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# Comparative Analysis of Wheat Supply Chains in Armenia and Uzbekistan

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#### Introduction



- Wheat is considered as an essential commodity in the region
- Grain self-sufficiency policies pursued by both countries to ensure national food security, but with different forms
- Different wheat production and self-sufficiency rates as well policy intervention methods
- Advantages and shortcomings of the implemented policies by these countries are not yet investigated

# **Development of wheat sector**



Figure 1. Wheat consumption and stocks in Armenia

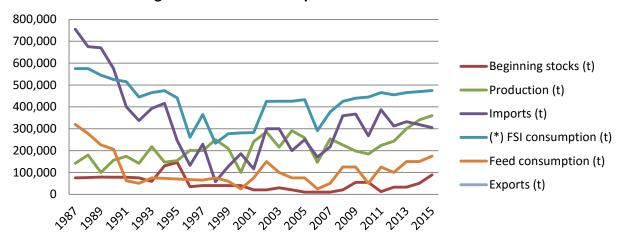
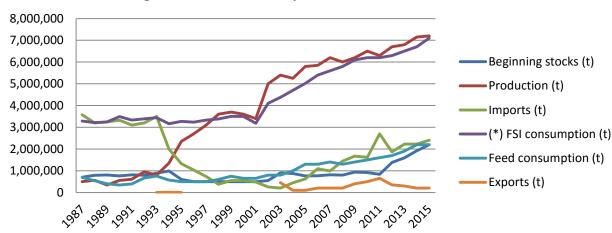


Figure 2. Wheat consumption and stocks in Uzbekistan



### Data and methodology



- Semi-structured interviews with stakeholders in the supply chain carried out
- Purposively sampling in order to present the largest diversity of cases

#### **Interview regions:**

- –Shirak region (Armenia)
- -Samarkand region (Uzbekistan).







# Wheat producers



- Average wheat sown area in Armenia 17 hectares and in Uzbekistan 41.25 hectares
- Main buyer of the wheat is middlemen vs. the state
- Type of payment form: cash vs. transfers and cash
- Producers in both countries face limited marketing options
- Average wheat price (USD/kg) received in 2014: 0.30 vs.
   0.18
- Competition with imported wheat: compete vs. do not compete
- Farm assistance received: Armenian wheat producers receive state subsidies; Uzbek producers receive inputs and prepayments from company in the supply chain, the state credits and extension services.

#### Mills



- Average processing capacity per day: 117 tons in Armenia vs. 1,216 tons in Uzbekistan
- Yearly average percentage of imported and local wheat in the total amount of produced flour: local 50% and imported 50% in Armenia vs. 100% local in Uzbekistan
- Countries of origin for wheat imports in Armenia: 100% from Russia
- Average wheat purchasing price (USD/kg) in 2014: 0.31 vs. 0.18
- Average flour price (USD/kg) sold in 2014: 0.48 vs. 0.35
- Main wheat buying method: spot market vs. contract basis
- Determination of wheat price when it is bought from supplier: market prices vs. the state price
- Provision of assistance to suppliers: mills in Armenia do not provide any assistance, but mills in Uzbekistan provide credits, inputs and other forms of support during harvesting

#### **Bakeries**



- Average company's turnover per year: 142,717 USD in Armenia vs.
   1,162,891 USD in Uzbekistan
- Type of flour used: mainly local flour in both countries
- Main suppliers: mills vs. OJSC "O'zdonmahsulot" enterprises
- Determination of flour price when flour bought from supplier: market prices vs. the state price
- Buying method: spot market vs. contract basis
- Assistance to suppliers: no assistance vs. prepayments
- Own distribution stores: no vs. yes
- Determination of price for end product: based on production costs vs. the state price
- Receipt of State subsidy: no vs. indirect subsidies

#### **Stores**



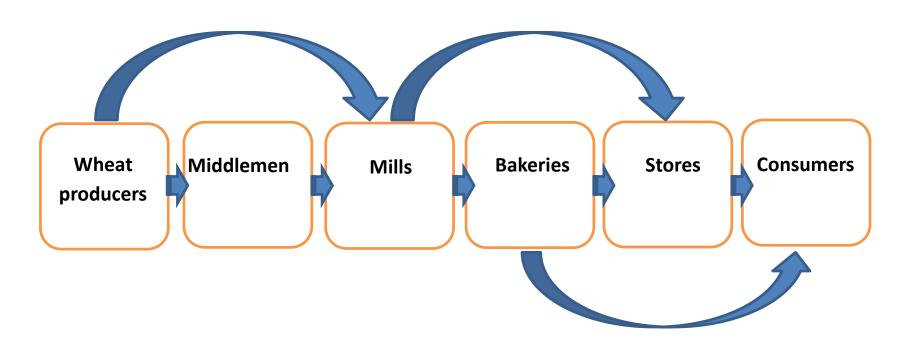
- Average store's turnover per year: 50,319 USD in Armenia and 206,882 USD in Uzbekistan
- Type of products sold: wheat, flour, pasta, bread and other baked products vs. bread products of about 20 types
- The average sales price of products in 2014: pasta 0.85 USD, flour 0.58 USD/kg and bread 0.084 USD/100g vs. local flour 0.39 USD/kg, imported flour 0.74 USD/kg and "Social" bread 0.043 USD/100g
- Buying method: spot market vs. contracts and spot market
- Assistances provided to suppliers: no assistance vs. prepayments

Both sides do not receive state subsidies

# **Local wheat products**



Figure 3: Movement of local wheat products through supply chain stages in Armenia

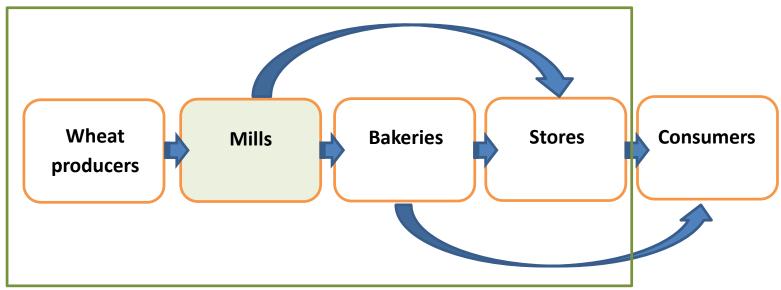


# **Local wheat products**



Figure 4: Movement of local wheat products through supply chain stages in Uzbekistan

#### **Vertically coordinated by the State**



Movement of the wheat products mainly on contract basis

#### **Conclusion**



#### **Armenia:**

- Armenia provides less support to wheat producers
- Wheat products' prices are not stable, vary depending on prices of imported wheat
- Production of local wheat depends on prevailing prices

#### **Uzbekistan:**

- Achievements as: support for local wheat producers and constant supply for the consequent levels of the wheat supply chain.
- The transaction costs are at the minimum levels and prices are stable due to vertical coordination of wheat supply chain by the State.
- Low farm gate price remain largest challenge for wheat growers in Uzbekistan











# Thank you for your attention!!!

