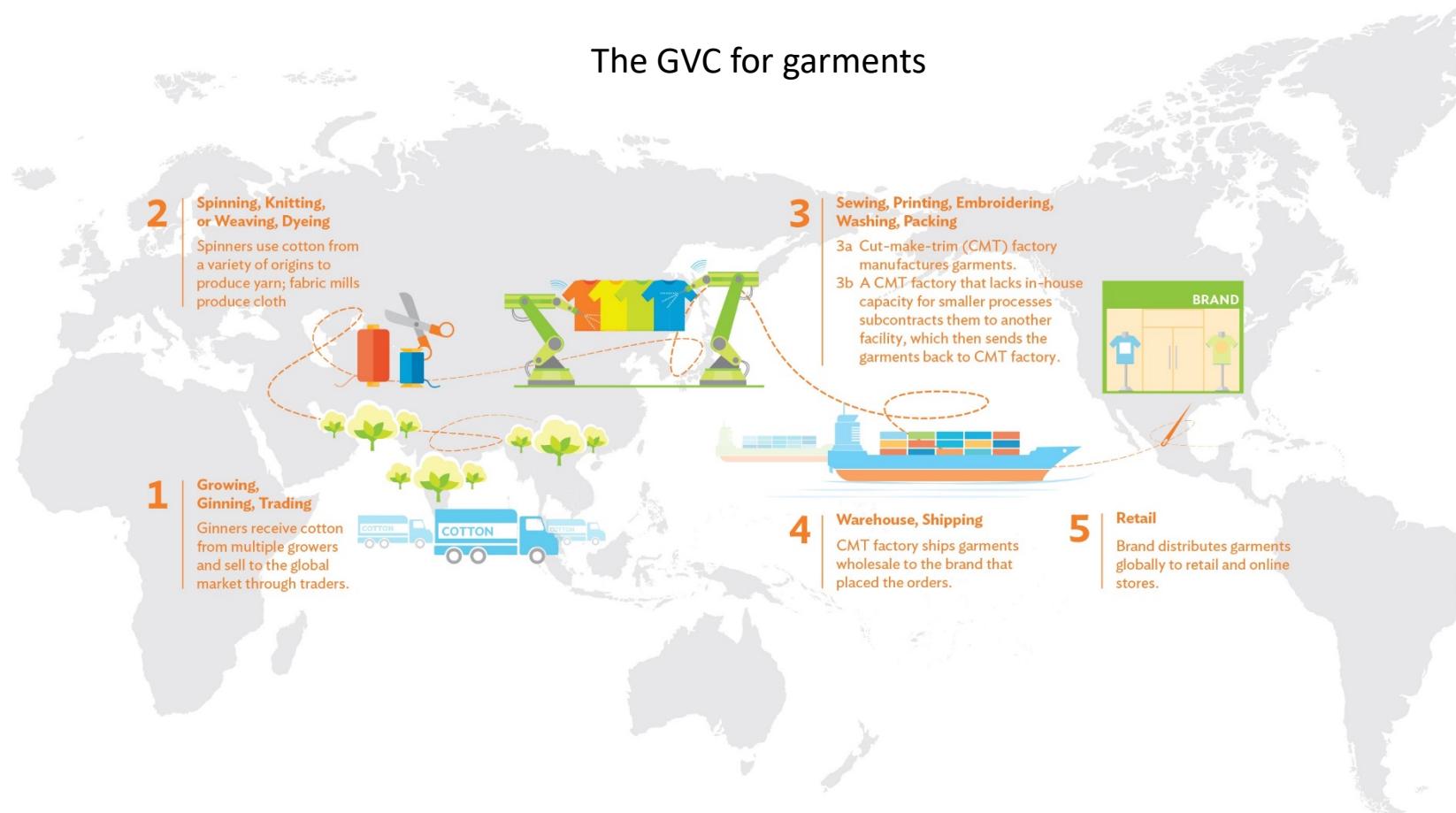
How Technology Affects Jobs

Yasuyuki Sawada
Chief Economist
Asian Development Bank

Compelling reasons to remain optimistic about developing Asia's job prospects and new technologies

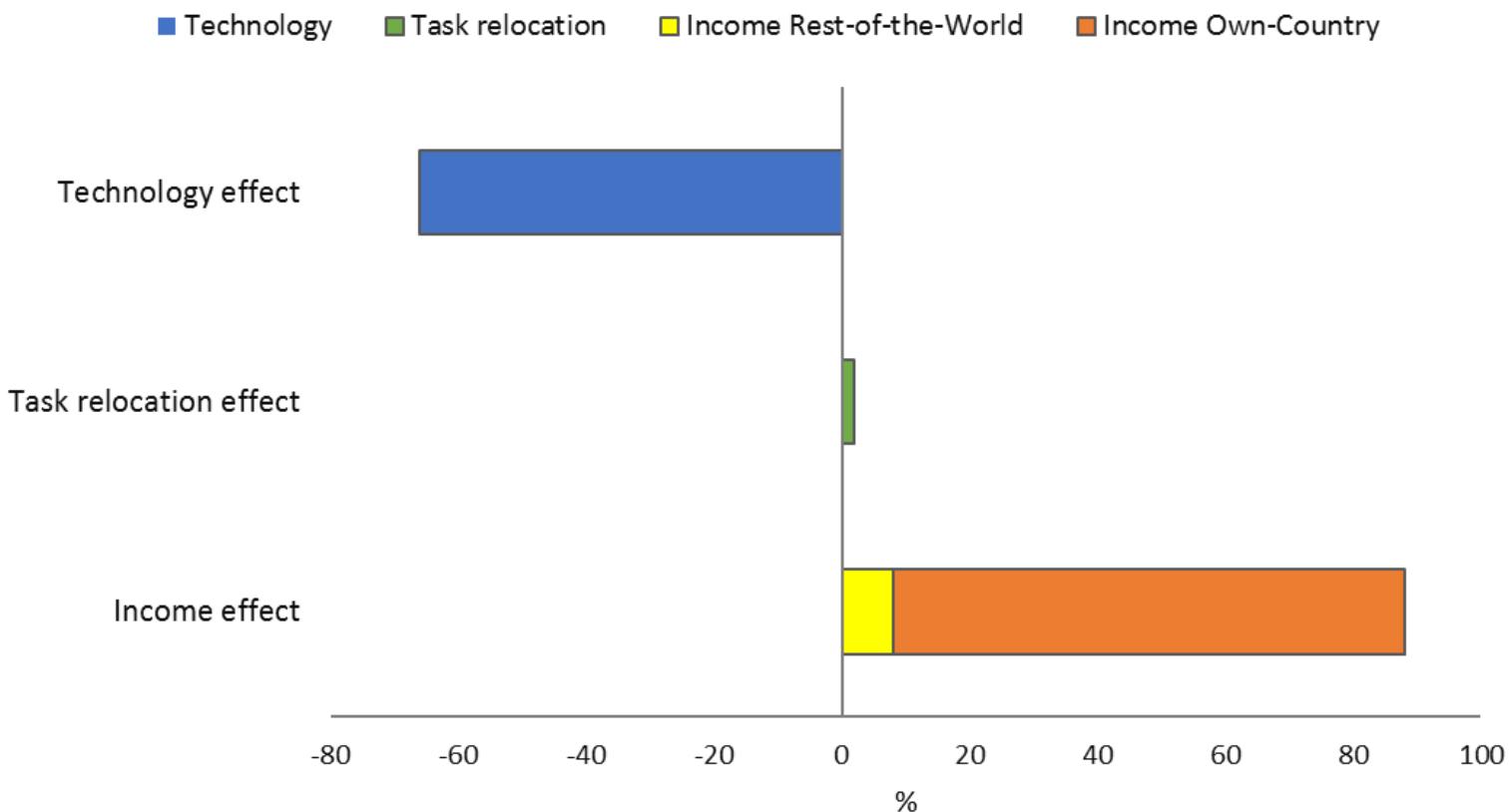
- 1. New technologies often automate only some tasks of a job.**
- 2. Technical feasibility does not guarantee economic feasibility.**
- 3. Rising income and demand.**
- 4. Technology adoption is induced by aging**
- 5. New occupations and industries.**

Technology and employment in global value chains



Rising demand offsets displacement driven by automation

Decomposing the percentage change in employment, 2005-2015



Note: Developing Asia in the decomposition analysis includes Bangladesh, India, Indonesia, Malaysia, Mongolia, the People's Republic of China, the Philippines, the Republic of Korea, Sri Lanka, Taipei, China, Thailand, and Viet Nam.
Sources: Decomposition result using ADB Multiregional Input–Output Database (accessed 20 November 2017); Labor force surveys, various countries; World Input–Output Database—Socioeconomic Accounts (Timmer et al. 2015).

MRIO

ADB Multi-Region IO Database (MRIO)

Economies

45 economies are covered in detail in the database. The rest of the economies are aggregated under the category “Rest of the World” (ROW).

List of Economies in the ADB MRIO

Australia (AUS)	Austria (AUT)	Belgium (BEL)	Bulgaria (BGR)
Brazil (BRA)	Canada (CAN)	People's Republic of China (PRC)	Cyprus (CYP)
Czech Republic (CZE)	Germany (DEU)	Denmark (DNK)	Spain (ESP)
Estonia (EST)	Finland (FIN)	France (FRA)	Great Britain (GBR)
Greece (GRC)	Hungary (HUN)	Indonesia (IDN)	India (IND)
Ireland (IRL)	Italy (ITA)	Japan (JPN)	Republic of Korea (KOR)
Lithuania (LTU)	Luxembourg (LUX)	Latvia (LVA)	Mexico (MEX)
Malta (MLT)	Netherlands (NLD)	Poland (POL)	Portugal (PRT)
Romania (ROM)	Russia (RUS)	Slovakia (SVK)	Slovenia (SVN)
Switzerland (SWE)	Turkey (TUR)	Taipei,China (TAP)	United States of America (USA)
Bangladesh (BAN)*	Philippines (PHL)*	Malaysia (MAL)*	Thailand (THA)*
Viet Nam (VIE)*	Rest of the World (ROW)*		

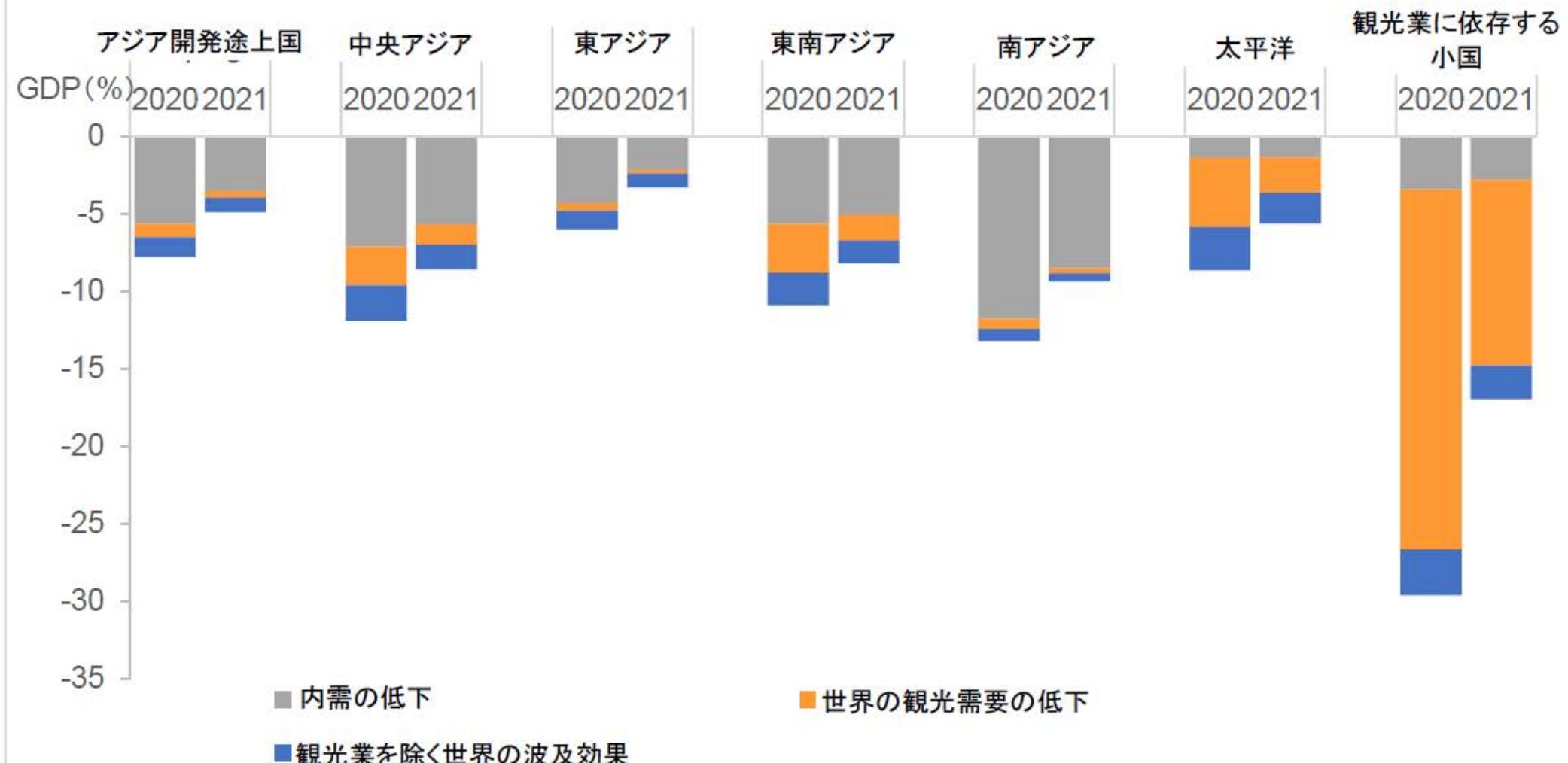
* Economies added to the database by ADB

Sectors

In the database, the industrial aggregations by which the economies are sectored are exactly the same as in the WIOD. Preserving the sector classification enables the seamless integration of the data on the additional five economies into the international input-output tables extracted from WIOD for the relevant years.

図 11. アジア開発途上国における新型コロナウイルス感染症の影響（GDP 比）

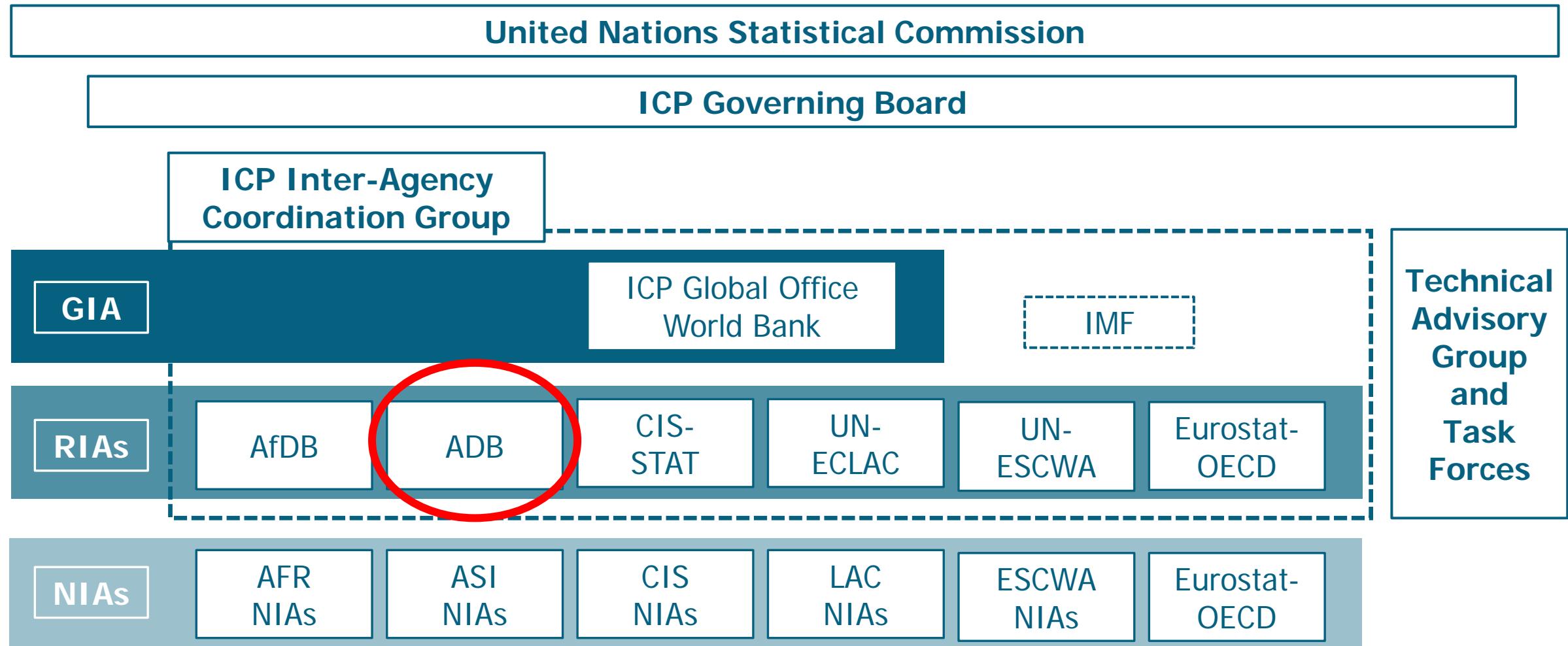
ADB「アジア開発史」勁草書房、2021年、補章「アジアにおける災害レジリエンス」
<https://www.keisoshobo.co.jp/files/504848/disasters.pdf>



注：観光業に依存する小国とはモルジブ、クック諸島、パラオ、バヌアツ、フィジーなど。

International Comparison Program (ICP)

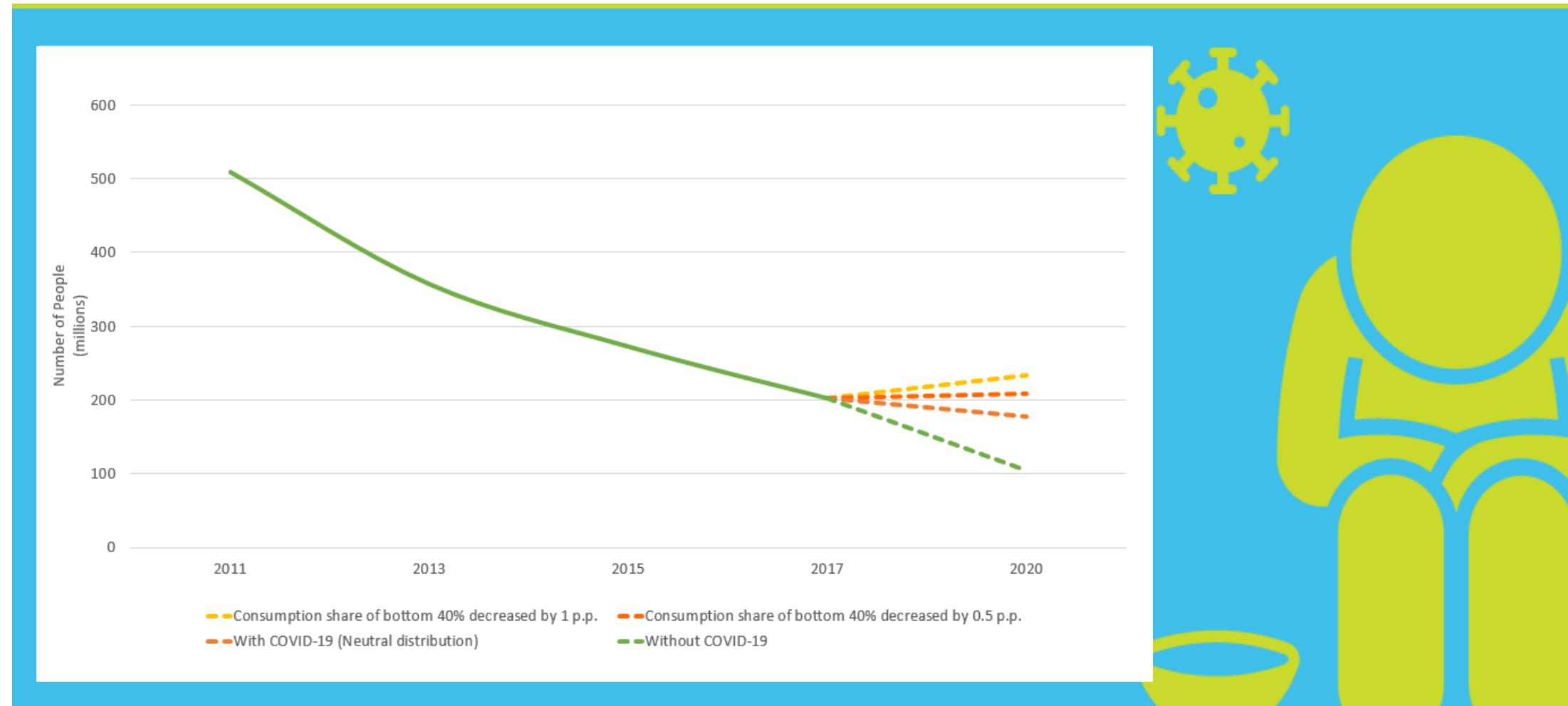
ICP Governance Structure



Global Implementing Agency (GIA) | Regional Implementing Agency (RIA) | National Implementing Agency (NIA)

Developing Asia had done well in reducing poverty before COVID-19 struck. But the pandemic pushed millions of Asians into poverty relative to a baseline scenario of no pandemic.

Figure. Simulated \$1.9 Poverty Headcount in Developing Asia Under Varying Inequality Scenarios



Note: Developing Asia comprises 35 DMCs for which data are available.

Source: Authors' calculations using WB's PovcalNet data.

アウトライン

1. ADBの経済調査・地域統合局 (ERCD)
2. 主なKnowledge products
3. コロナ対応
4. 新しい方向性
5. 学界と政策の橋渡し

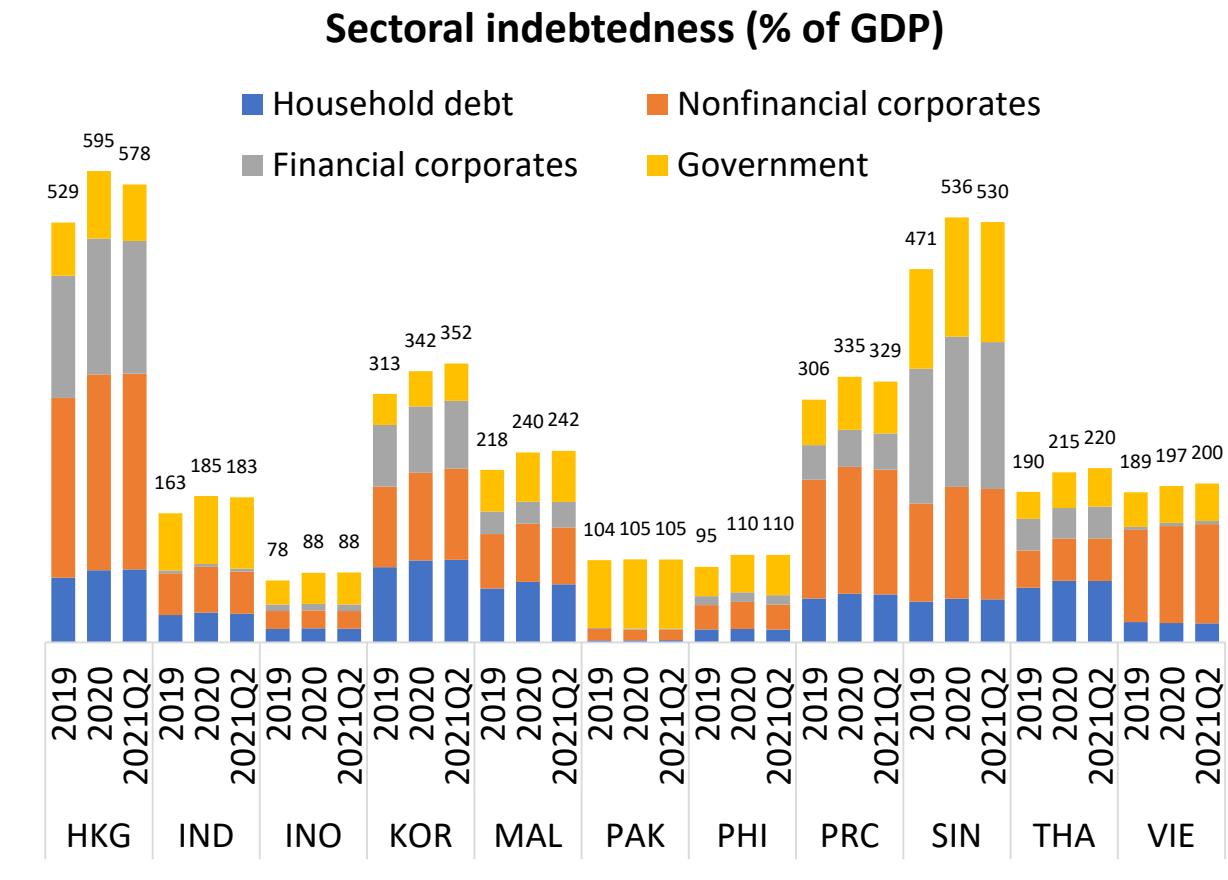
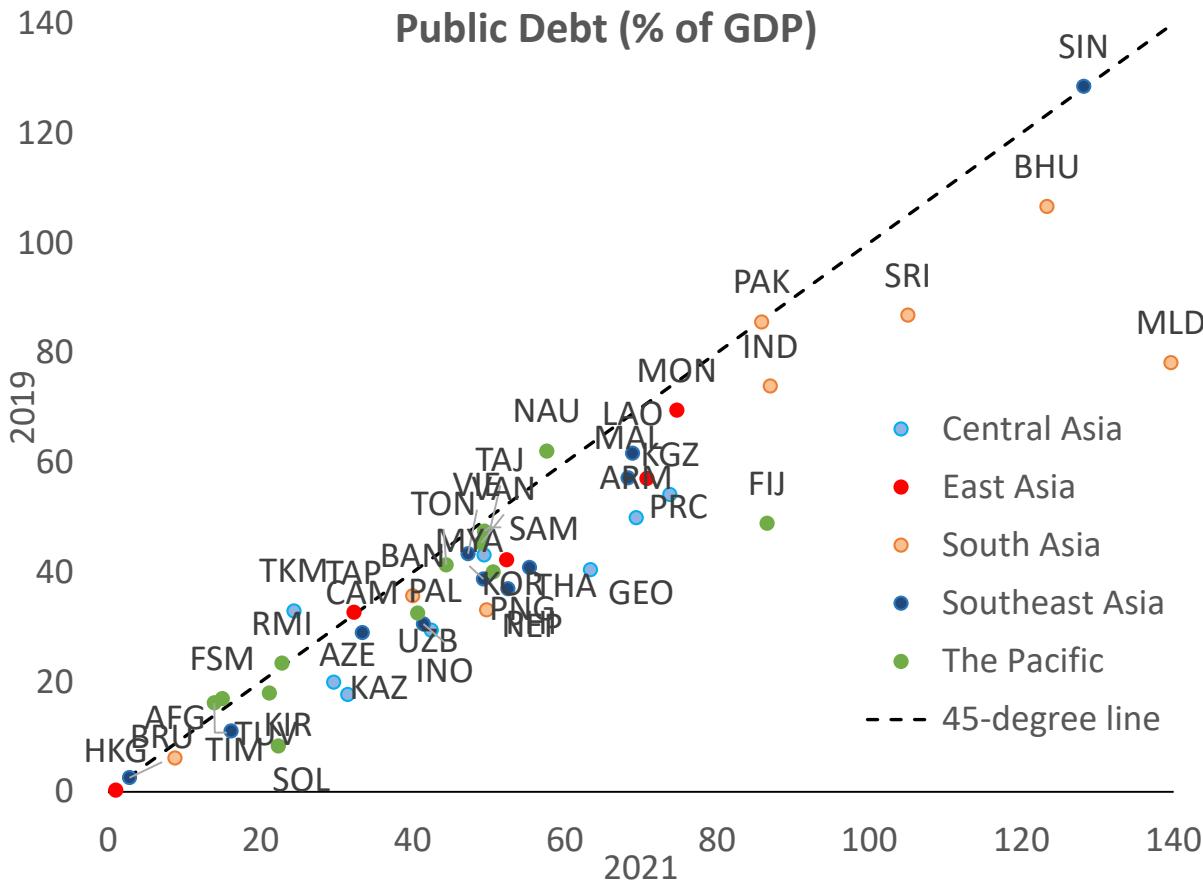
コロナ対応

1. 経済被害推定を含む各種調査
2. 各国政府・ADB理事会・ADBマネージメントの要請に応じた解析
3. ADB内部オペレーションへの貢献（例：DSA）
4. 政策対話への参加
5. 他の国際機関などとの連携
6. WFHに伴うマネージメント改善

初期における経済被害推定

- March 6: [initial analysis](#), 86k global cases (**PRC 93%**, ROW 7%); **\$77–347 billion** global impact.
- April 3: [ADO](#), 500k cases (Europe 50%, US 20%, **PRC 15%**, ROW 15%); **\$2.0–4.1 trillion** global impact.
- April 23: [ADB COVID-19 Policy Database](#)
- May 15: [updated impact estimates](#) using Global Trade Analysis Project (GTAP) model with **\$5.8–8.8 trillion** global impact.
- May 27: [assessment](#) using Multi-Region Input-Output Tables (MRIOT) reaffirms **\$6–\$9 trillion** global impact.
- June 12: ADO Supplement with updated growth forecasts

COVID-19 responses are straining fiscal positions and raising indebtedness



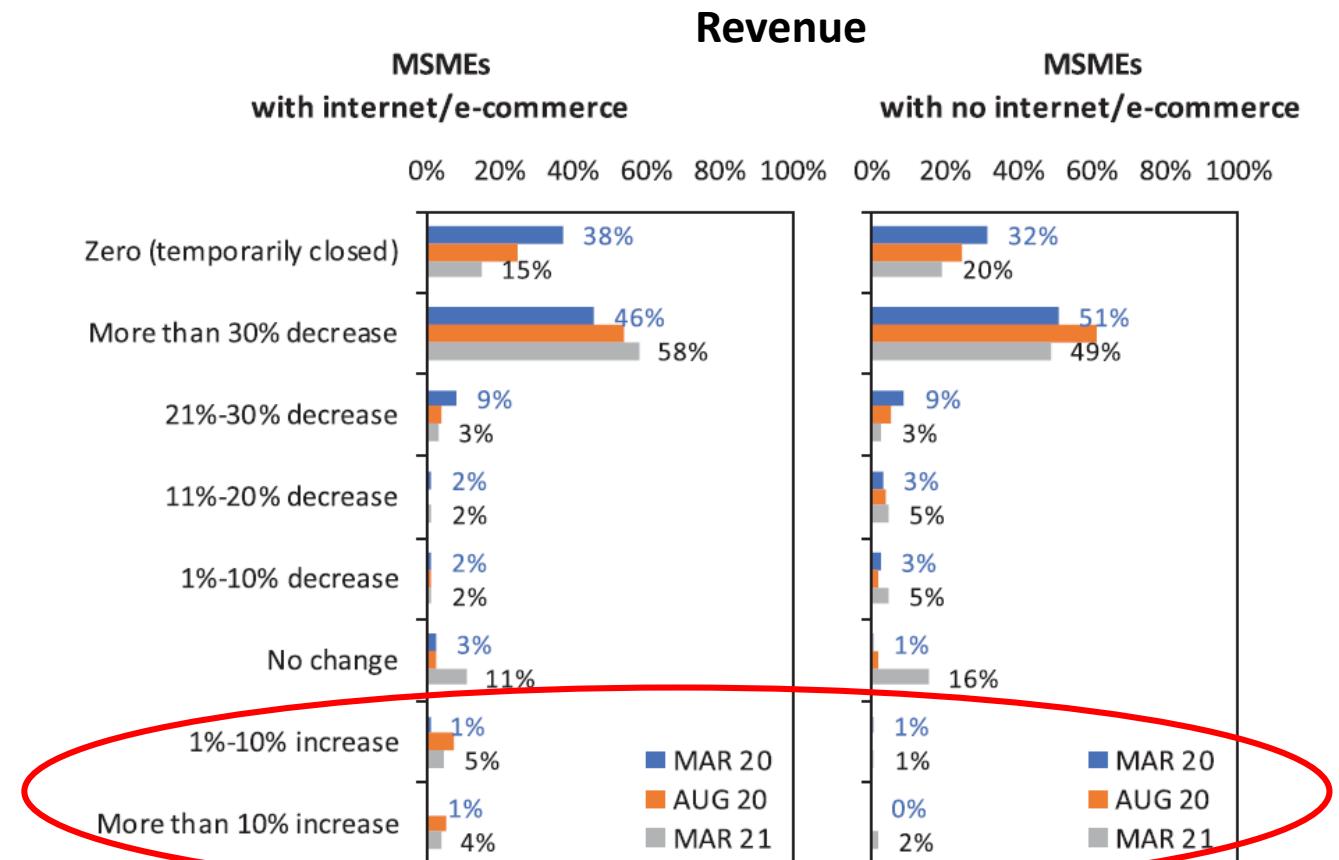
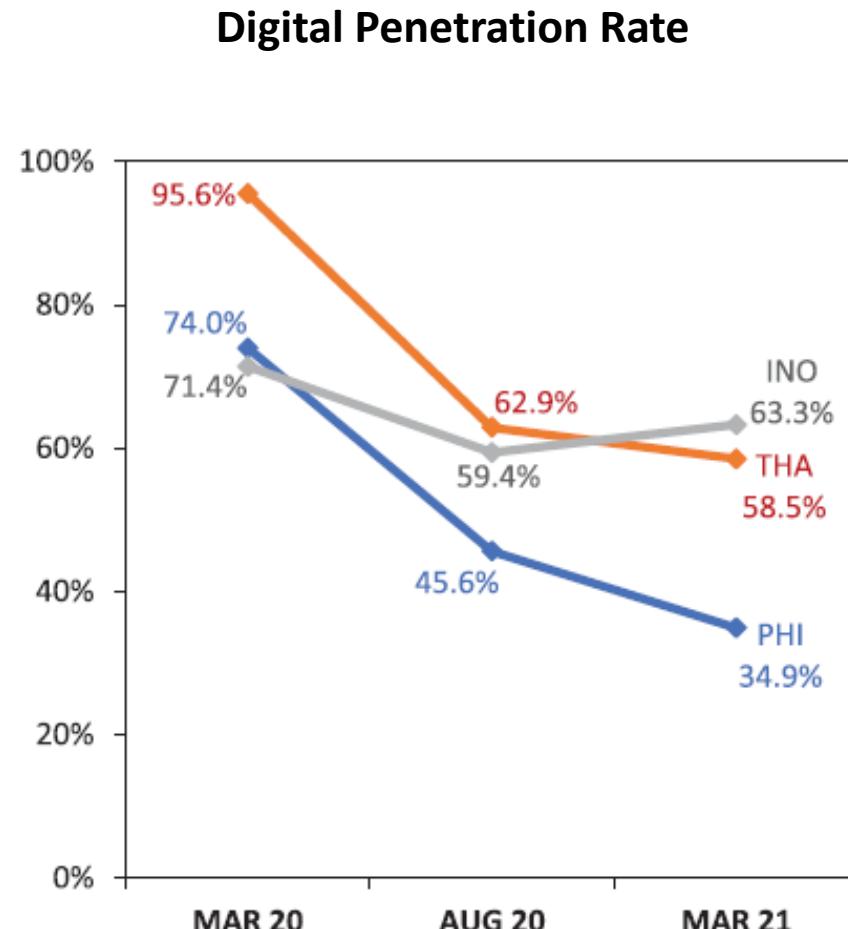
Source: Ferrarini, B., J. J. Pradelli, P. Mariano, and S. Dagli. forthcoming. Asia Sovereign Debt Monitor. Manila: Asian Development Bank.

Source: Institute for International Finance, Global Debt Monitor Database. Accessed 15 September 2021.

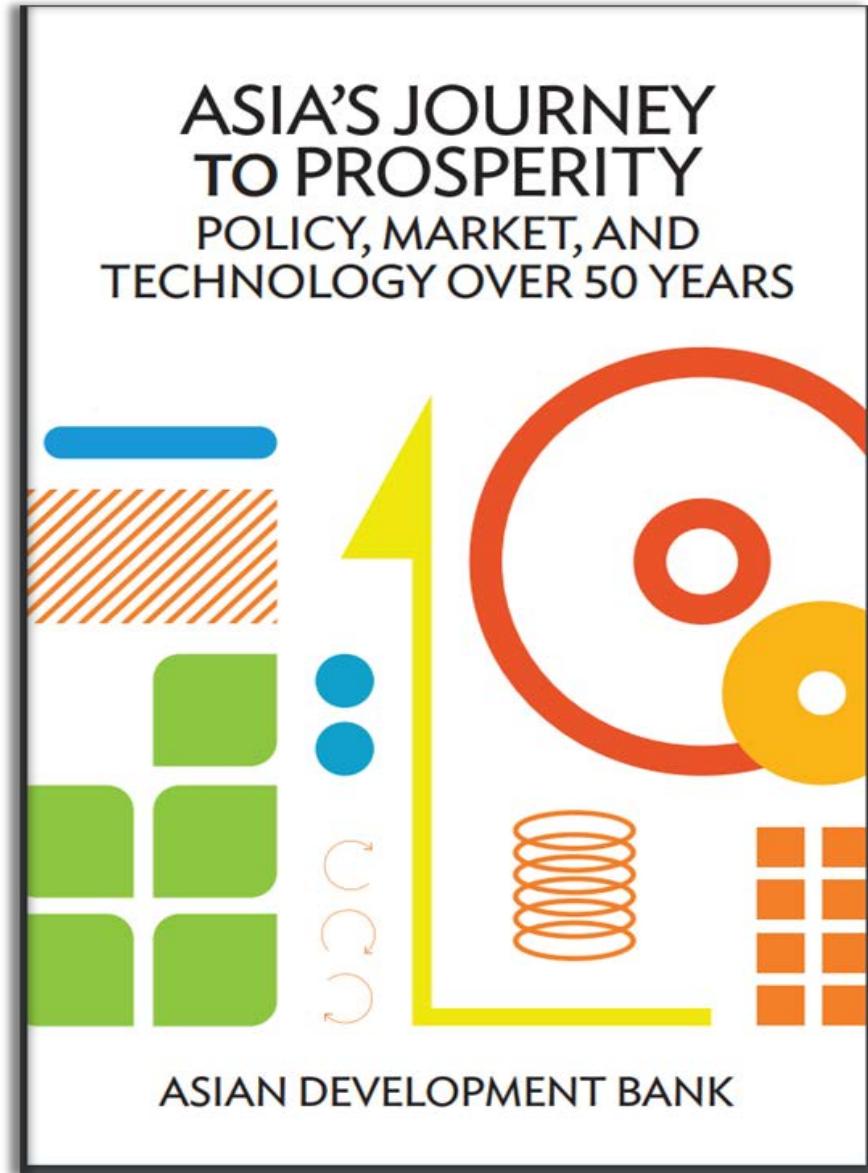
COVID and Digitalization

- 1) ADB's Asia Small and Medium-Sized Enterprise Monitor (*Asia SME Monitor*) database (ADB, 2020; Shinozaki, 2021; and ADB, forthcoming)
 - Surveys conducted with MSMEs in different sectors (e.g., agri, mfg, servic)
 - Mar-Apr 2020 and March-April 2021 (month-on-month figures for Mar and Apr).
- 2) Administrative and transactions data from platform companies

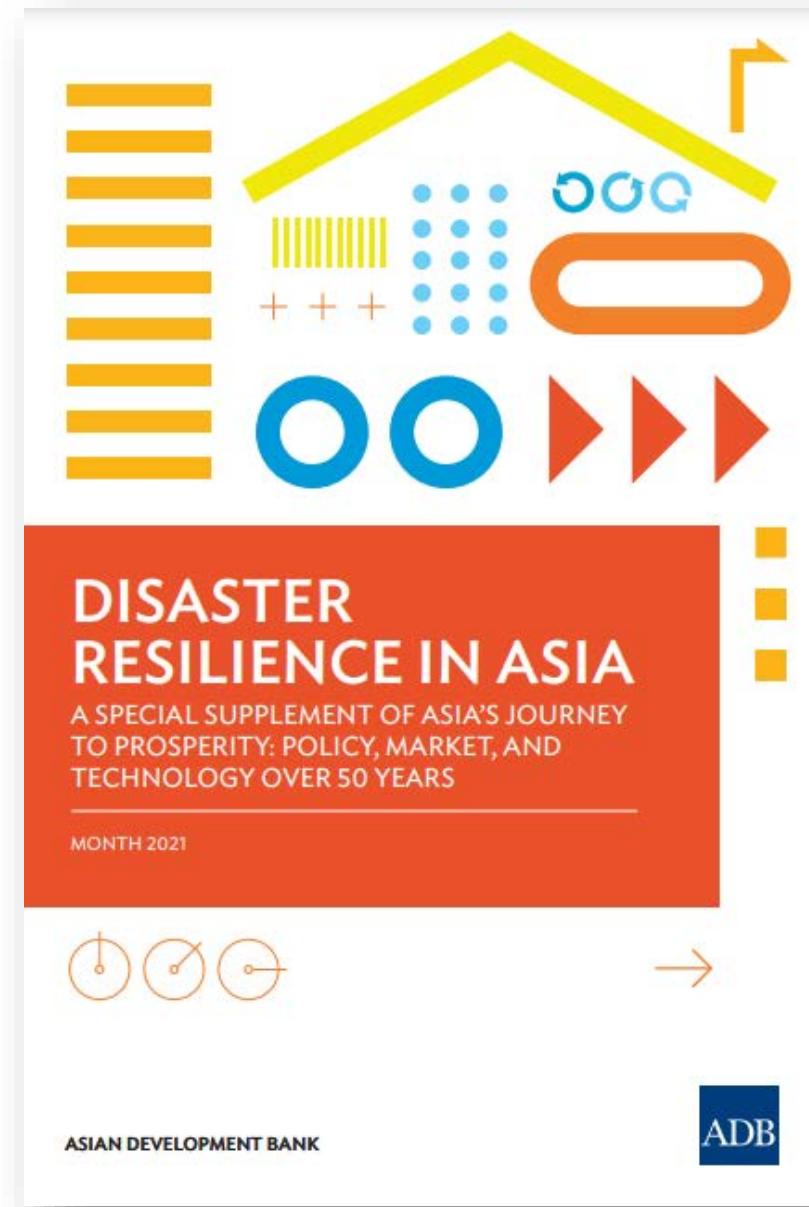
COVID Impacts on Revenue by Digitalization Status



Source: Shinozaki, Shigehiro (2021). "COVID-19 Impact on Digitally Operated MSMEs: Key Findings from the MSME Surveys in Indonesia, the Philippines, and Thailand." Asia-Pacific Tech Monitor Jan-Mar 2021, 15-23, UNESCAP.



<https://www.adb.org/publications/asias-journey-to-prosperity>



<https://www.adb.org/publications/disaster-resilience-asia>

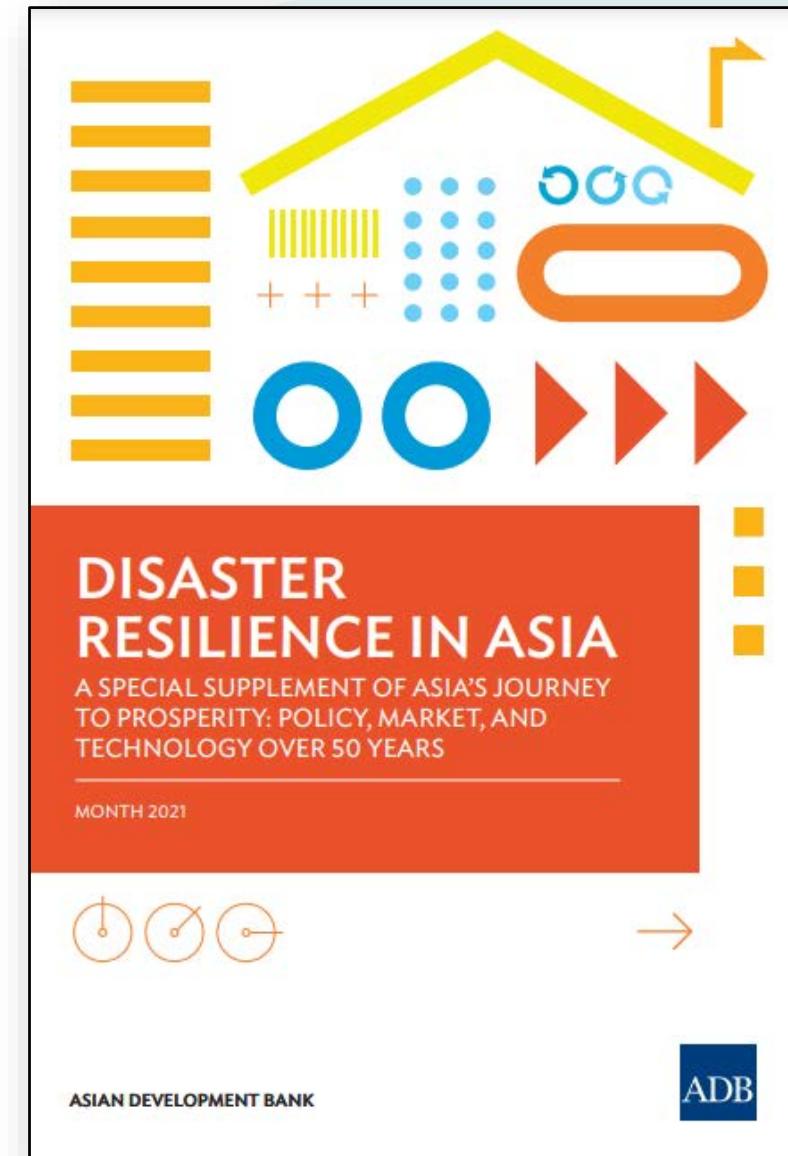
補論「アジアにおける災害レジリエンス」

パートⅠ: アジアにおける災害の諸相

1. 災害リスクの増大傾向
2. 災害に伴う甚大なコスト
3. 灾害リスク要因
4. 過去50年のアジアの災害レジリエンスとリスク管理

パートⅡ: 新型コロナウィルス感染症災害

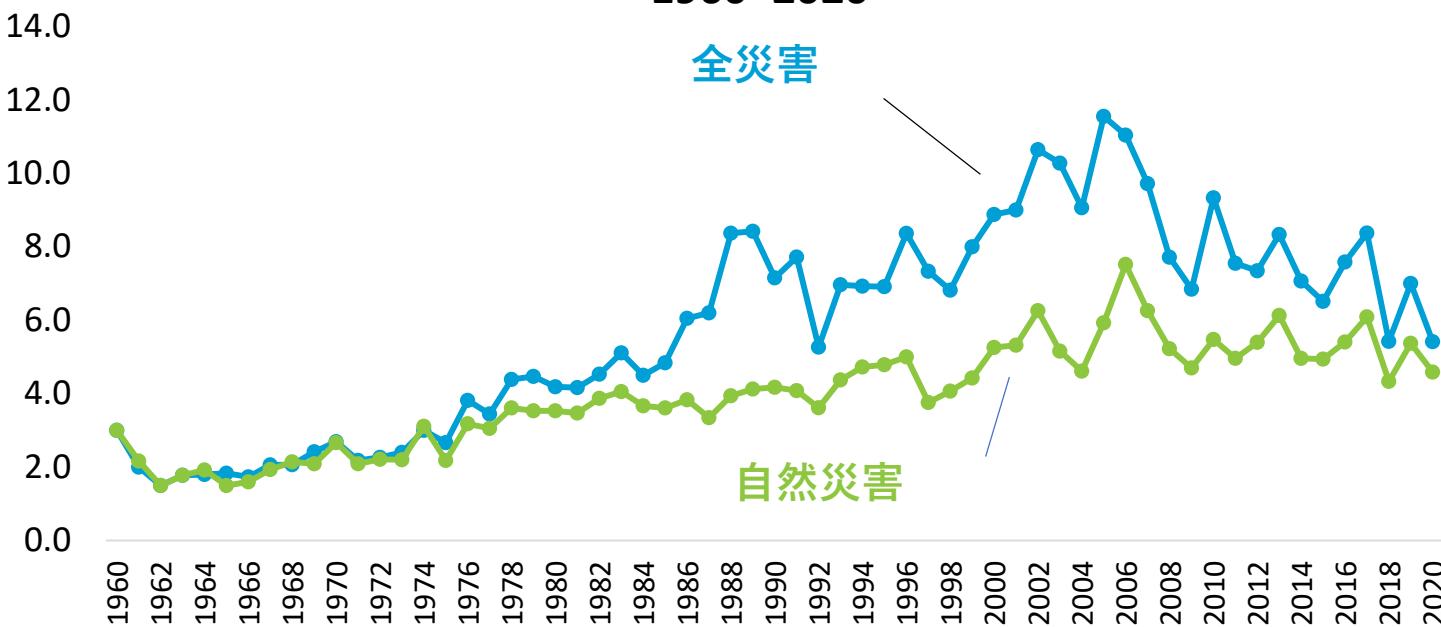
5. 新型コロナウィルス感染症—世界的公衆衛生危機
6. 経済的影響
7. 各国政府の対応
8. 今後に向けて



災害リスクの増大傾向

- 1960年から2005年まで、アジアの開発途上国全体として、自然災害や技術的災害が増加し（一年・一国当たりの平均値）、その後減少に転じている。

開発途上アジアにおける自然災害・技術的災害の頻度,
1960–2020

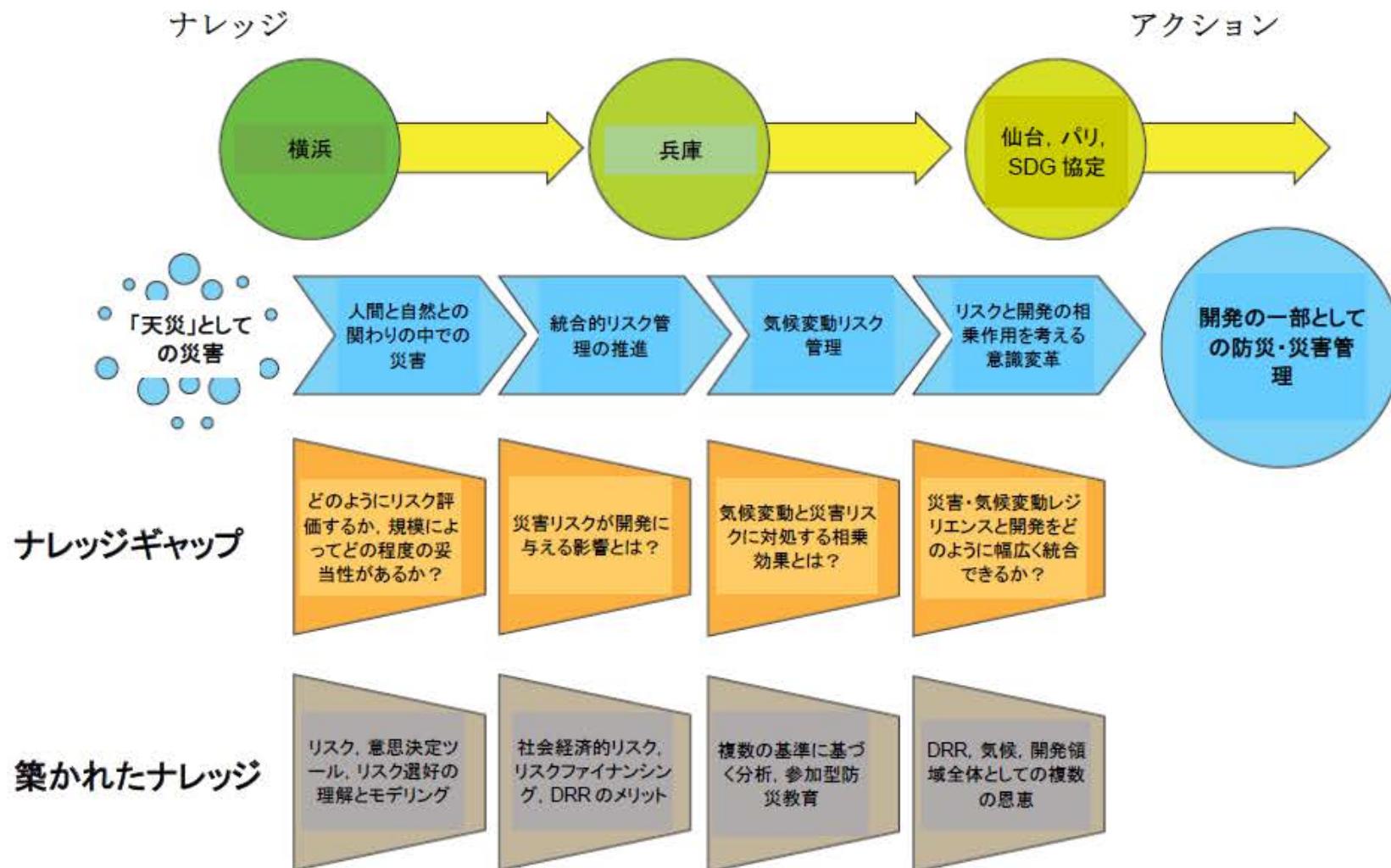


Notes: Disasters are either natural or manmade. Figures are simple averages of number of disasters in developing Asian economies with at least one disaster occurrence per year.

Source: ADB estimates using EM-DAT: The Emergency Events Database - Université Catholique de Louvain (UCL)
- CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium. Accessed on 25 January 2021.

- 自然災害によって影響を受けた5人に4人が開発途上アジアの住民である。
- 1960から 2020年の間に、アジアは自然災害の被災者全体の85%、死者全体の65%、損害の27%を説明する。
- 開発途上アジアでは、人口増加、都市化、や経済成長などの要因で災害リスクが上昇している。

アジアにおける災害リスク管理の変遷



DRR = 防災・減災, SDG = 持続可能な開発目標

Source: Mechler, R., and S. Hochrainer-Stigler. 2019. Generating Multiple Resilience Dividends from Managing Unnatural Disasters in Asia: Opportunities for Measurement and Policy. ADB Economics Working Paper Series No. 601.

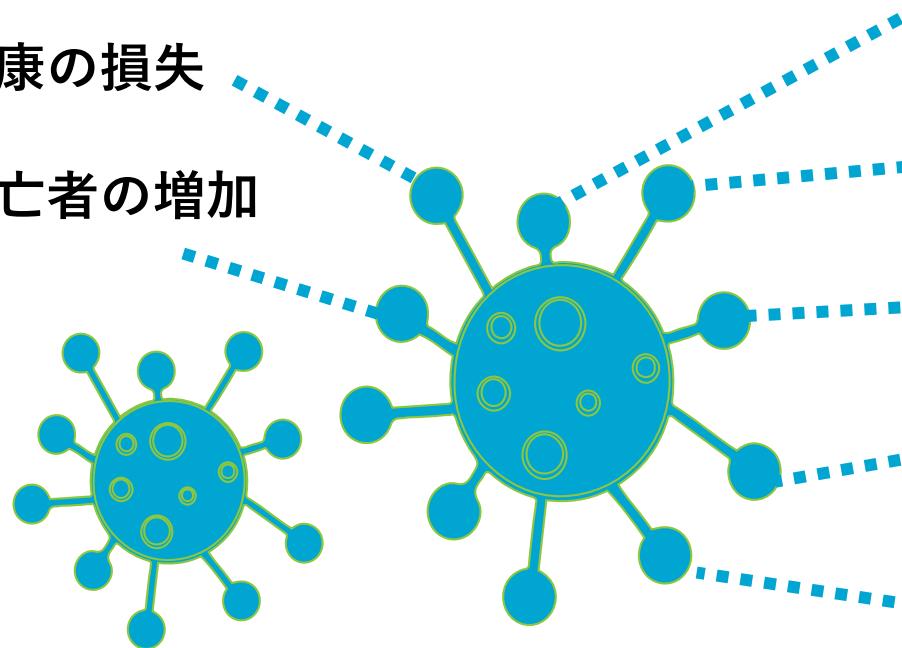
パートII: 新型コロナウィルス感染症災害

- コロナ禍は、様々な経路を通じて甚大な経済被害を生み出した

公衆衛生危機

健康の損失

死者者の増加



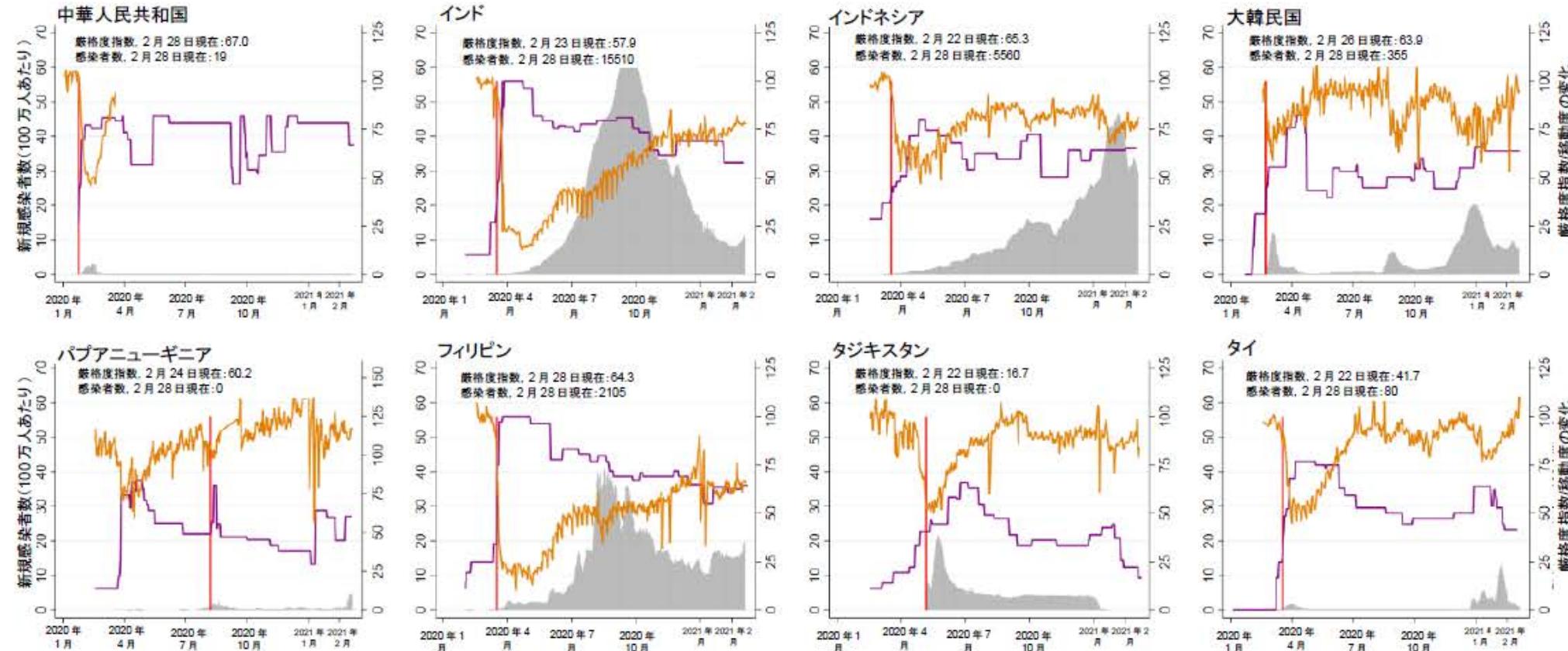
経済への悪影響

国内消費・需要の激減（ビジネスの売り上げ・国境の閉鎖による旅行業の休止など）

貿易や生産・取引ネットワークを通じた他のセクターへの負のスピルオーバー効果

供給側のショック（政府の経済封鎖などによる）

感染防止と経済活動



新規感染者数(7日間移動平均)

厳格度指数

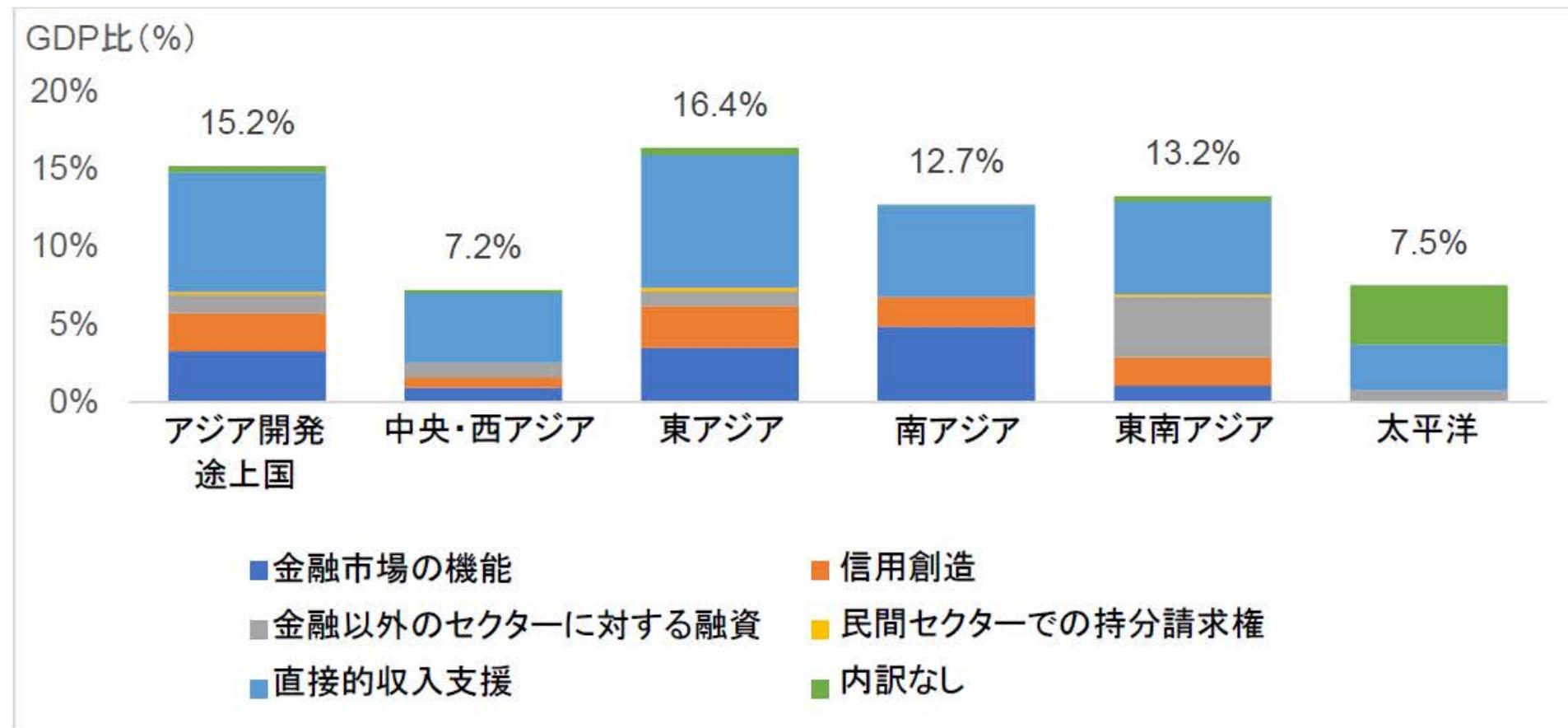
累計感染者数が100人を超過

移動度の変化(小売, 娯楽)

注：左軸が感染者数（人口100万人あたり），右軸が対策の厳格度，移動度の変化指数。中国については3月15日までの移動度変化データは湖北省を除く。

各國政府の対応

図 13. アジア開発途上国で公表されたパッケージ、サブ地域・政策措置別



GDP = gross domestic product

Notes: Data as of 11 January 2021. Sources: [ADB COVID-19 Policy Database](#), accessed on 16 January 2021. For the database, see Felipe, J. and S. Fullwiler. 2020. [ADB COVID-19 Policy Database: A Guide](#). *Asian Development Review* 37(2): 1–20.

アウトライン

1. ADBの経済調査・地域統合局 (ERCD)
2. 主なKnowledge products
3. コロナ対応
4. 新しい方向性
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Alternative (Big) Data



MAPPING POVERTY THROUGH DATA INTEGRATION AND ARTIFICIAL INTELLIGENCE

A Special Supplement of the Key Indicators for Asia and the Pacific 2020

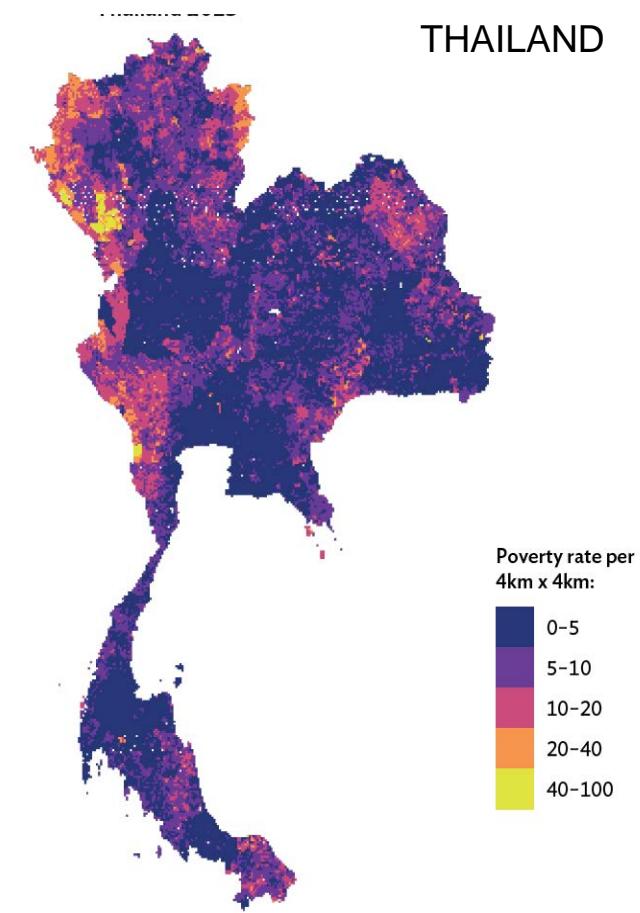
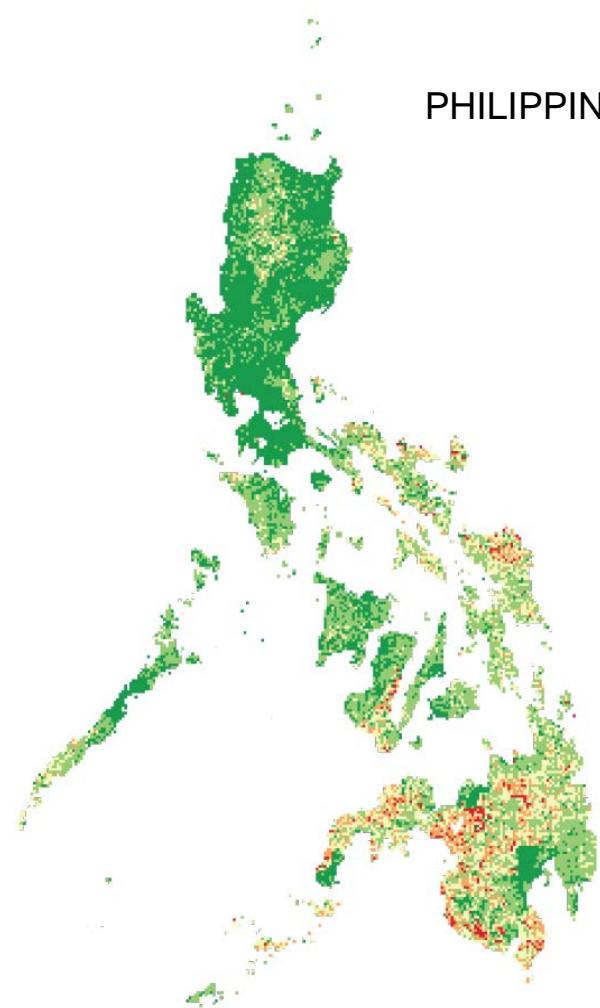
SEPTEMBER 2020

ASIAN DEVELOPMENT BANK



- Importance of Granular Data for Development
- Finding Alternative Sources of Data for Development
- Case Study: Methods and Data Requirements
- Key Findings
- Summary and Recommendations

Granular Poverty Maps



- AI-based predictions are generally aligned with government-published poverty numbers, but the former are more granular!

Innovative Data Helps Better Policies

- After the outbreak of **COVID-19**, ADB supported Philippines Government's Food transfer program, **Bayan Bayanihan** program.
- To identify the **targeted communities**, we used the granular poverty map made by innovative data sets.
- Useful for poverty impact assessments of COVID-19 in the future.



アジア経済見通し2019年改訂版

アジアの都市：インクルーシブ（包摂的）な成長へ向けて

ASIAN DEVELOPMENT OUTLOOK 2019 UPDATE

FOSTERING GROWTH AND INCLUSION IN ASIA'S CITIES

YASUYUKI SAWADA

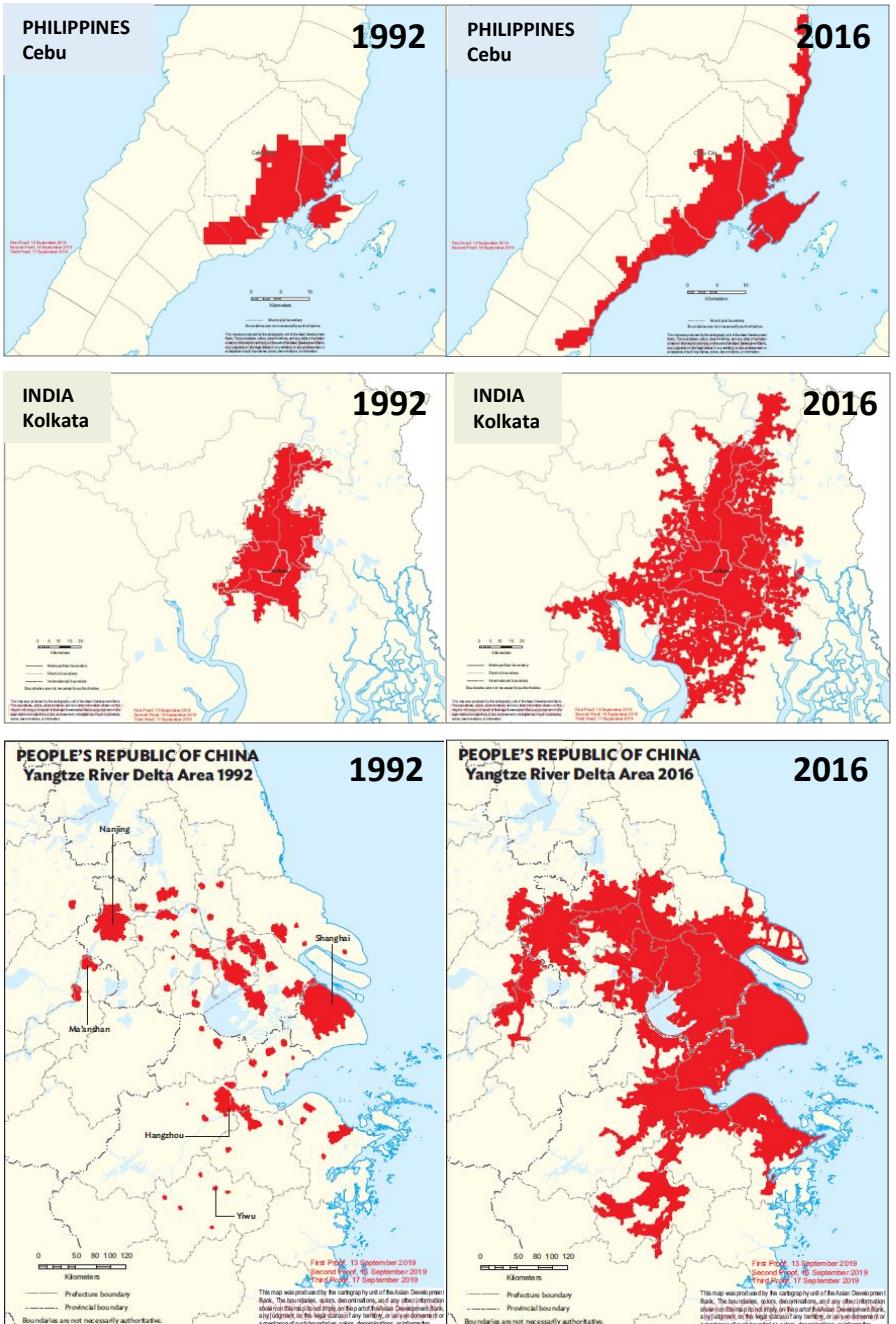
Chief Economist,
Economic Research and Regional Cooperation Department
Asian Development Bank

#ADO2019

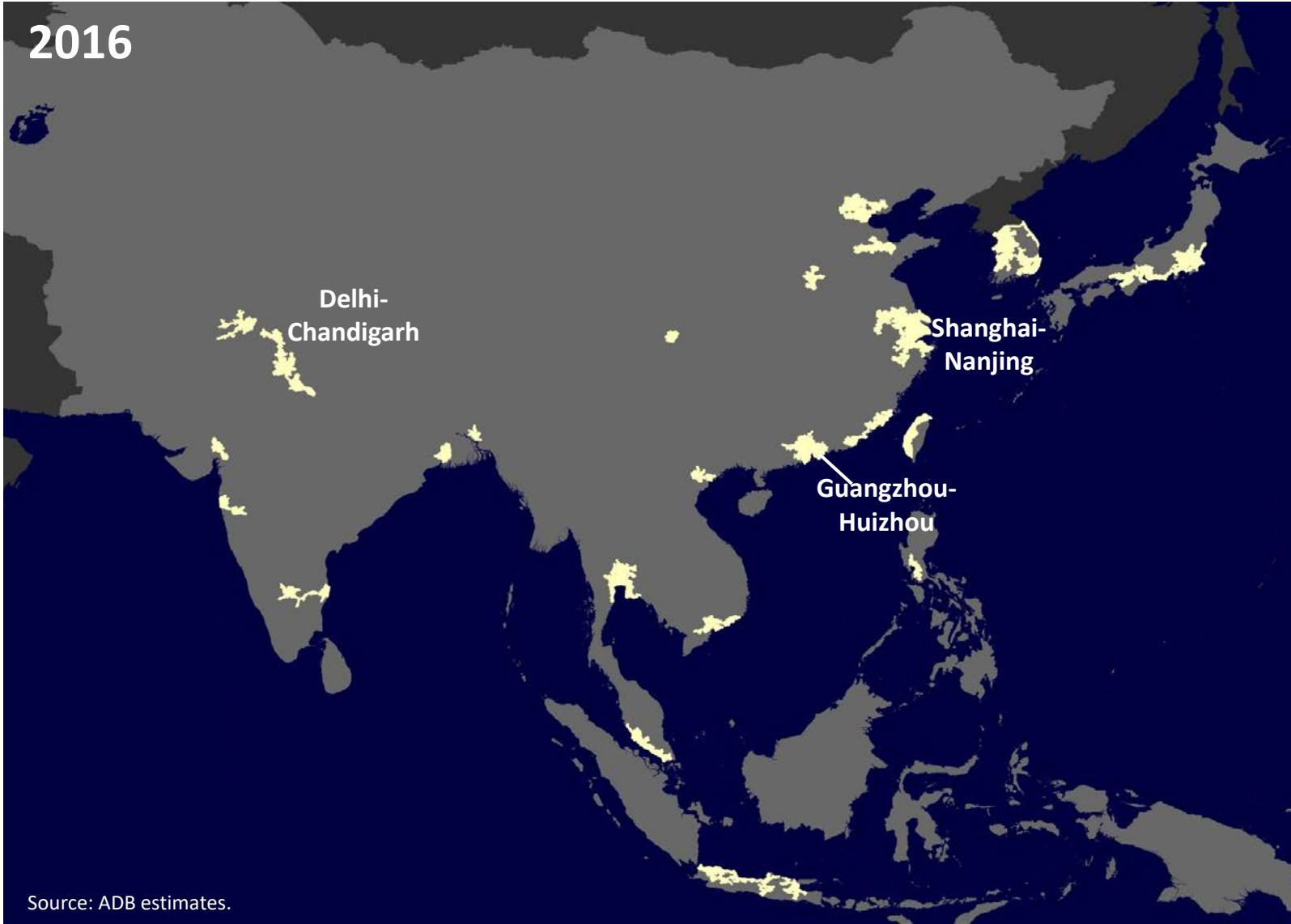
ADB

Cities are expanding beyond administrative boundaries

- “Natural cities” capture actual urban footprint using nighttime lights satellite imagery.
- 1,459 natural cities are identified, hosting 34.7% of the population on 2.3% of land area.
- Natural cities have expanded beyond administrative boundaries.
- Some have gotten connected to form **city clusters**.



28 city clusters in developing Asia have a population of 10 million or more

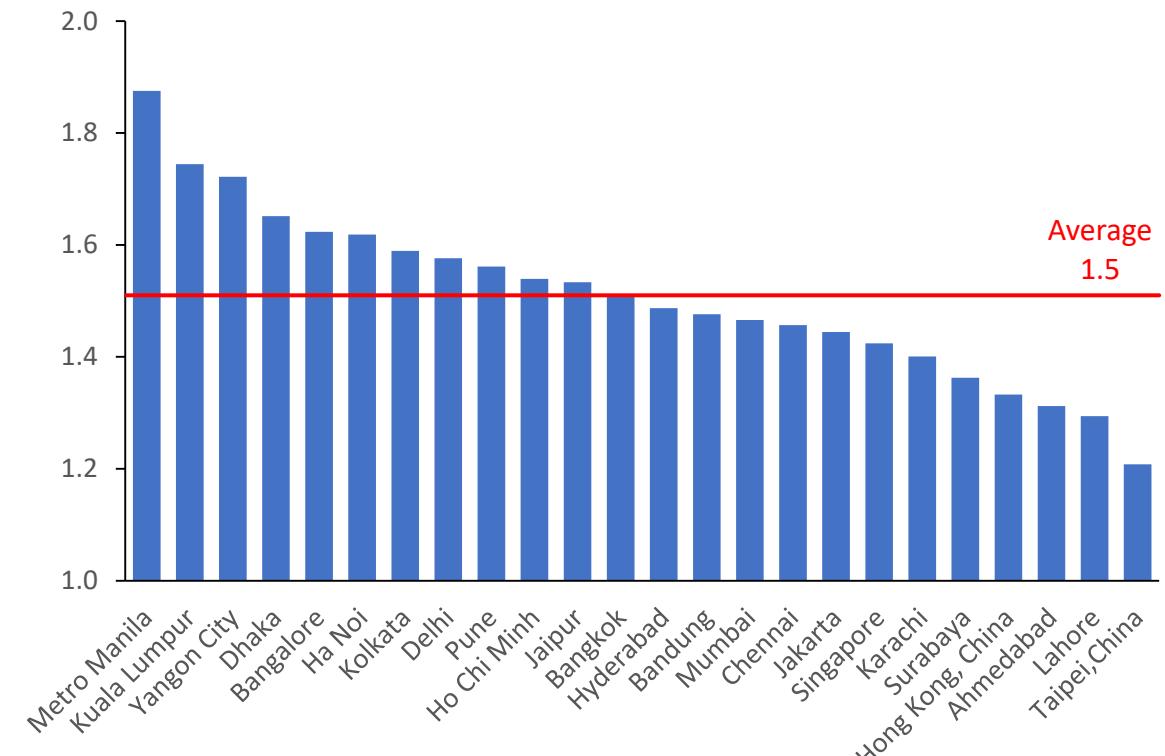


Source: ADB estimates.

Congestion is generally worse in larger cities

- We use Google Maps trip information to measure congestion across 278 Asian cities
- Hotspots in each city are identified using nighttime lights and grid population data.
- Random origins and destinations are sampled from the hotspots
- Projected driving durations for each pair of OD are obtained from Google Maps API for peak and off-peak hours of Monday, 3 June 2019.

Average congestion index of natural cities with population greater than 5 million



Note: 1.5 represents the average index of the 24 cities in the chart.

Source: ADB estimates using Google Maps.

Impact Evaluation of Large Infrastructure

Unleashing Development Potential by River Crossings: Evidence Based on Satellite Imagery from Shanghai

MYOUNG-JAE LEE, KOREA UNIVERSITY

YASUYUKI SAWADA, ADB

AKIKO TERADA-HAGIWARA, ADB



PHENOMENAL GROWTH OF SHANGHAI

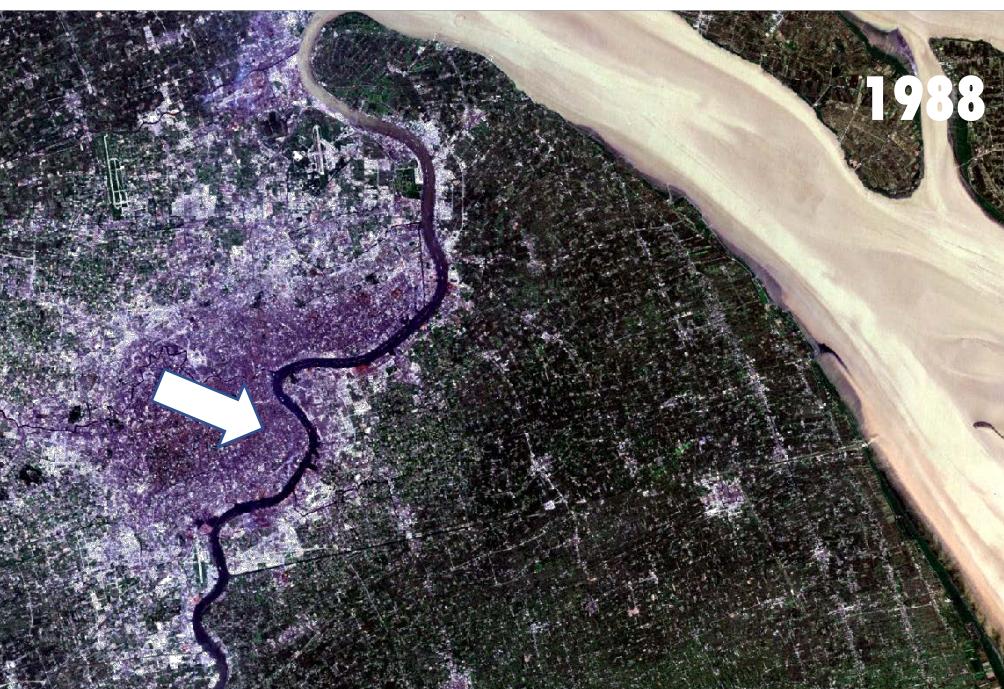
- **Shanghai** went through phenomenal growth in the last few decades.
- Zooming into the city, we observe diverse development in the old side and the **Pudong** side.



1988

NANPU BRIDGE IN SHANGHAI

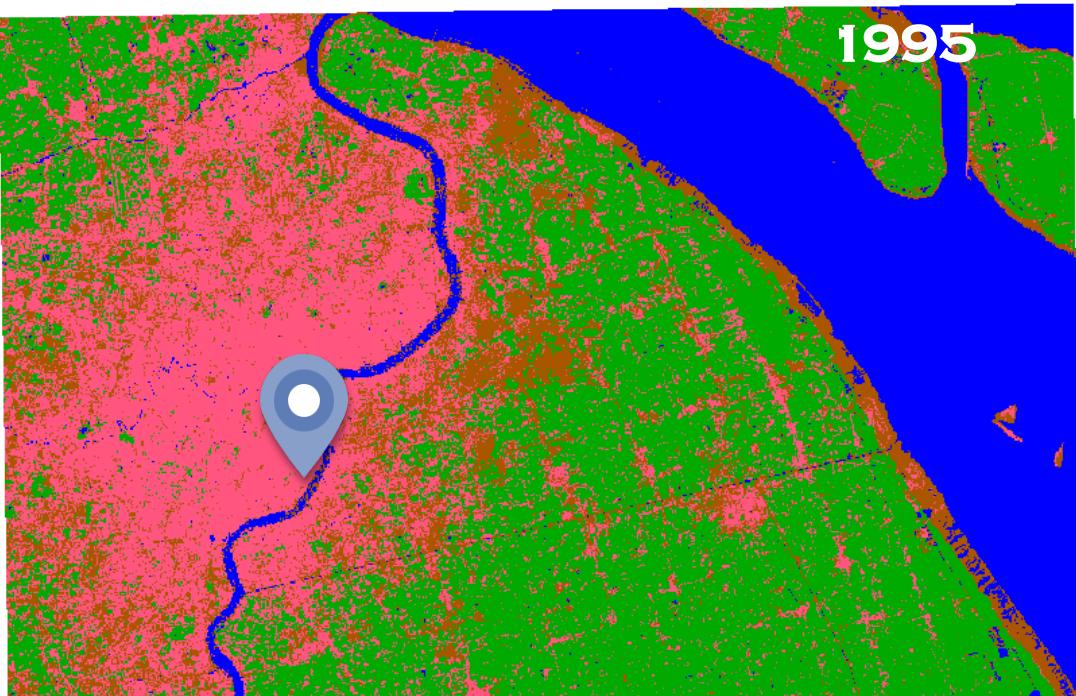
- Nampu bridge, the first bridge to cross the Huangpu River from central Shanghai to Pudong
 - Construction began on December 15, 1988 and opened to traffic on December 1, 1991
 - Mainly financed by ADB, the total cost for this project was CNY 820 million
 - 4th biggest cable-stayed bridge in the world



LAND COVER

- “Surface tension” of Shanghai released by the bridge
- DD *in reverse* (Lee and Sawada, 2020)

	Control group (Shanghai)	Treatment group (Pudong)
Before	$d=1$	$d=0$
After	$d=1$	$d=1$



- 10km radius, 5.2%-23% annual growth rate

Before-After and Difference-in-Difference analysis

Table 3. OLS for BA & DD (Shanghai as Control): $Y \times 10^3$ (t-value in ())

	Built-up (blt)			Barren (brn)		
	1: BA	2: DD for P	3: DD- ΔY	4: BA	5: DD for P	6: DD- ΔY
1	57 (38)	166 (71)		77 (84)	62 (32)	
$1[t = 1]$	31 (14)	29 (9.6)	29 (20)	-37 (-28)	-29 (-13)	-29 (-17)
P		-152 (-63)			21 (9.6)	
$P1[t = 1]$		2.8 (0.88)	2.8 (1.8)		-11 (-4.1)	-11 (-5.3)
Effect	6.3%	0.7% (Pudong effects)		-8.7%	-2.2% (Pudong effects)	
N	3012×2	3012×2	3012	3012×2	3012×2	3012
R^2	0.033	0.69	0.001	0.12	0.14	0.008

BA (before-after) for 1995-1988; DD is difference in differences; P is Pudong dummy;
 DD for P is OLS of Y for stacked two waves; DD- ΔY is the OLS of ΔY on (1,P);
 Effect is annualized effect for Pudong+Shanghai in BA & extra Pudong effect in DD.

On the Use of Vehicle Flows Data to Assess Local Economic Activity¹

The Case of Philippine Cities

Eugenia C. Go¹ Kentaro Nakajima² Yasuyuki Sawada¹ Kiyoshi Taniguchi¹

¹Asian Development Bank

²Hitotsubashi University

August 25, 2021

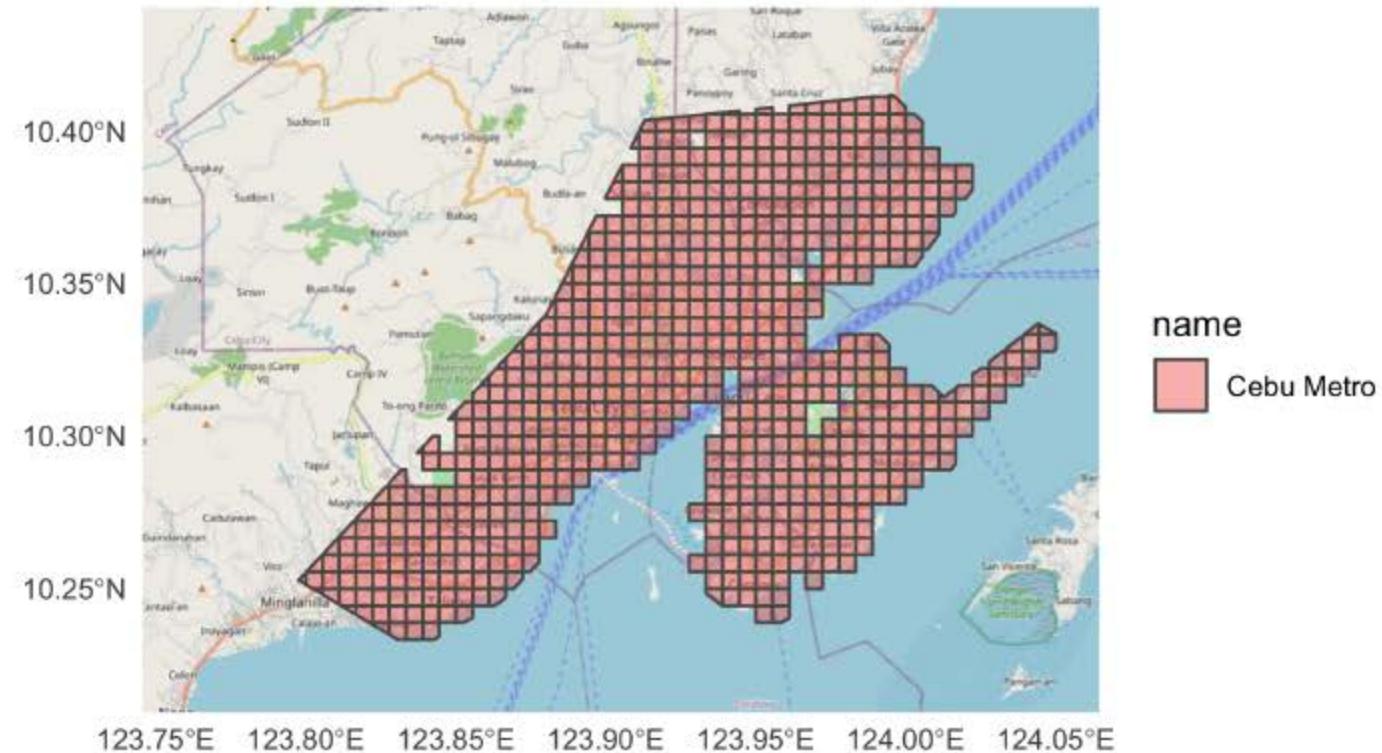
¹We thank Shungo Nishikawa, Shinpei Noguchi and Marco Zaplan for excellent research assistance.

Mactan Cebu International Airport

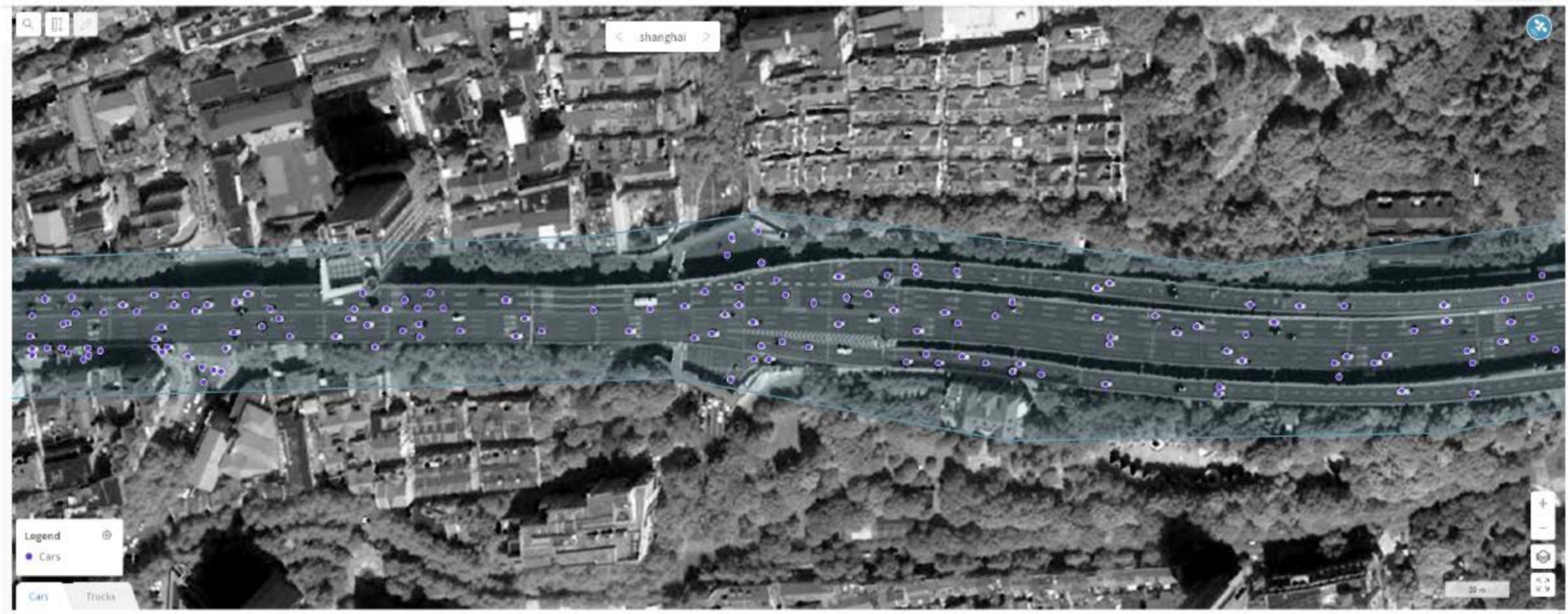
- The MCIA is an international gateway to Visayas region.
- The airport has experienced sharp passenger growth over the past decade. In 2012, MCIA served more than 6.7 million passengers per year (beyond 4.5 million capacity).
- This has strained effectiveness of airport infrastructure and affected its service and passenger convenience especially during peak hours.
- With support from ADB, the renewal of the airport started from April 2014. A new passenger terminal was inaugurated in July 2018 which increased the MCIA's capacity to 12.5 million.

Data — Unit of observations

- Unit of observations: 500m×500m mesh level within cities:

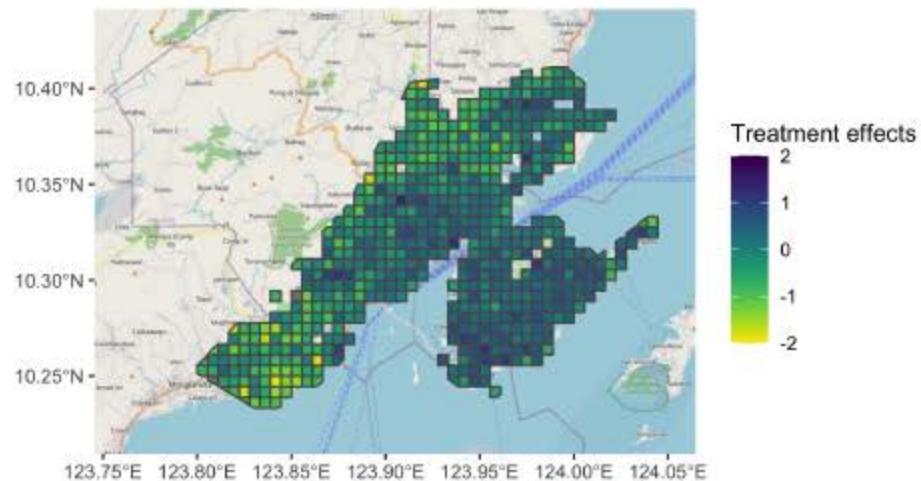


Detection of vehicles — Detected vehicles

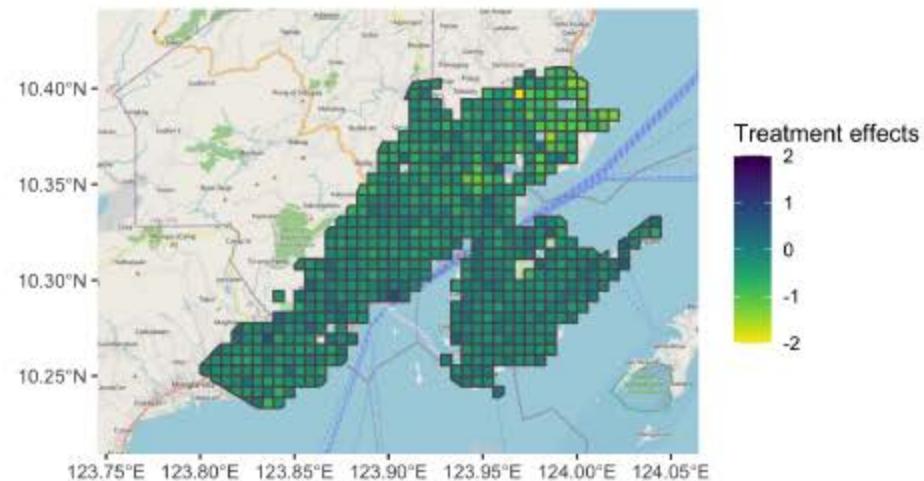


Peak vs. Off-peak — Eyeball checking of individual treatment effects

(A) Peak



(B) Off-peak



- Strong treatment effects found during peak months of international passengers

アウトライン

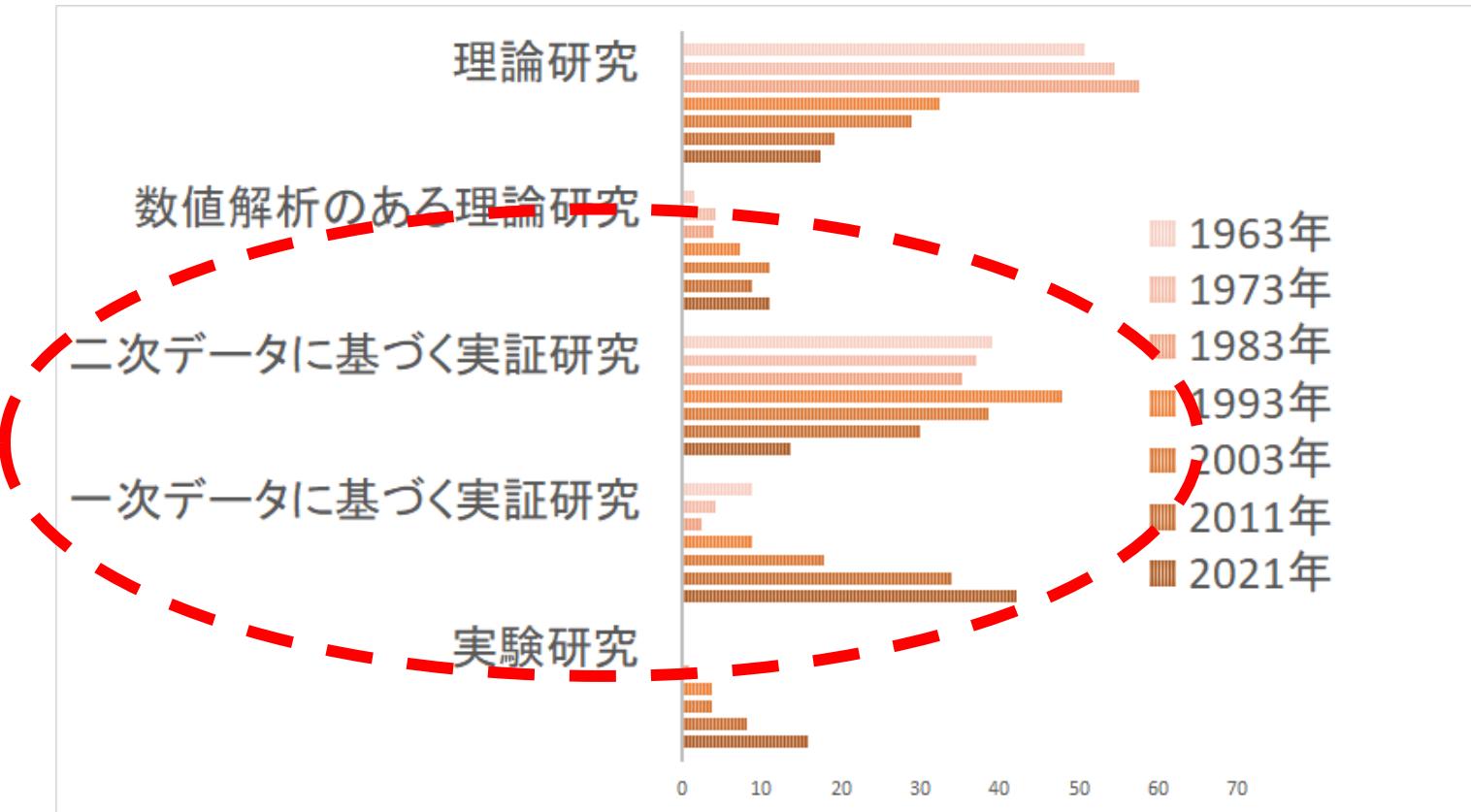
1. ADBの経済調査・地域統合局 (ERCD)
2. 主なKnowledge products
3. コロナ対応
4. 新しい方向性
5. 学界と政策の橋渡し

2019年ノーベル経済学賞
「RCT革命(開発経済学)」

2021年ノーベル経済学賞
「信頼性革命(実証経済学全般)」

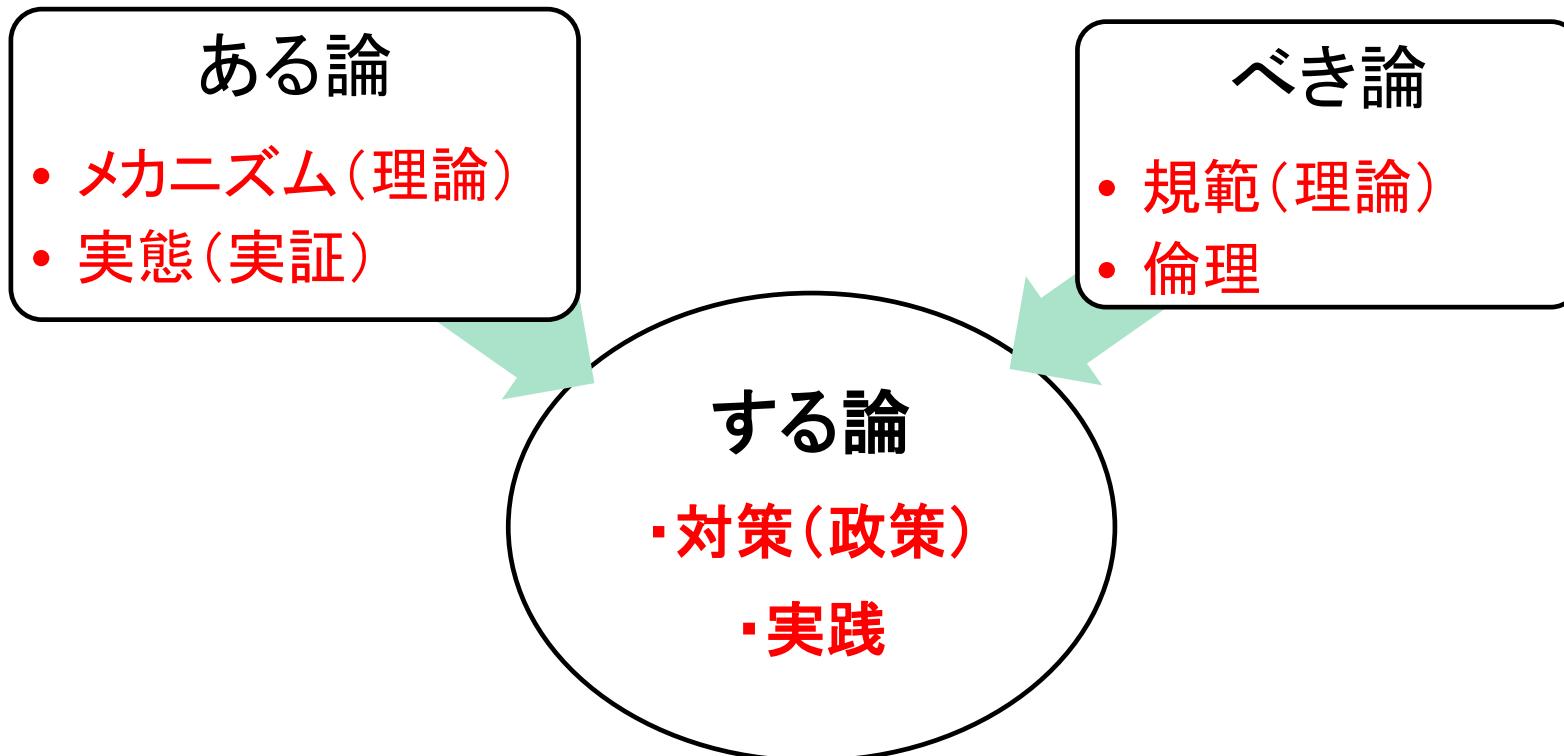
経済学を席巻する「信頼性革命」

AER, JPE, QJEにおける分野別割合の推移

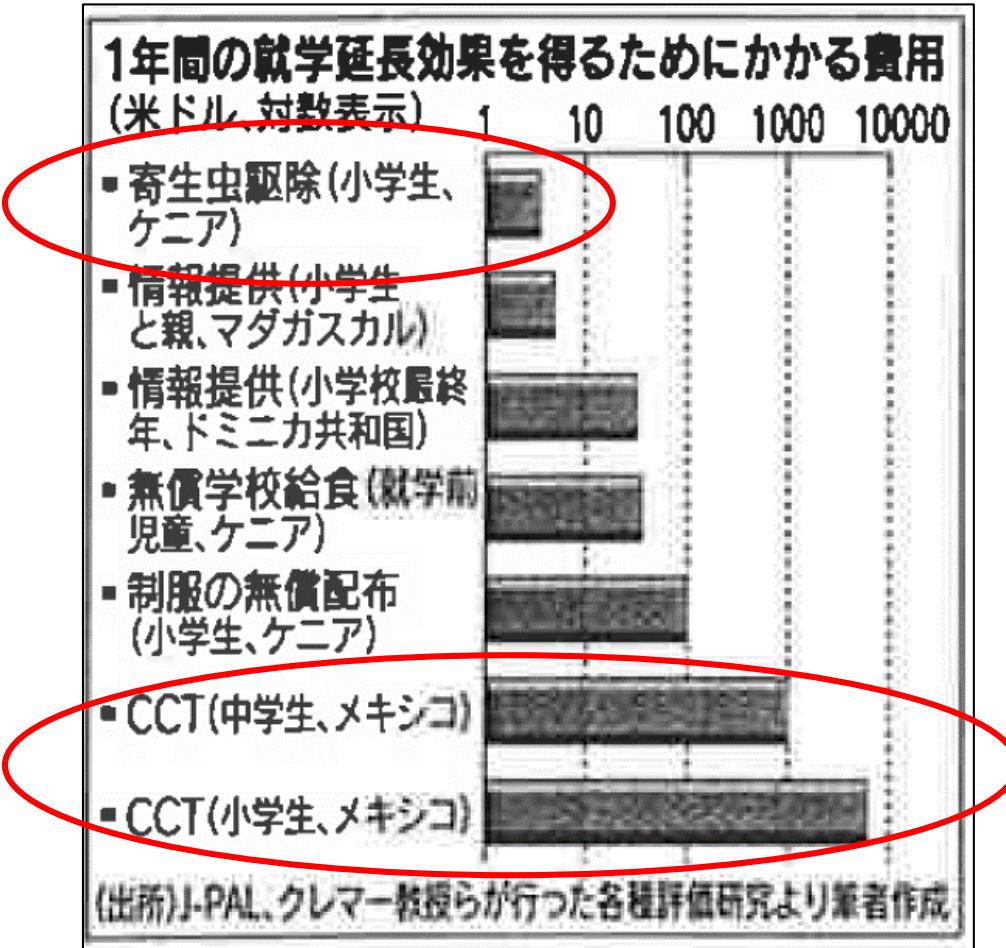


データ出所) Hamermesh (2011) JELのTable 4に基づく澤田康幸 (2016) (「経済学における実証分析の進化」『進化する経済学の実証分析』日本評論社) の図1を2021年1月～10月号・Q1～Q3のデータで更新したもの。

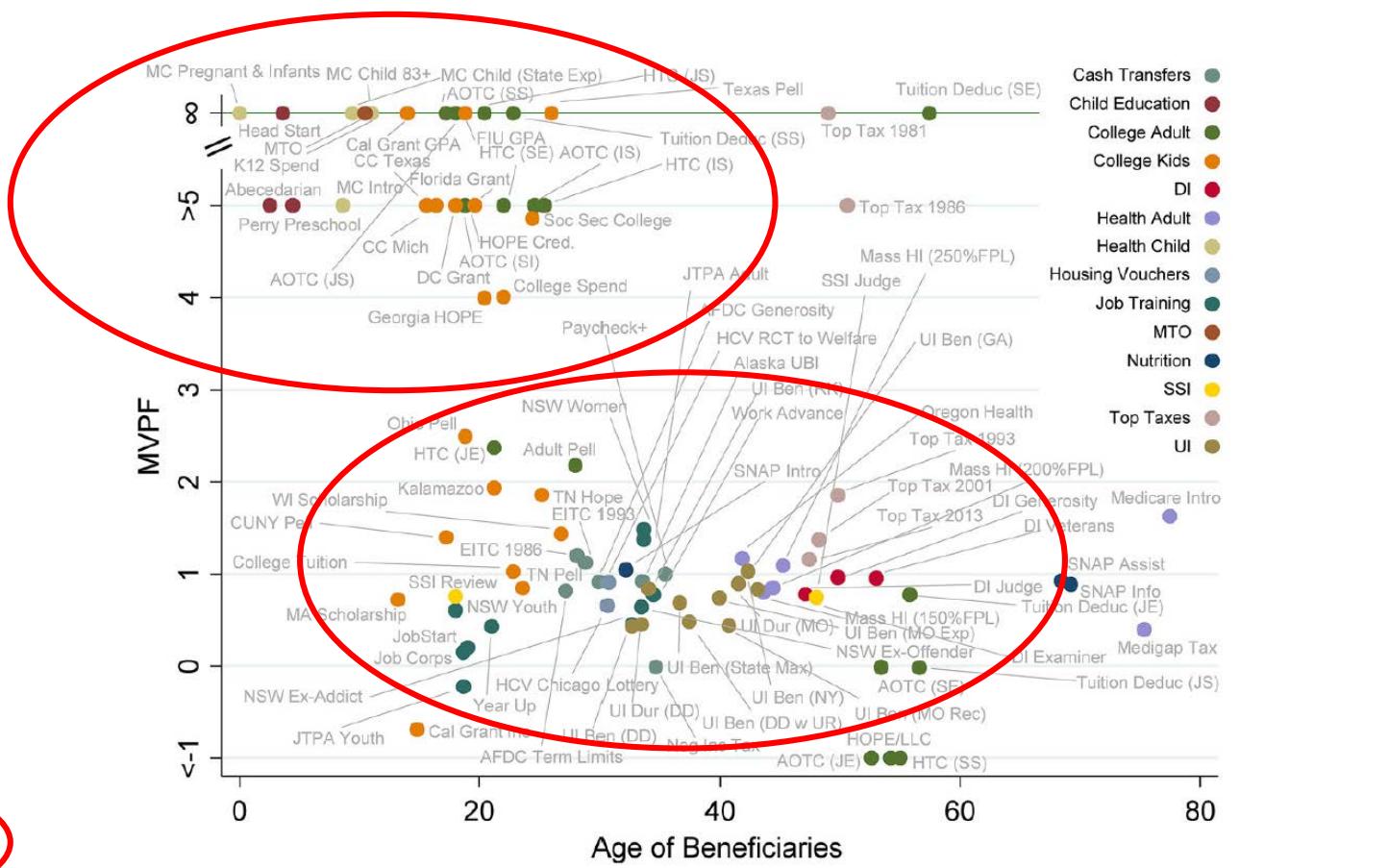
現代の開発経済学:「する」論



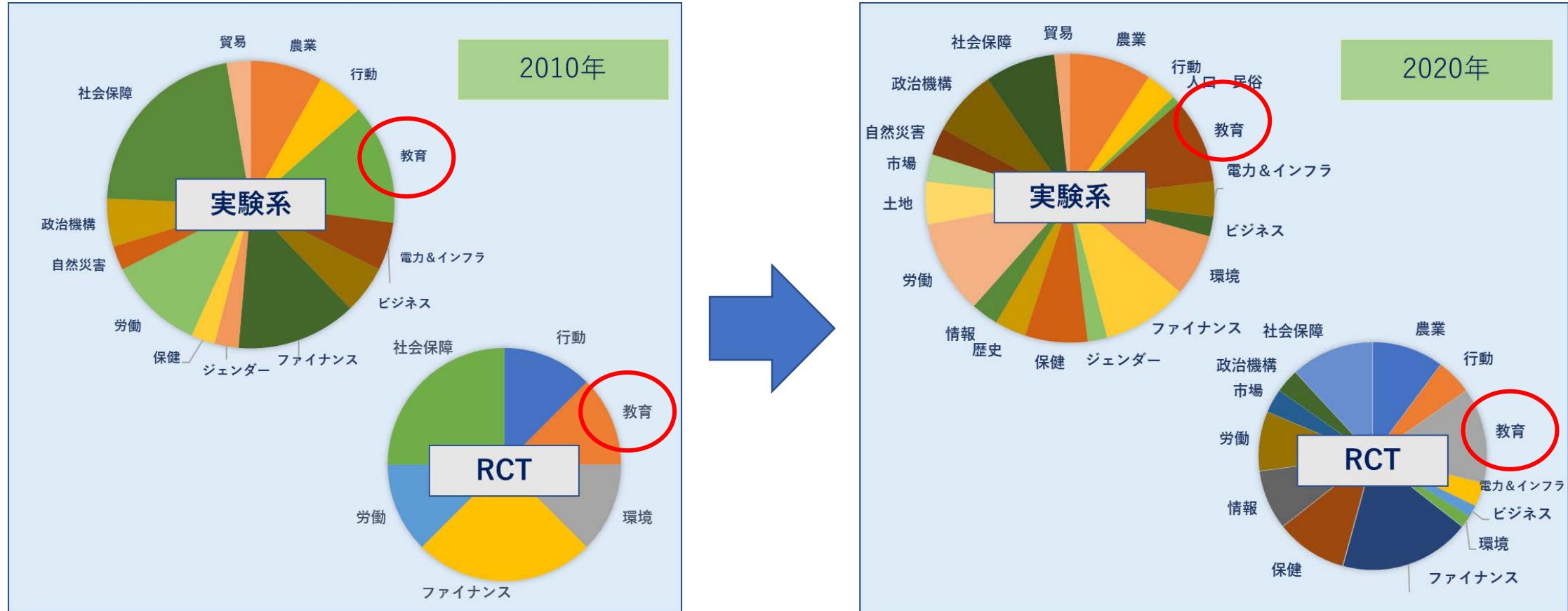
政策効果比較が可能に



澤田康幸 (2011) (経済教室エコノミクストレンド) 「開発経済学深化の原動力」2011/12/5付日本経済新聞 朝刊.



介入トピックの多様化? (中村・鈴木, 2019, 2021)



- この10年で分析対象トピック、多様化
- しかしRCTでは、介入困難なトピックは実施されていない

出展) 中村信之・鈴木綾 (2019) 「開発ミクロ実証経済学は実験系論文に寄せられる課題を解決しているか? -開発経済学ジャーナルのシステムティックレビューを基に-」『農業経済研究』第91巻第一号, 1-19.と、同氏らによる2021年のアップデートデータ。

EBPMに向けた「する論」への期待



出所) Levitt and List (2009) のFigure 1を筆者が拡張したものの。

図2 | 経済学における実証分析の分類

出所) 澤田康幸 (2020) (「経済学における実証分析の進化」

『[新版] 進化する経済学の実証分析』日本評論社) の図2

ポストコロナにおけるアジアの課題

アジアの課題

1. 公衆衛生危機を克服し、UHCを含むソフト・ハード両面でのレジリエントなヘルスセクターを構築すること
2. 技術革新に基づいた成長を達成すること
3. 気候変動対策・社会的包摂・ジェンダー格差是正を推進する成長を達成すること
4. より質の高い教育を達成すること
5. インフラの投資ギャップを埋めること
6. 高齢化を含む急速な人口動態変化に対応すること

今後の課題

「ADBの活動」と「信頼性革命・データ革命のもとにある（開発）経済学研究」のさらなる連携強化