

The importance of institutions and organizations for agriculture

Ulrich Koester

**University of Kiel
and Leibniz-Institute for Agricultural Development in Transition Countries**

1. The relevance of the topic and the line of reasoning
 - Do we need agricultural economics?
2. Some basic concepts of neoclassical economics and its limitations for use in agricultural economics
 - The concept of the production possibility curve
 - The method of comparative-static analysis
3. The performance of selected transition countries
4. Determinants of the change
 - Main specific institution for agriculture
5. Policy implications
6. Summary

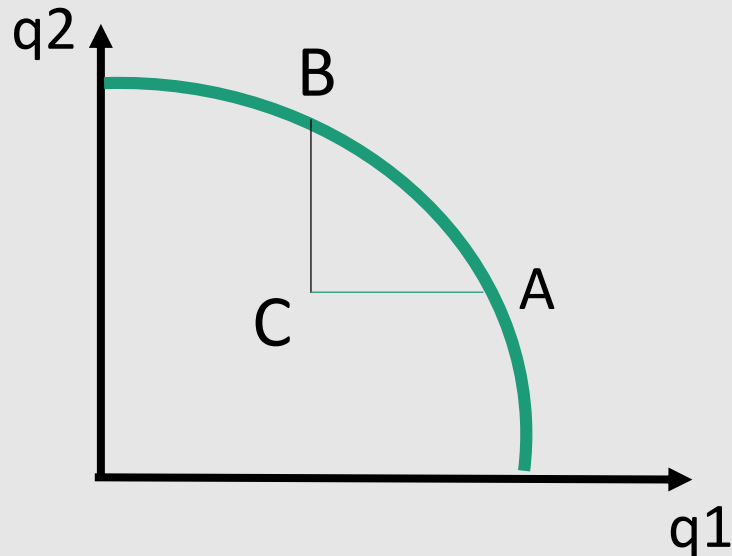
“Economic theory is merely idle amusement unless it is tested and applied”.

F.V. Waugh, 1964

Problem with the production possibility curve

Definition:

The maximum output combination of two products which can be produced **with given resources and given technology**



If main assumption of neoclassical economics hold, a well organized economy produces a combination of products on the possibility curve.

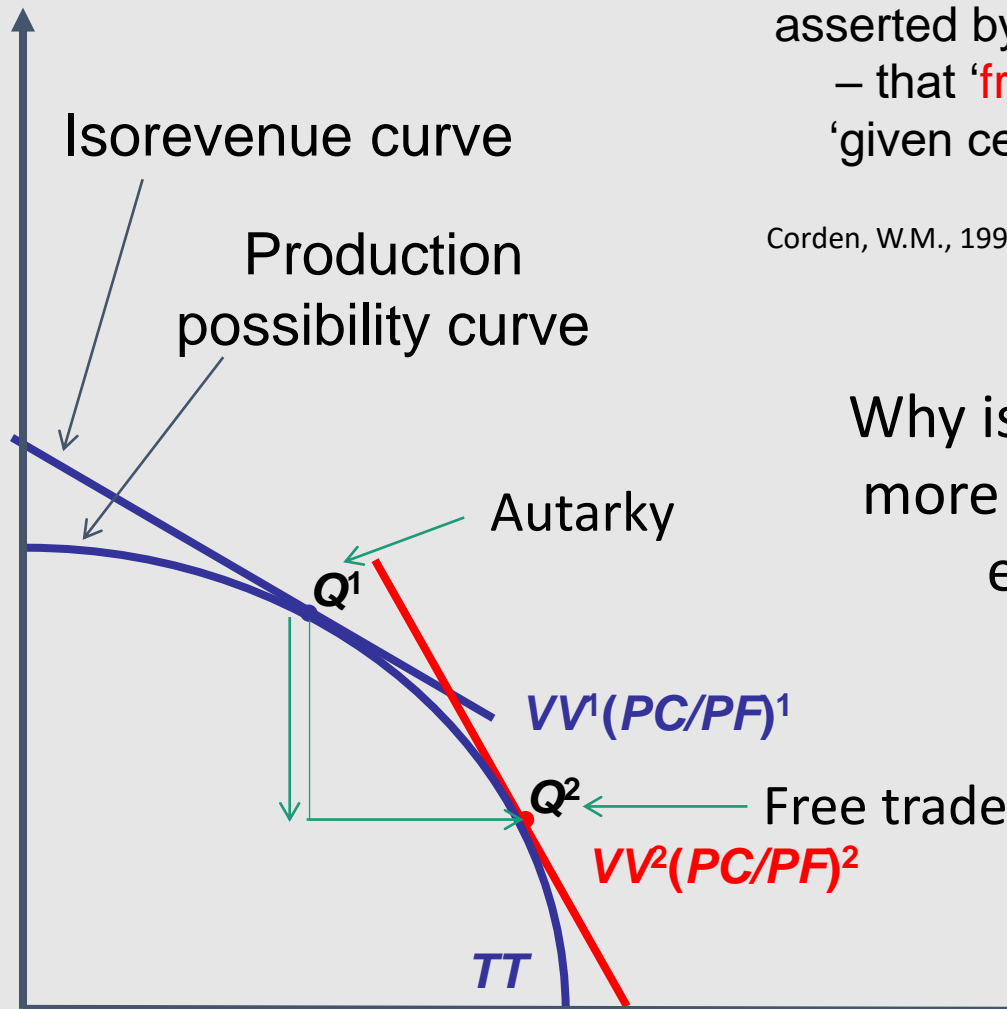
Important assumptions:

- Homogeneous factors of production
- Profit and utility maximization
- Only private goods
- Complete mobility of factors
- Complete information
- Perfect competition

- Quantity of resources had not much changed,
- but huge decline in most countries, even up to date.
- GDP of agriculture declined in most countries even more than overall GDP.
- Hardly to explain with pure neoclassical economics.

The standard model of trade liberalization

Food production, QF



“Theory does not ,say‘ – as is often asserted by the ill-informed or badly taught – that ‘free trade is best‘. It says that, ‘given certain assumptions‘ it is ,best‘.

Corden, W.M., 1997, Trade Policy and Economic Welfare. 2. edition

Why is change for agriculture more difficult than for other economic sectors?

The importance of institutions and organizations for agriculture

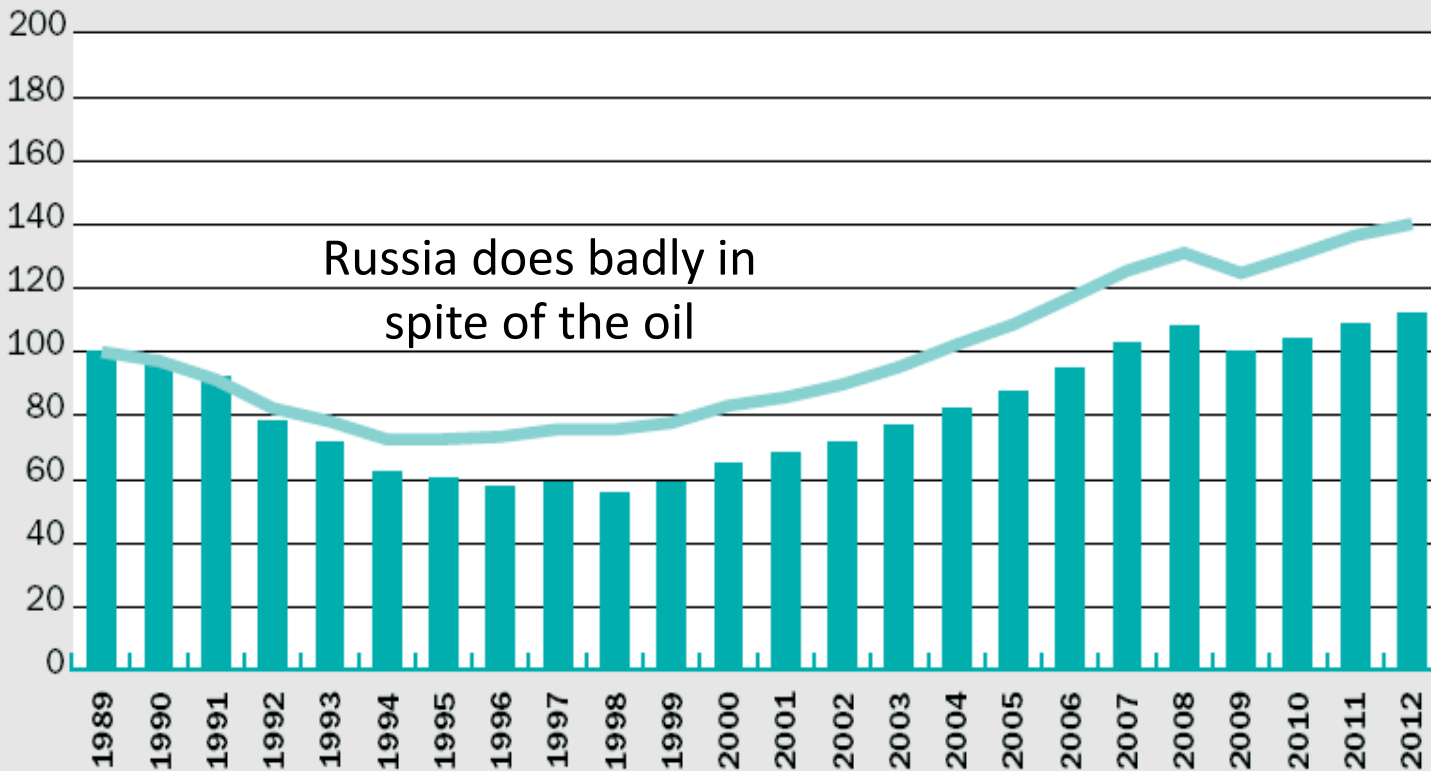
Non-food production, QC

Folie 5-6

1. Specifics of the factors of production
 - Land
 - Capital
 - Labor
2. Willingness to adjust due specific personal values
3. High transaction costs

Real GDP (1989 = 100)

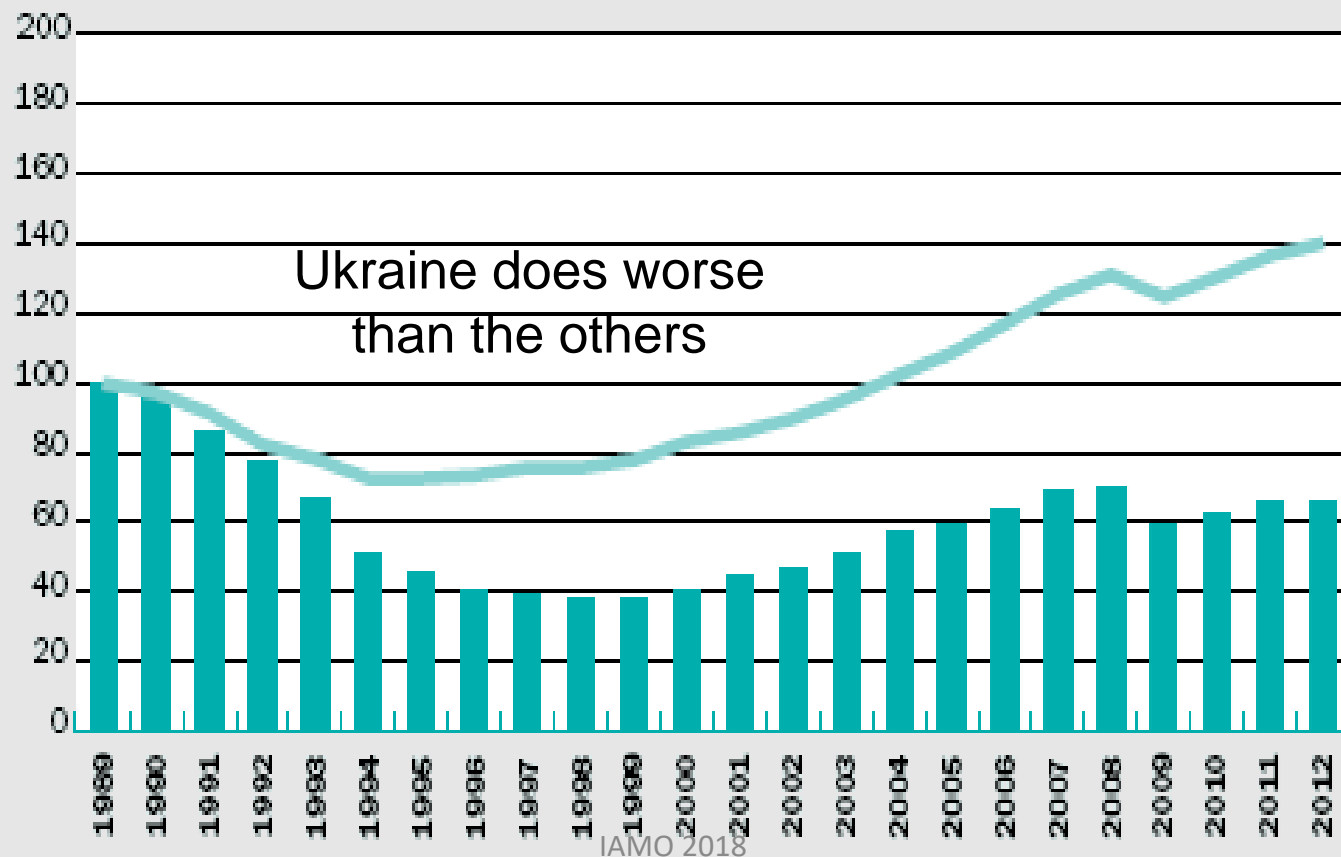
■ Russia ■ EBRD-33



Ukraine's GDP

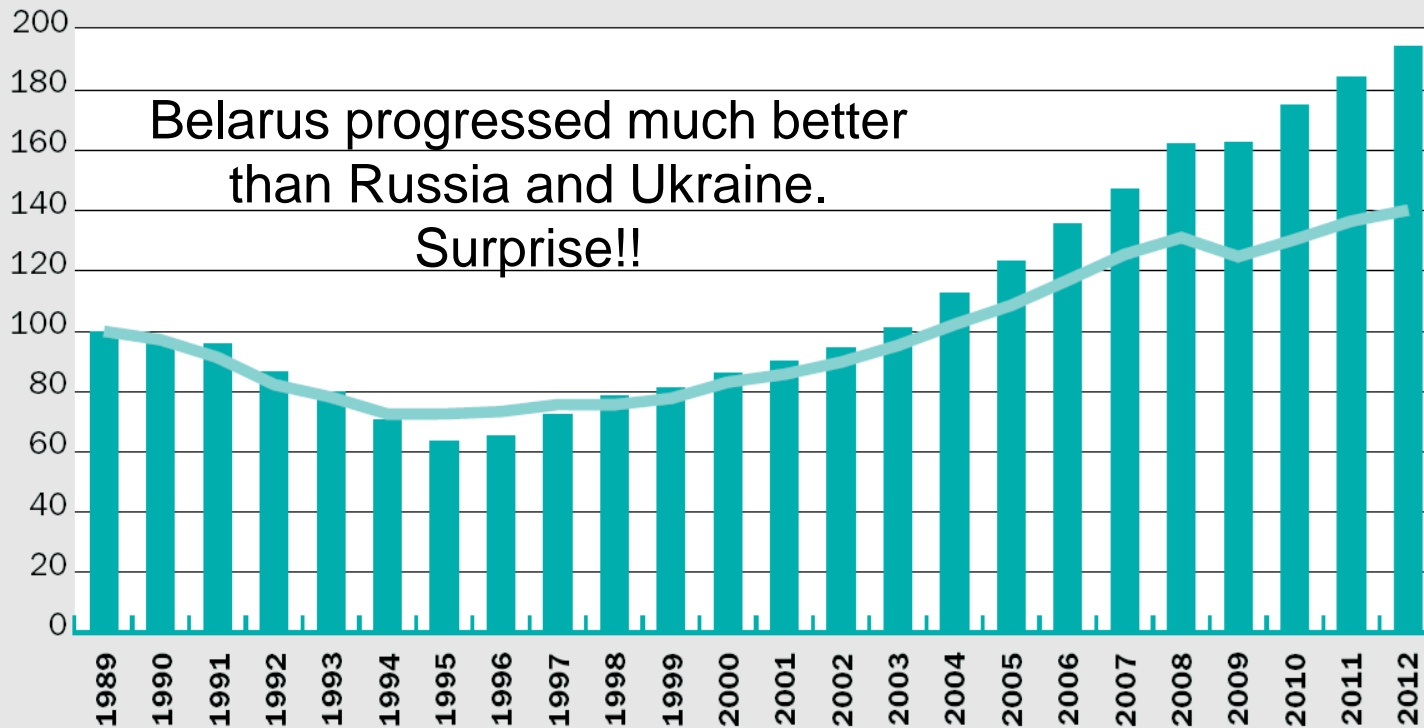
Real GDP (1989 = 100)

■ Ukraine ■ EBRD-33



Real GDP (1989 = 100)

■ Belarus ■ EBRD-33



Russia: Gross domestic product (GDP) in current prices from 2012 to 2022

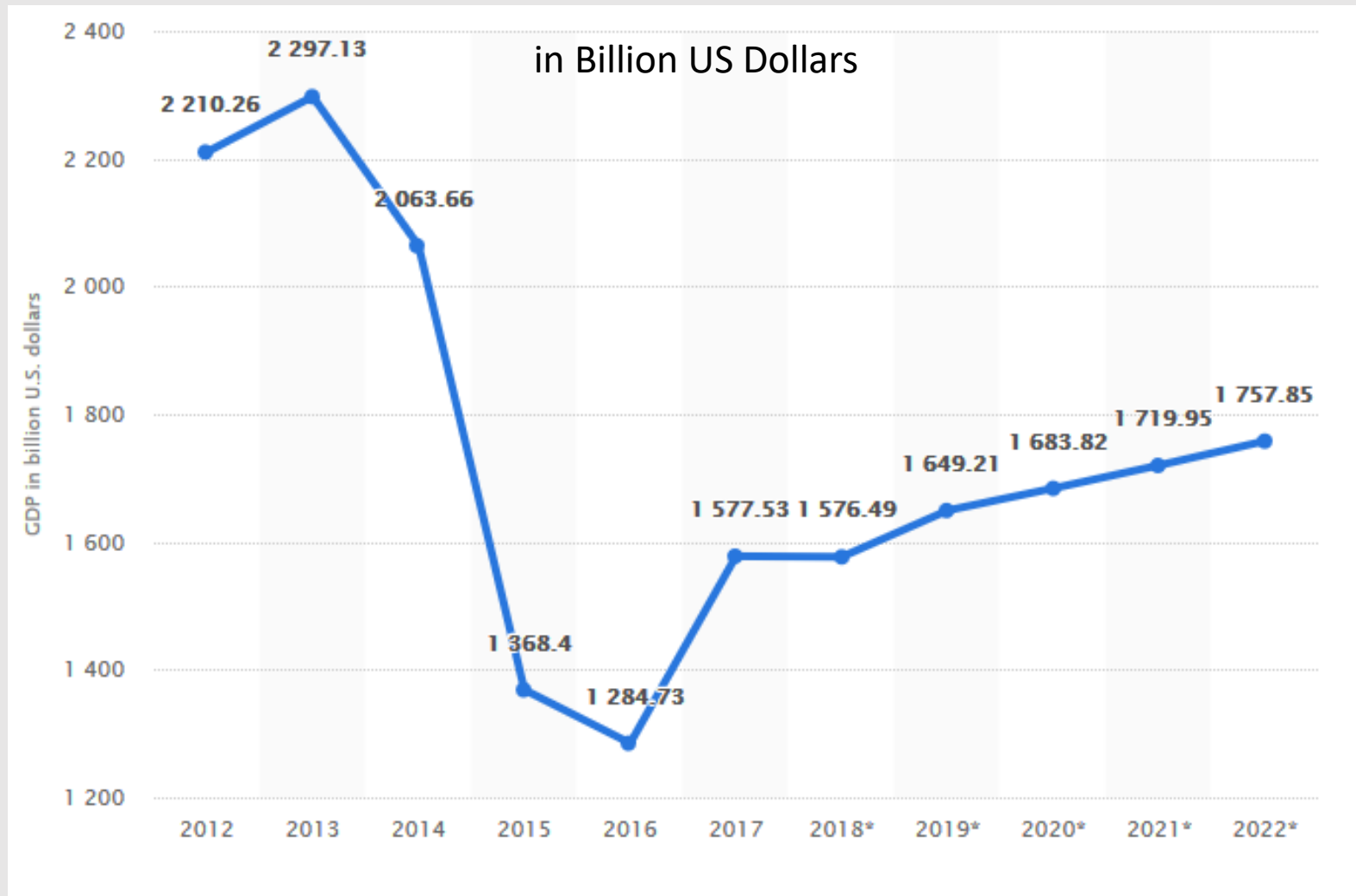


Table 2: Sectoral Performance Data of East German Agriculture at Prices of West German Agriculture¹
in mill. DM

	Crop Production	Livestock Production	Total Agricultural Production
Value of Production	13,237.7	18,921.7	32,159.4
Purchased Input	10,061.1	19,102.7	29,163.8
Gross Value Added at Market Prices	3,176.6	-181	2,995.6
Subsidies c	515.9	208.1	724
Taxes c	933.9		933.9
Gross Value Added at Factor Costs c	2,758.6	27.1	2,785.7
Depreciation c	1,817.4	1,305.8	3,123.2
Net Value Added at Market Prices	1,359.2	-1,486.8	-127.6
Net Value Added at Factor Costs	941.2	-1,278.7	-337.5
Wages ²	3,875	4,741.7	8,616.7
Interest Payments c	773.2	583.2	1,356.4
Net Income	-3,707	-6,603.6	-10,310.6

1 Quantities are an average of 1986-1989 and prices of 1990. Inclusive wages for members of collective farms. L. Monetary values from m directly translated into DM at the official exchange rate of 1 ; 1.

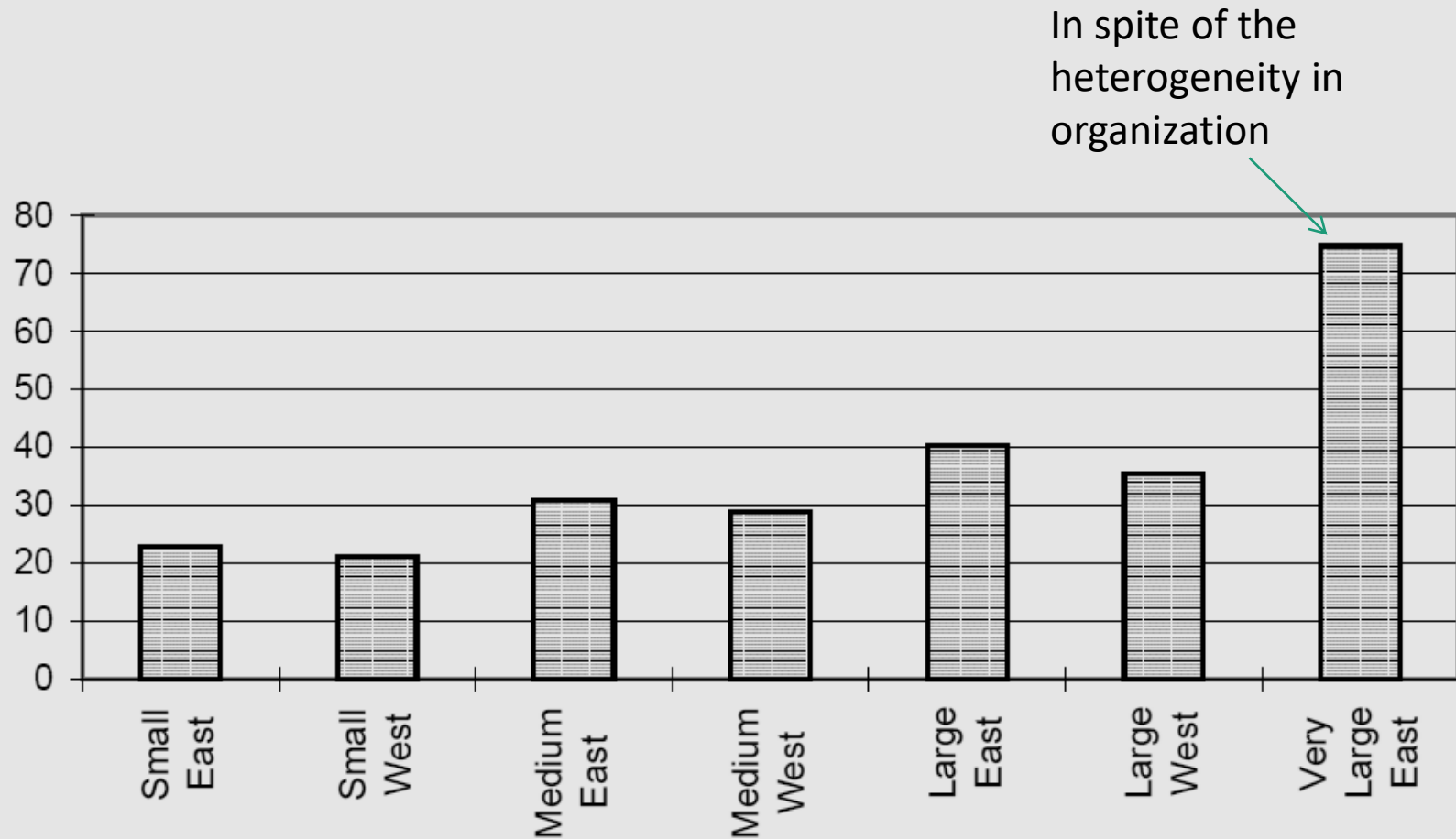
Source: Boese, Ch., J. Welschof, H. Neumetzler, and G. Schmidt (1991), "Auswirkungen der geänderten Rahmenbedingungen auf die Landwirtschaft der neuen Bundesländer". In: Henrichsmeyer, H., and K. Schmidt (eds), Die Integration der Landwirtschaft der neuen Bundesländer in den europäischen Agrarmarkt. Agrarwirtschaft, Sonderheft 129, Buchedition Agrarmedia, Hamburg and Frankfurt.

**Table 3: Yields in East and West Germany,
1989, 1993 and 1994**

Indicator	East Germany			West Germany		
	1989	1993	1994	1989	1993	1994
Grain, total dt/ha	44.0	51.5	56.2	55.4	59.9	59.3
Winter Wheat dt/ha	45.1	60.6	64.6	62.6	69.4	70.2
Winter Barley dt/ha	46.1	47.3	60.1	65.8	53.4	57.2
Rye dt/ha	33.7	37.7	44.1	47.0	52.6	51.6
Rape dt/ha	26.5	26.9	27.9		30.1	26.7
Potatoes dt/ha	212.5	350.9	249.7	372.6	405.5	355.8
Sugar Beets dt/ha	286.0	511.3	391.7	542	576.5	517.4
Milk kg/cow	4,120	5,225	5,174	4,853	5,245	5,286

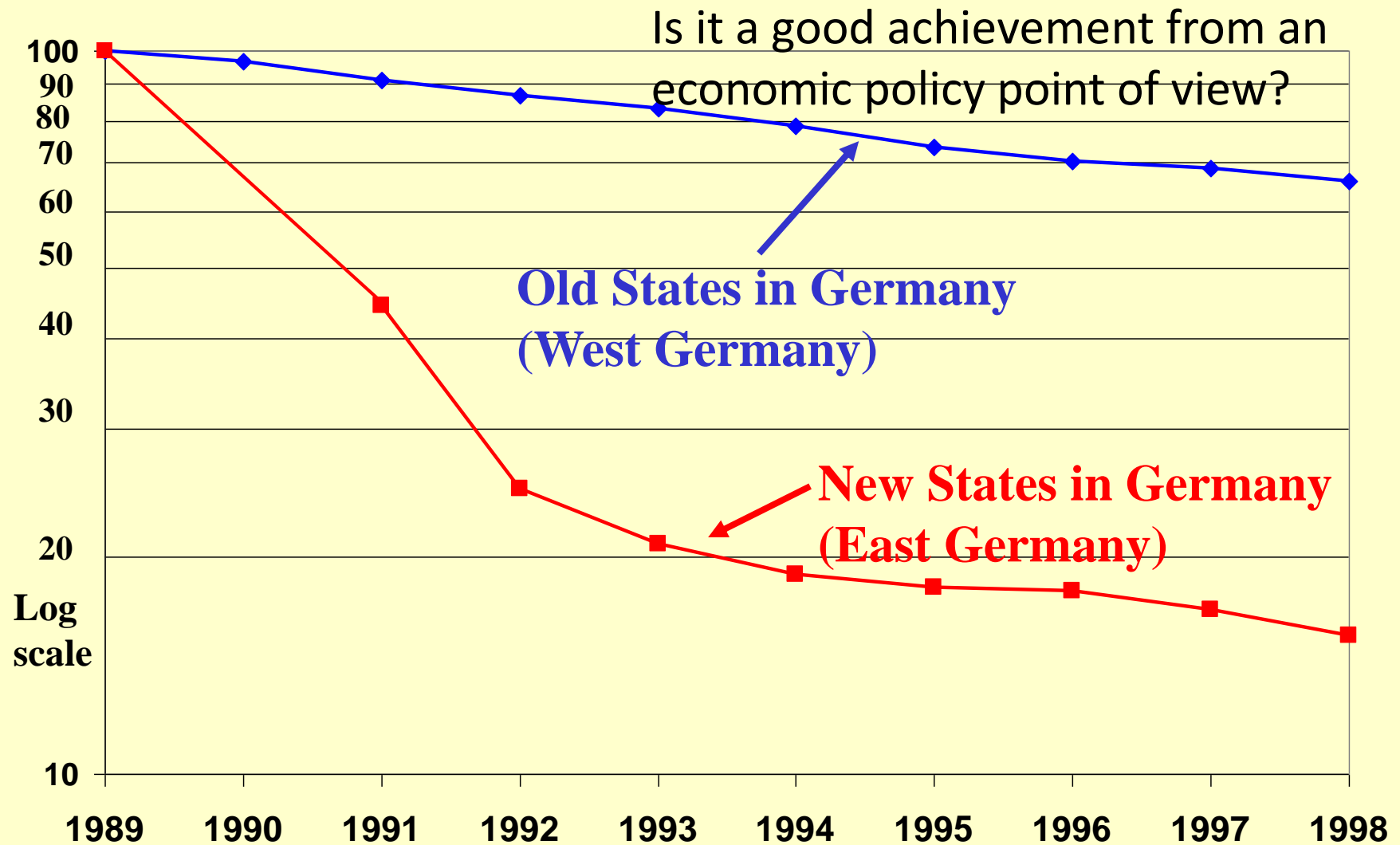
Source: Bundesministerium für Ernährung, Landwirtschaft und Forsten, Agrarbericht various issues. Quoted in Thiele, H. (1994),

Figure 1: Profit / FAK (in DM 1000) in East and West Germany in 1993/94



Source: Bundesministerium für Ernährung, Landwirtschaft und Forsten, Agrarbericht various issues.

Agricultural labor force in the old and new Federal States of the Federal Republic of Germany (1989=100)



Source: Agrarbericht der Bundesregierung, var. issues

1) Measured in work units

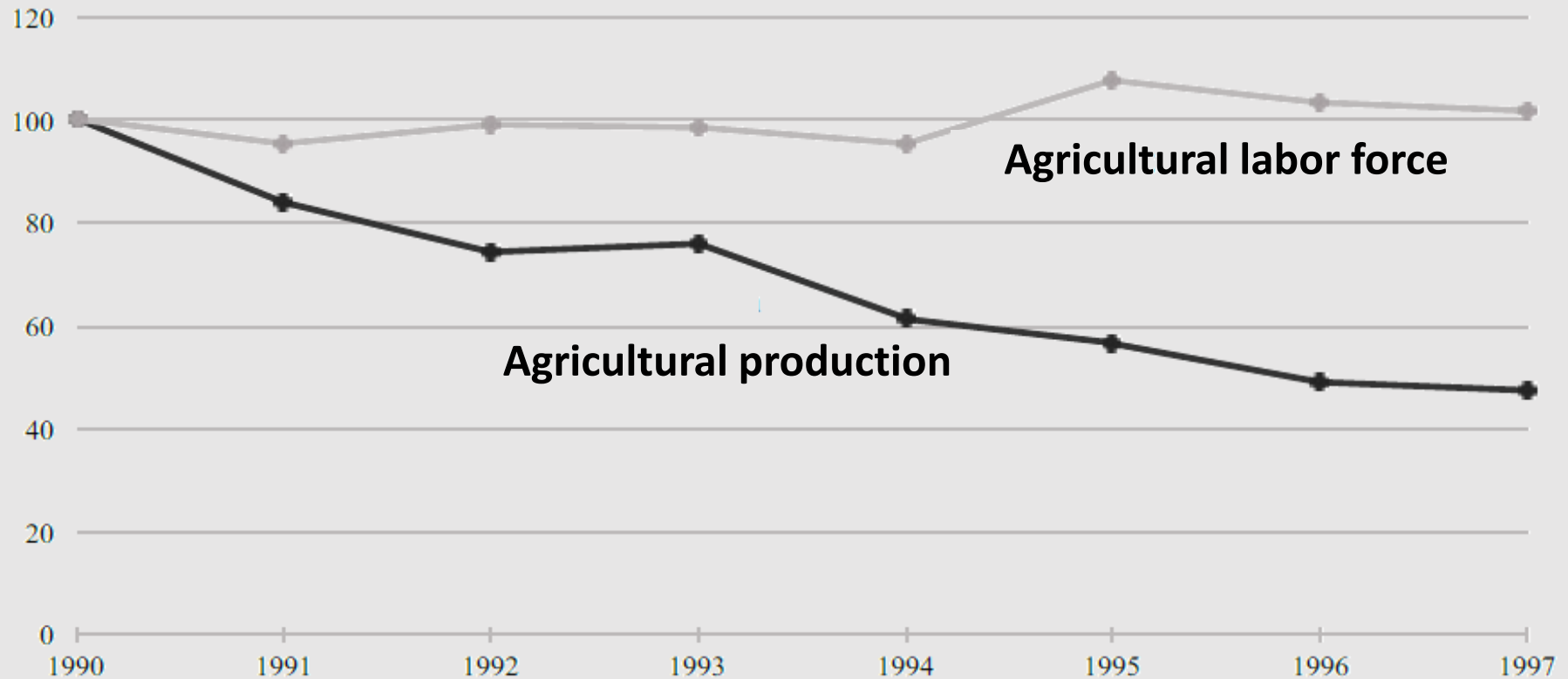


Schaubild 1.4

Entwicklung der Agrarproduktion und Beschäftigung in der Ukraine 1990–1997

(Index 1990 = 100) Quelle: State Committee of Statistics, Tacis, „Ukraine Economic Trends“.

Berechnungen des Autors.

- Technical progress and change of it is more important than resource endowment
- **Most important are institutions and organizations**

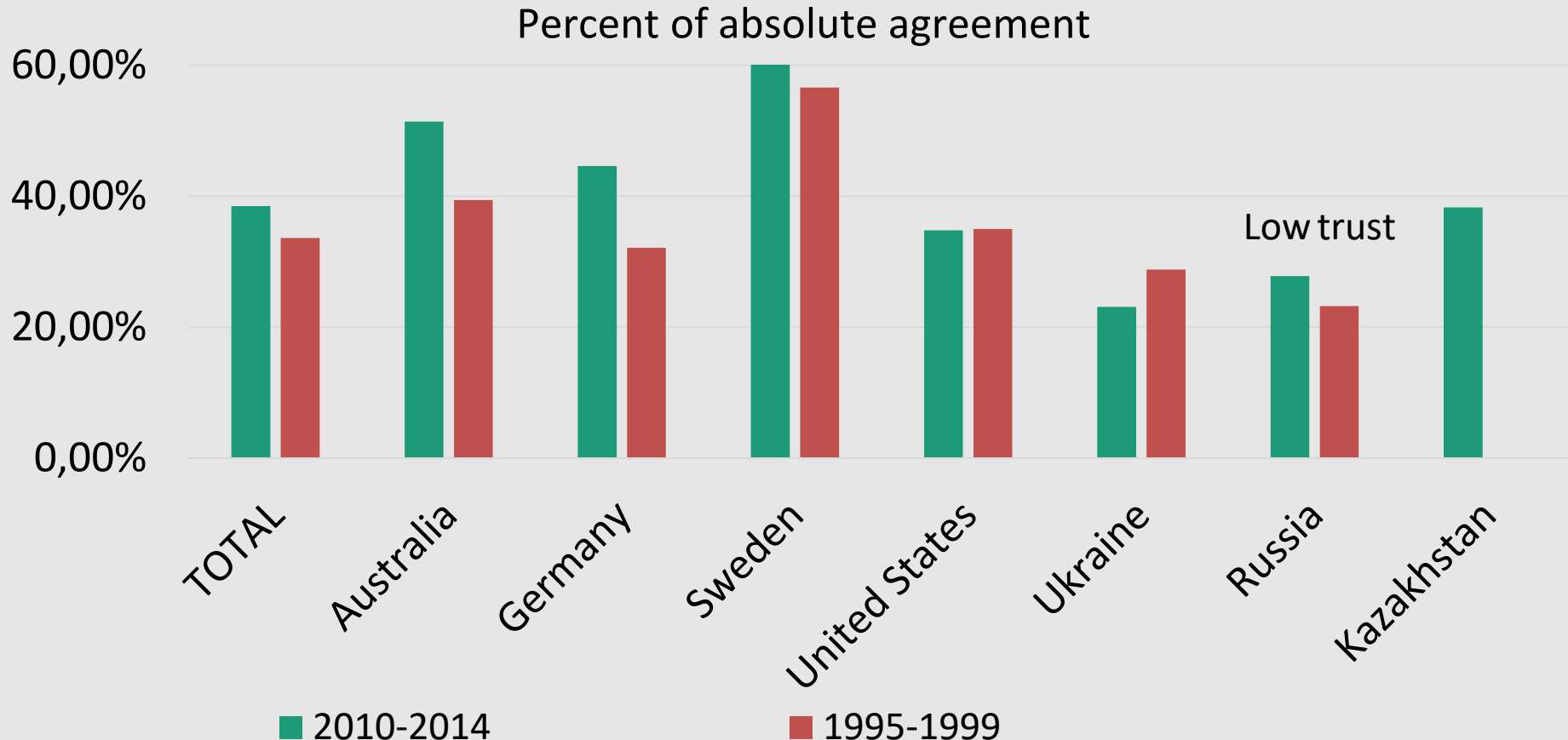
Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interactions“

(North, 1990, S. 7)

- Organizations are groups of people who have in common same objectives.
- Institutions are formal or informal

- Informal institution express values of individual and the society concerning
 - Trust
 - Attitude to work
 - Compliance with informal rules and formal regulations

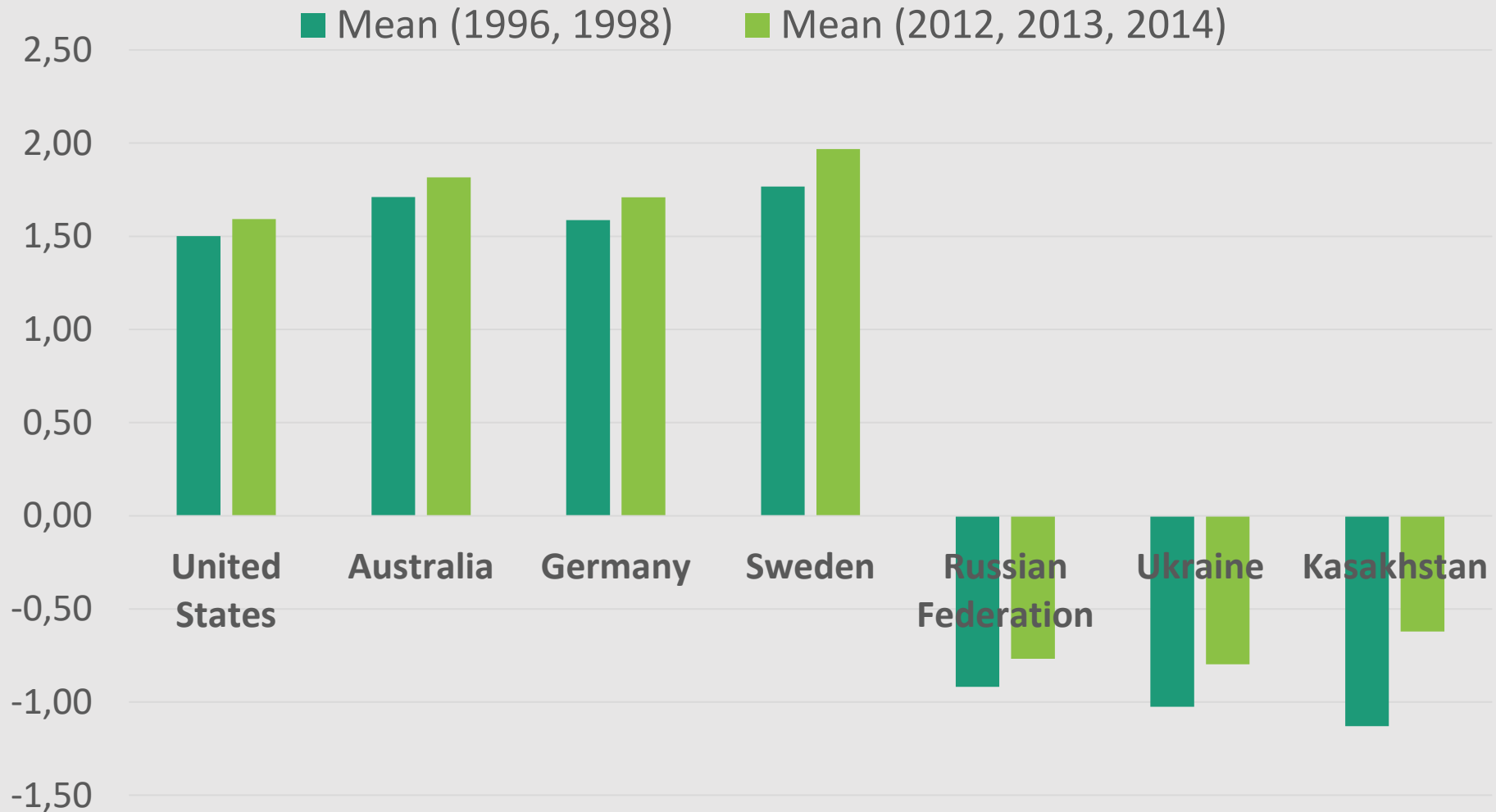
Most People can be trusted



Question: V24

Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?

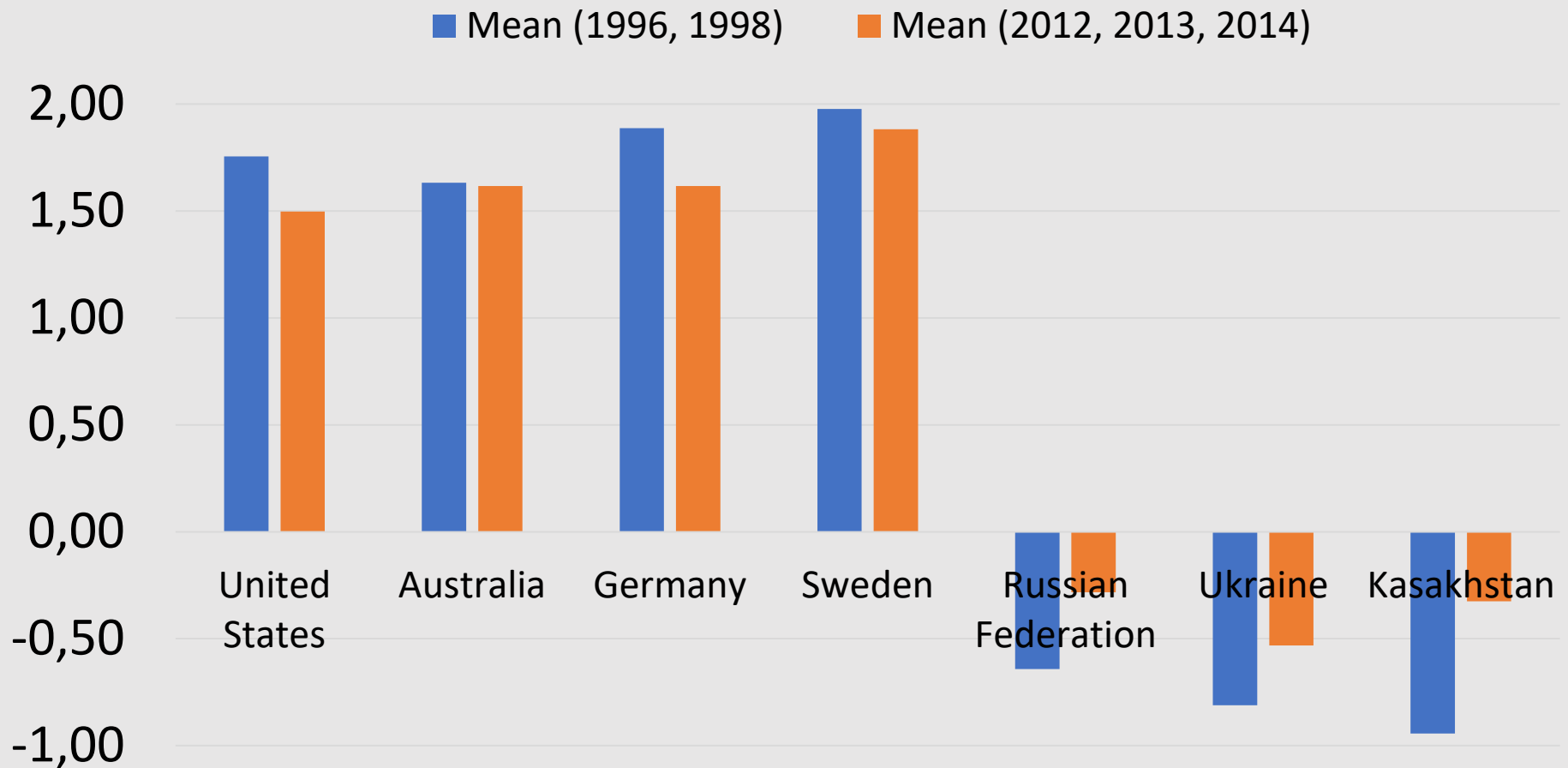
Trust in rules of law



Mean of 2 resp. 3 Estimates of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance)

Source of data: www.govindicators.org/

Government effectiveness



Mean of 2 resp. 3 Estimates of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance)

Source of data: www.govindicators.org/

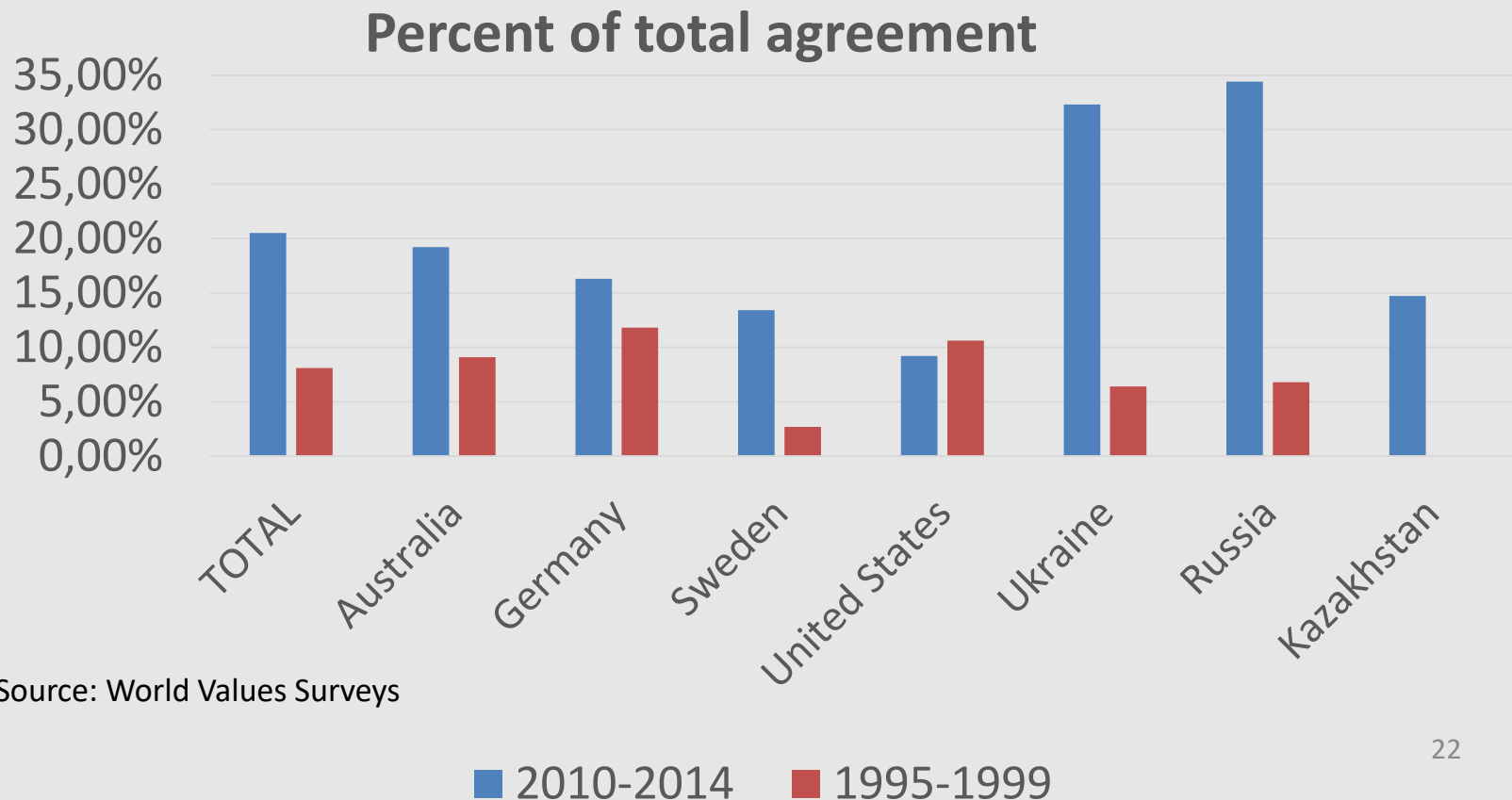
Income should become more equal

Question: V96

"Incomes should be made more equal"

vs.

"We need larger income differences as incentives for individual effort"



Attitude with respect to work

	Age			Income		
	16-29	30-49	50+	Lower	Middle	Upper
	Good chance for promotion are important					
Russia	20	16	17	15	17	22
Hungary	41	44	42	43	42	40
West Germany	50	44	38	37	46	46
USA	67	58	52	56	60	58
	Important to use initiatives					
Russia	29	30	27	26	30	33
Hungary	34	40	34	32	35	52
West Germany	66	67	48	46	61	70
USA	47	55	51	41	52	63
	Important to have a job where I can achieve something					
Russia	34	28	23	23	27	33
Hungary	64	60	54	52	59	69
West Germany	65	63	59	55	62	68
USA	71	71	72	68	71	77
	Important to have a responsibility on the job					
Russia	15	22	23	19	21	23
Hungary	41	53	53	48	52	52
West Germany	52	56	52	45	54	63
USA	54	57	56	50	58	62
	The owners should run their own business or should appoint the managers					
Russia	16	12	08	10	12	14
Hungary	19	27	24	20	24	39
West Germany	39	45	55	45	46	50
USA	52	51	65	55	57	58
	I like to assume responsibility					
Russia	20	24	28	21	28	28
Hungary	38	60	50	47	53	67
West Germany	53	59	53	47	54	65
USA	56	67	57	60	59	69

Rank 2017	Country	2017 Score	2016 Score	2015 Score	2014 Score	2013 Score	2012 Score
135	Russia	29	29	29	27	28	28
130	Ukraine	30	29	27	26	25	26
122	Kazakhstan	31	29	28	29	26	28
2	Denmark	88	90	91	92	91	90
12	Germany	81	81	81	79	78	79
46	Georgia	56	57	52	52	49	52

Why is agriculture more negatively affected by corruption than most other economic sectors?

Change of Corruption over time				
	Mongolia		Georgia	
	Ranking	Score	Ranking	Score
2015	72	39	48	52
2014	80	39	50	52
2013	83	38	55	49
2012	94	36	51	52
2011	120	2,7	64	4,1
2010	116	2,7	68	3,8
2009	120	2,7	66	4,1
2008	102	3,0	67	3,9
2007	99	3,0	79	3,4
2006	99	2,8	99	2,8
2005	85	3,0	130	2,3
2004	85	3,0	133	2,0

Corruption				
	Ukraine		Georgia	
	Ranking	Score	Ranking	Score
2012	144	26	51	52
2011	152	23	64	41
2010	134	24	68	38
2009	146	22	66	42
2008	134	25	67	39
2007	118	27	79	34
2006	99	28	99	28
2005	107	26	130	23

- Clarify the role of the government and of the market
- Support introduction of new technologies in the economy and on individual farms, partly imported.
- Budget outlays are needed, but have to be targeted and efficient
- Improving education: The German experience in 1870s and thereafter. **The role of education**
- Improving bureaucracy and enforce anticorruption policies: the Japanes policy in late 1870s.
- Anti-corruption policies: The case of Geogia
- Why is agriculture more negatively affected by corruption than other sectors?

- The role of the state and the role of individuals (expressed by functioning markets)
- Enabling environment
Legal system including laws and enforcement
- Correct market failure (private marginal costs might be higher or lower than social marginal costs)
- Provision of public goods (non-excludable and non rival).
- Provision of merit goods. Could be offered by private agents, but quantity is too low from the society's point of view

1. Improving trust is not just a technical matter; **attitudes of decision makers and** on the individual and collective level have to be changed.
2. Inform people on the situation in more progressive countries and **copy positive experience,**
3. Overhaul your **education system** on all levels, in particular for agriculture,
4. Consider introducing a **dual education system,**
5. Focus only on **legislation** which can **be enforced,**
6. **Fight nepotism** and, thus, improve trust and the quality of the administration,
7. **Fight corruption**
 - benefit from the experience of more successful countries

- Assess available legislation based on a cost-benefit analysis
- Set up an **independent** policy advisory council
- Advertise all free positions in the Government **and** universities
- Review past performance of agriculture research departments

The productivity of resources in an economy does not mainly depend on available resources.

The production possibility curve seems to be inadequate to explain changes of the real economy.

The effect of changes in the process of transition to a market economy cannot be quantified accurately with a comparative-static analysis. Adjustment effects are the most important.

**The slow transition is partly affected by
the attitude of people**

**Education and information can be
helpful to ease the problem**

**The impact of governmental regulations has
to be reviewed and possibly revised.
Example Australia**

- **The future could be bright**
- Russia is certainly special, but
- The country can learn a lot from others
- Good to start with education
- It is the first step in the right direction

**I wish the Institute of Agrarian Economic
Research all the best for the future:**

Thank you