

Overcoming economic stagnation in Russia: what role for new innovative energy industries

Dr. Andrey A. Konoplyanik,

Advisyr to Director General, Gazprom export LLC,
Professor, Chair “International Oil & Gas Business”,
Russian State Gubkin Oil & Gas University,
Co-chair, Work Stream 2 “Internal Market”,
Russia-EU Gas Advisory Council
<www.konoplyanik.ru>

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Russia: facing economic stagnation? (1)

- **2013:**
 - Industrial production at the edge of recession (zero growth)
 - Economic growth:
 - early 2013 forecasts: RF Gov't confident in at least 3% economic growth & debated on how to exceed 5% in 2013
 - factual 2013 growth = 1.4% (up to 1.5% growth is within zone of statistical discrepancy)
 - Inflation came out of control & exceeded 6% in 2013
 - Autumn 2013: State has announced budget cutting for 2014-2016
 - all factual spending, except social, were cut by 5%, nevertheless:
 - planned budget deficit: 2014 = 300 bln Rb, 2015 = 800 bln Rb
 - Regional budgets worsened (May'2012 Presidential Decrees)
 - Corporations began to cut budgets
 - Gov't demanded State Corp's to cut CAPEX & OPEX by 10% annually till 2017
 - Gazprom cut off tenders equal to 15% of its investment programme
 - end Nov'2013: draft law (Federation Council) prohibiting natural monopolies to finance professional sports & limiting their non-core spending; etc.
 - Potential for recovery on the basis of existing economic model is worked out
- **2014: to be the worst year in the decade?**

Based on: Kommersant-dengi, 13-19.01.2014, N 01, p.23-25, Profile, 17.02.14, N06, p.8-11

A.Konoplyanik, Political Risk Conference, London, 26-28.02.2014

Russia: facing economic stagnation? (2)

- Deterioration of equipment = 48% (av.)
- Limited investment resources for enterprises:
 - Profits down, credit restrictive (high interest rates)
- Investments to decline:
 - Peak 2008 = 21% GDP, 2013 = 18% GDP (prelim.)
 - Nevertheless: V.Putin demanded to exceed 25% GDP in 2015
- E.Gaidar Economic Policy Institute survey (Autumn'2013):
 - “Investment plans of enterprises are at the lowest levels since 2010, industry more and more refusing to invest in production”
- Further growth will be more difficult since it demands modernization of existing & creation of new capacities =>
 - A (sceptics): technological breakthrough in Russia is once again postponed since cost reduction & investment programmes cut-off are on the agenda
 - B (optimists): technological breakthrough is possible? => Industries of

Russian economic recovery: can energy industries be a driver?

- Two school of thoughts within Russian decision making circles:
 - Energy & “resource curse” => to search for economic drivers outside energy industries
 - Energy as a new innovative cluster for economic recovery
- Russian energy production (supply curve) is being more costly since moving to remote areas with worse natural conditions; this is both the:
 - risk of loosing competitiveness both in energy & capital markets if no technological breakthroughs,
 - challenge since immanent demand for revolutionary STP as a basis for new quality of economic recovery

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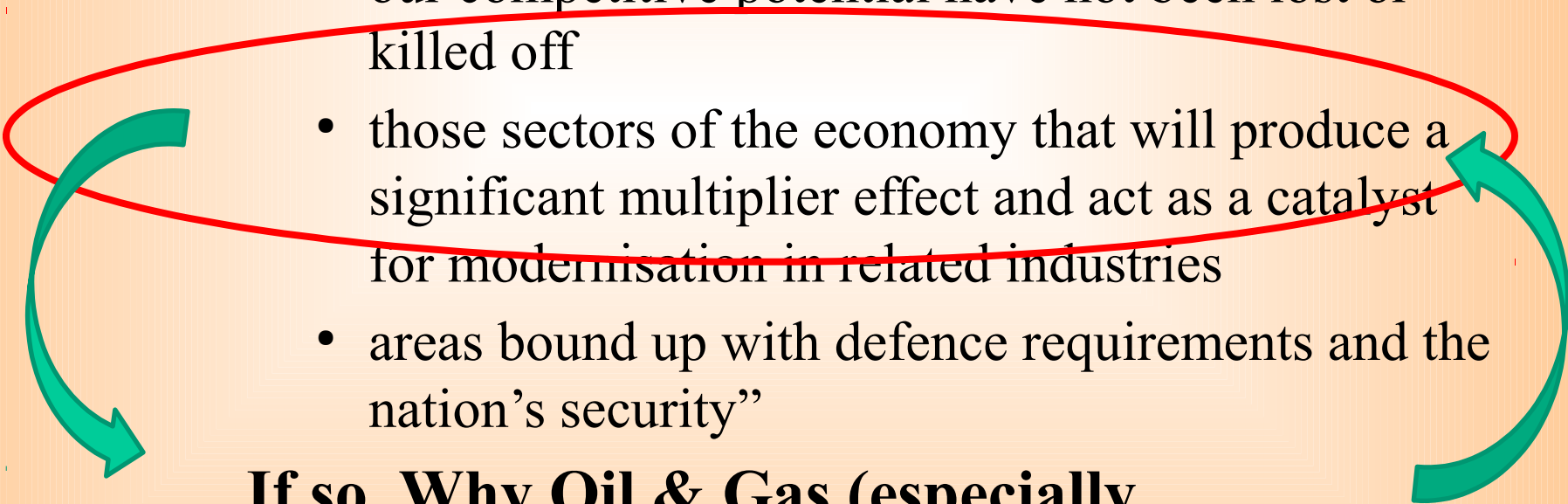
Five innovative clusters of then RF President (now PM) D. Medvedev

At the First meeting of Commission for Modernisation and Technological Development of Russia (June 18, 2009) then President Medvedev listed **five** priority areas for its work:

- **energy efficiency and energy saving** (incl. development of new (types of) fuels & deep fuel processing);
- **nuclear technologies;**
- **space technologies**, above all telecommunications related (incl. GLONASS and its ground infrastructure);
- **medical technologies;** and
- **strategic information technologies**, incl. development of supercomputers and software.

Five innovative clusters of then RF President (now PM) D.Medvedev – criteria (2)

Areas of technological breakthrough - to be under direct presidential control => criteria for such areas:

- “where the indications of our competitiveness or our competitive potential have not been lost or killed off
 - those sectors of the economy that will produce a significant multiplier effect and act as a catalyst for modernisation in related industries
 - areas bound up with defence requirements and the nation’s security”
- 

If so, Why Oil & Gas (especially unconventional, incl. Arctic offshore) Are Not On The List ???

Deep offshore vs. outer space

	Altitude / water depth	Number of visitors
Outer space	Min = 19-20 km ISS = 337-430 km	
Moon	Av. = 384 400 km	
Mariana trench	11 km	

ISS = International Space Station

Deep offshore much more difficult to develop than outer space

	Altitude / water depth	Number of visitors
Outer space	Min = 19-20 km ISS = 337-430 km	432 from 32 states (since 1961)
Moon	Av. = 384 400 km	12 (since 1969)
Mariana trench	11 km	3 = 2 (1960) + 1 (2012)

ISS = International Space Station

Economic multipliers for different investment O&G projects (acc. to late Prof. Alexander A. Arbatov)

Project	GDP multiplier for:		Employment multiplier for:		
	CAPEX	OPEX	CAPEX	OPEX	Project
R U S S I A					
6 PSA O&G projects	1.90	2.82	Not defined	Not defined	4.9
Timan-Pechora PSA project	2.69	2.09	17.4	69.0	41.3
Russian part CPC oil pipeline	3.14	3.16	Not defined	Not defined	182.3
Offshore terminal “Northern Gates”	1.68	2.21	5.0	12.2	9.9
Russian participation in exploitation of Tengiz oilfield, Kazakhstan, & transportation its export crude via Russian territory	-	3.09	Not defined	5.7	Not defined
K A Z A K H S T A N					
Exploitation of Tengiz oil field	1.55	1.59	5.4	22.0	7.7
Construction & exploitation of Kazakh part of CPC oil pipeline	1.77	1.97	4.7	97.3	62.2

Compiled on: publications of late Prof. Alexander A. Arbatov, etc.

Source: A.A. Конопляник. Анализ эффекта от реализации нефтегазовых проектов СРП в России для бюджетов разных уровней (к вопросу об оценке воздействия на социально-экономическое положение страны крупномасштабных инвестиций в реализуемые на условиях СРП нефтегазовые проекты). «Нефтяное хозяйство»,

Distribution of cumulative effects (direct plus indirect) from realization of O&G PSA projects in Russia between different budgets, % of the total (prior to 2003 oil taxation reform)

	Budgets		
	Federal	Regions	
		Oil-producing	Machine-building
(1) If one technological conversion is considered:			
Onshore:			
- small	20	50	30
- large	20	30	50
Offshore	40	20	40
(2) If five technological conversions are considered:			
Onshore:			
- small	30	50	20
- large	30	30	40
Offshore	50	20	30

Source: А.Конопляник. Когда в выигрыше все. К вопросу исследования экономического эффекта от применения механизма СРП. – «Нефть и капитал», 2000, № 9, с.4-8; «Стулья» - завтра, деньги – сегодня. Как решить финансовые проблемы российских нефтяников и машиностроителей, участвующих в СРП. – «Нефтегазовая Вертикаль», 2000, № 10, с. 140-143.

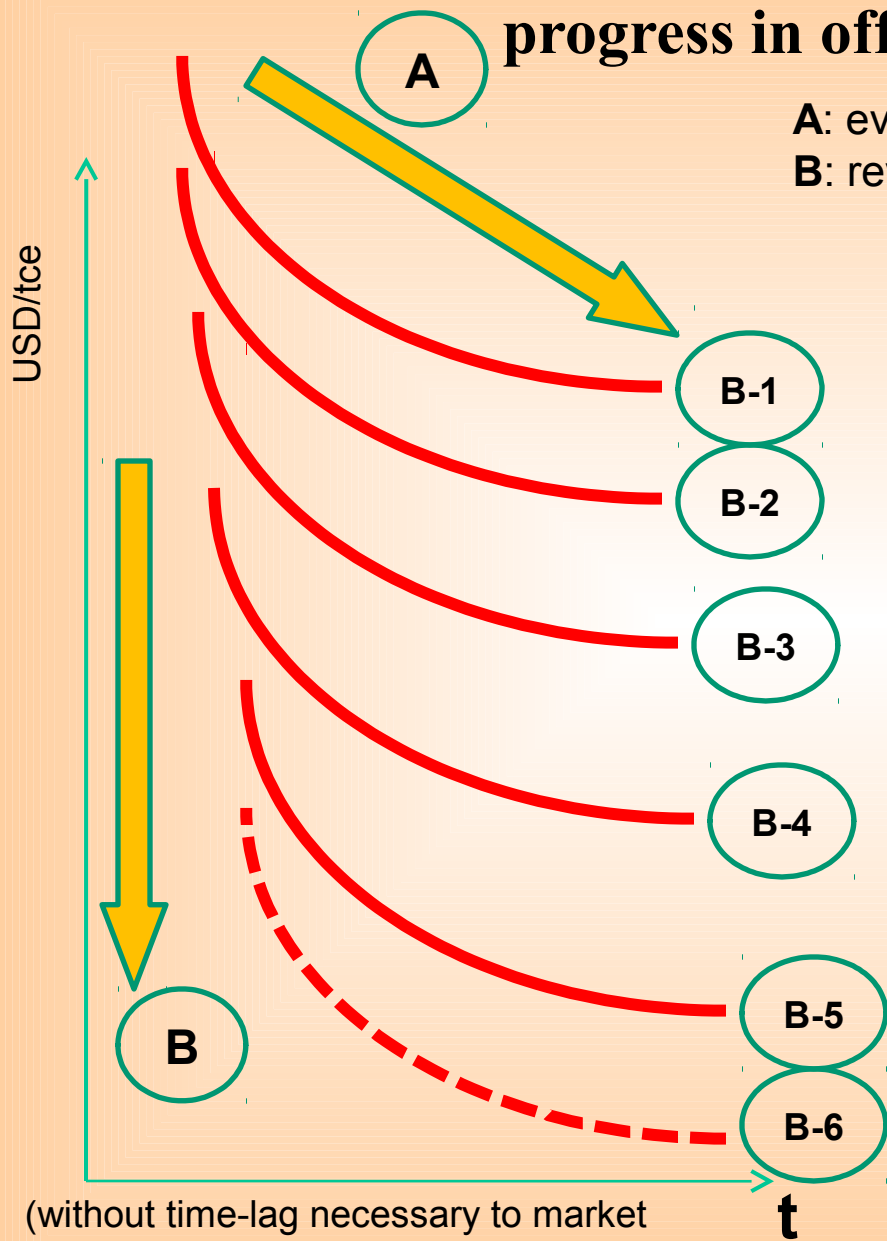
Russia's Arctic offshore as innovative cluster

- Some historical innovative clusters that have led to creation of new industries & infrastructure (“new economy”):
 - Military (e.g. nuclear weapons => USA, USSR, 1940-ies +)
 - Double-purpose (e.g. space exploration => USA, USSR, 1950-ies +)
 - Civil (e.g. motorization => USA, Germany, 1930-ies +)
- Priority innovative spheres within Russian O&G:
 - outer continental shelf development, esp. deep-water Arctic offshore
 - Eastern Siberia gas processing industry, incl. helium
- **Deep-water Arctic offshore** development is not less (if not more) difficult & challenging task than outer space exploration => demand for innovations (technological breakthroughs) to meet new challenges in economy and (especially!) ecology =>
 - **Q:** whether Arctic offshore development will lead to creation of new industries (“new economy”) in Russia?
 - **A:** Should be, BUT it depends on state investment policy...=> stimuli for project financing

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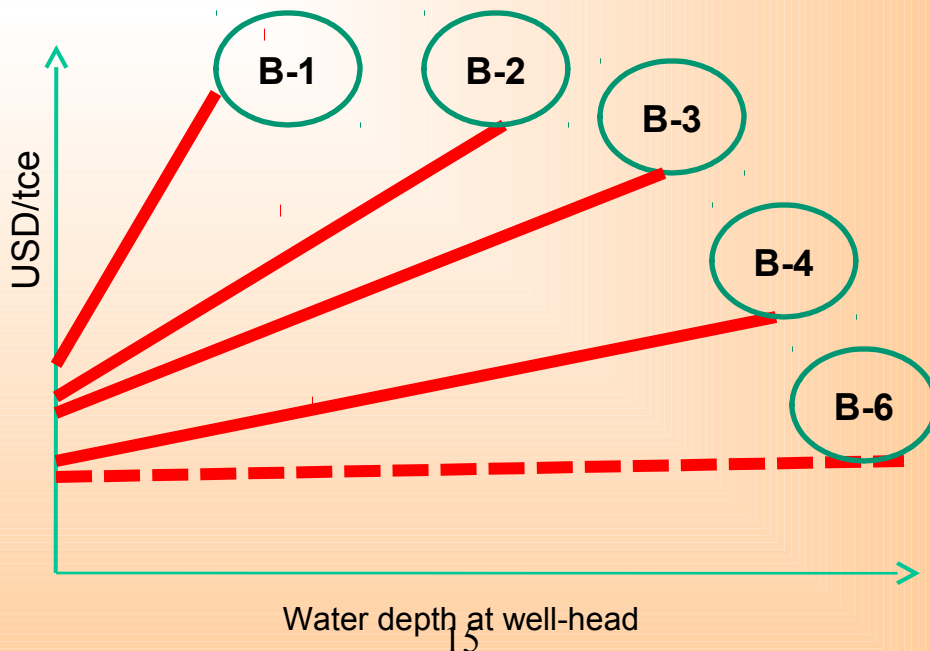
“Learning curves”: evolutionary & revolutionary technological progress in offshore oil & gas



A: evolutionary progress (learning curves)
B: revolutionary progress

Offshore technologies:

- B-1:** conventional platforms (piled & gravity)
- B-2:** semisubmersibles + tension-leg platforms
- B-3:** semisubmersibles + dynamic positioning
- B-4:** no platform (subsea wellhead completion)
- B-5:** floating LNG
- B-6:** ???



(without time-lag necessary to market new technologies)

“Learning curves” & the role of State

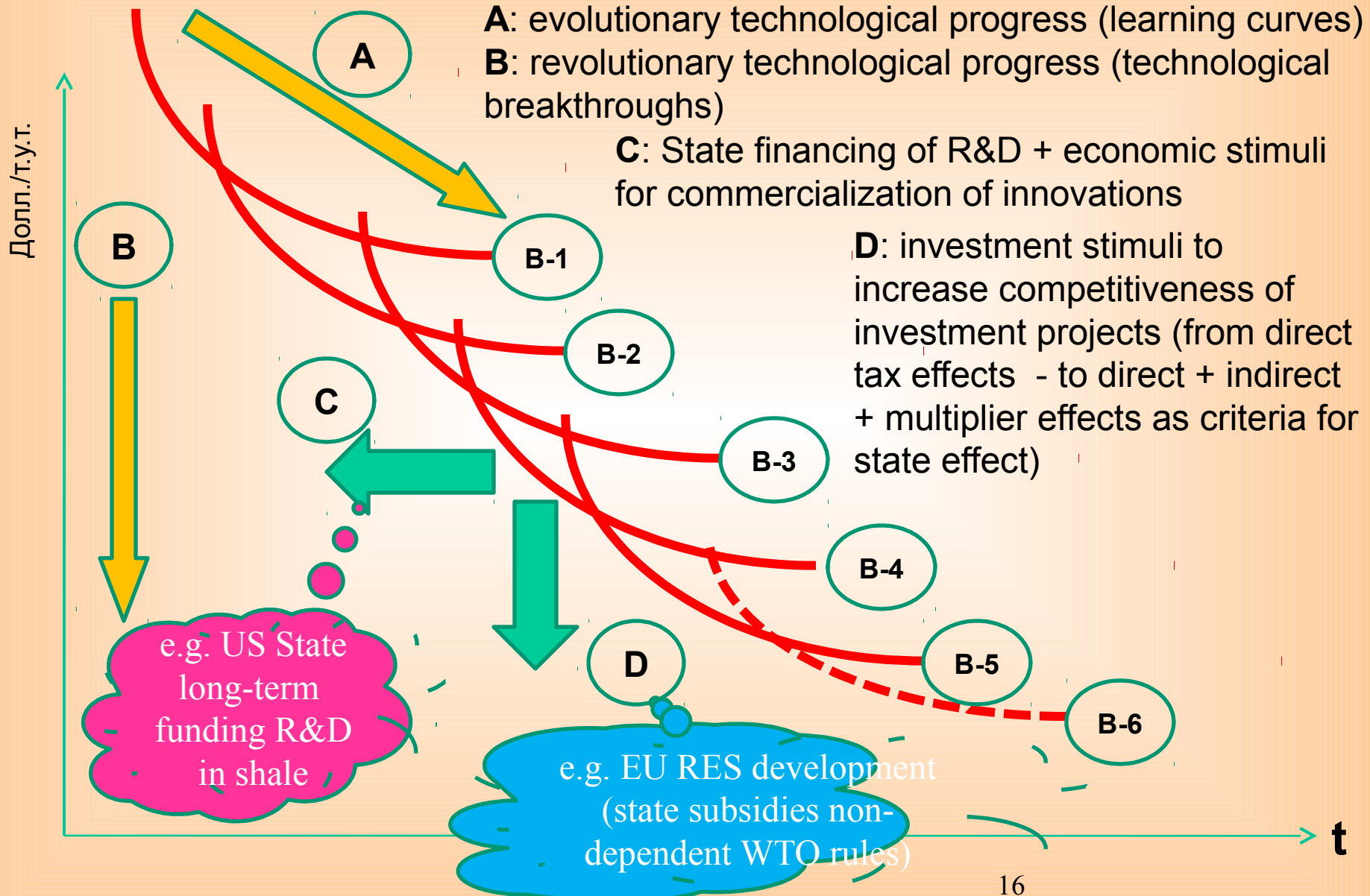
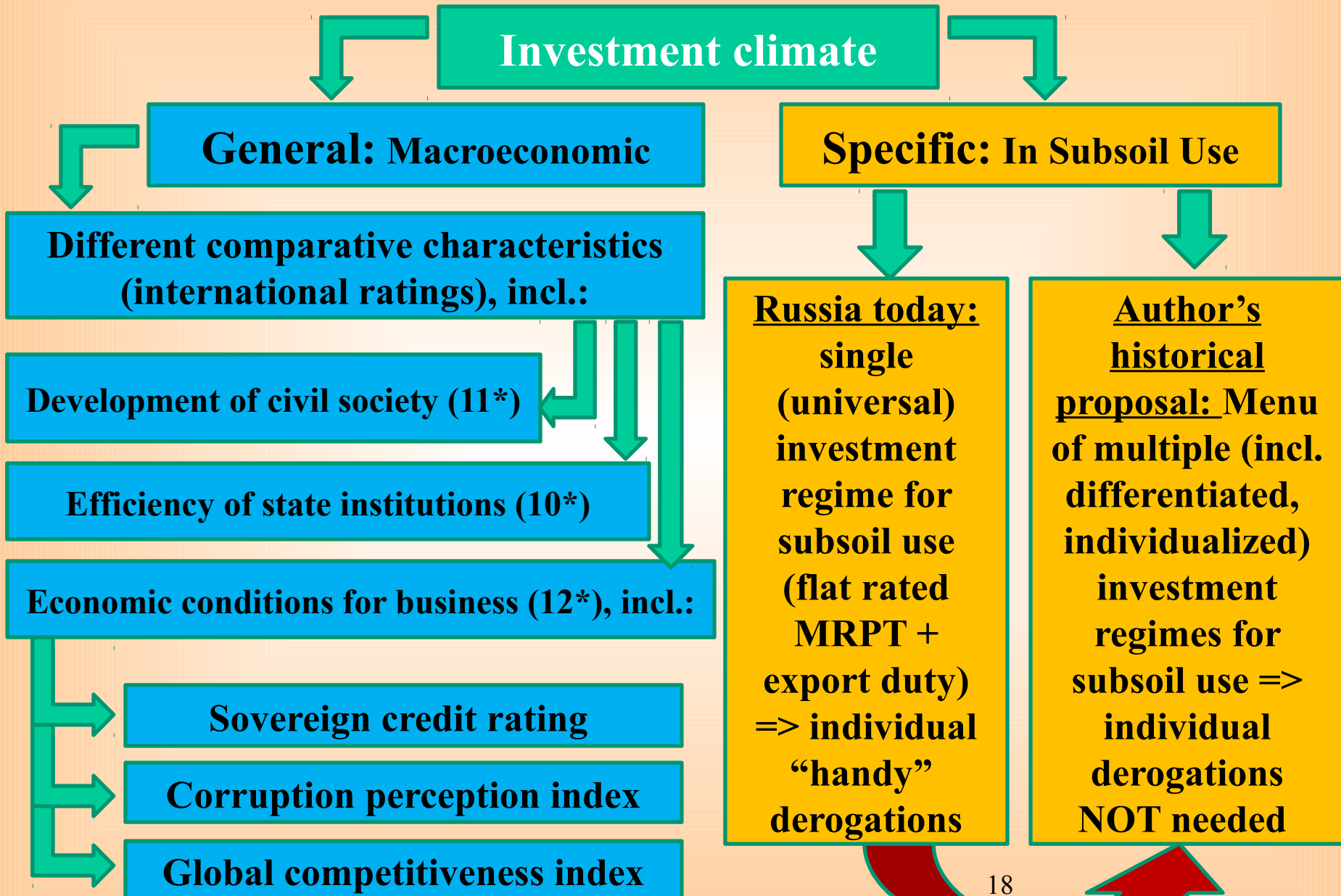


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Investment climate in subsoil use: two dimensions



Russia: long-term sovereign credit rating in foreign currency

Standard & Poor's
Fitch IBCA

Moody's

BBB+

Baa1

BBB

Baa2

BB+

Baa3

BB

Ba1

BB-

Ba2

B+

Ba3

B

B1

B-

B2

CCC

B3



IG

SG

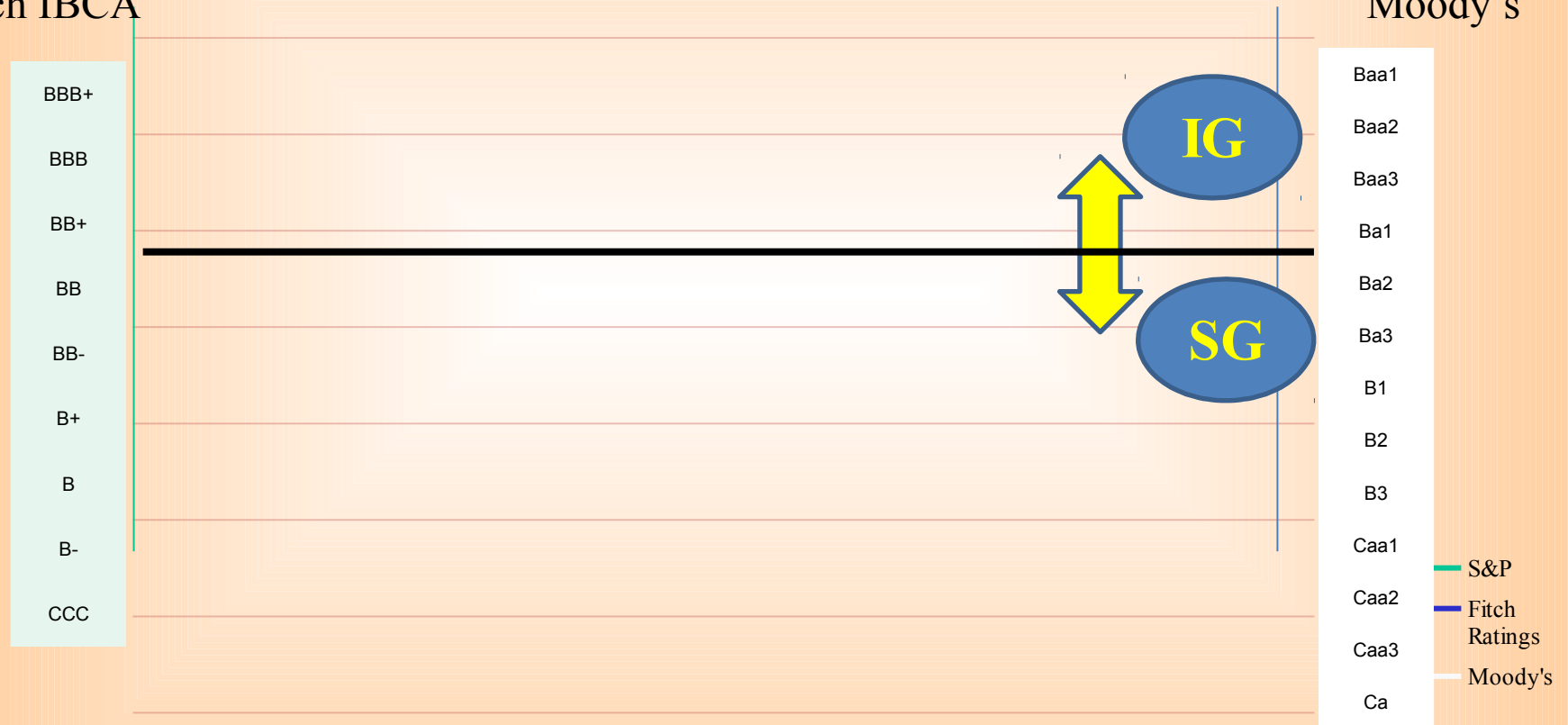
Legend: chart prepared by N.Potemkin,
2012 graduate of Russian State Gubkin
Oil & Gas University

- S&P's
- Fitch ratings
- Moody's

Russia: long-term sovereign credit rating in national currency

Standard & Poor's
Fitch IBCA

Moody's



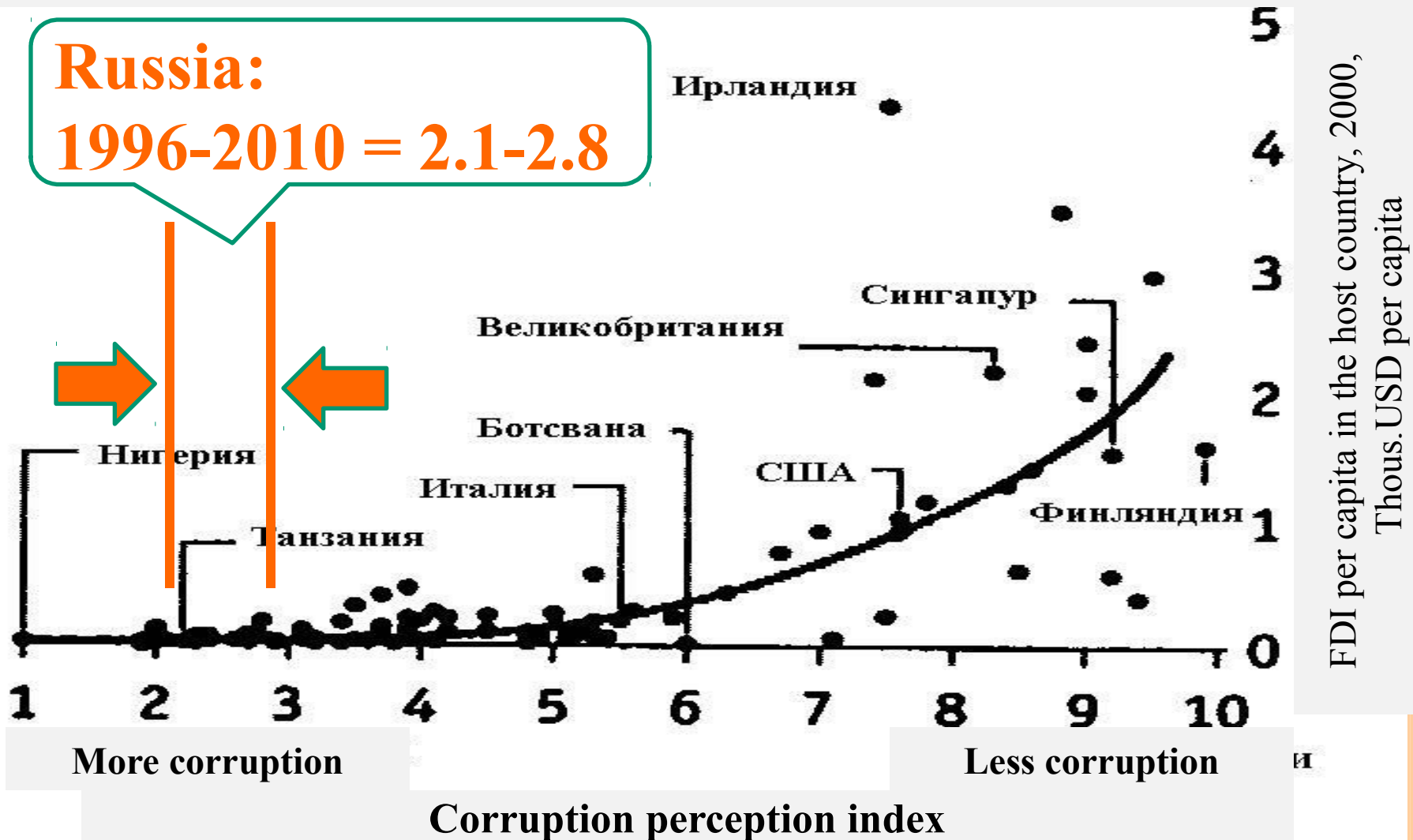
Legend: chart prepared by N.Potemkin, 2012 graduate of Russian State Gubkin Oil & Gas University

Russia at the scale of major international rating agencies (long-term investment credit ratings in foreign currency)

	Moody's	Standard & Poor's	Fitch IBCA	Short description	LIBOR+	
Investment grades	Aaa	AAA	AAA	Maximum safety level	Up to 4,25%	
	Aa1	AA+	AA+	High level of reliability		
	Aa2	AA	AA			
	Aa3	AA-	AA-			
	A1	A+	A+	Reliability above medium	Up to 6%	
	A2	A	A			
	A3	A-	A-			
	Baa1 (RUSSIA: rating awarded 08.10.2008)	BBB+	BBB+	Reliability BELOW MEDIUM		
Baa2	BBB (RUSSIA: rating confirmed 31.08.2011)	BBB (RUSSIA: rating confirmed 02.09.2011)				
Speculative grades	Ba3	BBB-	BBB-	Non-investment, speculative grade		Up to 14%
	Ba1	BB+	BB+			
	Ba2	BB	BB			
	B1	B+	B+	Highly speculative grade	Up to 19%	
	B2	B	B			
	B3	B-	B-			
	Caa	CCC+	CCC	High risk, emitter is in difficult situation		
	--	CCC	--			
	--	CCC-	--	Highest speculative rating, default possible		
	Ca	CC	--			
C	C	--	Default 21	Up to 204%		
--	--	DDD				
--	SD	DD				
--	D	D				
09.11.2012, LIBOR 1Y: USD=0.86, EUR=0.52, GBP=1.07	--	--	--			
	--	--	--			

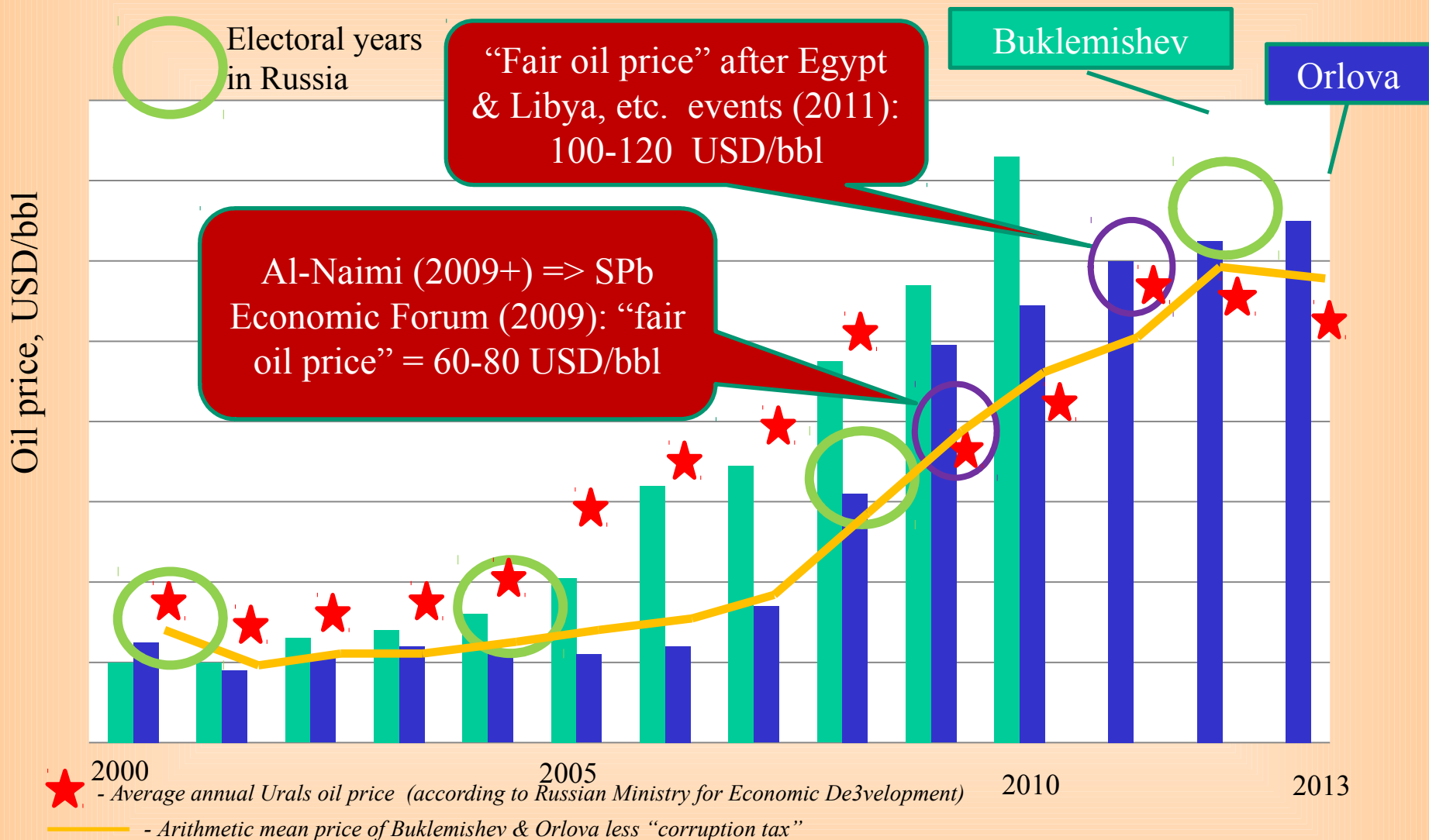
FDI inflow vs. "corruption perception index" correlation

Russia:
1996-2010 = 2.1-2.8



Source: Special report "Bribery and business". - The Economist", March 2, 2002, p.68
«Нефтегазовая Вертикаль», 2011, № 15-16, с.45

Oil price balancing Russian budget (with & without "corruption tax") - & "fair oil price"



Source: Konoplyanik 2011a (figure created by the author based on the data from presentations of Buklemishev O.V. & Orlova N.V. at the conference "20 years after USSR. What's next?" (Moscow, 09.06.2011) who have kindly provided their data to the author)

Energy projects financing

- Equity (corporate) vs debt (project) financing: 30/70-40/60
- The rule: Project rating < company rating < host state rating (=> for current Russia its project ratings are in speculative grades zone)
- Debt financing in Russia mostly via externally-raised syndicated loans, even if underwriter is Russian bank; in case of Russian state banks = de facto state sovereign guaranty => but Russia rating reliability below medium
- Global financial crisis + Eurozone crisis + low Russia rating => shrinking of available zone of potential project financing
- In crisis role of project financing decrease, and of corporate financing, on contrary, increase, **but** current financial in-crisis problems of the companies (more difficult servicing of debt & on-going needs) => shrinking of available zone of potential corporate financing
- => Russia: still high risks of financing energy (subsoil) investment projects... => how to diminish them in the given circumstances?

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Comparative data on implementation of subsoil use tax/investment regimes worldwide, 2003 & 2009

-	2003		2009	
Number of states in analysis (data available from G.Barrows), incl.:	180		177	
Oil producing states, using:		91		104
- Tax + Royalty	113	45	111	55
- PSA	54	34	55	38
- Both T+R & PSA	13	12	11	11

Based on data, kindly provided to author by Gordon Barrows (Barrows Inc./AIPN)

Author's historical proposal: possible composition of investment regimes (investment matrix/menu) for Russian subsoil use (within legal vs. taxation axes)

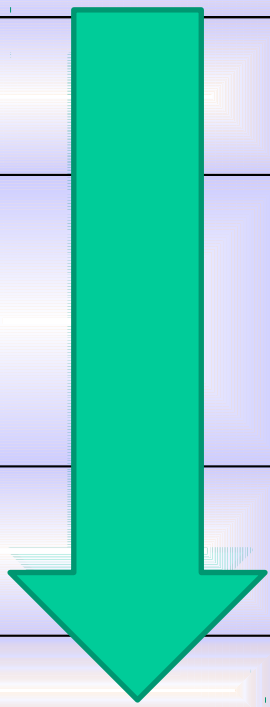
Key idea: to create competition between investment regimes for investor

A way to increase investment attractiveness of Russian subsoil use

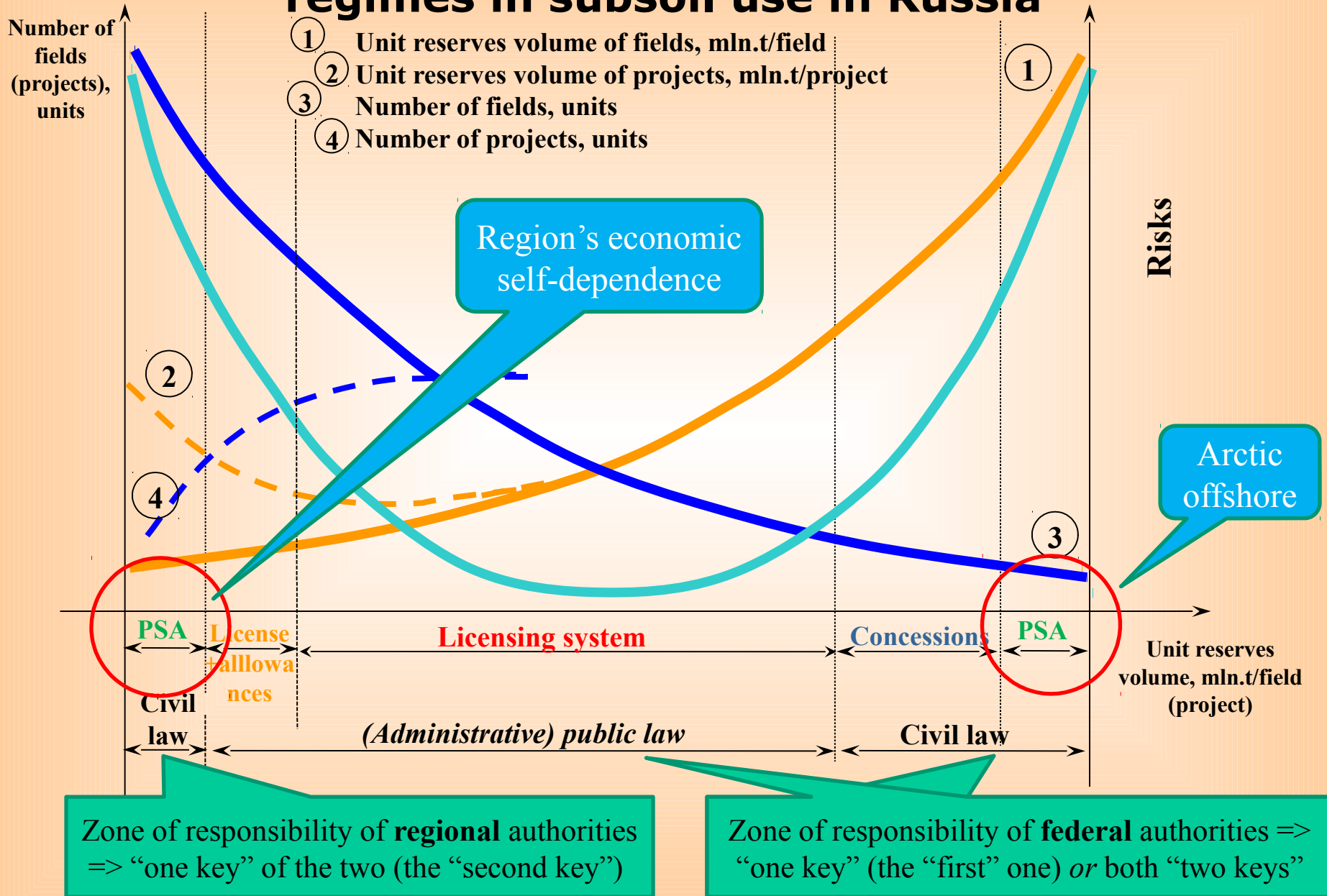
		Legal system	
		Administrative (public)	Civil
Tax treatment	General (common)	Licenses ①	Concessions ③
	Special (incl. individualized)	Licenses with allowances (differentiated licensing regime) ②	PSAs ④

Different investment regimes in subsoil use: comparative legal & tax advantages/disadvantages

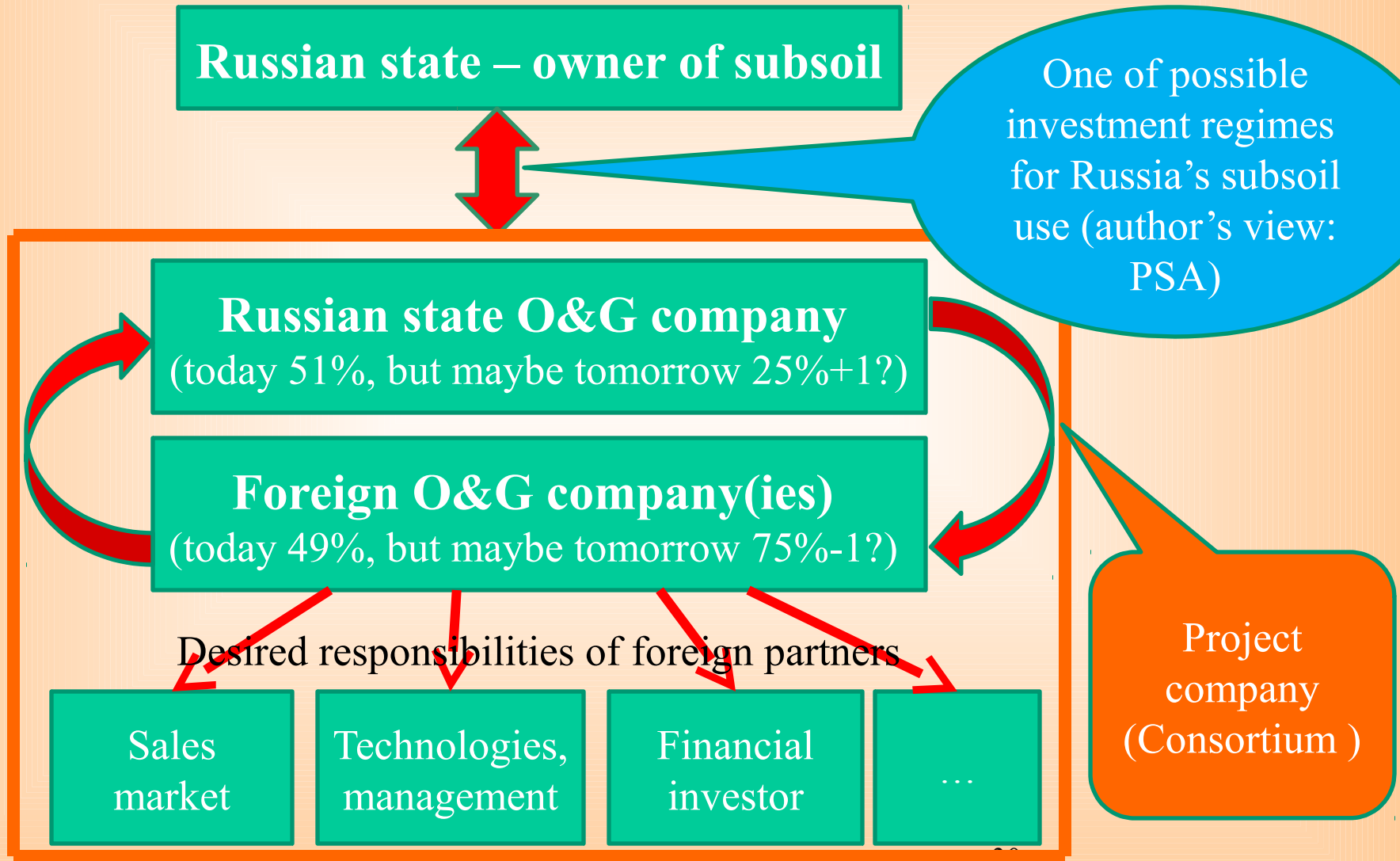
Investment regime	Investment regime's characteristics during project life-time	
	Tax pressure	Legal stability
Licensing ①	Non-optimal (high), established unilaterally	No
Licensing with allowances (special / differentiated tax regimes) ②	Non-optimal (high / diminished), established unilaterally	No
Concessions ③	Non-optimal (high), established unilaterally	Yes
PSA ④	Optimal, negotiated	Yes



Proposed application zones for different investment regimes in subsoil use in Russia



Possible organizational structure of consortia for Russian Arctic offshore O&G development (within author's concept of multiple investment regimes for subsoil use)



**Thank you for your
attention**

**www.konoplyanik.ru
<a.konoplyanik@gazpromexport.com>,
<andrey@konoplyanik.ru>**