# **ALEXANDER COPESTAKE**

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# **EDUCATION:**

University of Oxford, DPhil in Economics Fields: International Trade, Technology, Development Thesis: China, AI, Robots, Taxation: Four Essays in Applied Microeconomics Supervisor: Chris Woodruff. Examiners: Richard Baldwin, Ferdinand Rauch	2021
University of Oxford, MSc in Economics for Development (with Distinction)	2017
University of Oxford, BA in Philosophy, Politics and Economics	2015
PROFESSIONAL AND RESEARCH EXPERIENCE:	
Economist (Economist Program), International Monetary Fund  Asia-Pacific Dept, Regional Studies Division & Malaysia Team. Work to date includes:  - Geoeconomic Fragmentation and Asia, Asia-Pacific Regional Economic Outlook  - Post-COVID Scarring in Asia, Asia-Pacific Regional Economic Outlook  - Article IV Consultation 2022, Malaysia	2021-Present
Short Term Consultant, Development Research Group, World Bank Research Assistant, Professor Ian Goldin, Oxford Martin School, University of Oxford Fund Internship Program, International Monetary Fund, Washington D.C. Research Assistant, Professor Chris Woodruff, University of Oxford	2021 2020 2019 2017
TEACHING EXPERIENCE:	
International Trade – MSc Development Economics for Dr Jin Ho Kim Development Economics – Undergraduate Economics for Dr Sanjay Jain Econometrics – Ph.D. Continuing Education for Professor Jonathan Michie AWARDS, GRANTS, SCHOLARSHIPS:	2020-21 2019-21 2019-20
CEPR Structural Transformation and Economic Growth Research Grant (£15,000) Oxford CSAE grants for fieldwork and administrative data (£5,000) Geoff Riddell Scholarship, Vincent's Club, Oxford Kellogg Progress Scholarship, Clarendon Fund, Oxford Harvard Business School Credential of Readiness First in year, Development Economics Finals, Oxford Second in year, Philosophy and Economics of the Environment Finals, Oxford Westerman Pathfinders Scholarship, Balliol College, Oxford NT Huxley Exhibition, Balliol College, Oxford	2021 2020 2019 2017 2016 2015 2015 2015 2014

#### **PUBLICATIONS:**

## Inputs, Networks and Quality-Upgrading: Evidence from China in India

with Wenzhang Zhang.

Forthcoming at China Economic Review.

This paper exploits China's accession to the WTO to investigate the impact of a supply shock on quality across the Indian production network. After controlling for increased import competition, including in downstream and third-country markets, and for new export opportunities, we find that a fall in input tariffs raises revenue, quality, and prices, whilst lowering quality-adjusted prices and the probability of product exit – consistent with a simple model of multi-product manufacturers gaining access to higher-quality components. Upgrading persists for at least ten years; at the peak in 2010, products with a 10% higher pre-accession input tariff, and hence a larger post-accession fall in tariffs, have 5.3% higher quality. This in turn raises quality further down the supply chain, with input-output linkages amplifying the one-step effect by up to 75%. These results highlight a potential beneficial impact of the 'China shock' in developing countries, namely supply-driven quality upgrading.

## Robots and Trade: Implications for Developing Countries

with Erhan Artuc, Paulo Bastos and Bob Rijkers

'Robots & AI: A New Economic Era' (eds. Gene Grossman & Lili Yan Ing), New York: Routledge, 2022.

We examine the effects of robotization on developing countries, using a Ricardian framework and new firm-level robotization data from eleven developing countries. We find that robot adoption in advanced economies can benefit workers in developing countries through lower prices and increased demand for inputs – though with potential adverse effects in the transition, particularly for the least mobile workers. Continued Chinese subsidization of robots is likely to reduce China's trade with OECD countries, while increasing that with developing countries – as China's profile of comparative advantage increasingly aligns with the former. Larger and more globally connected firms in developing countries are more likely to adopt robots, as they can afford the fixed costs of upgrading and value the resulting precision more highly. These firms expand post-adoption, increasing the competitive pressure on the smaller, less international firms in which those workers most vulnerable to replacement by robots are also more likely to work.

### **WORKING PAPERS:**

### Crypto Market Responses to Digital Asset Policies

with Davide Furceri and Pablo Gonzalez-Dominguez. R&R at Economics Letters.

We construct daily databases of crypto bans and policy statements concerning central bank digital currencies (CBDCs) to estimate their effect on crypto trading volumes for an unbalanced panel of 116 countries from November 2016 to December 2021. We find that trading volume falls by up to 72% in the week after the announcement of a ban, and by up to 25% after a CBDC supportive speech by senior central bank officials. For the strictest bans, such as that in China, this reduction persists over the subsequent quarter, driven by a reduction in trading by institutional investors. The results suggest that crypto market participants pay significant attention to government policy on digital assets.

#### The Crypto Cycle and US Monetary Policy

with Natasha Che. Davide Furceri. Tammaro Terracciano

This paper studies variation in crypto markets globally, their interaction with equity markets, and their response to US monetary policy. We first identify a single "crypto factor" that explains 80% of variation in crypto prices. Second, we show that the increasing correlation between crypto and global

equity markets can be explained by the entry of institutional investors into crypto markets. Third, we find that a monetary contraction reduces the crypto factor, and by substantially more than for global equities, possibly due to the increased cost of leverage reducing the risk appetite of the marginal investor. We formalize our findings in a model with heterogeneous agents and time-varying aggregate effective risk aversion.

## Digitalization and Resilience

with Julia Estefania-Flores and Davide Furceri. IMF Working Paper No. 2022/210.

This paper investigates the role of digitalization in improving economic resilience. Using balance sheet data from 24,000 firms in 75 countries, and a difference-in-differences approach, we find that firms in industries that are more digitalized experience lower revenue losses following recessions. Early data since the outbreak of the COVID-19 pandemic suggest an even larger effect during the resulting recessions. These results are robust across a wide range of digitalization measures—such as ICT input and employment shares, robot usage, online sales, intangible assets, and digital skills listed on online profiles—and several alternative specifications.

### AI, Firms and Wages: Evidence from India

with Katherine Stapleton, Ashley Pople and Max Marczinek

We examine the impact of artificial intelligence (AI) on hiring and wages in service sector firms, using a novel dataset of vacancy posts from India's largest jobs website. We first document a rapid rise in demand for machine learning (ML) skills since 2016, particularly in the IT, finance, and professional services industries. Vacancies requiring ML skills list substantially higher wages, but require more education and are highly concentrated both geographically and in the largest firms. Exploiting plausibly exogenous variation in exposure to advances in AI capabilities, we then examine the impacts of establishment demand for ML skills, as a proxy for AI adoption. We find that growth in the demand for ML skills has a direct negative impact on the total number of vacancies posted by incumbent firms. Drawing on rich data on wage offers, we further find that growth in ML demand reduces wage offers for all but the lowest-paid roles.

# The Role of Market Structure and Timing in Determining VAT Pass-Through

with Matthieu Bellon. IMF Working Paper No. 2021/061. Submitted.

We examine the role of market characteristics and timing in explaining observed heterogeneity in VAT pass-through. We first extend existing theory to characterize the roles of imperfect competition and product differentiation, then investigate these relationships empirically using a panel of 14 Eurozone countries between 1999 and 2013. We find important roles for product market regulation and product quality, and little impact of advance announcement of reforms. Our findings have important implications for policy-makers considering VAT rate adjustments, by illuminating which of the consumers or the producers would experience the brunt of a reform across different settings.

## **PRESENTATIONS:**

2022	ICEA Future of Work Conference, Oxford CSAE Conference, AMRO-IMF Joint Seminar, PacDev, IMF RES Scarring Workshop, Applied Young Economists Webinar, Washington Area International Trade Symposium, IMF Economic Review Annual Conference, Korea Institute for International Economic Policy
2021	Ruhr Graduate School in Economics, Oxford CSAE Conference, Royal Economics Society Symposium, University of Pretoria, Bavarian Young Economists' Meeting, NBER Economics of AI Conference, Institute for New Economic Thinking, North East Universities Development Consortium, Indian Statistical Institute, Oxford Development Seminar
2020	Oxford Trade Workshop, Oxford Blavatnik School of Government, University of Warwick
2019	Queen Mary University of London, IMF Fiscal Affairs Department

# SELECTED OTHER ACTIVITIES:

Junior Dean, St Benet's Hall, University of Oxford	2019-2021
President, Oxford University Blues Committee	2019-20
President, Kellogg College Middle Common Room	2018-19

# PERSONAL INFORMATION:

Born:	19 June 1993
Citizenship:	United Kingdom, Republic of Ireland
Software:	Stata, Mata, SQL, MATLAB, Gephi