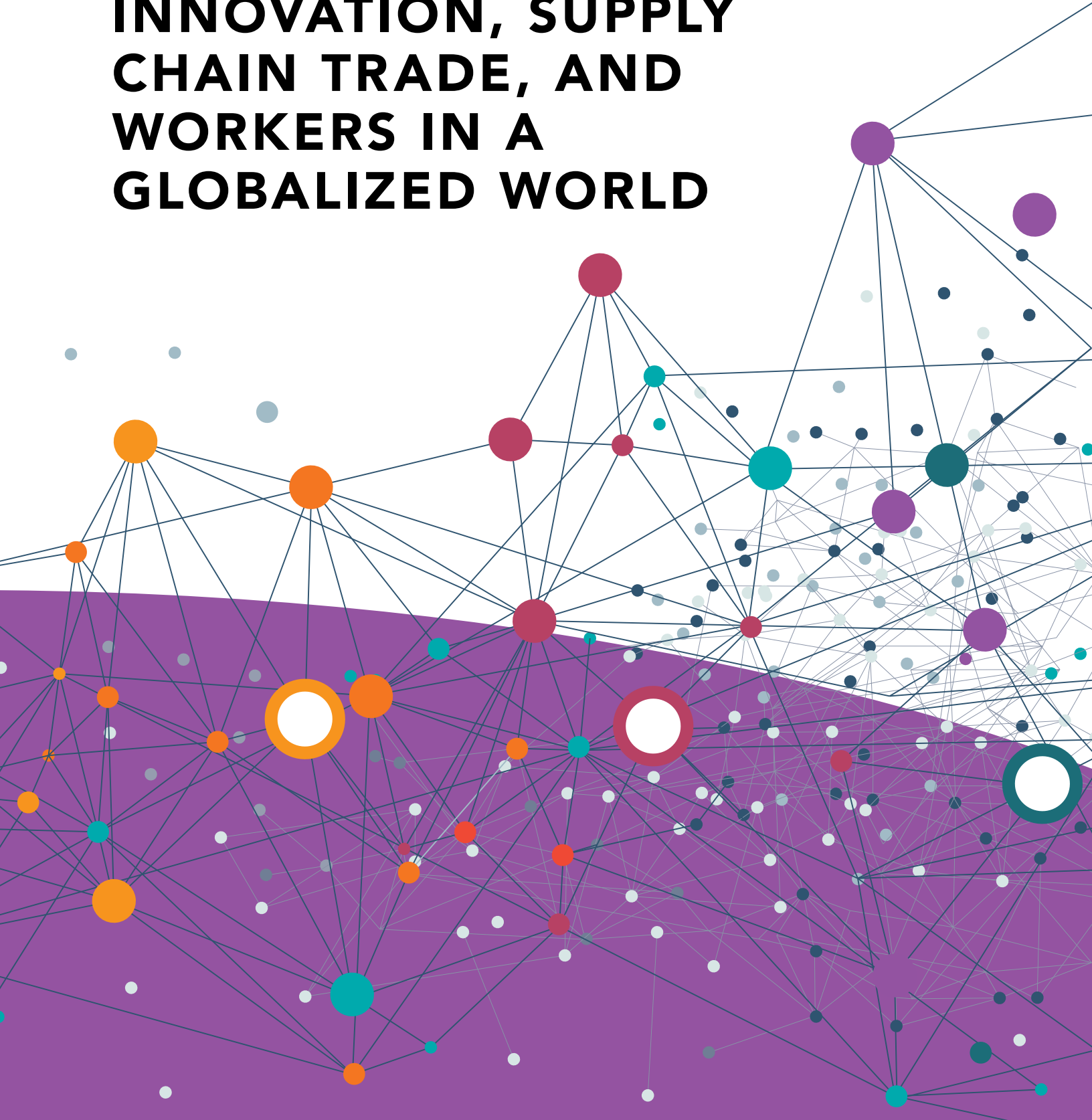


GLOBAL VALUE CHAIN DEVELOPMENT REPORT 2019

TECHNOLOGICAL INNOVATION, SUPPLY CHAIN TRADE, AND WORKERS IN A GLOBALIZED WORLD



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World Trade Organization
Centre William Rappard
Rue de Lausanne 154
1211 Geneva 2
Switzerland
Telephone: +41 (0)22 739 51 11
Internet: www.wto.org

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Contents

Foreword by Michael Spence	v
Co-publishing partners	vi
Contributors	vii
Acknowledgements	viii
Abbreviations and acronyms	ix
Key messages	x
Executive summary	1
David Dollar	
Chapter 1 Recent patterns of global production and GVC participation	9
Xin Li (Beijing Normal University), Bo Meng (IDE-JETRO), and Zhi Wang (RCGVC-UIBE)	
Chapter 2 Trade, value chains and labor markets in advanced economies	45
Marc Bacchetta (WTO) and Victor Stolzenburg (WTO)	
Chapter 3 Global value chains and employment in developing economies	63
Claire H. Hollweg (World Bank Group)	
Chapter 4 Technological progress, diffusion, and opportunities for developing countries: Lessons from China	83
Satoshi Inomata (IDE-JETRO) and Daria Taglioni (World Bank Group)	
Chapter 5 Understanding Supply Chain 4.0 and its potential impact on global value chains	103
Michael J. Ferrantino (World Bank Group) and Emine Elcin Koten (World Bank Group)	

Chapter 6	The digital economy, GVCs and SMEs	121
	Emmanuelle Ganne (WTO) and Kathryn Lundquist (WTO)	
Chapter 7	Should high domestic value added in exports be an objective of policy?.	141
	David Dollar (Brookings Institution), Bilal Khan (RCGVC-UIBE), and Jiansuo Pei (SITE-UIBE)	
Chapter 8	Improving the accounting frameworks for analyses of global value chains	155
	Nadim Ahmad (OECD)	
Appendix 1	Chapter Authors' Conference: Final programme	179
Appendix 2	Technological Innovation, Supply Chain Trade, and Workers in a Globalized World: Global Value Chain Development Report 2019 Background Paper Conference.	181

Co-publishing partners

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The World Trade Organization (WTO) is an international organization that deals with the global rules of trade between nations. The WTO administers agreements, negotiated and signed by its members, which provide the legal ground rules for international commerce. Their purpose is to help trade flow as freely as possible for the economic development and the welfare of its members' citizens. The WTO is serviced by a secretariat which provides expert, impartial and independent support to member governments, including research, analysis and statistical information related to the role and developments of trade in the global economy.

IDE-JETRO is a government-affiliated research institute that conducts basic and comprehensive research on economics, politics, and social issues in developing countries. Through its research, IDE-JETRO contributes knowledge of developing economies and better understanding of the regions to the government and public.

The Organisation for Economic Co-operation and Development (OECD) is an international and inter-governmental organization comprising the world's main industrialized market

economies whose mission is to promote policies that will improve the economic and social well-being of people around the world: "Better Policies for Better Lives". The OECD does this by providing a forum for governments to share experiences and by seeking solutions to common problems.

The Research Center of Global Value Chains (RCGVC) is a global academic think tank headquartered at the University of International Business and Economics, focusing on basic and interdisciplinary research activities on the development of global value chains (GVCs) and its implication on global economies.

The World Bank is an international development institution established by Articles of Agreement adopted by its member countries. The World Bank's overarching mission is to reduce poverty, improve living conditions, and promote sustainable and comprehensive development in its developing member countries. It has established two ambitious goals to anchor its mission: end extreme poverty within a generation and boost shared prosperity. The World Bank will achieve these goals by providing loans, concessional financing, technical assistance, and knowledge sharing services to its developing member countries and through partnerships with other organizations.

The China Development Research Foundation (CDRF) is a public foundation initiated by the Development Research Center of the State Council (DRC). Its mission is to advance good governance and public policy to promote economic development and social progress.

Contributors

Co-editors

David Dollar

Senior Fellow, China Center, Brookings Institution

Emmanuelle Ganne

Senior Analyst, World Trade Organization

Victor Stolzenburg

Research Economist, World Trade Organization

Zhi Wang

Professor and Director, Research Center for Global Value Chains, University of International Business and Economics (RCGVC-UIBE); Research Faculty and Senior Policy Fellow, Schar School of Policy and Government, George Mason University

Other contributors

Nadim Ahmad

Head of Trade and Competitiveness Statistics Division, Organisation for Economic Co-operation and Development

Marc Bacchetta

Counsellor, World Trade Organization

Michael J. Ferrantino

Lead Economist for Trade Policy, World Bank Group

Claire H. Hollweg

Senior Economist, World Bank Group

Satoshi Inomata

Chief Senior Researcher, Institute of Developing Economies – Japan External Trade Organization

Bilal M. Khan

Assistant Professor, Research Center for Global Value Chains, University of International Business and Economics

Emine Elcin Koten

Consultant, World Bank Group

Xin Li

Professor, School of Statistics, Beijing Normal University

Kathryn Lundquist

Statistician, World Trade Organization

Bo Meng

Senior Overseas Research Fellow (New York), Institute of Developing Economies - Japan External Trade Organization

Jiansuo Pei

Associate Professor, School of International Trade and Economics, University of International Business and Economics

Daria Taglioni

Senior Economist, World Bank Group

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This second report draws contributions from 23 background papers; 16 of them were presented and discussed at the conference “Technological Innovation, Supply Chain Trade, and Workers in a Globalized World” in Beijing during March 22–23, 2018, organized by the RCGVC and the China Development Research Foundation. Drafts of the eight chapters of the report were presented and discussed at the second Authors’ Conference in Geneva on October 8, 2018, organized by the WTO. The editors thank the authors of background papers and individual chapters and the discussants and participants in the two conferences for insightful comments and suggestions that helped draft and improve the chapters (see appendices 1 and 2 for the programs). Special thanks go to our external reviewers: Jonathan Eaton

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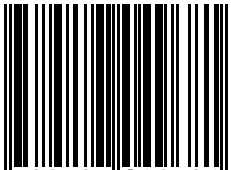
The report’s co-editors are David Dollar, Emmanuelle Ganne, Victor Stolzenburg and Zhi Wang.

Abbreviations and acronyms

ADB	Asian Development Bank	IDE–JETRO	Institute of Developing Economies
AI	artificial intelligence	IMF	International Monetary Fund
ASEAN	Association of Southeast Asian Nations	IoT	Internet of Things
B2B	business-to-business	IPR	intellectual property rights
B2C	business-to-consumer	ITC	International Trade Centre
CDRF	China Development Research Foundation	LACEX	World Bank's Labor Content of Exports
CEO	Chief Executive Officer	LDC	least-developed country
CIF	cost, insurance and freight	LMIC	low/medium-income country
CMI	customer-managed inventory	MFN	most-favored nation
DRC	Development Research Center of the State Council	MNE	multinational enterprise
DVA	domestic value-added	OECD	Organisation for Economic Co-operation and Development
DVAR	domestic value-added ratio	R&D	research and development
ECU	electronic control unit	RCGVC	Research Center of Global Value Chains
EDI	electronic data interchange	RFID	radio frequency identification
ESUT	extended supply-use table	SME	small and medium-sized enterprise
FATS	foreign affiliates statistics	SNA	System of National Accounts
FDI	foreign direct investment	STEM	science, technology, engineering, and mathematics
F.O.B.	free-on-board	SUT	supply and use table
FTZ	foreign trade zone	TFP	total factor productivity
GDP	gross domestic product	TiVA	trade in value-added
GM	global manufacturing	UIBE	University of International Business and Economics
GSM	global system for mobile communication	UNCTAD	United Nations Conference on Trade and Development
GTH	Global Trade Helpdesk	VMI	vendor-managed inventory
GVC	global value chain	WB	World Bank
HIC	high-income country	WIOD	World Input-Output Tables
ICIO	inter-country input-output	WTO	World Trade Organization
ICT	information and communication technology		
IDB	Inter-American Development Bank		

This report takes stock of the evolution of global value chains (GVCs) in light of technological developments, such as robotics, big data and the Internet of Things. It discusses how these technologies are reshaping GVCs and examines the effect of these changes on labor markets in developed and developing economies and on supply chain management. The report discusses how technological developments are creating new opportunities for the participation of small and medium-sized enterprises in global value chains and reviews issues related to GVC measurement. The report is a follow-up to the first Global Value Chain Development Report, which revealed the changing nature of international trade when analyzed in terms of value chains and value-added trade.

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