

Sustainability and Cost of Russian Gas Exports to Europe



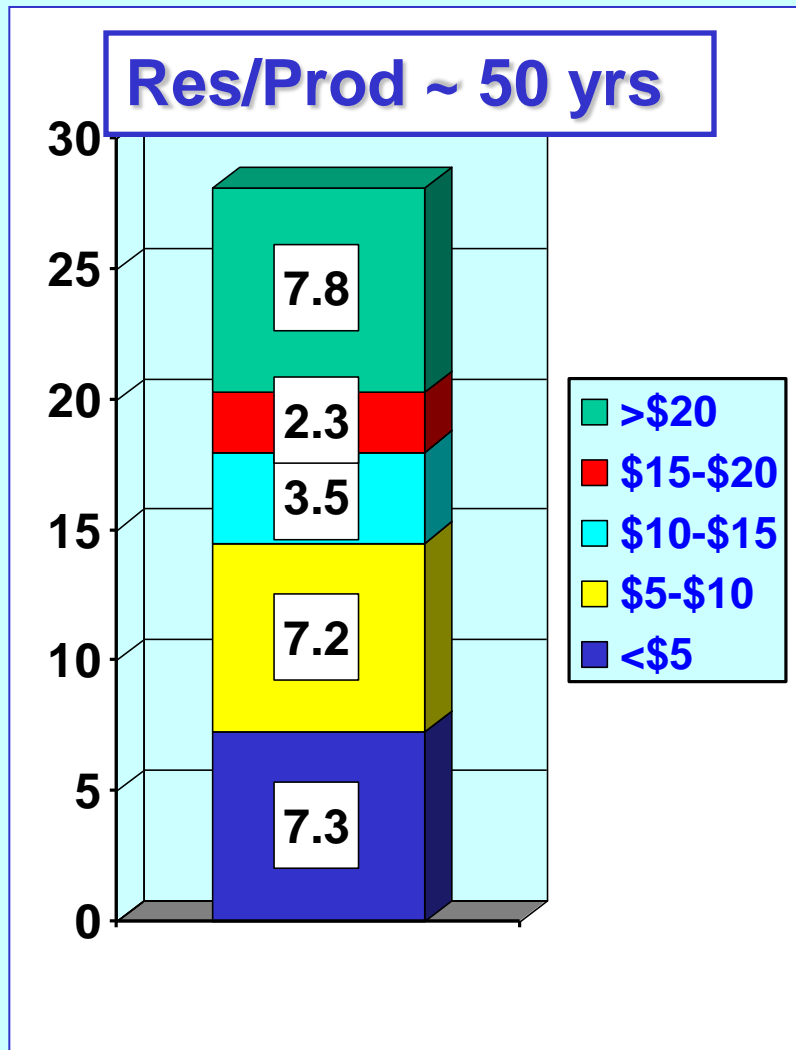
- Reserve base of Gazprom: Depleting low-cost production and new high-cost fields
- The future bottlenecks in the pipeline system of Gazprom and security of supply
- Investment requirements versus the borrowing capacity of Gazprom
- Restructuring of Gazprom: Would it be better to break Gazprom?
- Delivery cost of Russian gas at the European border through 2015

Reserve Base of Gazprom

- **Low-cost Cenomanian – “Soviet” giant fields – from \$3.50 to \$5.00/mcm**
 - Urengoy, Yamburg, Medvezhye
- **Mid-cost Cenomanian – from \$5 to \$10/mcm**
 - Yubileinoe, Yamsoveiskoe, West Tarkosalinskoe, North Urengoy, Komsomolskoe, Zapolyarnoe
- **Astrakhan & Orenburg – from \$10 to \$15/mcm**
- **Neocomian - \$15-\$20/mcm**
 - Urengoy & Yamburg, Yubileinoe, Vuktyl
- **High-cost remote reserves – over \$20/mcm (today's USD)**
 - Yamal, Shtokman, Obokaya Bay, Gydan Peninsula

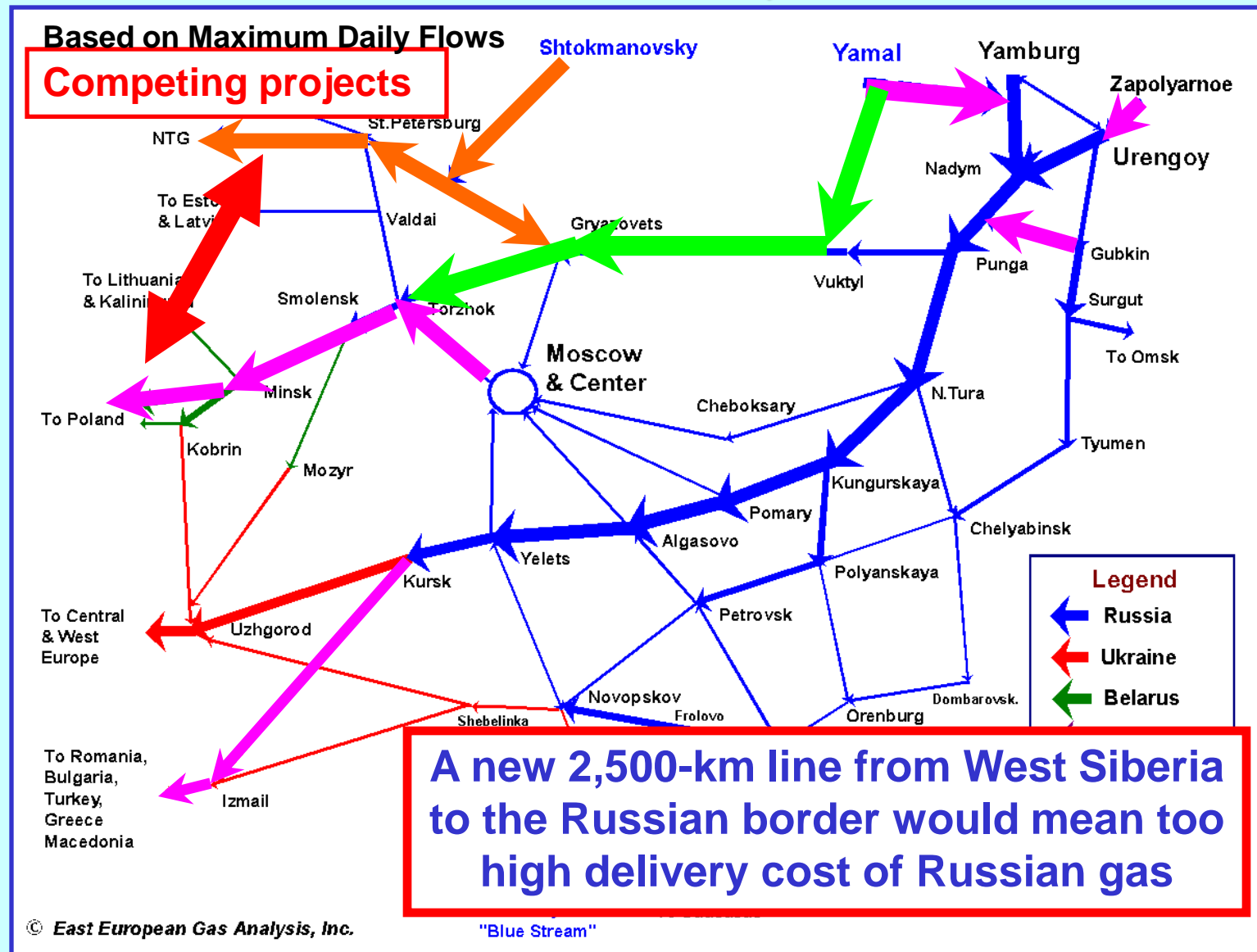


Reserves in Place as of 1.1.2002, TCM



- The chart addresses proven reserves in place (A+B+C1 Russian categories)
- Our rough estimations for production cost are given in today's dollars and are based on the today's level of Russian costs (labor, domestic materials, etc) and imported materials
- Future investment costs and operation costs depend on the future Russian costs
 - In 1992-98 the average hourly wage in Gazprom changed from \$0.23 to \$2.85
 - In Jan-1999 it was \$0.57
 - In Jan-2002 it was \$3.00
 - Number of man-hours to drill a 1-km well or to lay 1 km of pipe didn't change that much

Future Bottlenecks, 2002-2020



The Yamal Connection: Three Options

Yamal

Yamburg

Zapolyarnoe

Urengoy

Siberian
"Interconnector"

Longyugan

Capacity = 1700 mmcm/d
Jan-02 flow = 1470 mmcm/d

16 x 56" pipelines
Spare capacity ~80 bcm/yr
Secure supplies

Ukhta

2x56" pipes
Fully loaded

Says Gazprom

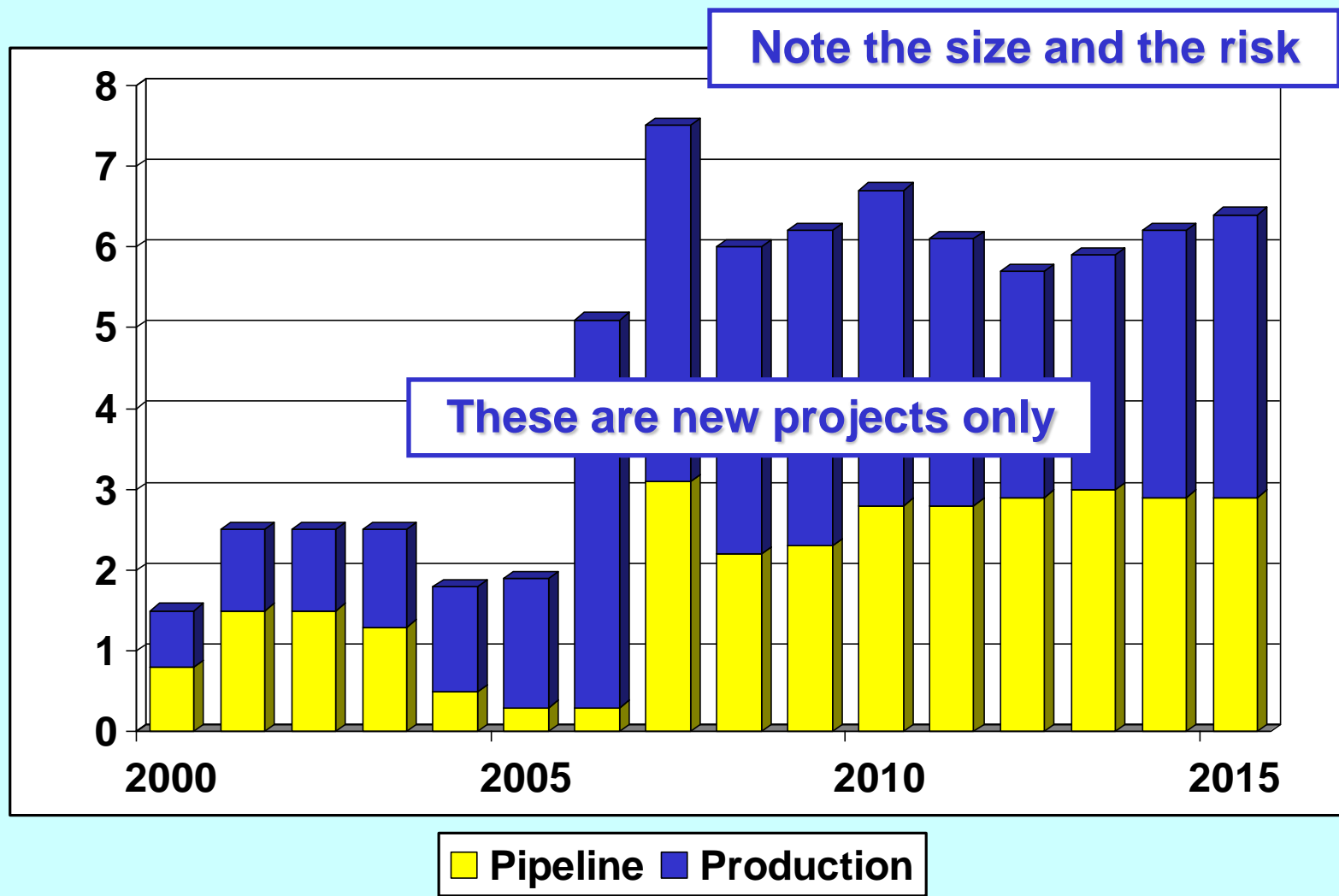
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Pipeline & Production Investment, USD Bn/year

“Business-as-usual”, in constant USD



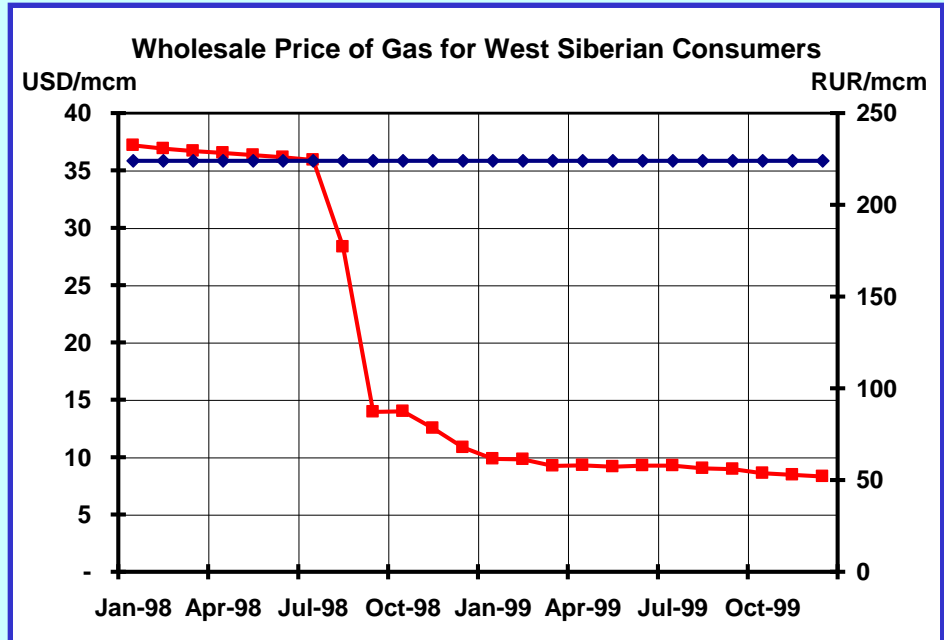
Restructuring of Gazprom: Comments

- Independent producers pay less taxes than Gazprom – all independents were exempt of excise tax by the old taxation, some still are by the new Tax Code
- Sales of transit services are taxed lower than export sales of gas
- Many publications and numeric illustrations of wrongdoings of Gazprom are misleading



Typical Mistakes of Media Analysts

- **Manipulate with price data of different months of 1998 and 1999**
- **Apply taxation rules of 2001-2002 to the situation of 1997-1999**
- **Assume that Gazprom had enough cash to develop new fields and to build new export lines simultaneously**
- **Forget that before Itera took the Ukrainian exports Gazprom's collection rate was 38%**



In 1998-1999 Russian ruble lost 78% of its value while the state-regulated gas price in rubles stayed flat.

Note that power plants and residential sector of West Siberia paid even lower price.

Exports to Ukraine (Yamalo-Nenets Deal)

Before Itera – Export, and After Itera - Transit

	Gazprom receipts from:	
	Export	Transit
Price	50.00	-
Transit tariff	-	33.50
Gross revenue	50.00	33.50
Payment rate	38%	69%
Gross receipts	19.00	23.08
Taxes:		
VAT	(3.17)	(3.85)
Excise	(4.51)	-
Export duty	(0.79)	-
Other taxes	(0.87)	(1.06)
Total taxes:	(9.34)	(4.91)
Net receipts	9.66	18.18
Debt	31.00	10.42

	Gazprom receipts from:	
	Export	Transit
Price	50.00	-
Transit tariff	-	33.50
Gross revenue	50.00	33.50
Payment rate	100%	100%
Gross receipts	50.00	33.50
Taxes:		
VAT	(8.33)	(5.58)
Excise	(11.88)	-
Export duty	(2.08)	-
Other taxes	(2.29)	(1.54)
Total taxes:	(24.58)	(7.12)
Net receipts	25.42	26.38
Debt	-	-

Gazprom's benefits also include tax paid to the Yamalo-Nenets government

Sources: Annual Reports of Gazprom; Bond Prospectus; RF GAO Report on ITERA and Gazprom

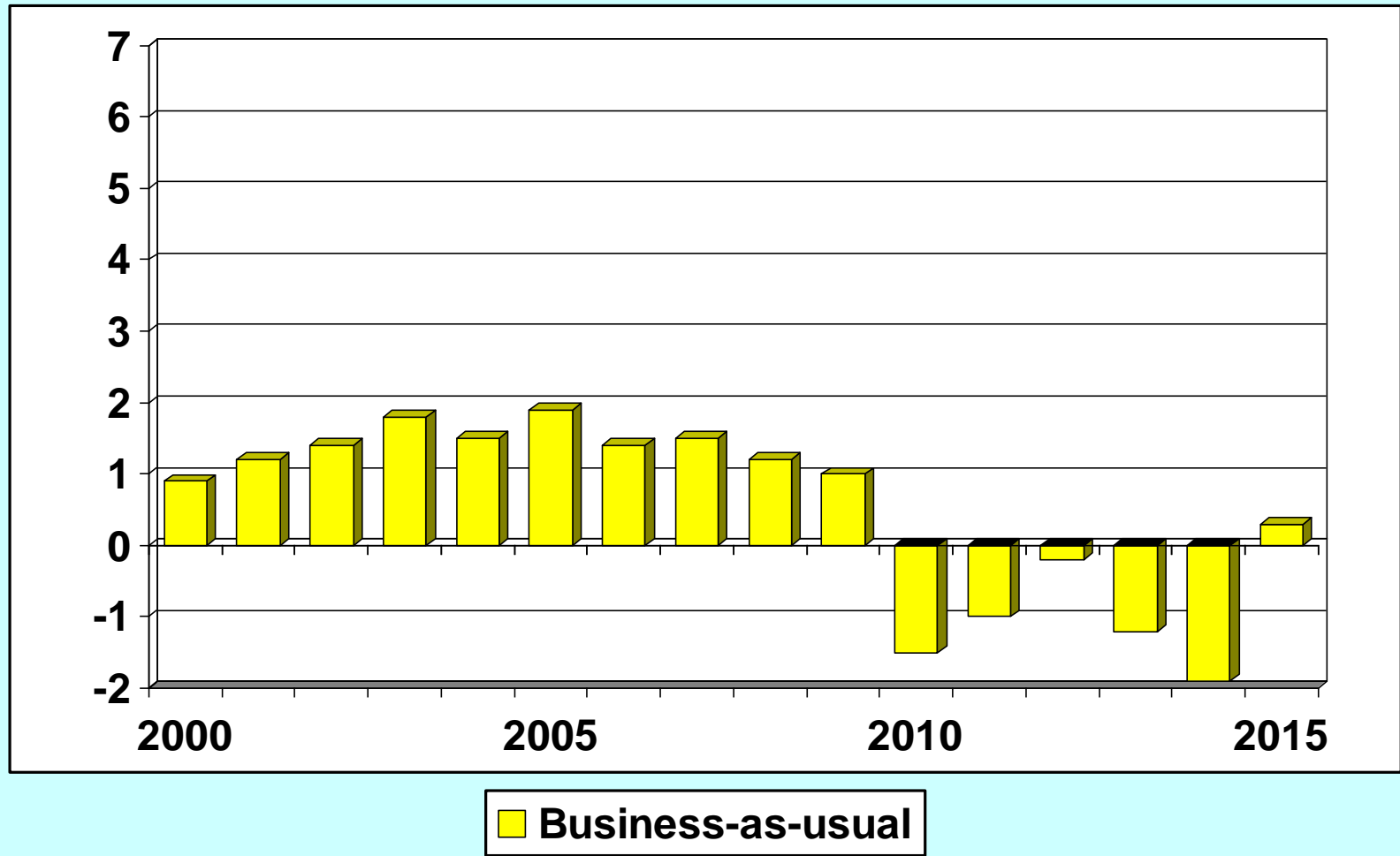
Restructuring of Gazprom: Business as Usual

- **Gazprom stays as the monopoly in both gas production and transmission**
- **Gazprom remains the only exporter of Russian gas to Europe**
- **Gazprom develops new fields of Yamal, Obskaya Bay and Gydan Peninsula on its own or with a minority presence of third parties, Western or Russian**
- **Can Gazprom survive under reasonable assumptions of the Russian price at \$50/mcm and European border price at \$90/mcm?**



Net Cash Flow, USD Billion

Gas Operations of Gazprom – Business as Usual



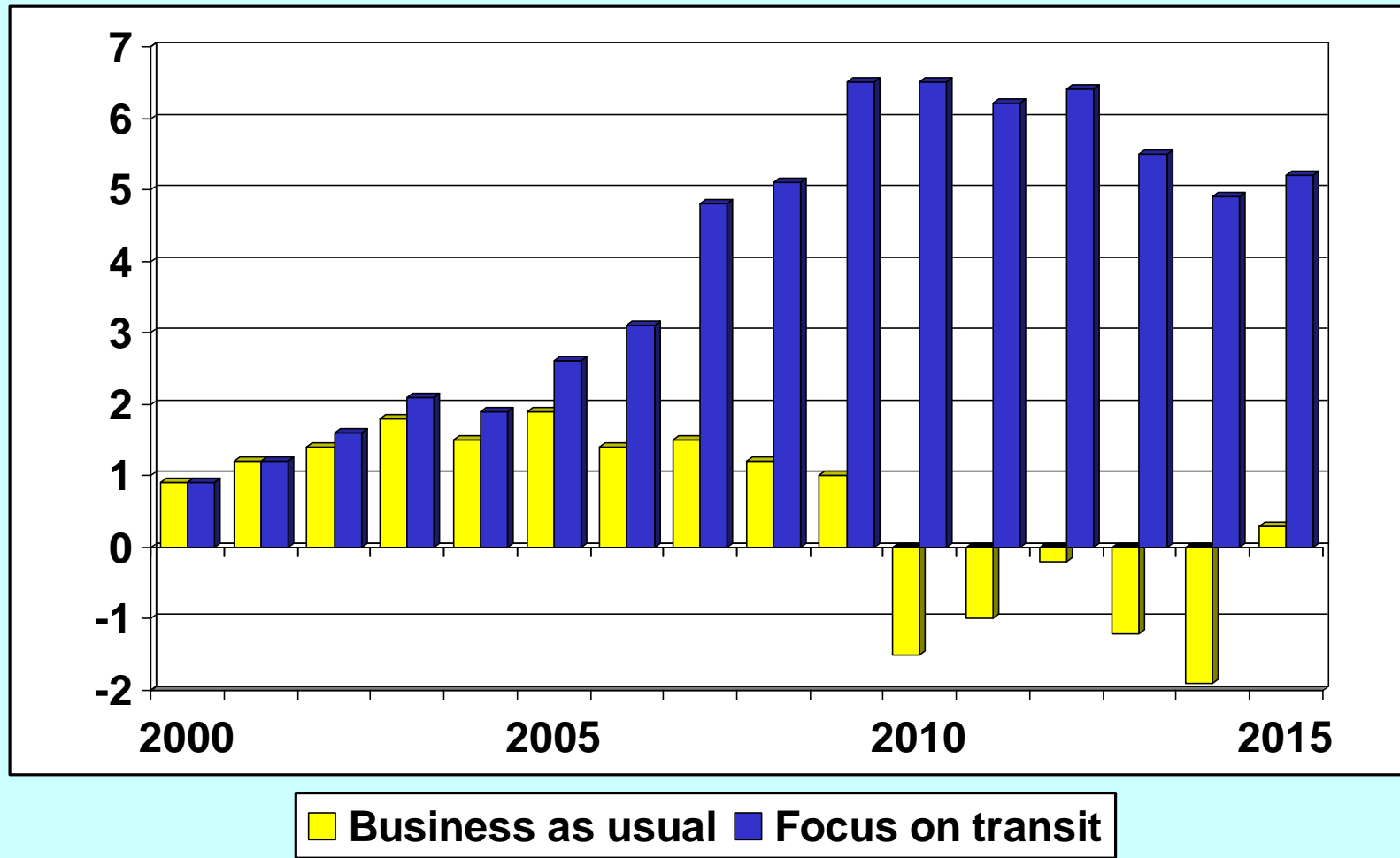
Restructuring of Gazprom: Focus on Transit Services



- **Gazprom keeps all producing fields, including Zapolyarnoe (any breakup would create a huge problem for shareholders)**
- **Other new fields are developed by third parties with a minority interest of Gazprom**
- **Third parties can export all new production to Europe and FSU, which gives them the incentive to develop the costly fields**
- **Gazprom sells transit services to third parties and sells gas from its existing fields**

Net Cash Flow, USD Billion

“Focus on Transit” Vs “Business as Usual”



Gazprom Tower as tall as **Shell Centre**



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Shell Centre

**Market Capitalization:
Gazprom ~ 15% of Shell**

Gazprom Tower



In case of “focus on transit”, NPV of Gazprom’s cash flow increases 200%-300%

“Business as usual” case has 4-5 times lower value.

Focus on transit



Business as usual



Shell Centre



In 1998 Gazprom has changed its name from RAO to OAO. Why?



**Former Gazprom's CEO
Rem Vyakhirev**

**RAO = Russian Joint Stock Co
OAO = Open Joint Stock Co**

- 1. To improve cash flow and to increase shareholders' value**
- 2. To hide the asset stripping**
- 3. For no specific reason**

The Correct Answer is “1”

By the Russian law, the use of word “Russia” or “Russian” in any company’s name was subject to a special tax of 0.5% of revenue (!)

The change of name has eliminated this tax and improved Gazprom’s cash flow.

