



# The potential impact of the COVID-19 pandemic on the welfare of remittance-dependent households in the Philippines

Enerelt Murakami, Satoshi Shimizutani, and Eiji Yamada

**TARC online workshop 'COVID-19 and Developing Countries'**

**June 19, 2020**

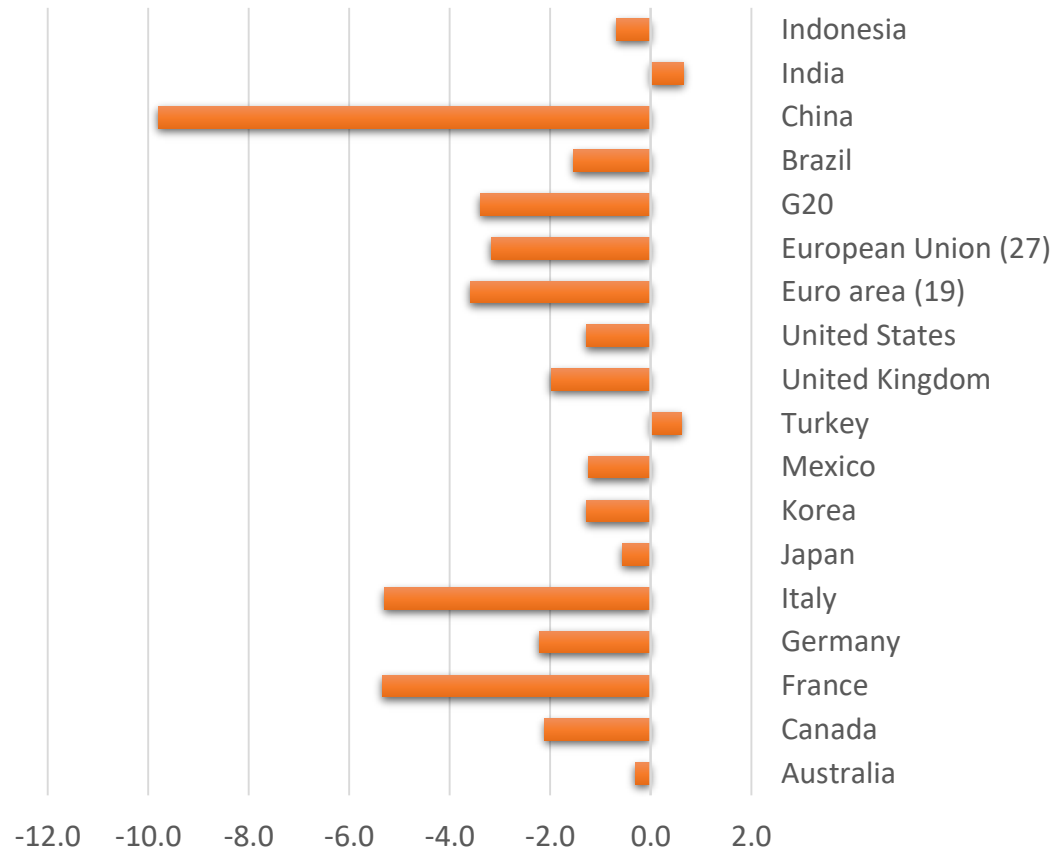
Presenter: Enerelt Murakami  
Research fellow  
JICA Ogata Research Institute

# Introduction

- The COVID-19 pandemic is a health and economic crisis, causing a largest global recession since the World War II.
- Sharp contractions of output are forecasted not only in advanced economies but also in developing countries.
- The effects are likely to be heterogenous across countries and individuals.
- Overseas labor migrants and remittance-receivers are among the most vulnerable to loss of employment due to the recession in host countries.
- This paper explores the potential impact the COVID-19 crisis on the remittances and welfare for the migrant sending households in rural Philippines.
- Our results show a sharp fall in remittances, leading to a fall in household consumption expenditure.

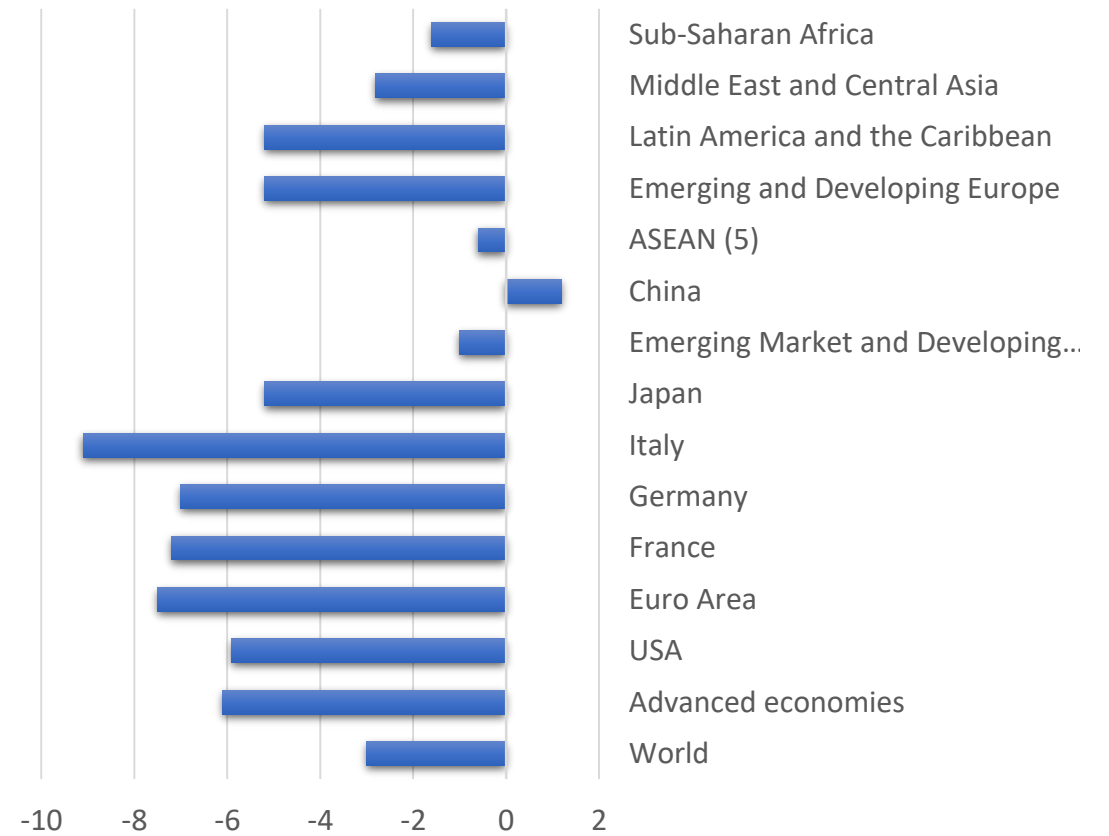
# The COVID-19 crisis

## Quarter-on-quarter growth rate, Q1-2020



Source: OECD.Stat (accessed 06/18/2020)

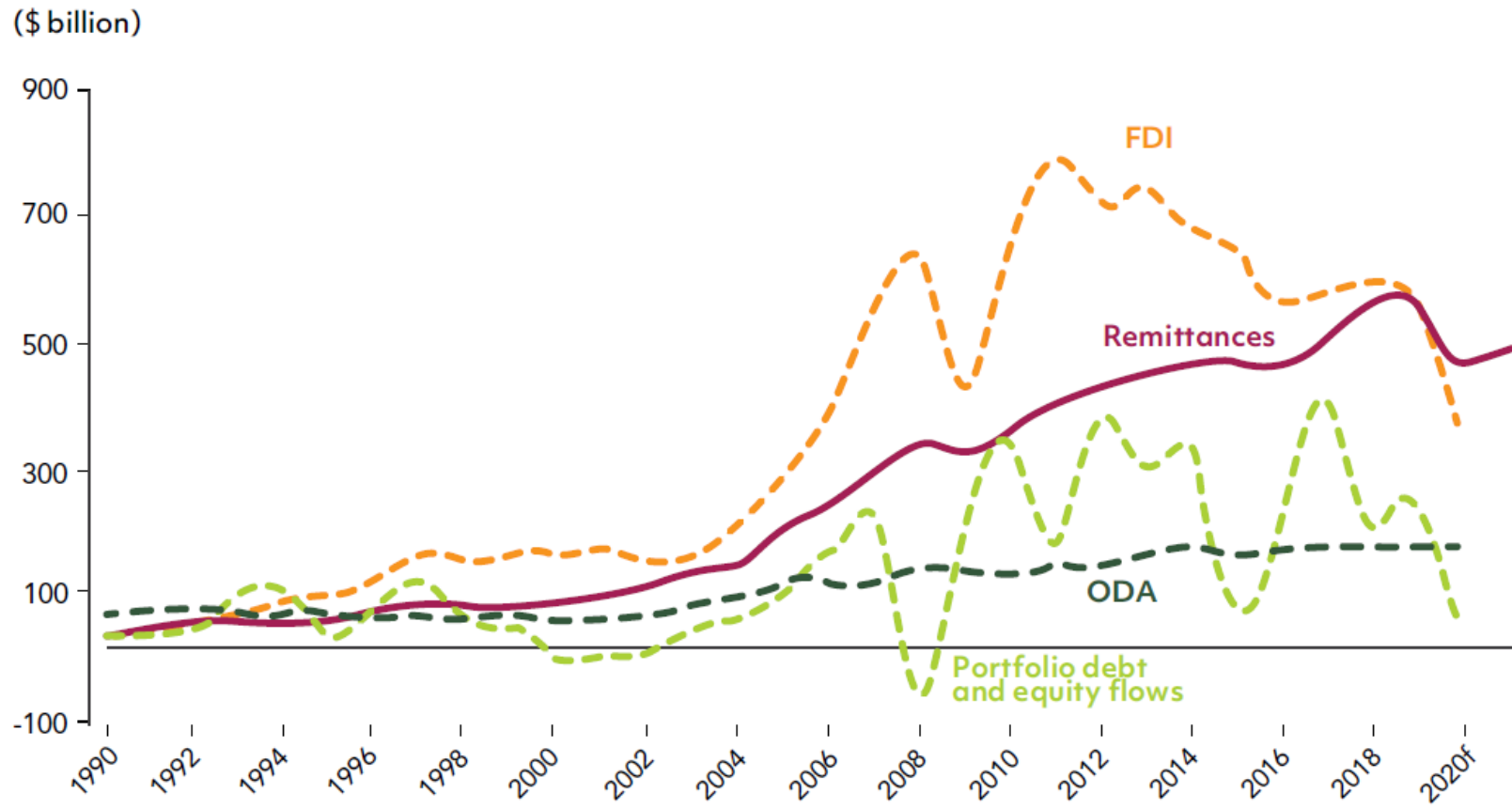
## Year-on-year growth projections, 2020



Source: IMF (2020) World Economic Outlook

# The COVID-19 crisis and overseas remittances

## Remittance flows to decline in 2020

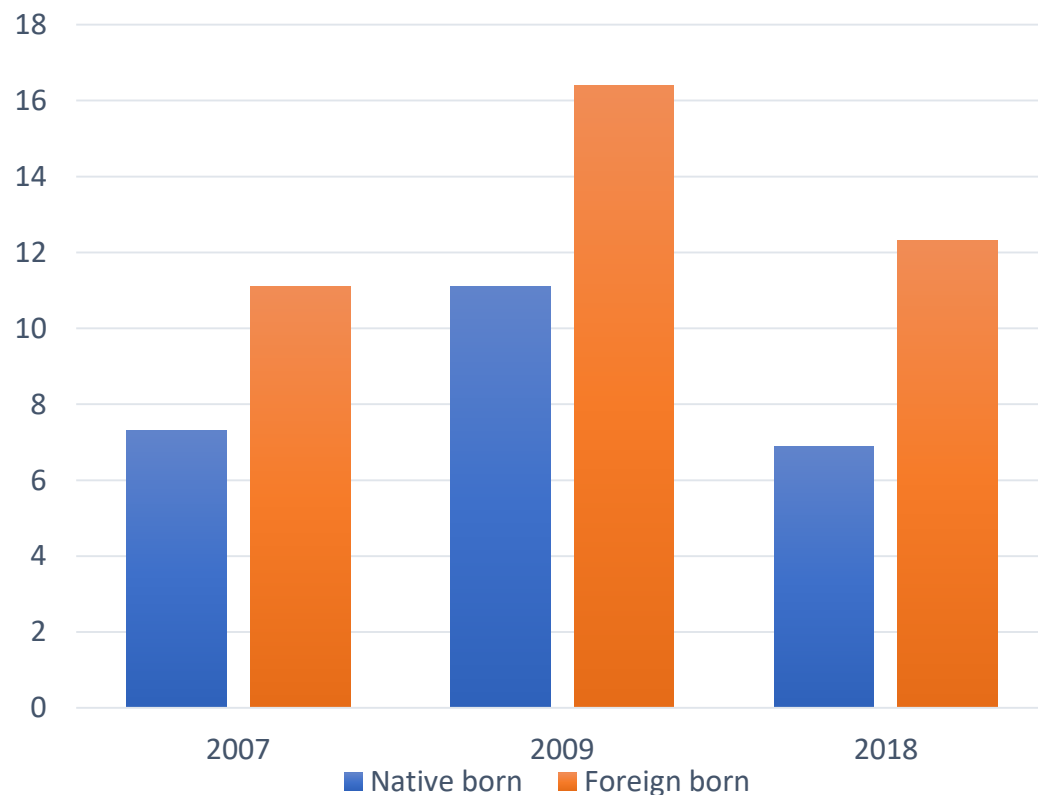


- Remittances are the largest source of foreign exchange earnings in low- and middle-income countries (LMIC).
- The remittances to LMIC are projected to decline by 20% in 2020.

Source: World Bank (2020) COVID-19 Crisis through a migration lens.

# Migrants are more vulnerable to unemployment and wage loss

Unemployment in EU during global financial crisis 2008/2009

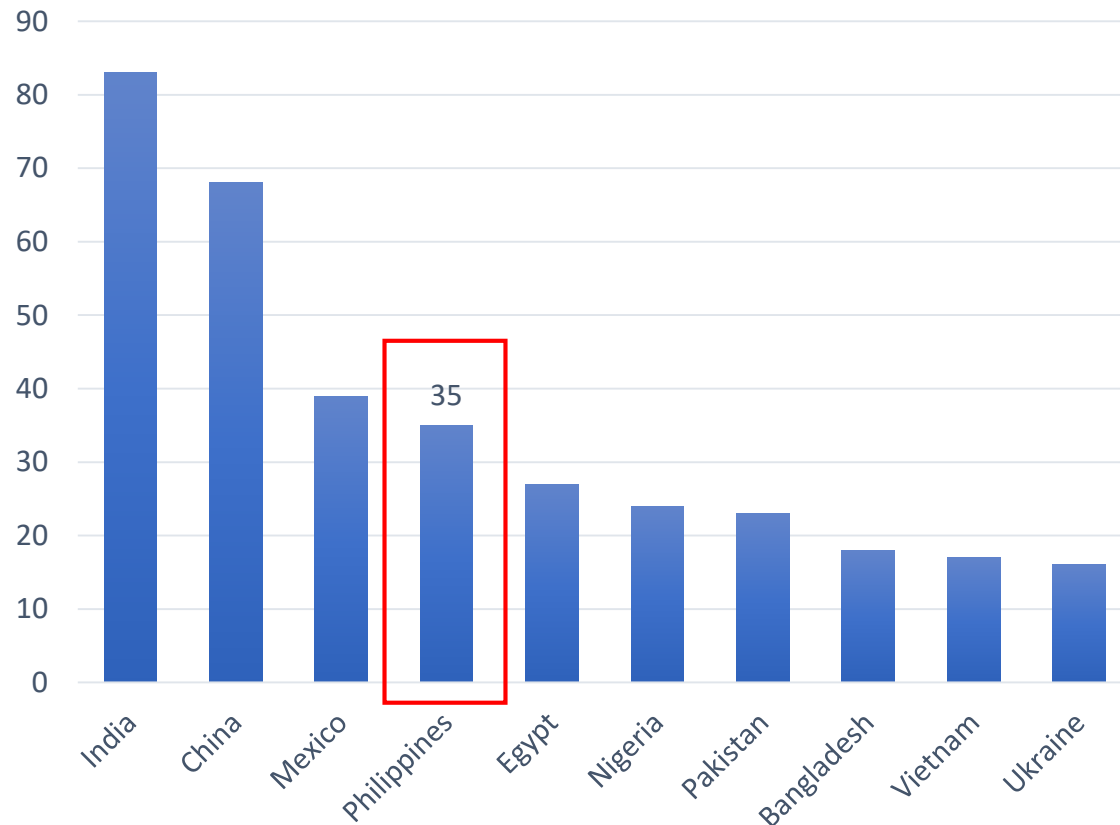


Source: Eurostat data

- The decline in the remittance inflows to LMIC would not be accompanied by the drop in the number of migrants immediately.
- The remittances flows will decline largely due to unemployment and wage loss.
- Past economic crises show that migrants are more vulnerable to lose jobs than native born people.

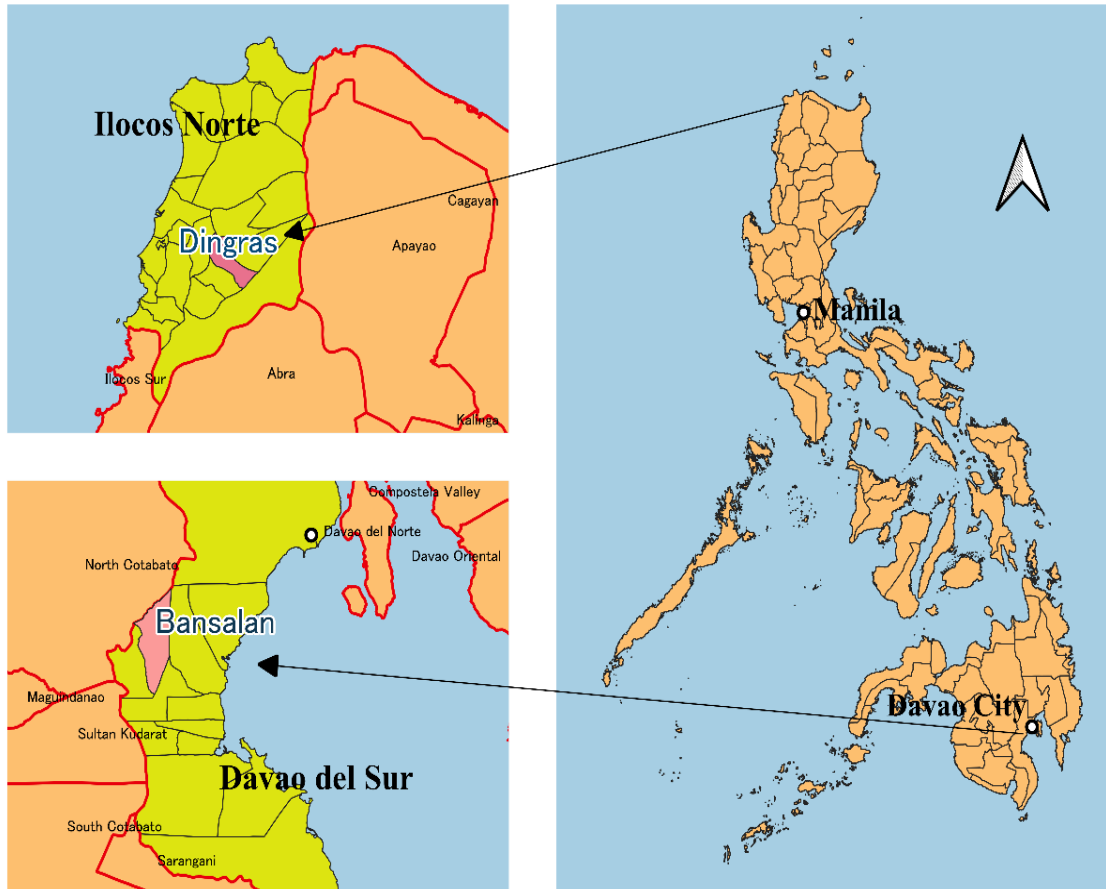
# Migration and remittances in the Philippines

Top remittance recipients in 2019, billion USD



- One of the top remittance recipient countries in dollar terms.
- Globally, the stock of overseas Filipino migrants is more than 10 million (Commission on Filipinos Overseas, 2020).
- Each year, about 1 million Filipinos go abroad to work.
- The major destinations include Saudi Arabia, United Arab Emirates, Kuwait, Hong Kong, and Singapore.
- The majority are engaged in elementary and services occupations.

# Data and the study area



- JICA conducted a survey on Remittances and Household Finances in the Philippines in two remittance-dependent municipalities in 2016 and 2017.
- The sample size is 200 overseas migrant households and 200 non-migrant household in each municipality. The attrition rate was 20% in 2017.
- Migrants are oversampled.
- The sample is representative at each municipality.
- Data on household roster, consumption expenditure, budgets and assets, remittance behavior, savings and loan were collected.

Source: Generated by the authors based on GDAL's administrative boundary shapefiles

# Migrant households in the study area

- Of the total individuals surveyed in 2016, 11.2% are overseas migrants, compared to approximately 10% of national average.
- 37 destination countries.

Top destinations	%
Saudi Arabia	18.6
United States of America	14.9
United Arab Emirates	9.7
Kuwait	8.9
Canada	6.7
Hong Kong	6.7
Singapore	5.8
Japan	5.6

Source: Authors' calculations

Migrants' characteristics, % of total migrants			
<i>Education</i>		<i>Occupation</i>	
College	34	Domestic helper	36
High school	27	Care giver	6
Vocational	6	Factory worker	6
		Nurse	5
<i>Age and gender</i>		Construction worker	2
Average age	38	Driver	2
Women	70		

Source: Authors' calculations

- The number of overseas migrants per migrant household range between 1 and 4, with more than 70% have 1 member abroad.
- Monthly average remittances sent by the migrants are 8,300 pesos.



# Methodology

- The analysis is performed in two steps.
  1. The impact of remittances on household consumption is empirically estimated through the macroeconomic conditions in host countries.
  2. Using the coefficients obtained in step 1, impacts of the COVID-19 crisis are predicted based on the growth forecasts by IMF before and after the COVID-19 outbreak.

# Empirical strategy

- Our main specification takes the following form:

$$REMITTANCE_{it} = \beta_0 + \beta(ECON_{it}) + \gamma X_{it} + barangay_i + \lambda_t + \epsilon_{it} \quad (1)$$

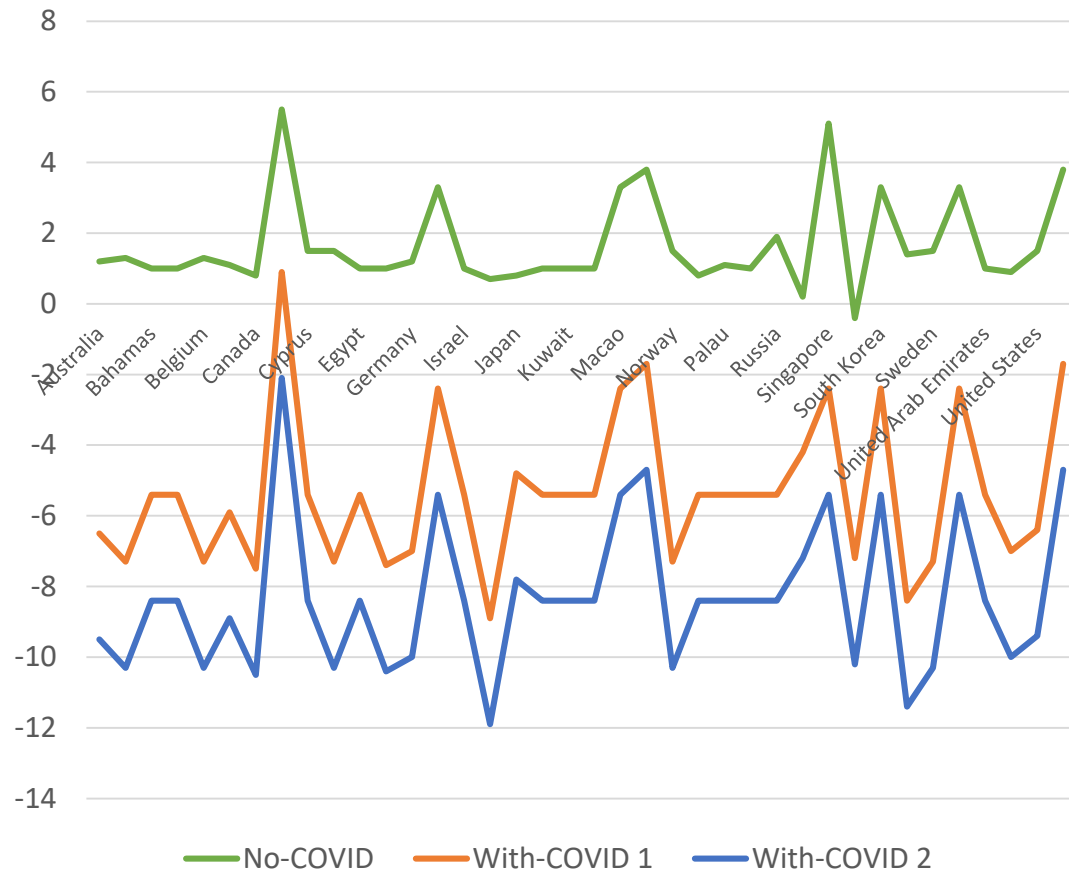
$$Y_{it} = \beta_0 + \beta(\overline{REMITTANCE}_{it}) + \gamma X_{it} + barangay_i + \lambda_t + \epsilon_{it} \quad (2)$$

- In order to take into account the endogeneity of remittances in the consumption model, we employ 2SLS with an IV of weighted average of destination country GDP per capita ( $ECON_{it}$ ).

$$ECON_{it} = \ln \frac{\sum_{k \in \mathcal{K}(i)} g_{kt} \times n_{kit}}{\sum_{k \in \mathcal{K}(i)} n_{kit}} \quad (3)$$

# Predictions

## GDP per capita growth projections for 2020



Source: IMF (2020)

- Three scenarios based on the IMF growth projections:
  - No-COVID: The IMF's growth projections before the outbreak in October 2019. Global growth was forecasted at 3.4% (1.7% for advanced economies).
  - With-COVID 1: The IMF's updated growth projections after the outbreak in April 2020. Global growth is forecasted at -3% (-6% for advanced economies).
  - With-COVID 2: The IMF's alternative growth projections after the outbreak. Global growth further declines by 3%.

# Predictions (cont'd)

- We construct the hypothetical ECON variable for each of the scenarios.

$$ECON_{it} = \ln \frac{\sum_{k \in \mathcal{K}(i)} g_{kt} \times n_{kit}}{\sum_{k \in \mathcal{K}(i)} n_{kit}}$$

- Then, we derive the predicted values for 2SLS by plugging in the hypothetical ECON variable.
- The difference between the 'with-COVID' scenarios and 'No-COVID' scenario gives us the potential impact of the COVID-19 crisis.

# Results: The impact of remittances on welfare

	(1)	(3)	(4)	(5)
	First Stage Results		Second Stage Results	
VARIABLES	log per capita remittance income	log per capita HH expenditure	log per capita new saving deposit	log per capita loan repayments
ECON (Instrumental Variable)	3.997*** -0.131			
log remittance income per capita		0.0987*** -0.0126	0.0362 -0.0321	-0.0131 -0.0339
Household characteristics	YES	YES	YES	YES
Barangay fixed effect	YES	YES	YES	YES
Survey round fixed effect	YES	YES	YES	YES
Observations	1,296	1,296	1,296	1,296
R-squared	0.569			
F-test for weak IV (p-value)	990.06 (0.00)			

Source: Authors' estimations

# Results: Potential impacts on household welfare

## Predictions for remittance receiving households

	2020 forecast, pesos per month			Percent changes	
	No-COVID	With-COVID 1	With-COVID 2	With-COVID 1	With-COVID 2
Remittances	2,670.20	2,051.30	1,804.90	-23.2	-32.4
Per-capita household expenditure	5,066.30	4,956.00	4,897.00	-2.2	-3.3
Savings Deposit (new saving)	3.87	3.84	3.83	-0.6	-0.9
Loan repayment	1.57	1.58	1.59	0.9	1.4

Source: Authors' predictions

# Conclusion

- The impact of the COVID-19 pandemic is likely to be substantial on the welfare of the remittance-receiving households who are prone to macroeconomic shocks in host countries.
- Although significant uncertainty exists, our analysis contributes to what would happen to household welfare if the GDP of destination countries decline as per the IMF forecasts.
- Our results show that remittances will drop by 23-32% and household spending per-capita decline by 2.2-3.3% in one year.
- Given the rapidly changing situations, we acknowledge the difficulty of forecasting the adverse effects of the pandemic.
- Future research should use actual data before and after the pandemic.

Thank you for your attention!