



# High commodity prices and the Ukraine war Implications for Kenya

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# Kenya's trade reliance on Russia and Ukraine

Commodity	Weight in total imports	Russia	Ukraine	ROW
Wheat	2.3%	24%	10%	
Maize	0.3%			South Africa
Vegetable oils	2%			Indonesia
Fertilizer	0.8%	10%		Saudi Arabia (58%)
Petroleum products	16.4%			Global market, non-Russia
Total	21.8%			
Total exports share		1.2%	0.1%	
Total imports share		1.8%	0.4%	

# Modeled impacts – annualised effects

- War-related increase in world commodity prices
  - Crop prices: wheat (+43%), maize (+30%), vegetable oils (+30%)
  - Fertilizer prices: Nitrogen (+75%), Phosphorus (+50%), Potassium (+100%)
  - Petroleum products: +35% (\$100 / bbl)
- Reduction in Kenyan exports due to a global reduction in economic activity
- Government fiscal response to protect households, farmers and businesses

World Bank October 2021 – April 2022  
Commodity Outlook differences

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Fertilizer application elasticity of 1.33  
Yield response to fertilizer use of 0.21  
(Sheahan et al. 2017 study)

World Bank October 2021 – April 2022  
Commodity Outlook differences

# Modeled impacts - annualised effects

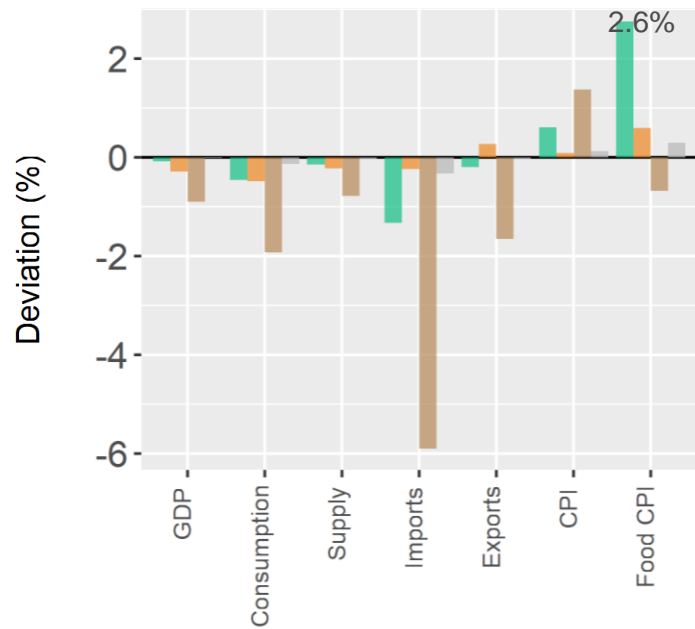
- War-related increase in world commodity prices
- Reduction in Kenyan exports due to a global reduction in economic activity → -0.8% world GDP difference from pre-war projections for 2022 – proxy for shift in export demand
- Government fiscal response to protect households, farmers and businesses

# Modeled impacts - annualised effects

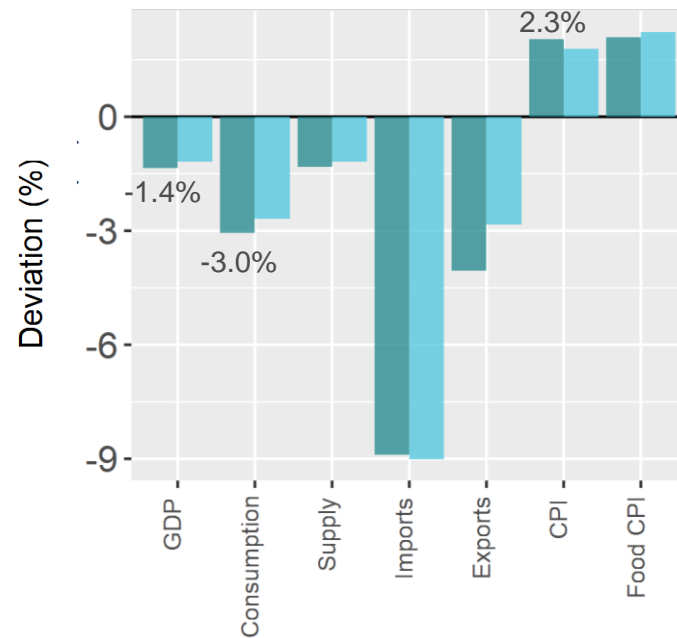
- War-related increase in world commodity prices
- Reduction in Kenyan exports due to a global reduction in economic activity
- Government fiscal response to protect households, farmers and businesses
  - Fossil fuel subsidies (100bn KSh)
  - Fertilizer subsidies (5.7bn KSh)

# Macro impacts

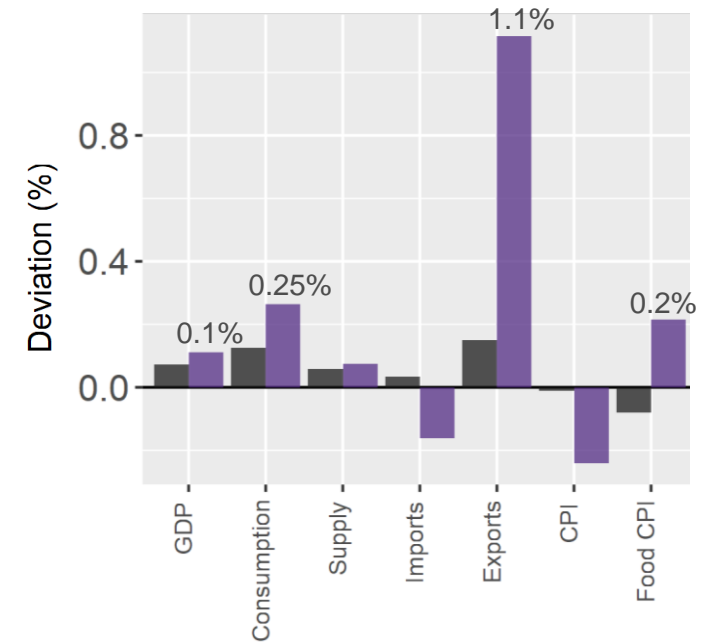
Main scenario deviation from 2022 baseline



Impact channel effect on 2022 baseline

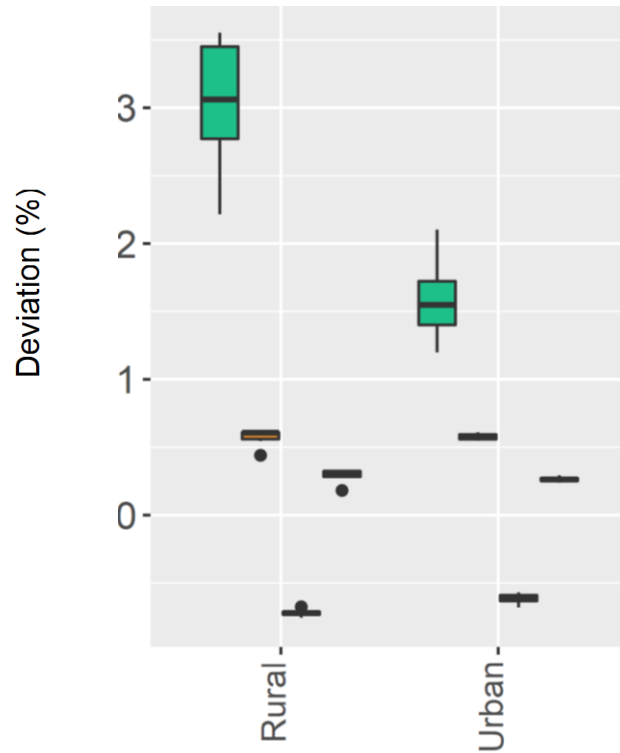


Intervention effect by type from "All Impacts" scenario

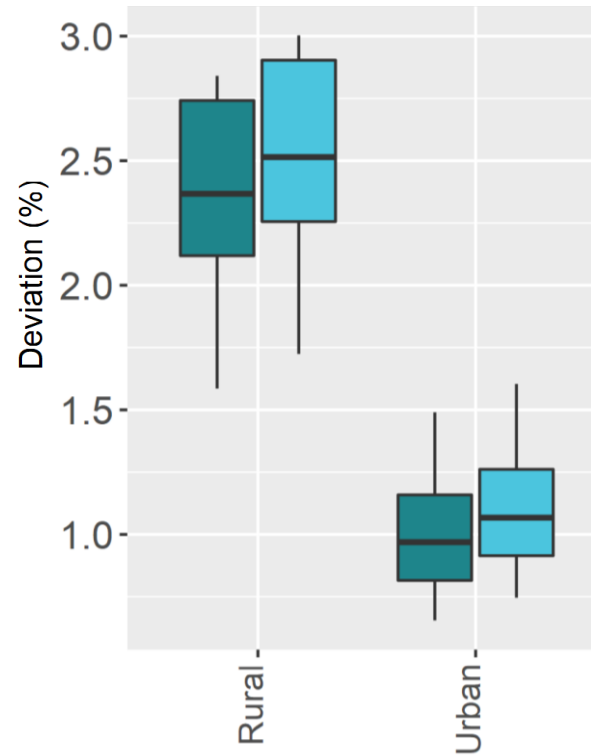


# Food price index

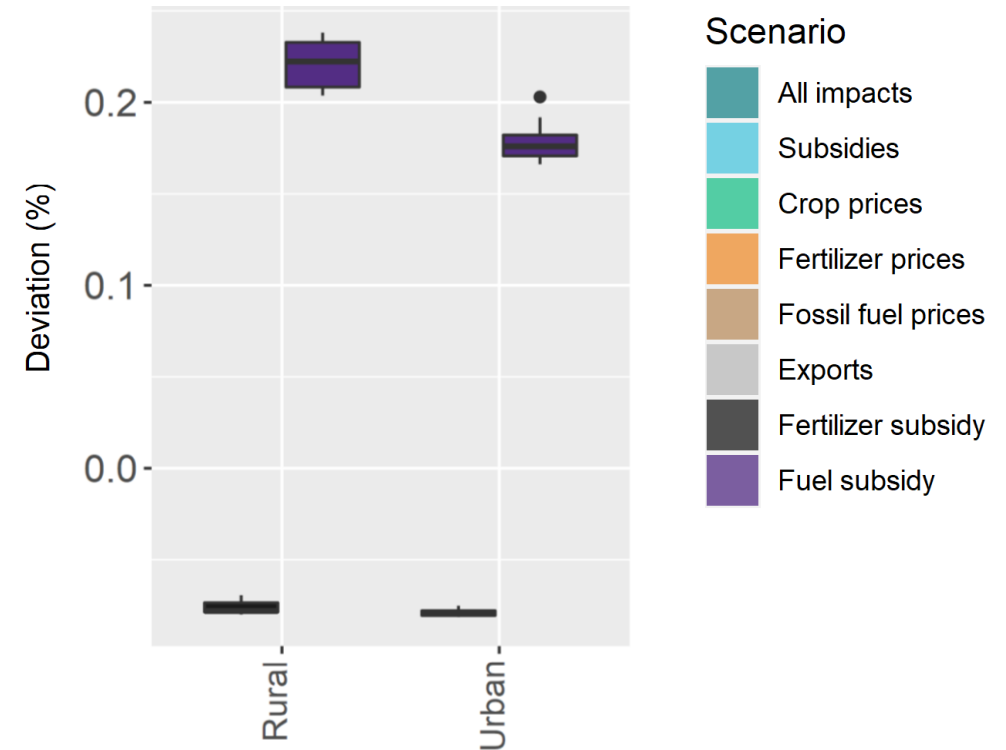
Impact channel effect on 2022 baseline



Main scenario deviation from 2022 baseline



Intervention effect by type from "All Impacts" scenario



Scenario

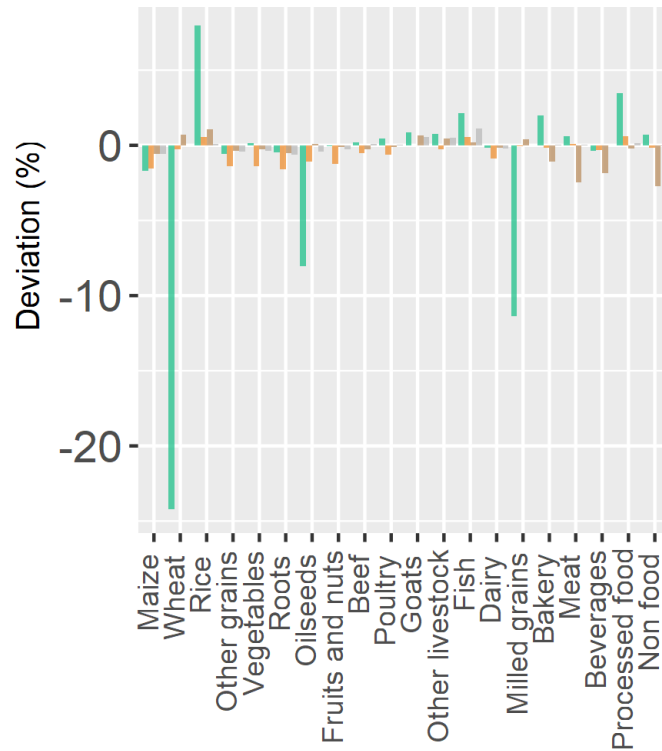
- All impacts
- Subsidies
- Crop prices
- Fertilizer prices
- Fossil fuel prices
- Exports
- Fertilizer subsidy
- Fuel subsidy

\* 24 household groups captured based on geographical characteristics

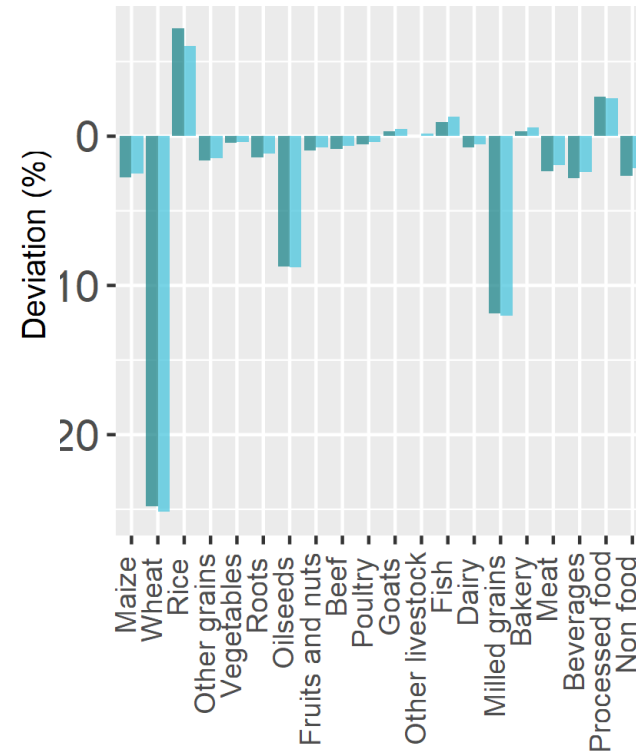


# Food demand changes

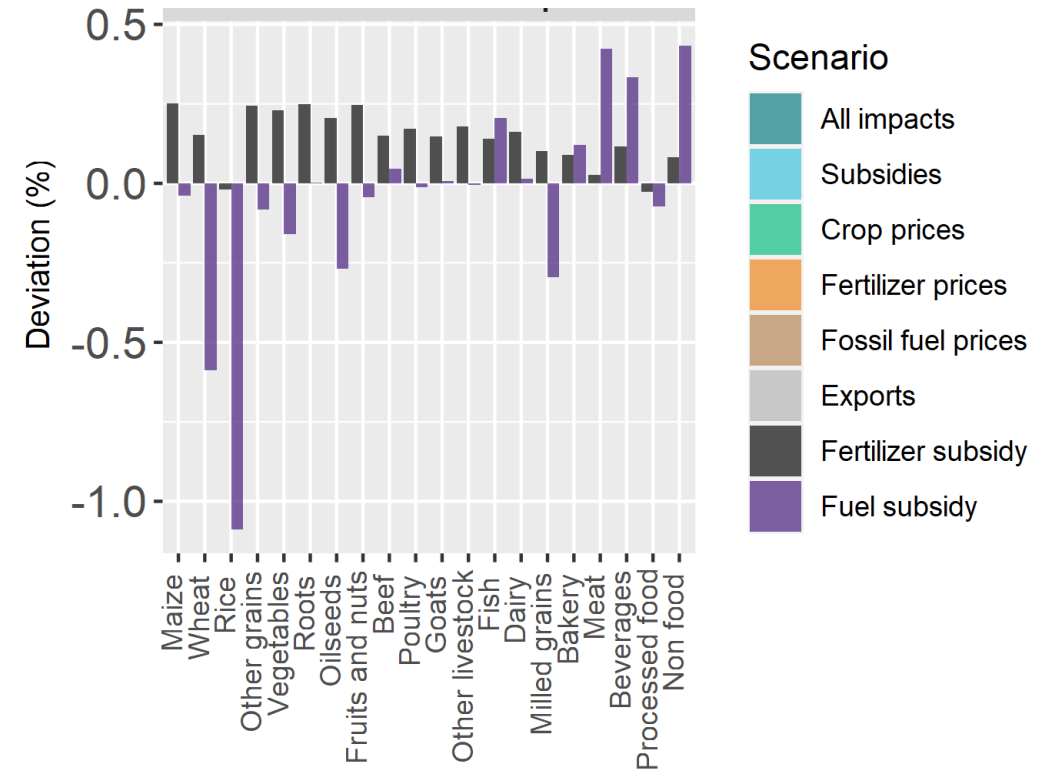
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Main scenario deviation from 2022 baseline

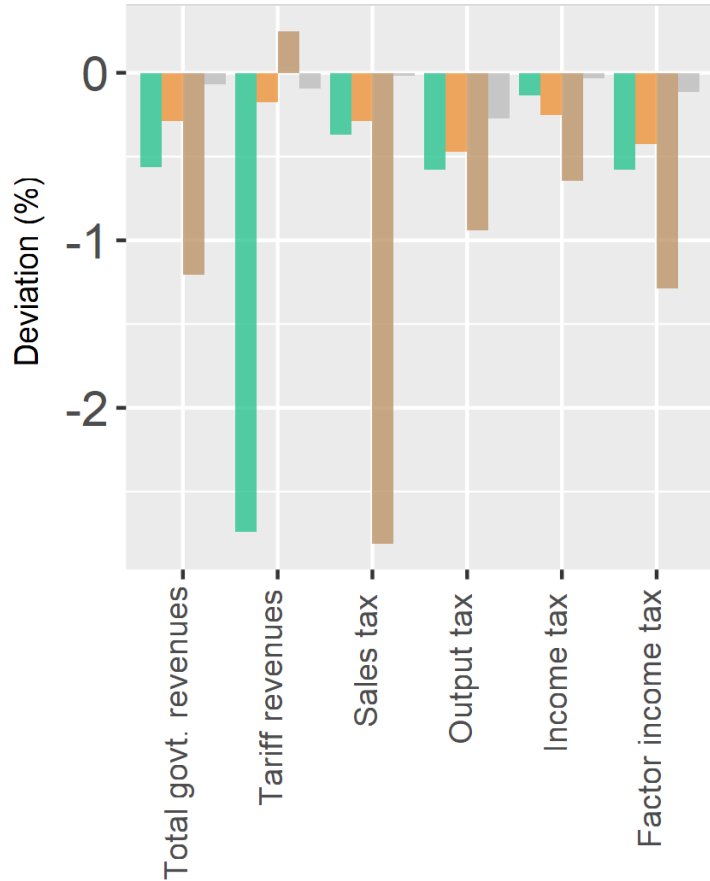


Intervention effect by type from "All Impacts" scenario

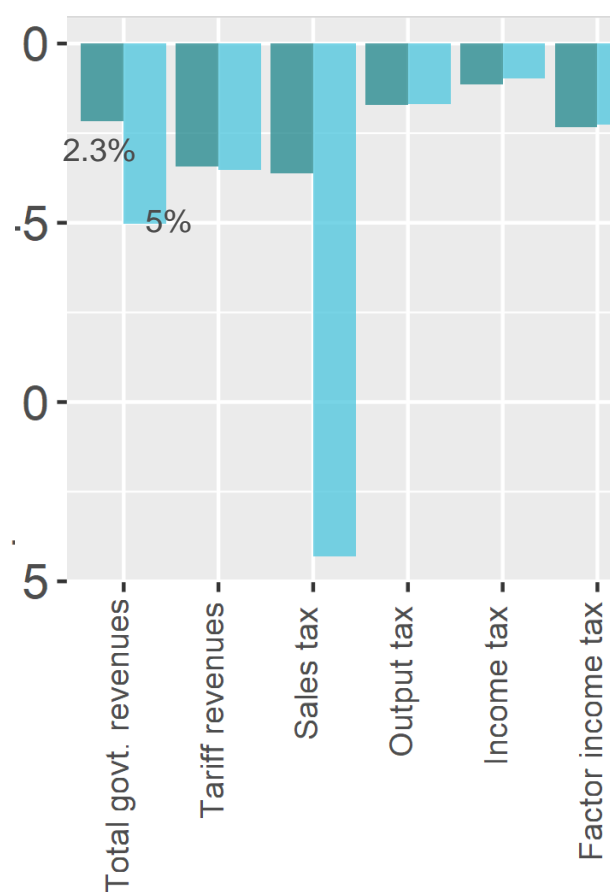


# Government revenues

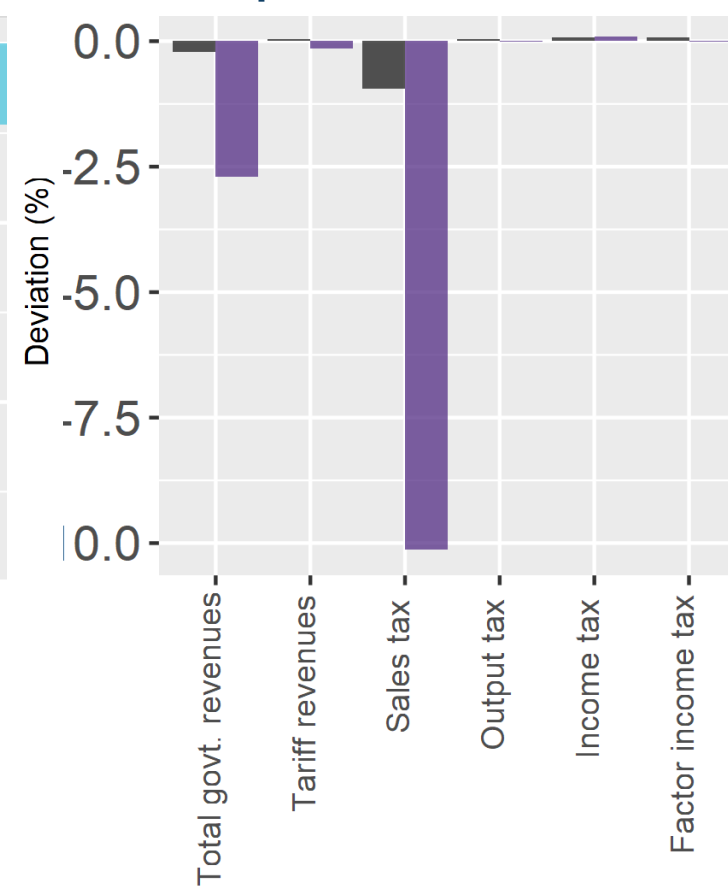
Impact channel effect on 2022 baseline



Main scenario deviation from 2022 baseline



Intervention effect by type from "All Impacts" scenario



## Scenario

- All impacts
- Subsidies
- Crop prices
- Fertilizer prices
- Fossil fuel prices
- Exports
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# Highlights

- The increase in world crop prices leads to a significant decrease in domestic demand of these products and an aggregate increase in the consumer food price index. **Rural households are more affected** given their larger exposure to the increase in world crop prices.
- The increase in world price of fossil fuels has the largest negative effect on aggregate economic activity and consumption in Kenya, but is less important for food prices. World fertilizers price increases also has effect on food commodities when embedding the yield response to fertilizer application.
- Government intervention through subsidies on fossil fuels and fertilizers only partially removes the negative indirect effects of the Russia-Ukraine war on consumption and economic output.
- Fossil fuel subsidies, through a positive income effect, improve food demand but further increase food prices. This raises food security concerns for the poorer households and calls for further income support measures for the lower income quintiles, notably in the rural areas.

# Thank you



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