

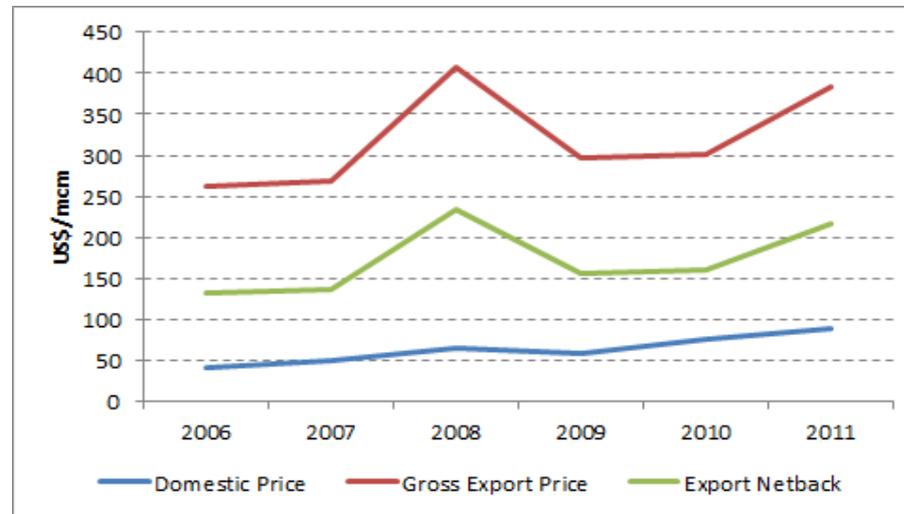
The Potential Impact on Europe of Russia's Evolving Domestic Gas Market

Dr. James Henderson

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The importance of gas exports from Russia to Europe remains reciprocal, but the balance may be changing

Comparative prices for Russian gas



- Russia's share of the European gas market is set to rise from 23% to 27%
- Russian gas exports to Europe provide half of Gazprom's revenues and have a significant impact on the Russian economy
- Despite attempts to close the gap on export netback parity, Russian domestic prices remain well below European levels



The Russian Govt. has been increasing domestic gas prices for the past decade or more

- Overall goals included:
 - Reduce Gazprom losses on domestic sales
 - Meet requirements for WTO entry
 - Increase energy efficiency of Russian economy and optimise resource development
 - Co-ordinate liberalisation of electricity and gas markets
- From 2000 regulated price increased by c.25% p.a. to 2005
- Differential between regulated and unregulated prices demonstrated potential for higher prices
- Rapidly rising demand for gas increased pressure on Gazprom's supply portfolio
- Netback parity target set by Putin in 2006



Netback parity target appeared logical but is fraught with definitional difficulty

- Initial target implied a doubling of gas prices by 2011 based on a \$55/bbl oil price
- Concept founded upon netback parity with oil-linked contract prices in Europe
- However, oil price doubled to c.\$110/bbl – netback parity became an ever-moving target
- Date for implementation moved back from 2011 to 2015 – and now towards 2020 as implications for Russian economy are considered
- Competitive pressures may result in the whole concept becoming irrelevant as the Russian gas sector faces potentially dramatic change



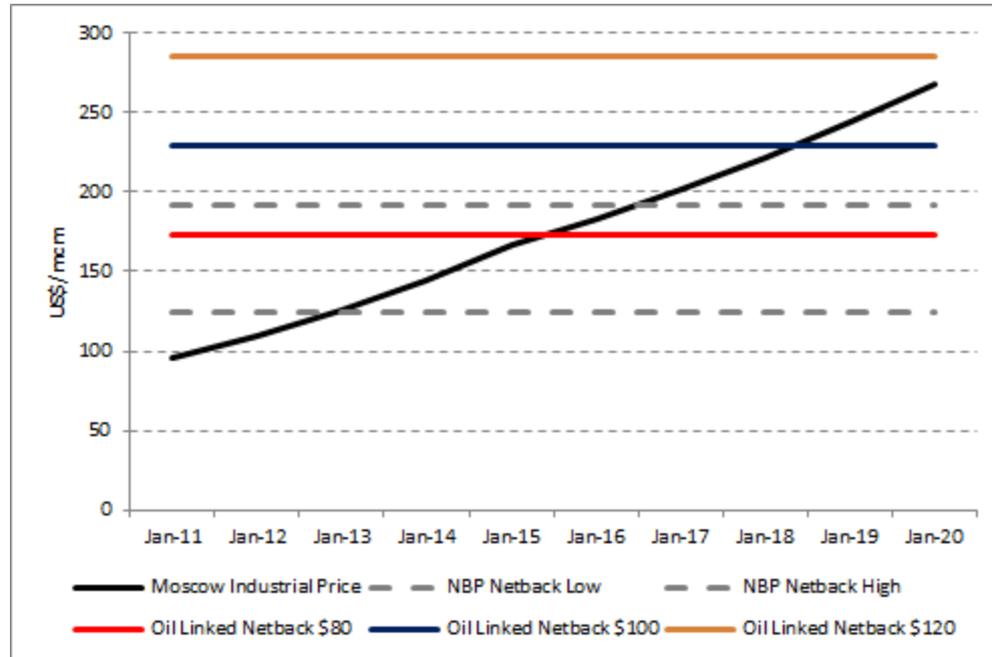
Competing forces suggest radical change in the Russian gas sector may become a necessity

- Gazprom needs higher prices to fund development of expensive Arctic assets
- Uncertainties over prices and volumes exports to Europe mean domestic market is becoming more important
- Current strategy involves increasing regulated domestic prices
- Ultimate netback parity target becoming increasingly confused by introduction of more spot pricing in Europe
- There is a risk that domestic consumers could ultimately pay more for Russian gas than European peers



Where is the export netback level and should it be relevant for Russian consumers?

Russian domestic gas price compared with various export netback levels

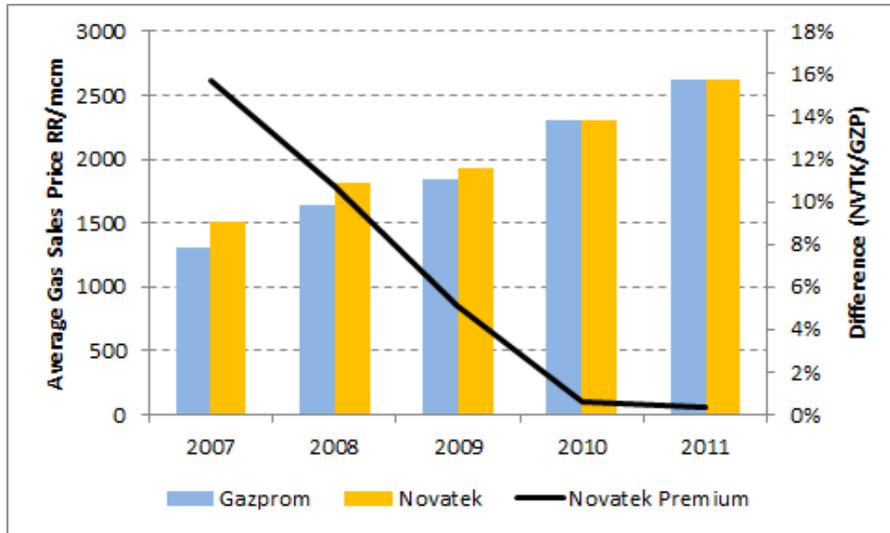


- Netback parity already achieved based on low-end spot prices in Europe
- Oil-linked target could see domestic gas price rise 2.5x by 2020
- Difficult to find a regulated methodology that can establish a fair price

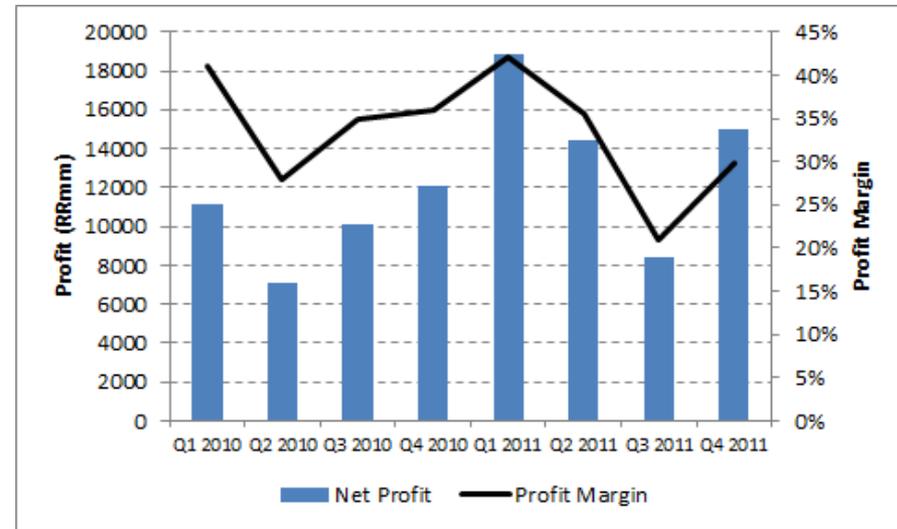


Independent producers are already showing that money can be made at current prices

Novatek's average sales price vs. GZP



Novatek's profit margins are high

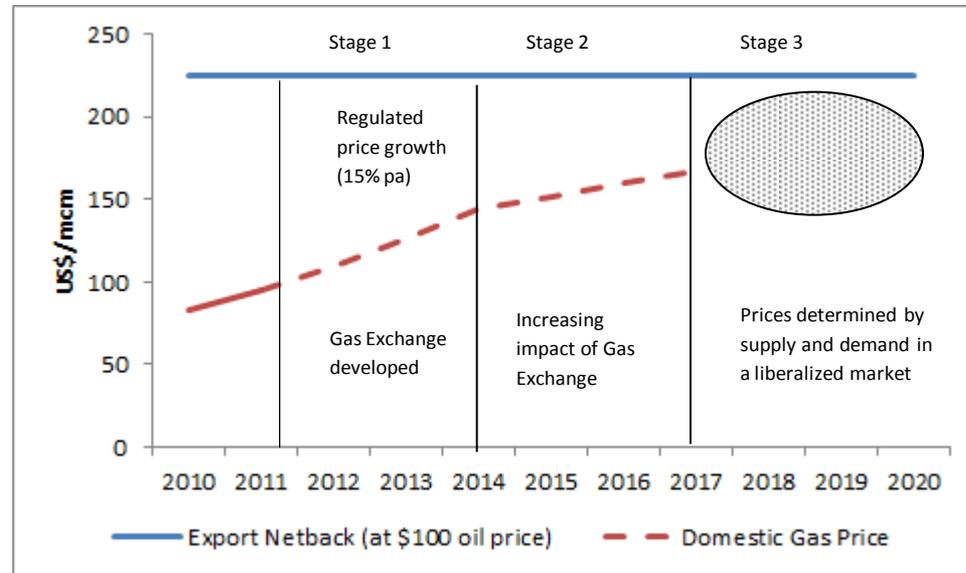


- Historically Independents have charged a premium to regulated prices
- Novatek is now selling at or below the regulated level to win customers
- Novatek's profitability suggests that higher prices are not required – the “market” has already found an equilibrium price



The future for gas prices in Russia – towards a liberalised market

3 steps towards market-based pricing system



- Stage 1 – regulated pricing continues to 2014, Gas Exchange re-created
- Stage 2 – Gas Exchange takes a larger role in price formation, with implications for competition and customer access
- Stage 3 – regulated prices become irrelevant as consumers and suppliers determine prices and volumes in a liberalised market



Implications and Complications

- Gazprom's domestic market share could decline rapidly as Independents aggressively seek new customers
- Gazprom's new fields are relatively uncompetitive but are coming on-stream in any case – how will this be managed?
- Gas transport system needs to be independently regulated or separated from Gazprom
- Is Gazprom's export monopoly justified in a more competitive gas market?
- Single export channel to remain, but are we already seeing cracks in the supply chain for exports?



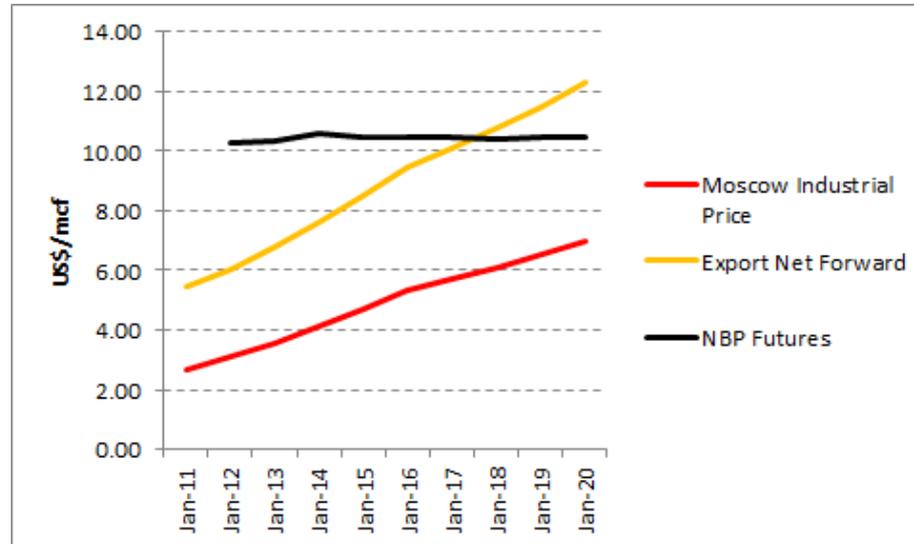
Will competitive pressures force a revolution in Russia's gas export strategy?

- Gazprom could give up domestic market share but continue to monopolise export sales
- However, this could leave Russia as the marginal cost supplier to Europe and faced with a difficult price versus volume strategy dilemma
- Alternatively, Russia could pool its most competitive gas production and allow it to be offered to the domestic or export market as appropriate
- Implications for domestic and export markets could be quite profound
 - Gas bubble in Russia or rapid move to netback prices
 - Russia the “swing producer” for Europe or a source of very competitive supply



By 2017 the Russian and European markets could be equally attractive for Russian producers

Russian “net forward” gas price to Europe



- If prices rise into a \$150-200/mcm range in Russia (\$5-6/mcf) then they would be at parity with the NBP futures price by c.2017
- Russia and European markets would then be much more closely interlinked
- Gazprom’s role could be significantly diminished and Russia’s export strategy could be rather different



Competitive pressure could catalyse radical change in the Russian gas sector over the next decade

- Gazprom is becoming a relatively higher cost producer
- Russia has significant and cheaper sources of supply
- Domestic consumers could soon be disadvantaged, rather than benefited, by regulated prices
- A liberalised Russian gas market could affect the country's export strategy
- Gazprom in its current form could become increasingly untenable
- Political considerations and vested interests will make any change a complicated and uncertain process

