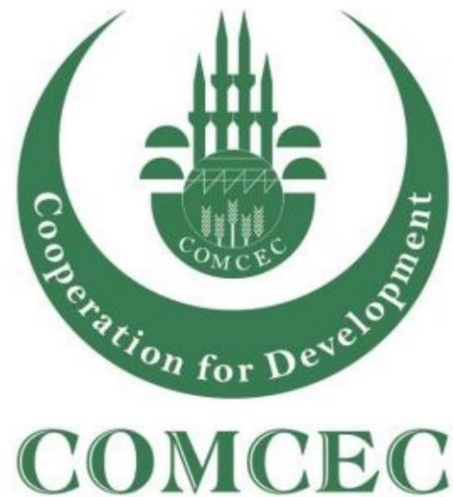


# Overview of the State of Food Supply Chains in the World during the Covid-19

May 27, 2021

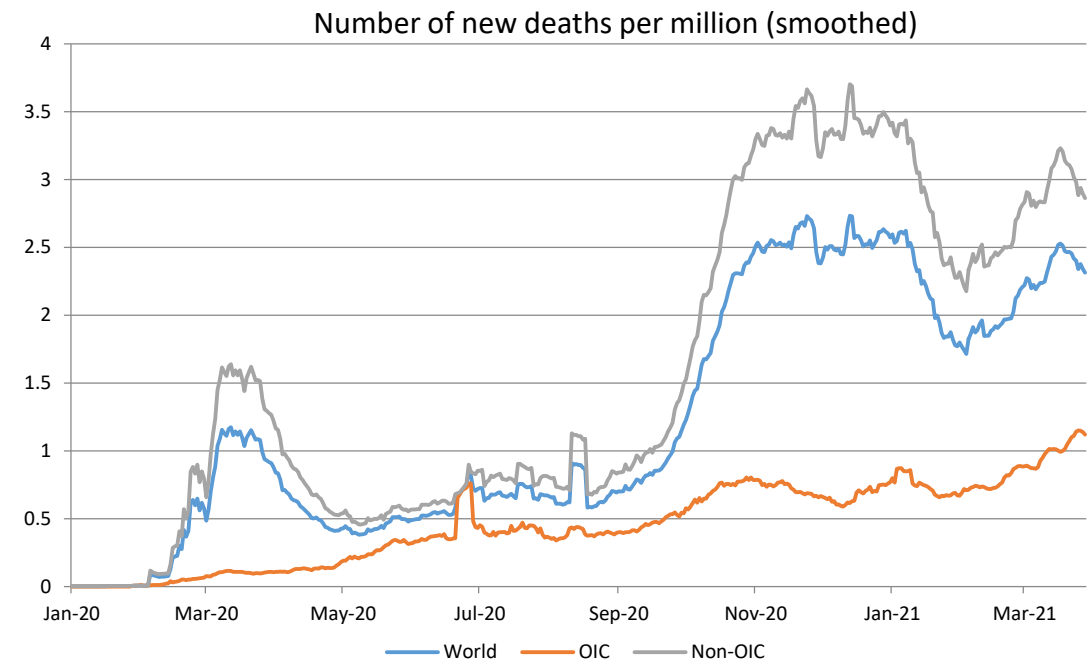
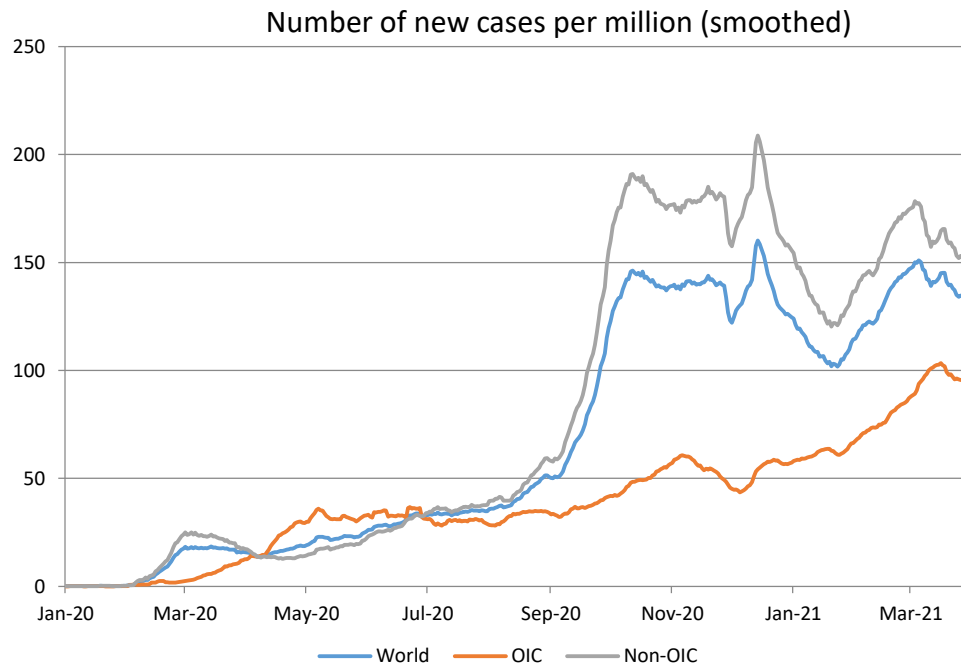


# Outline

- Introduction and aim of the study
- Pre-pandemic food security overview
- Effects of Covid-19 on poverty and agri-food sector.
- Country case study (Netherlands)
- Concluding remarks

# Current situation

- The Covid-19 outbreak has so far infected more than 160 million people around the world, leading to approximately 3.5 million deaths. The numbers are much lower in the OIC countries.



Source: OxCGRT

## Current situation

- Most countries adopted severe measures in order to contain the rapid spread of Covid-19.
- These extreme measures adversely affected supply and demand of goods and services, sharp increased unemployment and led to a large decline in global economic activity.
- Both supply and demand effects were also in charge for agricultural products.
- Covid-19 disproportionately hit the most vulnerable groups.

## Policy tradeoffs

- There is strong tradeoff between the measures and economic activity.
- The length and intensity of closure measures depend on fiscal resources/space—lower-income countries are somewhat disadvantaged in this respect.
- These differences will have substantial implications about the pace of recovery and the post-recovery macroeconomic/socio-economic situations.

## Aim

- Covid-19 has disrupted food supply and food sustainability mostly due to the policies and actions taken by governments mainly to control and minimize the effects and spread of the outbreak.
- This leads to food price fluctuations, food insecurity and malnutrition.
- This presentation aims to provide the mechanisms that Covid-19 affected the agri-food sector and present the ongoing effect of the pandemic on food prices for OIC countries.

## Pre-pandemic overview in terms of food security

- According to the FAO's 2019 estimates, 2 billion people in the world are experiencing some type of food insecurity. Even in North America and Europe, 8% of the population is estimated to be affected.
- Prior to the Covid-19 pandemic, almost 690 million people, or 8.9 percent of the global population, were already undernourished.
- Food Security Information Network reports that in 2019, 135 million people suffer acute food insecurity across 55 food-crisis countries.

## Pre-pandemic overview in terms of food security (OIC countries)

- OIC member countries have exhibited significant improvement in agricultural development and food security over the last years. However, the degree and the speed of the development are uneven between and within countries.
- Particularly low-income member countries suffer from poor infrastructure, inadequate capacity and inefficient use of agricultural resources.
- Among 20 countries with the worst level of hidden hunger, half of them were OIC countries.
- 64.5 million people suffering from acute hunger in 2018, food trade deficit averaging \$67 billion annually, 28 OIC member states are classified as low-income food deficit countries by FAO.



# Covid-19 and Food Security

- Two main channels through which food insecurity interacts with Covid-19 are
  - (1) disruptions in food production and supply chains
    - decrease in food production and supply
    - associated increase in food inflation
  - (2) income reductions
    - decrease in demand
    - reduced calorie intake and compromised nutrition

# Food supply disruptions

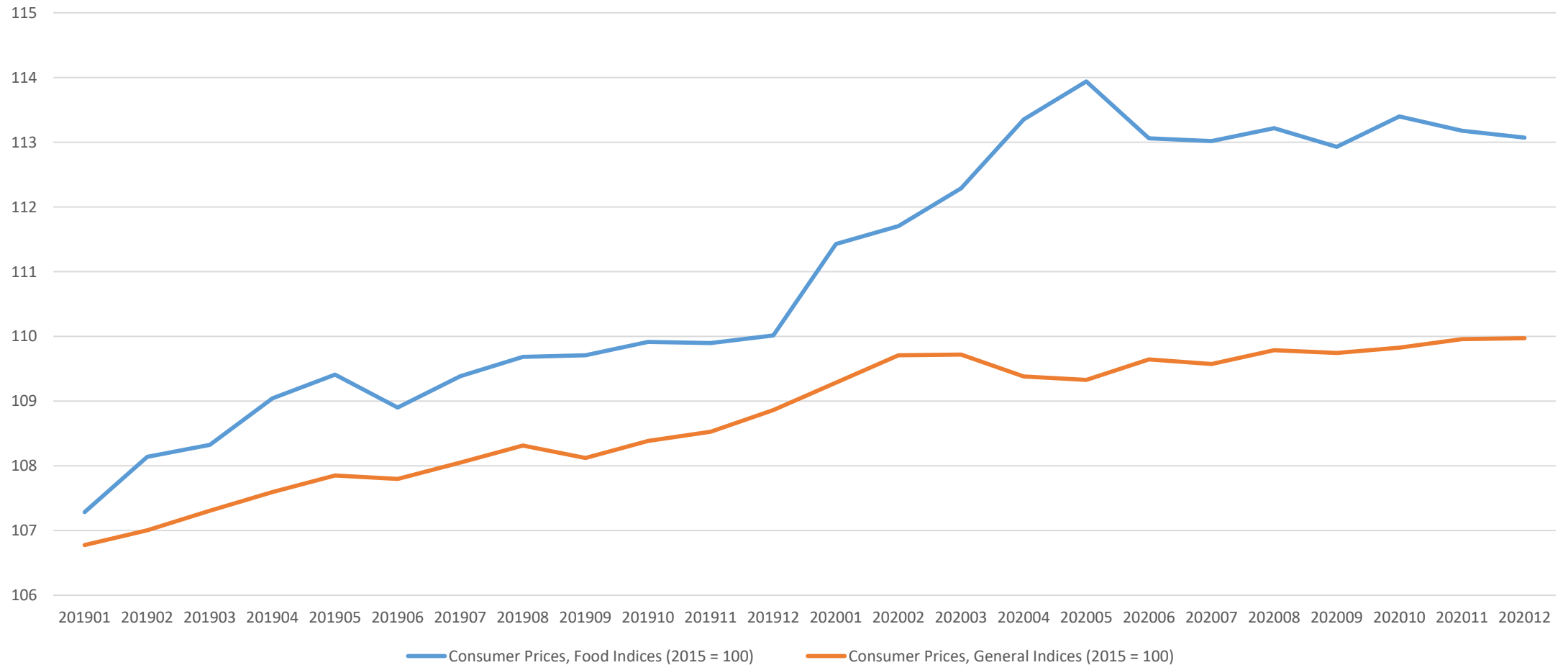
- Mobility restriction measures affected the production and transportation of agricultural goods. Food production and supply declined between 2.6-7%.
  - Agricultural production requires many people to work closely. Labor shortage puts significant pressure on production.
  - Perishable foods need to be transported quickly.
- Lockdown measures are also led to a negative impact on the availability and affordability of production factors in agriculture such as fertilizers.
- Export restrictions by some countries and the logistical problems arising from the mobility measures have disrupted access to food supplies and disturbed the continuity of the food supply chain.
- The highly centralized and just-in-time supply nature of the global food supply chain intensified the negative effect of Covid-19.

## Food supply disruptions and food inflation

- Many countries are experiencing varying levels of food price inflation at the retail level due to lockdown measures which in turn effected the sustainability of food supply chains.
- Thus, the disruption in internal and international food production and supply chains and so the increased food inflation led to increase in food insecurity.

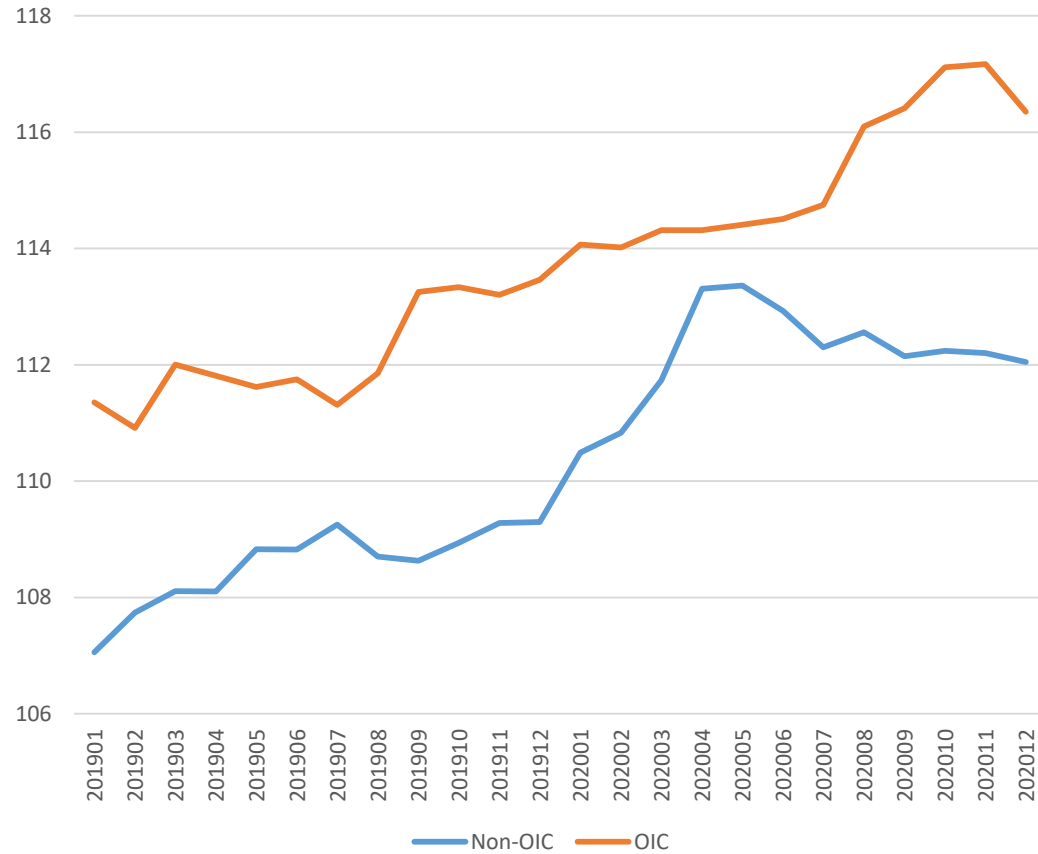
# Consumer price indices (World)

All World Consumer Prices, Food and General Indices (2015 = 100)

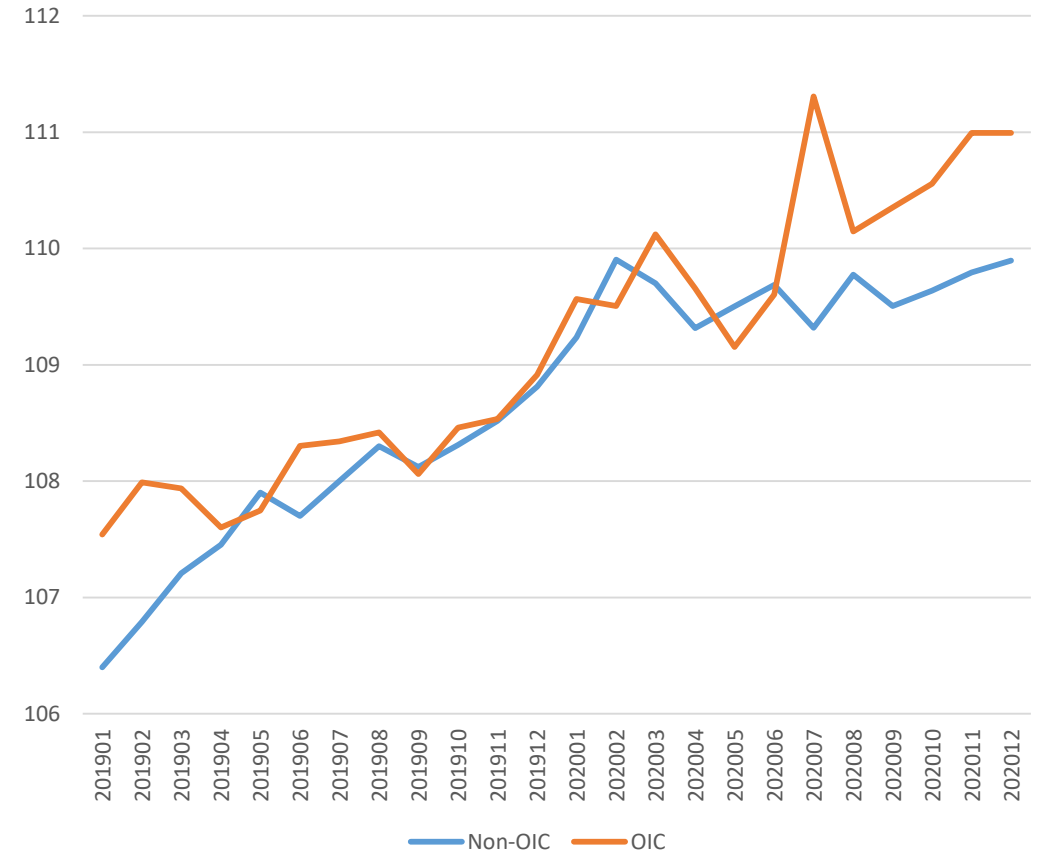


# Consumer price indices (OIC, Non-OIC countries)

Consumer Prices, Food Indices (2015 = 100)

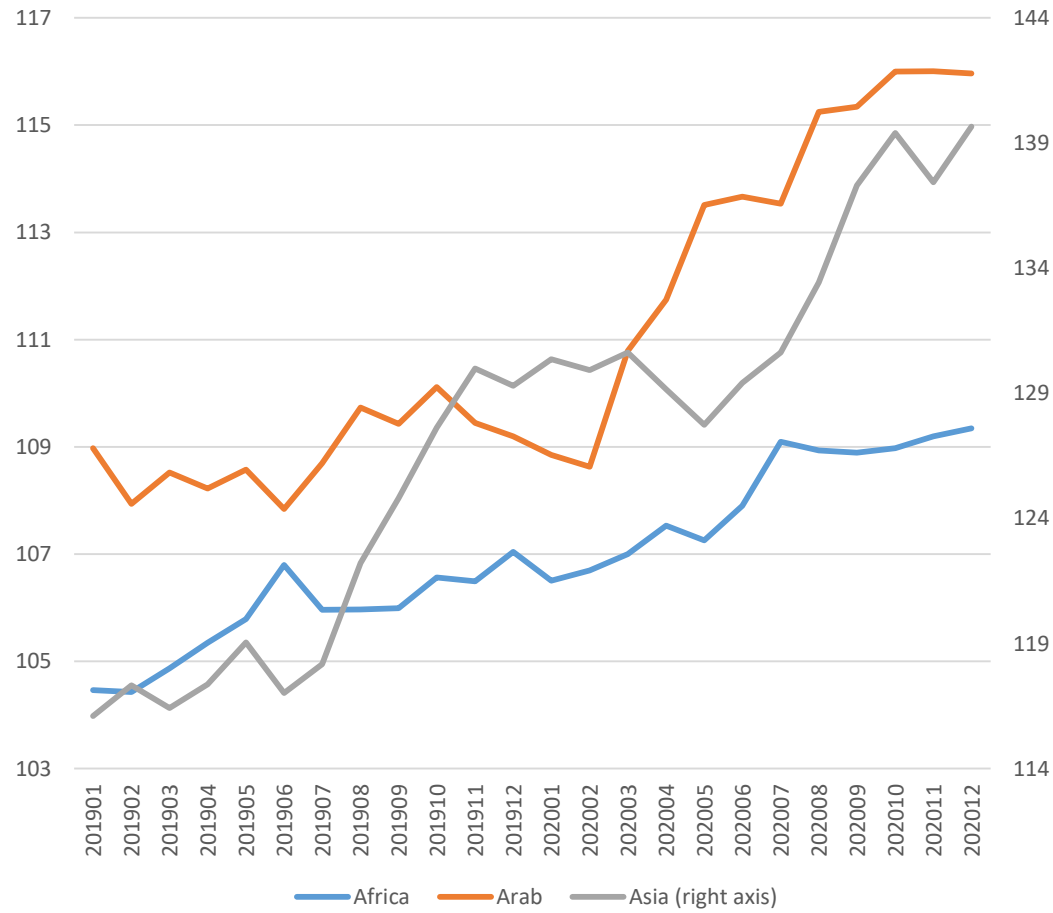


Consumer Prices, General Indices (2015 = 100)

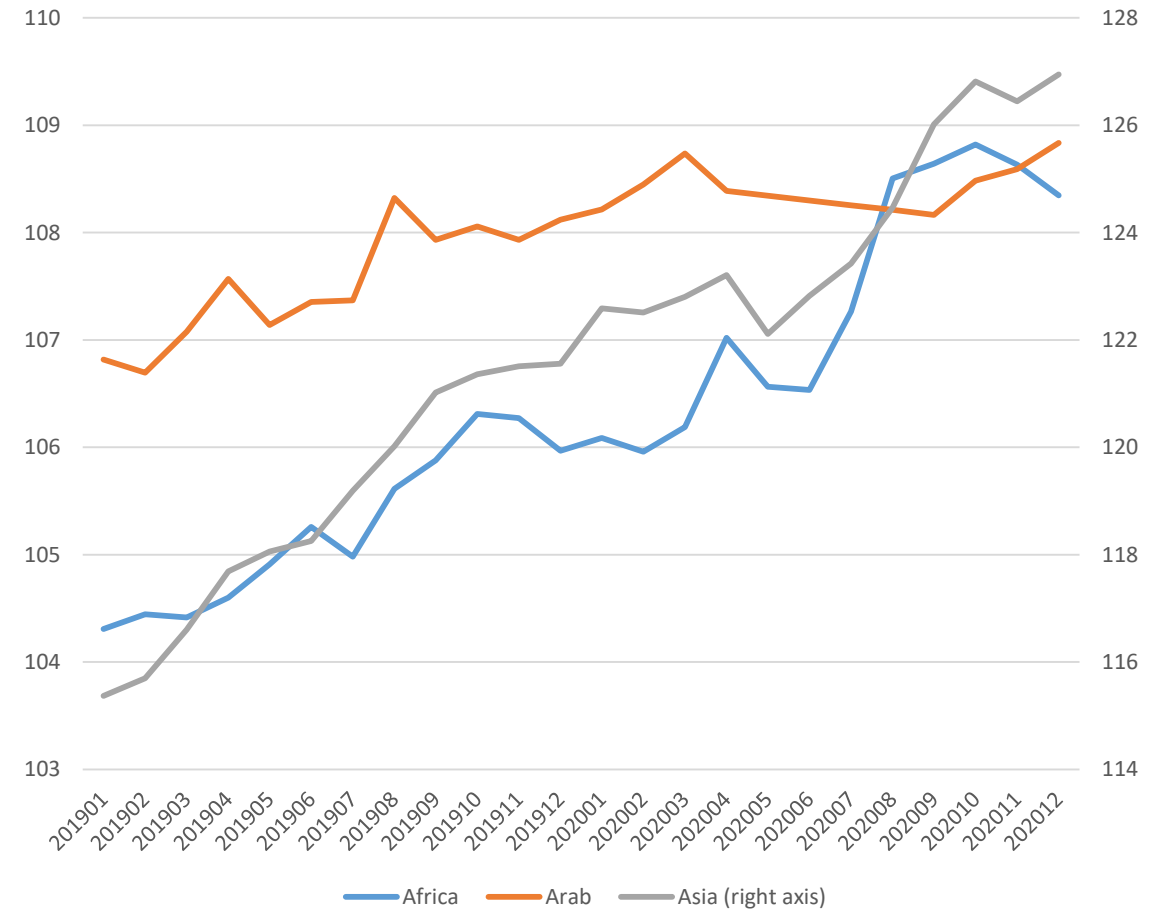


# Consumer price indices (Sub-OIC)

Consumer Prices, Food Indices (2015 = 100)

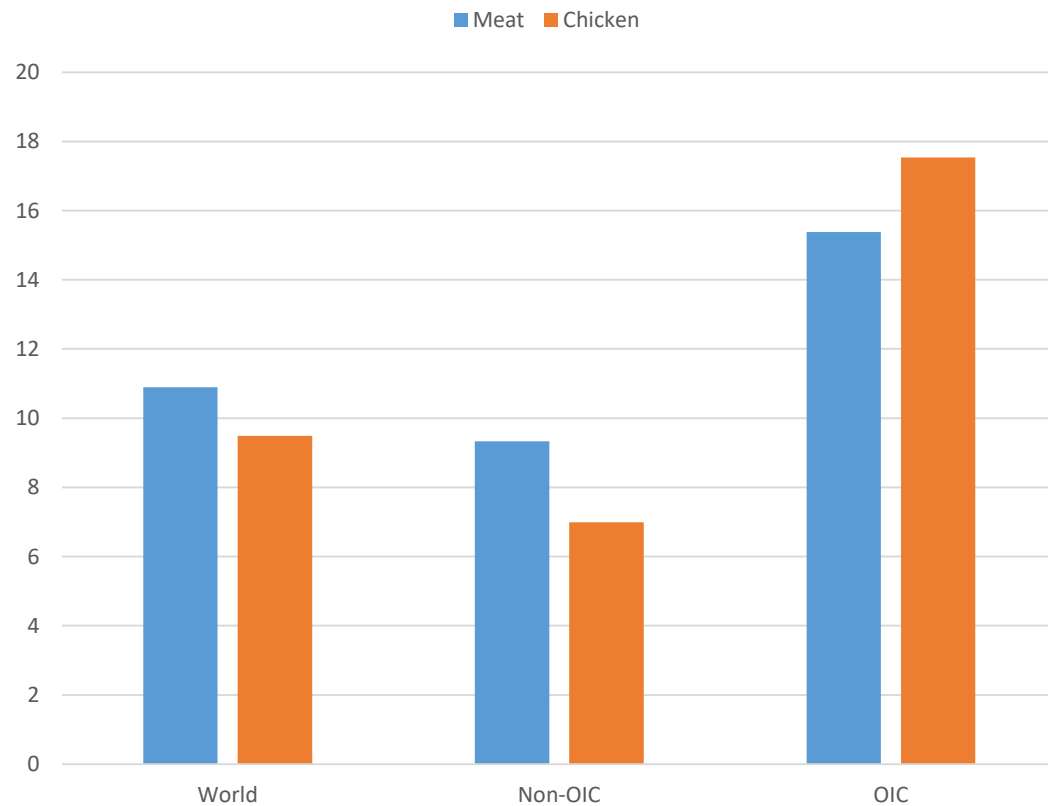


Consumer Prices, General Indices (2015 = 100)

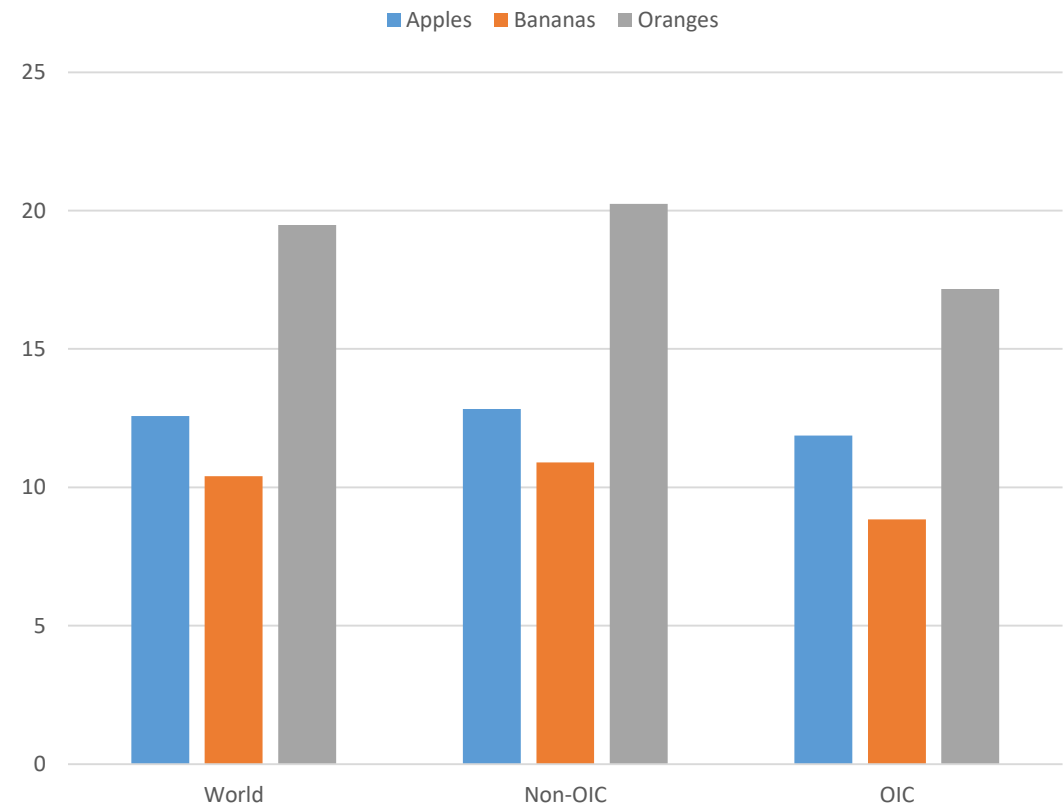


# Changes in prices of agricultural products (February 2020-April 2021)

## Meat and Chicken



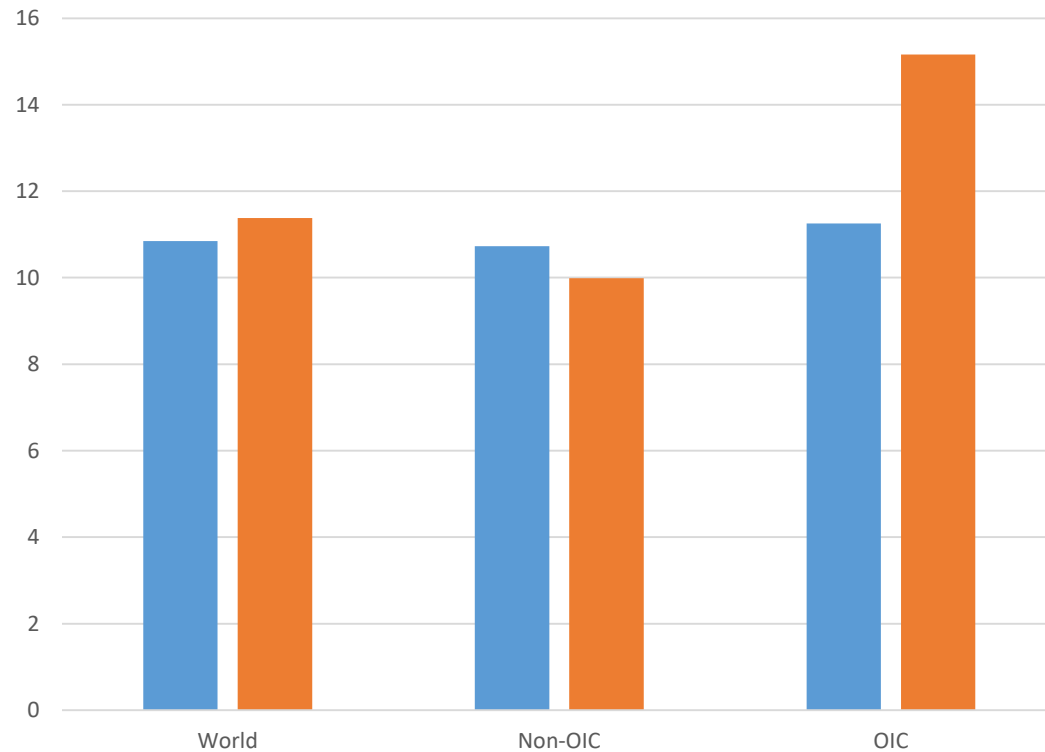
## Apples, Bananas and Oranges



# Changes in prices of agricultural products (February 2020-April 2021)

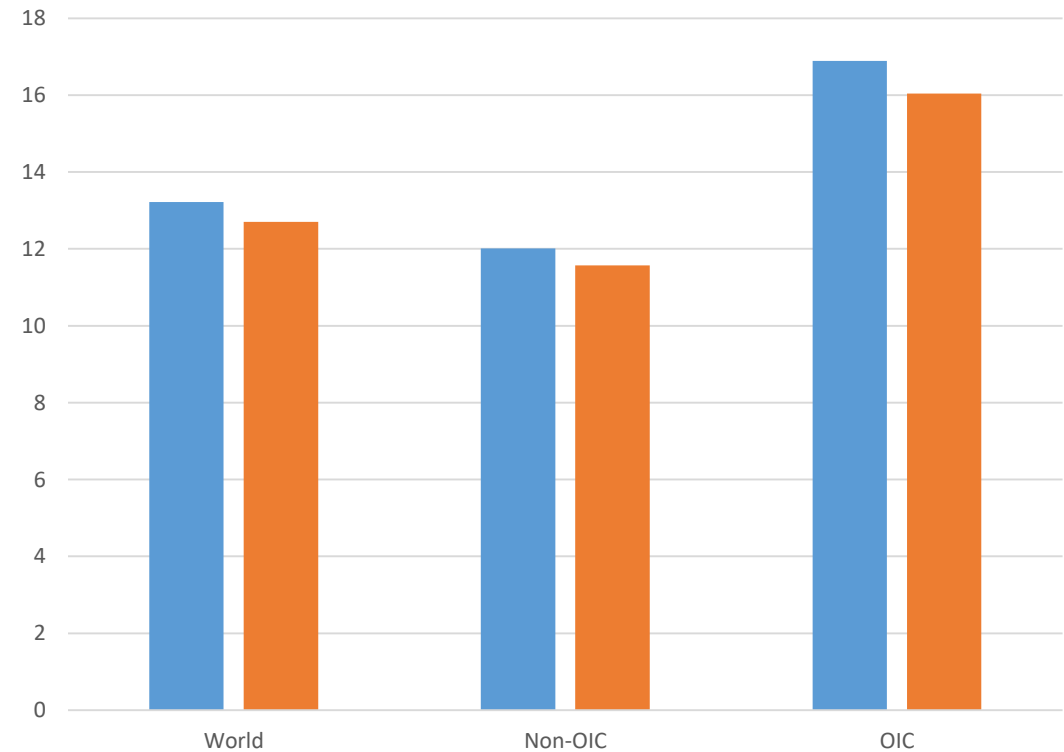
## Lettuce and Tomatoes

■ Lettuce ■ Tomatoes



## Potatoes and Onions

■ Potatoes ■ Onions

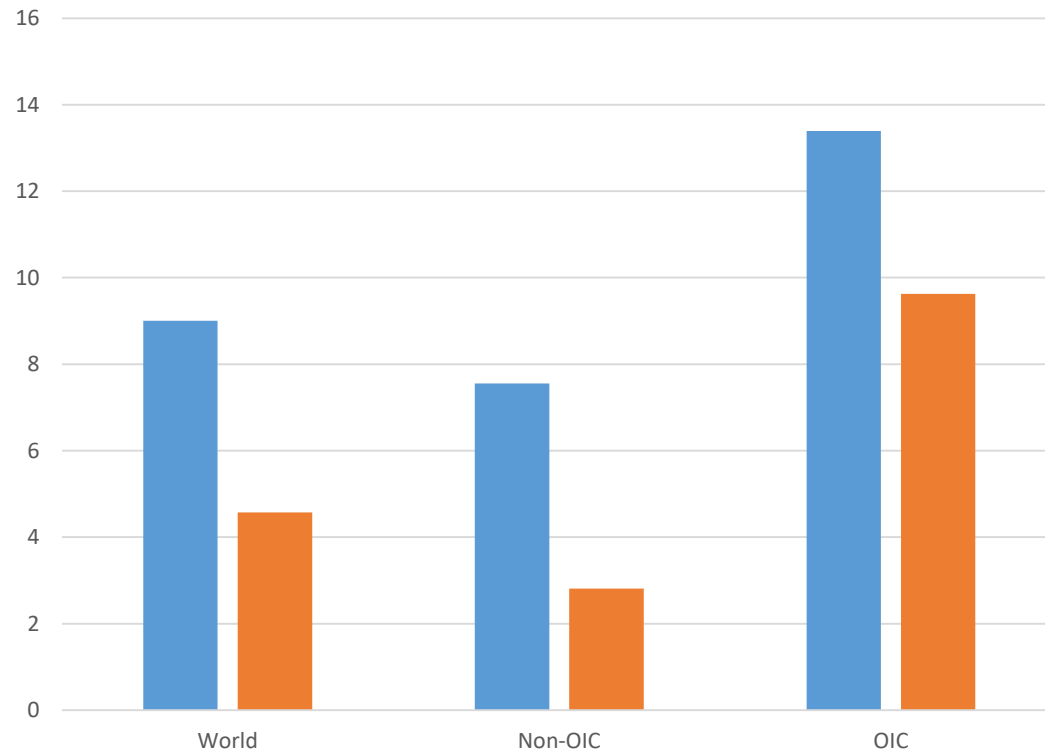




# Changes in prices of agricultural products (February 2020-April 2021)

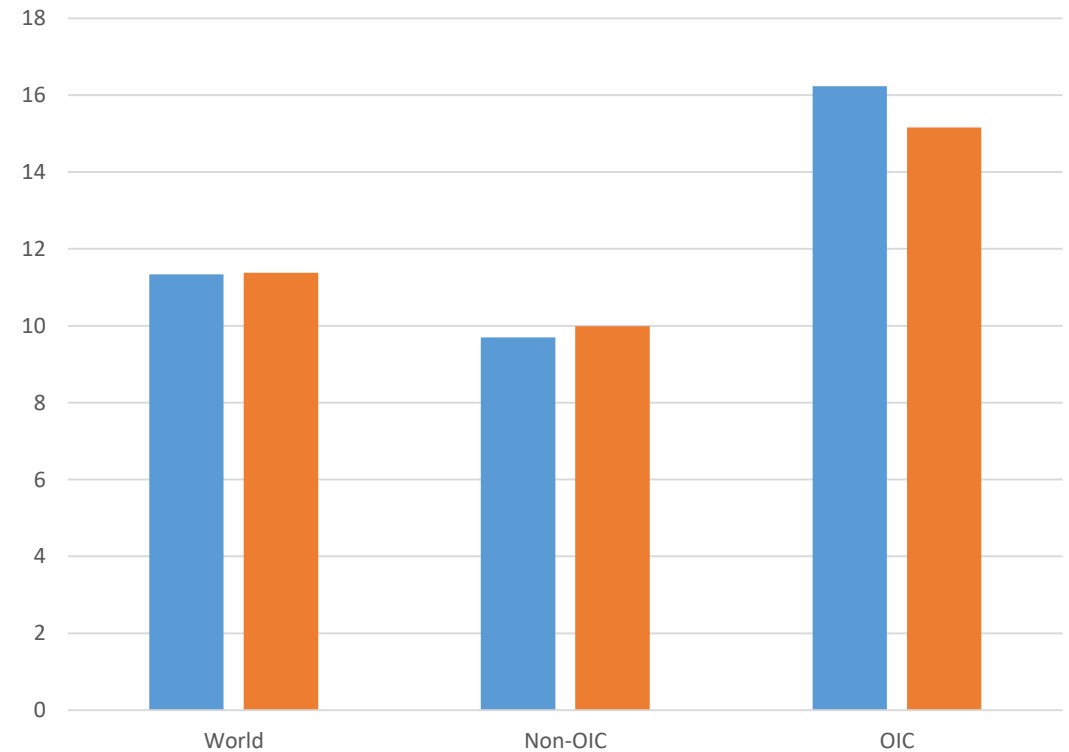
## Eggs and Milk

■ Eggs ■ Milk



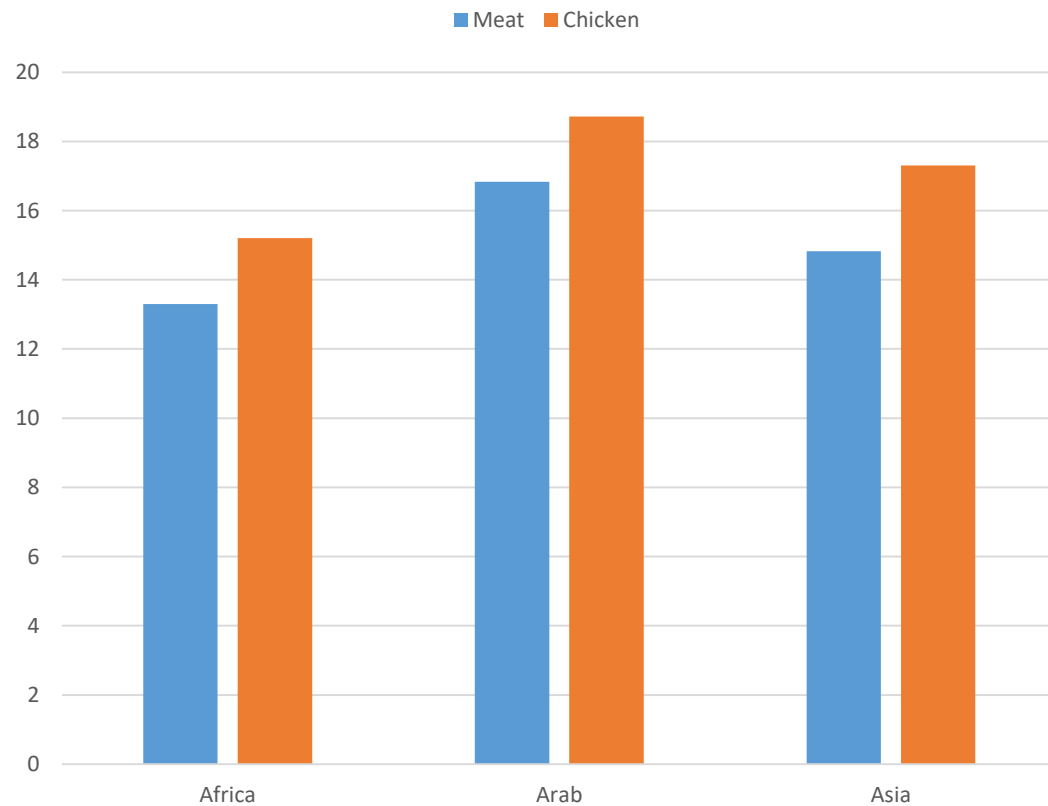
## Bread and Rice

■ Bread ■ Rice

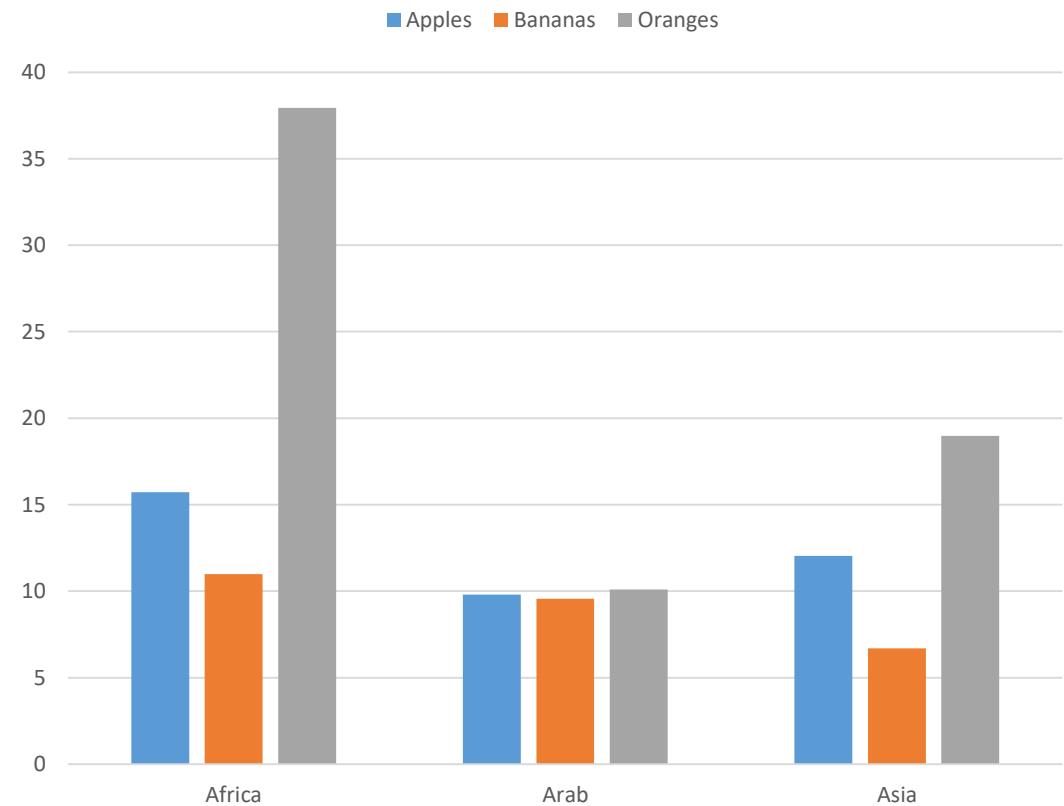


# Changes in prices of agricultural products (February 2020-April 2021)

## Meat and Chicken

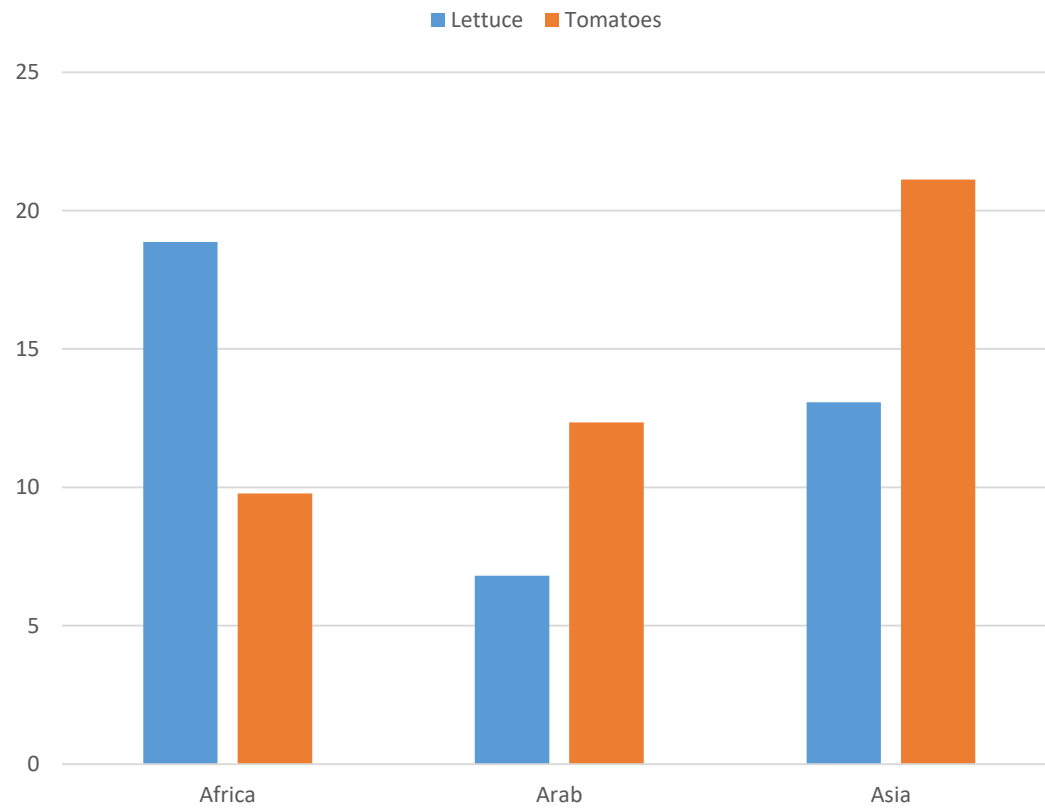


## Apples, Bananas and Oranges

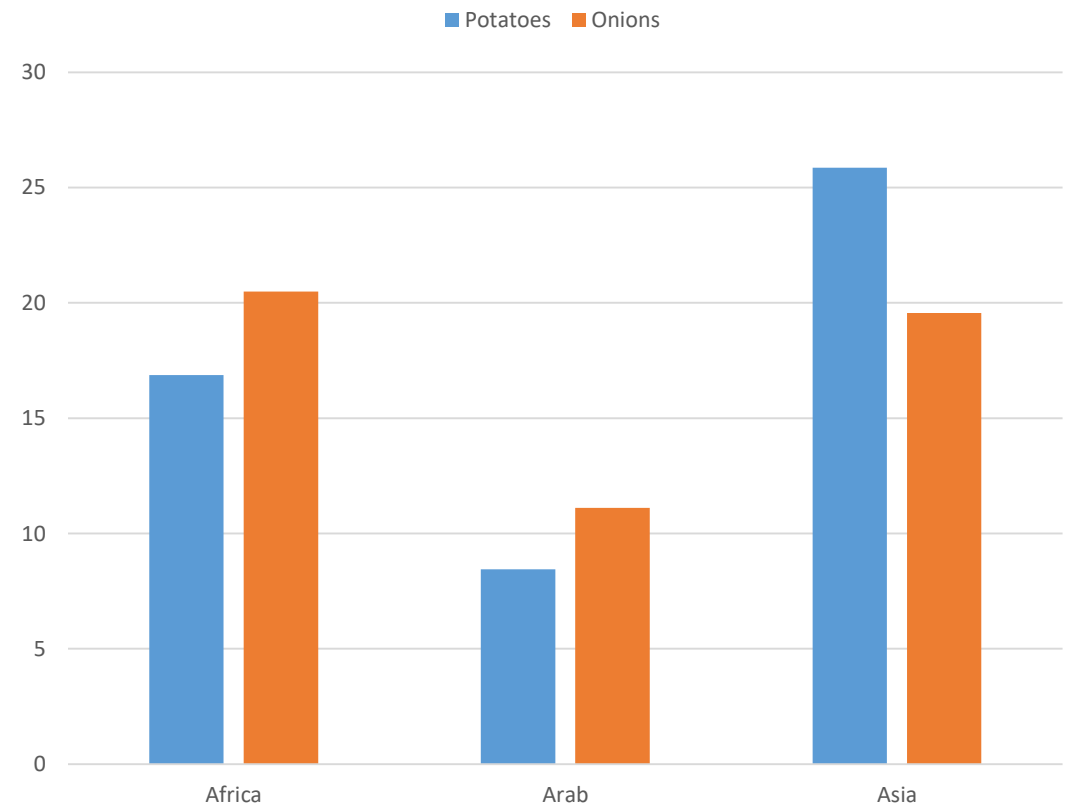


# Changes in prices of agricultural products (February 2020-April 2021)

## Lettuce and Tomatoes



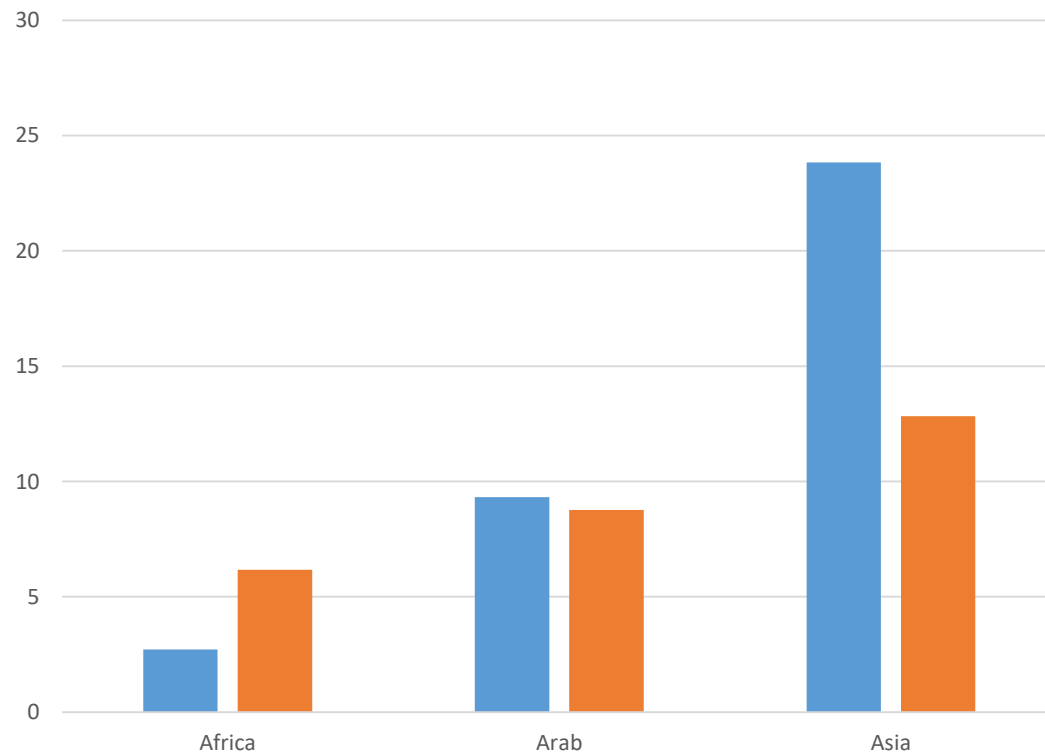
## Potatoes and Onions



# Changes in prices of agricultural products (February 2020-April 2021)

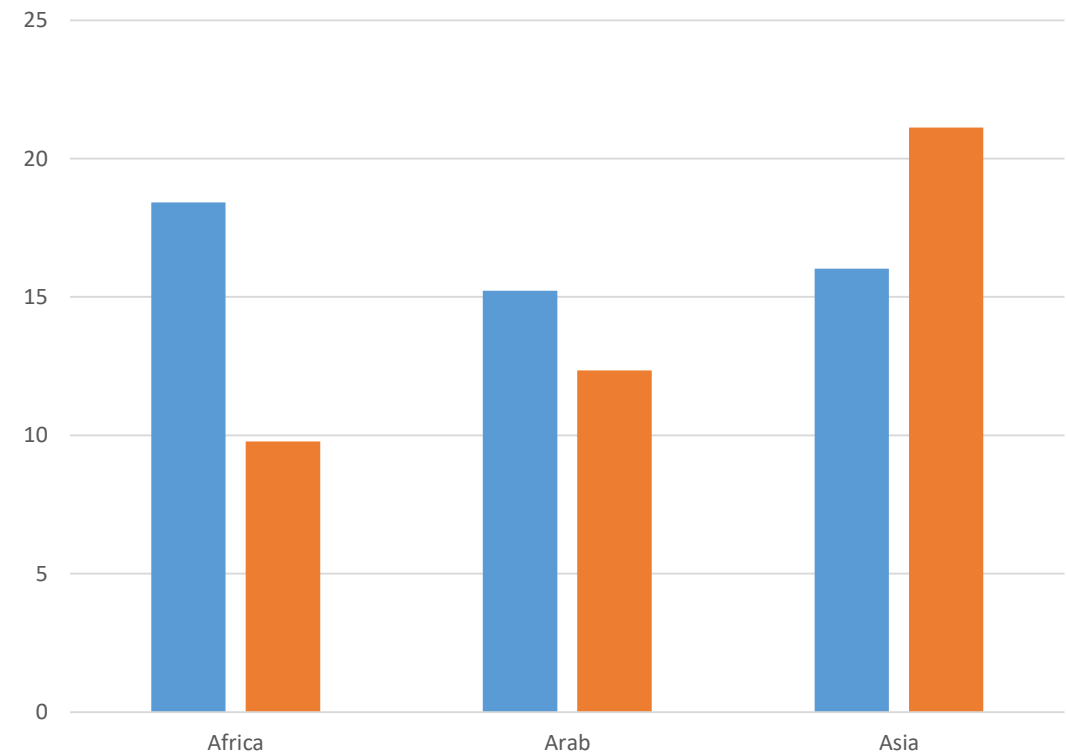
## Eggs and Milk

■ Eggs ■ Milk



## Bread and Rice

■ Bread ■ Rice



## Covid-19 impact on food demand and poverty

- The vulnerable groups are expected to be hit hardest by Covid-19 as they are mostly employed informally.
- It is likely that approximately 95 million additional people have fallen below the poverty line and approximately 120 million people into extreme poverty in 2020, setting back poverty reduction efforts by more than three years.
- Due to income losses, these groups could not afford food for their daily needs.
- This situation is amplified by higher price of food due to supply disruption.
- The World Food Program (WFP) predicts that around 270 million people would become acutely food insecure by the end of 2020.

## Policy measures by OIC member countries

- In order to keep the food value chain alive, many OIC member countries have made efforts to remove the key logistics bottleneck.
- Almost all countries exempted agriculture-related activities from mandatory lockdown.
- The Kazakh government reduced VAT for agricultural and food products and allowing zero custom duties on essentially important imports.
- The Egyptian government passed the moratorium on the tax law on agricultural land for 2 years

## Policy measures by OIC member countries

- Many OIC member countries have also provided support to farmers to both enhance their productivity and market the food they produce amid the spread of COVID-19 pandemic.
- UAE for instance recently passed a law aiming at organizing the food supplies in the event of crises as well as achieving food sustainability.
- Kazakhstan led the farmers to finance their operations through forward contracts (under its future harvest).
- In Turkey, the debt payments of farmers were postponed for a 6 months period.

## Country case: Netherlands

- Netherlands is the 2nd largest food exporter in the world. Agricultural sectors contributes 7.0% to the national gross domestic product.
- Employment in the agricultural sectors has grown during recent years, reaching about 641,000 employment which represents 8.5% of the national total.
- Although the Netherlands has an important place in world exports, it is the 27th in the world in terms of agricultural production (in 2018).
- The countries that have an significant share in the food foreign trade of the Netherlands are developed EU and North American countries.



## Country case: Netherlands

- A series of fiscal measures have been introduced since the start of the pandemic to contain the economic impact of the outbreak. The support packages include spending measures estimated at about 35.3 billion euros (4.4 percent of GDP) in 2020, and covering
  - compensation of up to 90 percent of labor costs for companies expecting a reduction in revenues of 20 percent or more;
  - compensation for affected sectors (hospitality, travel, agriculture, culture, and others);
  - support for entrepreneurs and the self-employed, start-ups and small innovation companies;
  - scaling up of the short-time working scheme (unemployment benefit compensation available to companies needing to reduce their staff by at least 20 percent),
  - allowances for SMEs to help them finance their fixed costs.

## Country case: Netherlands

- Agricultural production in the Netherlands declined in 2020. However, this is not due to a supply problem due to restrictions, but **to a decline in demand** for fast-consumed products and catering services.
- 
- Even in the pandemic lockdowns, **Netherlands fully continue their agricultural supply and supply chain operations.** While so much business around the country has been put on pause for many sectors, seaports and airports continue to remain fully functioning.
- Due to problems in the flow of sea containers, Dutch authorities transformed the main logistic activities from seaports to airports.
- An interactive map has been created to track truck border crossing times and border management measures have been implemented to ensure both the timely delivery of goods and the safety of all essential drivers.

## Country case: Netherlands

- The value of agricultural imports is increased by 4.5 percent in 2020. The trade surplus, the balance of exports and imports, is estimated at 28.5 billion euros for 2020, less than in the previous three years.
- Agricultural goods exports reach new high despite corona pandemic. Dutch agricultural exports are estimated at 95.6 billion euros for 2020, which is 1.0% higher than in 2019. **This amounts to a decline of 0.6% of exports of Dutch products** relative to 2019 and a growth of 5.1% in re-exports. Since demand in the foodservice channels went down due to the closure of restaurants, amongst others, Dutch supply tended to decline.
- Netherlands has stepped up its funding to the UN's International Fund for Agricultural Development (IFAD) to help avert a rural food crisis in November 2020.

## Concluding remarks

- The agriculture sector has critical importance for many OIC member countries, especially for the least developed ones, as agricultural development is among the various prerequisites for economic development and provides the livelihood for a major part the OIC population.
- The Covid-19 crisis led to a dramatic fall in income levels especially for the disadvantaged groups, which has thus raised worries about food insecurity in some regions and for some segments of the population.
- Supply chains in food and agricultural product markets disrupted in most OIC countries at varying degrees, which led to increase in food inflation and concerns about long term sustainability food supply especially for imported items.

## Concluding remarks

- Extreme reliance on imports (both inputs and final goods) and specifically imports from a small number of countries amplifies the sustainability issues.
- To address these challenges detailed national plans should be made to develop food security strategies.
- Those strategies should be enhanced and supported by investing in digital technologies that improve productivity in agricultural activities and provide a monitoring platform for the sustainability of food supply chains.

# Road map

- Conducting the survey
  - Information on production, prices, export, food security etc.
- Cross-country analysis
  - Using available data sets combined with survey data
- Case studies (Netherlands, Saudi Arabia, Afghanistan, Nigeria):
  - Macro variables, OxCGRT, survey data