Raising gas prices: International experience and lessons learned

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Overview

1 Introduction

2 Relationship between gas prices and energy consumption

3 Raising gas prices – International experience

- Poland
- Estonia and Latvia
- Russia and Belarus
- Ukraine

4 Conclusions

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1. Introduction

- Objective: Investigate the relationship between gas prices and demand
- Would an increase in gas prices automatically lead to reductions in gas and energy demand?
- Our analysis provides an overview of the different experiences following gas price adjustments in Eastern Europe and the CIS

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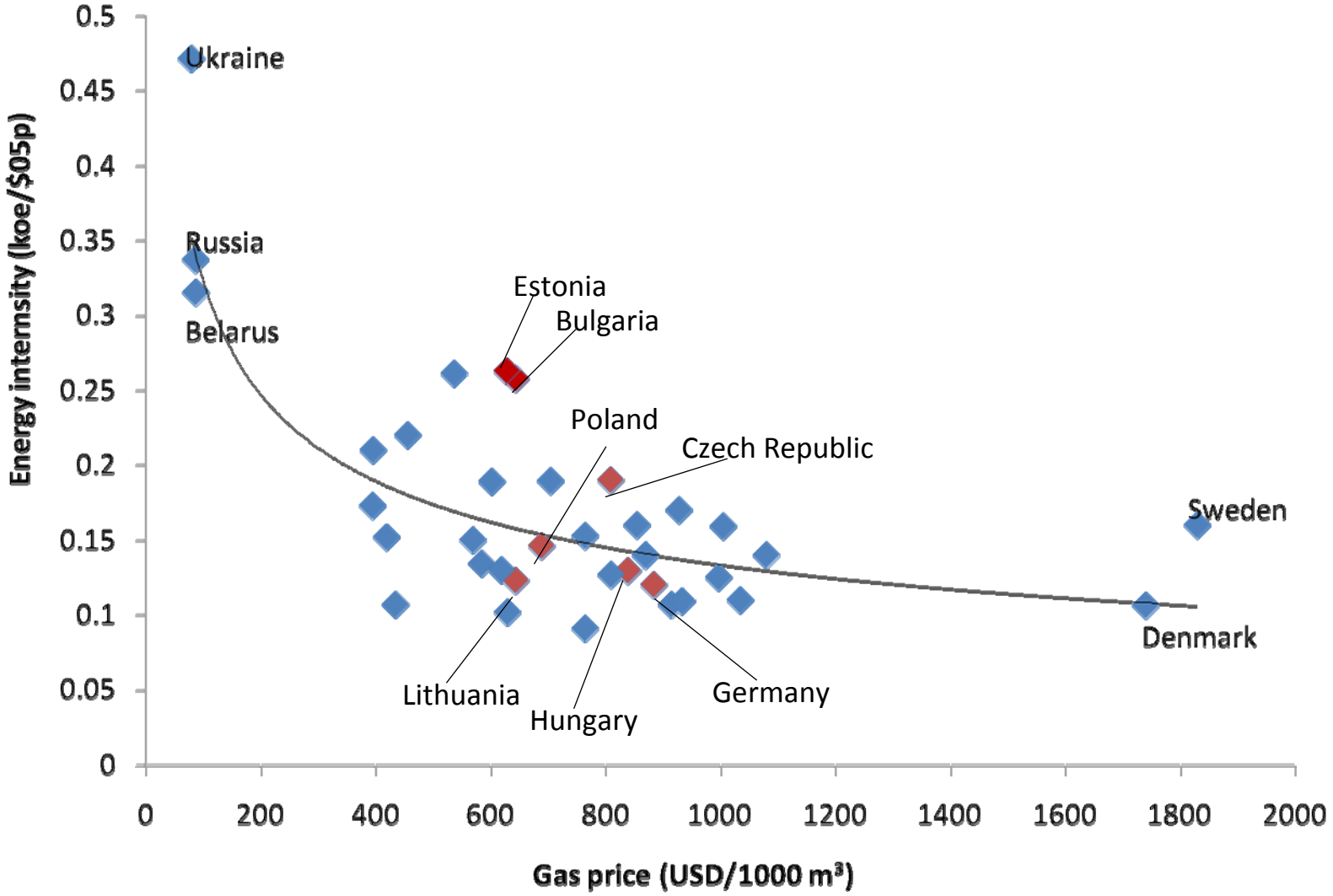
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2. Gas prices and energy consumption

- International and past experiences suggest a strong relationship between gas tariffs and gas demand
- Low gas prices leads to high gas consumption and vice versa
- However, prices are just one of many factors that influence energy demand
- Prices of other fuels, availability of substitutes, market structures, level of subsidies and benefits, etc. also influence the impact gas prices have on consumption

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Gas prices have strong impact on energy efficiency



Source: Own analysis based on OECD, IEA, Enerdata, BP, WB, NERC, FTS

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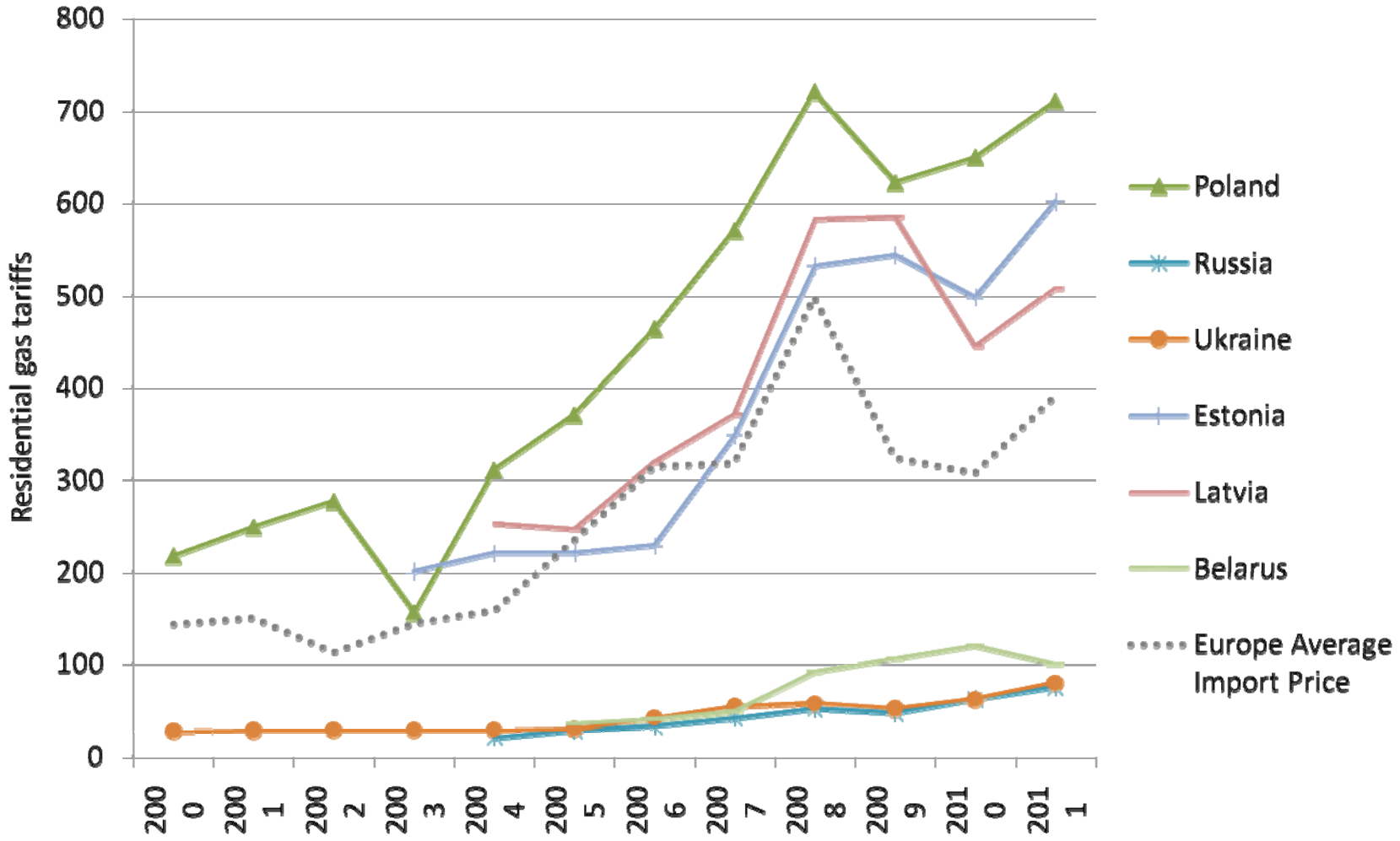
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3. Significant regional differences in scale and speed of gas price adjustment…

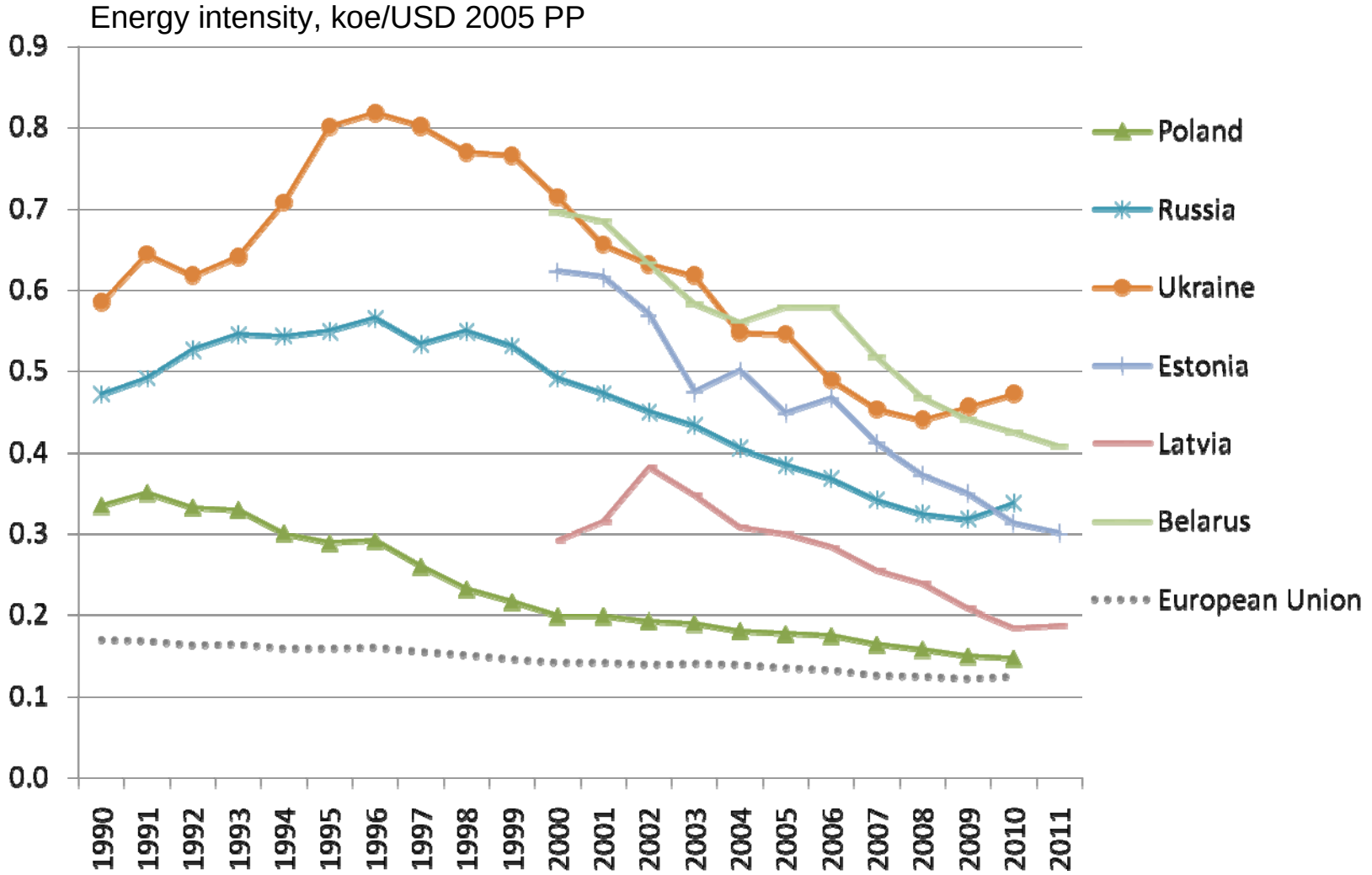
Residential gas tariffs in selected European countries, USD/ tsd. cm



Source: Eurostat, National Statistics Offices, NERC, FTS

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…which is reflected in diverging energy consumption trends

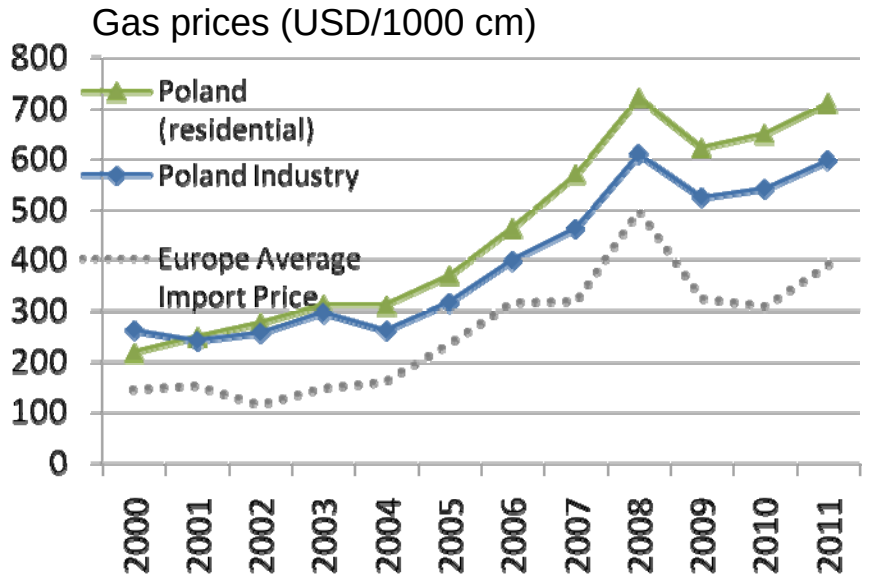


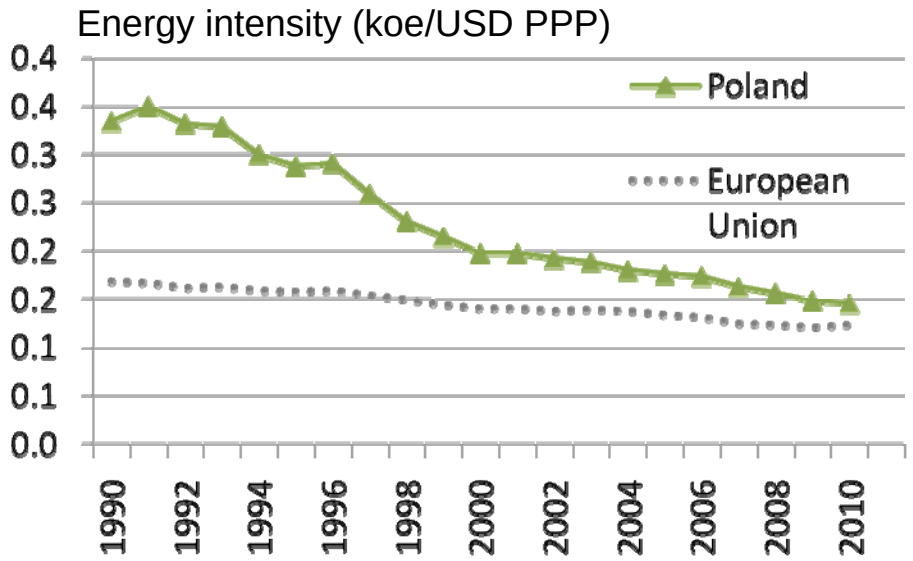
Source: Enerdata, WDI

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Case study 1: Poland

- Early 1990s: New pricing system for energy was introduced and subsidies were eliminated over a four year period
- Rapid increase - gas and district heating prices rose threefold between 1990 and 1991
- Adjustment affected both - industry and residential users
- Energy efficiency improved by 3.9% per year between 1990-2010
- Energy intensity has gradually moved in line with European average





Source: Enerdata; Eurostat

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Case study 2: Estonia and Latvia

Price increase was part of a wider gas sector reform:

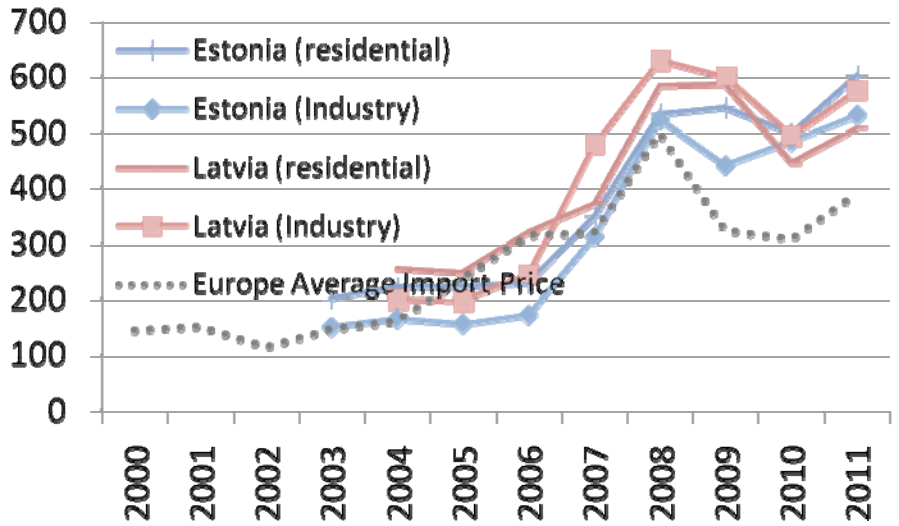
- Introducing market mechanisms to state-owned energy companies, tariff setting based on cost recovery levels
- Strengthening of payment discipline, especially by public sector consumers
- Elimination of budgetary subsidies and replacing it by targeted support for low-income consumers

<u>Key element of the reform</u>

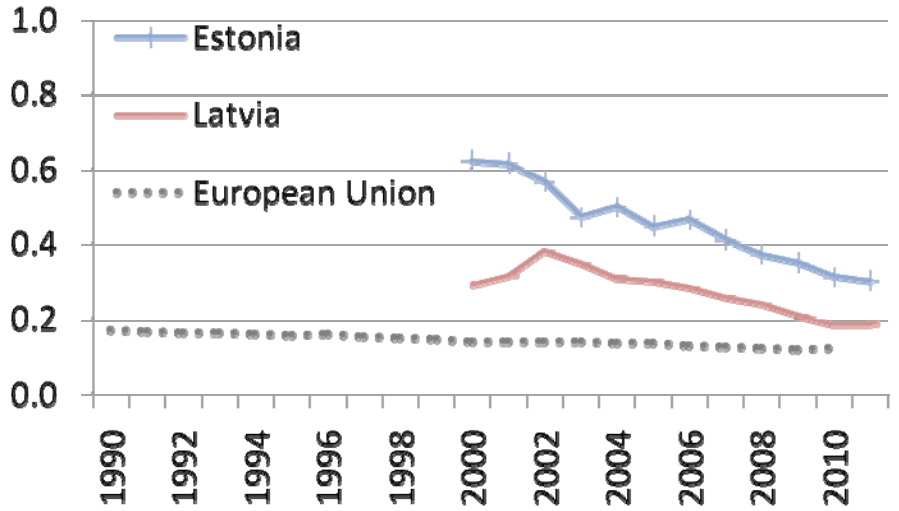
Strengthening of the institutional environment

Source: Enerdata; Eurostat

Gas prices (USD/1000 cm)



Energy intensity (koe/USD PPP)

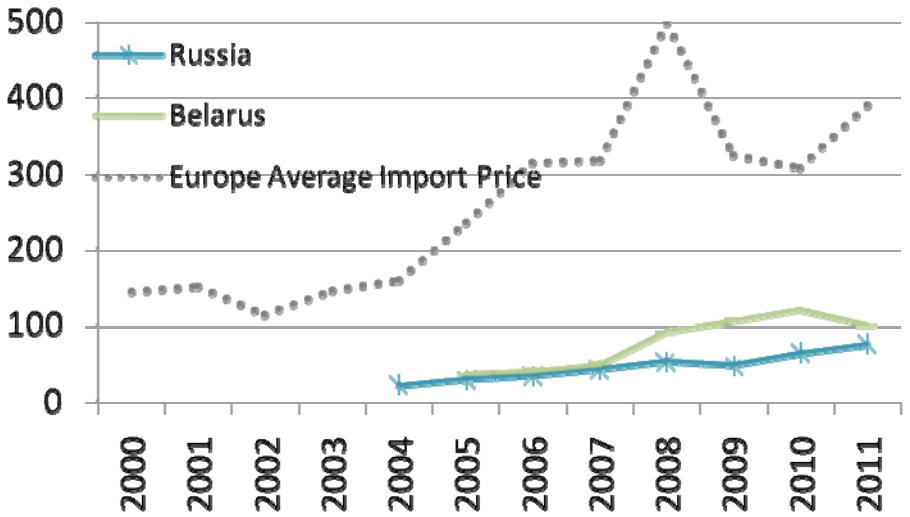


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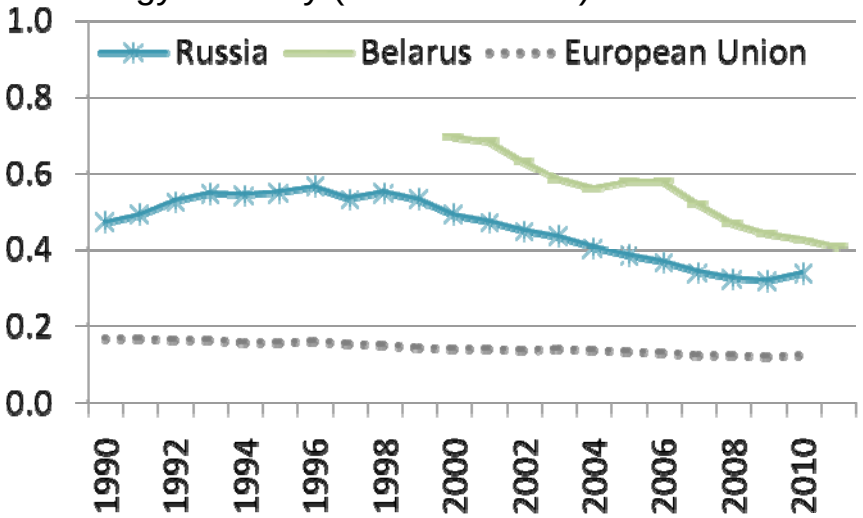
Case study 3: Russia and Belarus

- Both Russia and Belarus feature gas prices for residential users significantly below the cost recovery level
- Belarus has belatedly started to increase gas tariffs for private households in 2008
- Crisis in 2010/2011 ended adjustment process as domestic tariff increases could not keep up with currency devaluation
- As a result both countries feature energy intensities well above European levels

Gas prices (USD/1000 cm)



Energy intensity (koe/USD PPP)



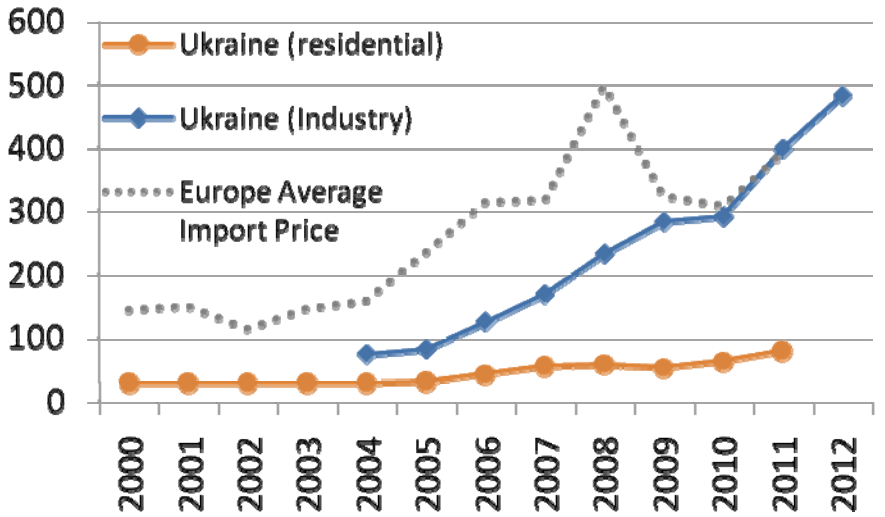
Source: Enerdata, IPM, FTS

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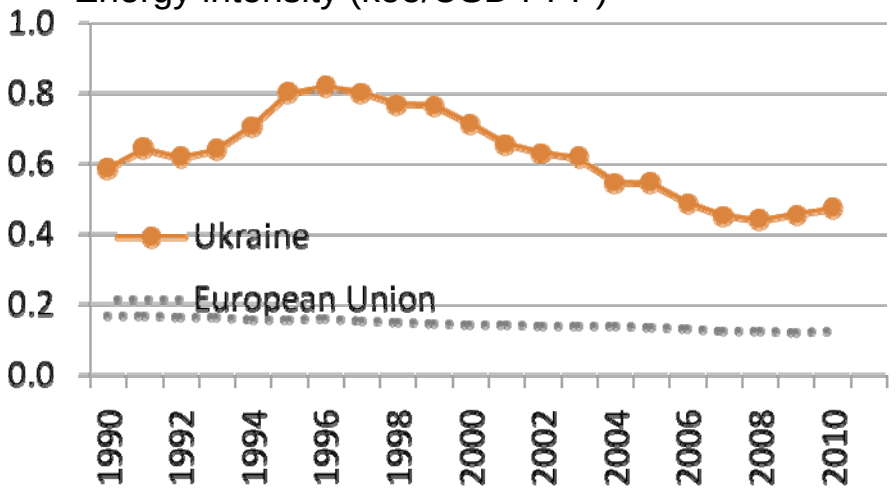
Case study 4: Ukraine

- Gas tariff adjustment in Ukraine has started late and affected only tariffs for industrial and other corporate users
- Tariffs for households have seen little adjustment prior 2010
- Unsurprisingly, demand is high and energy efficiency is low
- Energy intensity declined by only 1% per year between 1990-2010
- Demand declined markedly after 2000 reflecting energy market reforms and competitive tariffs for industrial users

Gas prices (USD/1000 cm)



Energy intensity (koe/USD PPP)



Source: Enerdata, NERC

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4. Conclusions

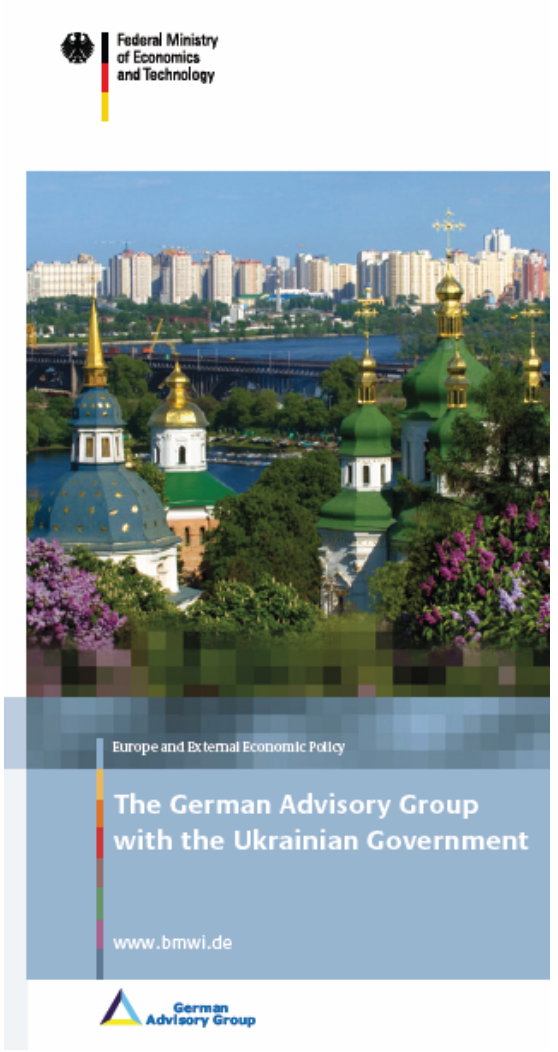
1. International experience suggests a strong relationship between energy prices and demand
2. Those economies that adjusted prices early on feature significantly higher energy efficiency
3. Economies with subsidized prices, on the other hand, show higher demand and low energy efficiency
4. Price adjustment are ideally combined with wider energy market reform such as introducing private sector structures and cost based pricing
5. Targeted income support can provide a cost-effective alternative to costly universal subsidies of gas tariffs (*see PB/02/2012*)

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