The segmented natural gas market in Ukraine

Analysis and Policy Recommendations

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Berlin/Kyiv, August 2011

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Motivation

The Ukrainian gas market is split into two segments:

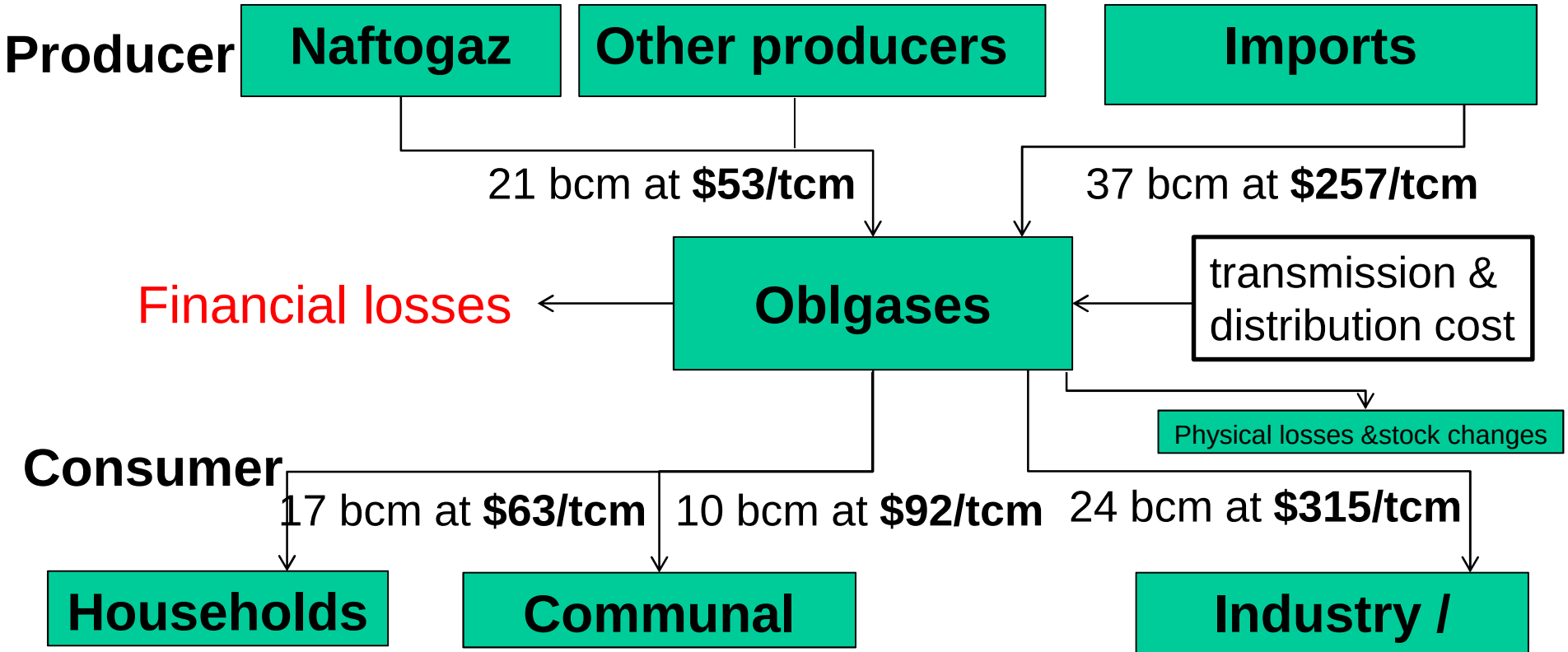
(i) One for domestic producer & final consumer

(ii) And one for imported gas & industrial consumer

- Through this administrative segmentation, gas producer in Ukraine currently obtain an 80% lower price than gas importers.
- This system has been criticized by economists for many years
- It is now part of the discussion over the DCFTA energy section

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Status Quo 1



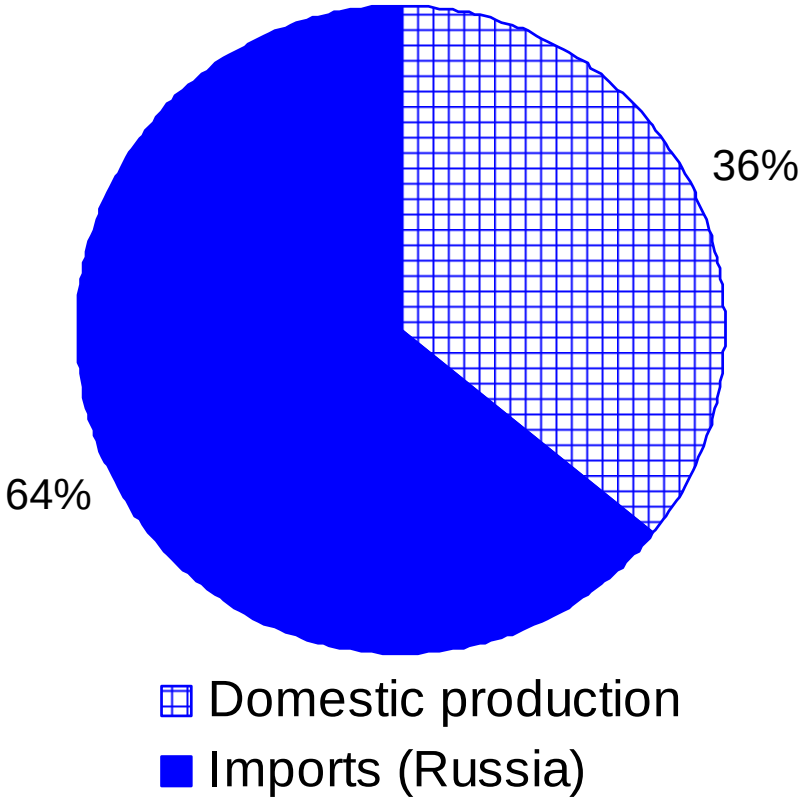
All figures are for 2010. All prices are cleared from VAT. The prices for consumers include the transmission and transportation costs.

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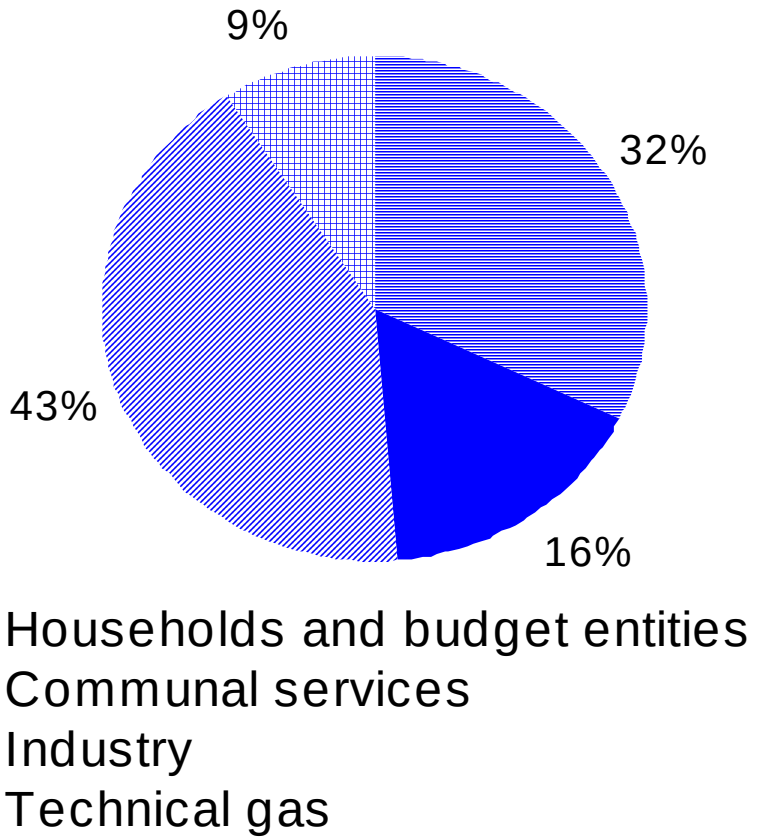
Status Quo 2

In bn cm

Sources of natural gas



Natural gas distribution



All figures are for 2010

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Structure

1. Rationale for the status quo
   a. Avoids fuel poverty
   b. Rents go to all consumers not some firms
2. Advantages of a uniform pricing mechanism
   a. Impact on investment
   b. Impact on consumption
   c. Impact on import prices
   d. Good governance
   e. Development of gas market and gas transit
   f. Ecological effect
3. Final remarks

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1. Rationale for the status quo

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a. Avoids fuel poverty

- Fuel cost are an important component of household consumption basket
- Cold housing has externalities (e.g., public health implications)

⇒ Lowering household prices has a social target

But: household prices are not linked to gas sourcing prices => Targeted subsidies could avoid fuel poverty much cheaper

Conclusion 1: Social targets could be reached without distorting the market

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b. Rents go to all consumers not some firms

Currently, population benefits of Ukrainian resource wealth

- There is a risk that due to the monopolistic nature of the sector a price increase will go into the wrong pockets
- But: appropriate taxation could prevent that legacy rents are transferred from consumers to producers

Conclusion 2: Rent transfer to gas producers can be prevented by taxation

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2. Advantages of a uniform pricing mechanism

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An alternative to segmented pricing

- A **uniform pricing mechanism** in Ukraine would imply a single wholesale price for a cubic meter of gas
- If market-based, the wholesale price would reflect the cost of acquiring the last unit of natural gas (i.e., probably the import price)
- But, different consumer groups may face differentiated gas retail prices due to differentiated tariffs for gas transmission, distribution and supply (e.g., consumer directly connected to high pressure pipelines pay less)
  => In this briefing we focus on wholesale prices

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a. Impact on investment

Lower gas prices for domestic producer:

- Negative effect on investment in domestic gas production
  - Conventional gas
  - But also non-conventional gas
- Negative impact on investments to increase energy efficiency in buildings

Conclusion 3: The impact of segmented pricing on investment is clearly negative

Conclusion 4: Negative effect on domestic gas production

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b. Impact on consumption

Lower gas prices for households:

- Less savings (open window to regulate temperature)
- Substitute gas for other fuels (e.g., use gas heating instead of district heating)
- Illegal arbitrage: Use cheap gas for inefficient home-manufacturing

Conclusion 5: Inefficient and excessive gas demand

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c. Impact on import prices

Segmented pricing => High domestic demand and low domestic production

⇒ Ukraine needs more gas imports

⇒ Market power of Russian suppliers rises

⇒ Import prices rise

Conclusion 6: Segmented pricing leads to a higher gas import bill

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d. Good governance

- Segmented pricing invites illegal activities (e.g., illegal arbitrage and corruption)
- Segmented pricing incentivizes consumers, traders and producers to focus their attention on acquiring/maintaining preferential treatment and thus distracts the attention (staff time) from productive measures.

Conclusion 7: Uniform pricing will improve governance

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e. Development of gas market and gas transit

- Administrative segmentation implies a dominant role of state monopolies in the gas sector
  - Under-engagement of private investors in gas production
  - No interest of private investors in loss-making gas supplies
- Gas transit revenues used to compensate internal losses and not to modernise transit pipelines

Conclusion 8: Negative impact of price segmentation on gas market and gas transit

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f. Ecological effect

- Causal chain: Cheap gas => High demand for gas
  => High consumption, waste of energy resources
- Implications:
  - High energy consumption (relative to GDP)
  - High CO2 emissions
  - Bad for environment and climate change
  - Less room for international cooperation and for participation in the international carbon market, including possibility of revenues from this market
- **Conclusion 9**: Negative ecological impact of artificially low prices

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3. Final remarks

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Final remarks

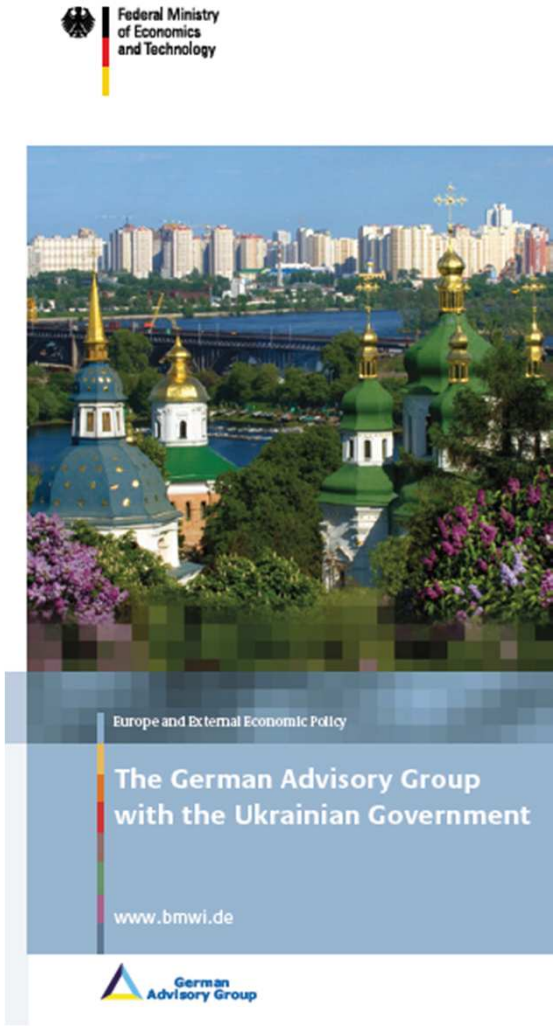
- There are good reasons to abolish the gas market segmentation
- Social policy motives are legitimate, but current policy is not well targeted on those in need
  - Those households with high share of energy cost in their budget already get compensated
  - Those who could afford most, benefit most of the segmentation (higher income=>more living space=>more heating need=> more implicit subsidy)
- Gas market segmentation should be replaced by a proper taxation of gas producers and a targeted social policy

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