



*USING ENERGY RESOURCES TO  
DIVERSIFY THE ECONOMY:  
Agricultural Price Distortions  
in Kazakhstan*

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# The Caucasus and Central Asia





# *Kazakhstan's Economic History*

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★ 1991- 9

★ 1999 – today



★ How to use the oil revenues:

– I in physical and human capital

– Diversification



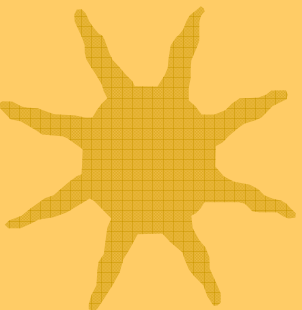
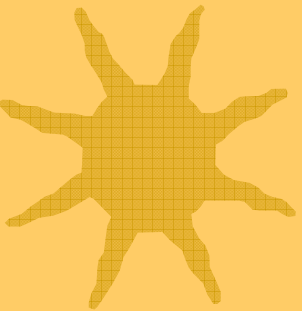
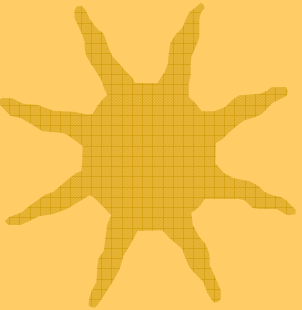
★ This paper focuses on one aspect of diversification - agriculture



# *OUTLINE*

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1. Review of Kazakhstan's economy and role of agriculture.
2. Estimates of distortions facing Kazakh farmers
3. Design of ag policies and their relation to other policies,
  - ★ in particular how to reduce trade costs
4. Conclusions

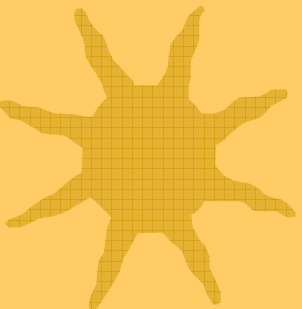
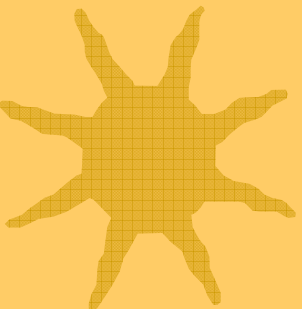
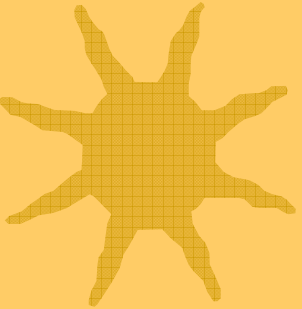




## *Contexts*

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- ★ Liberal trade policy – ag support *not* through border measures
- ★ High trade costs during 1990s
  - Is the discretionary power of officials being reduced?
- ★ Supermarkets and emergence of value chains

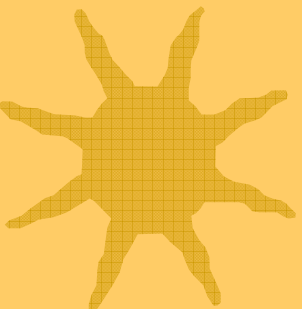
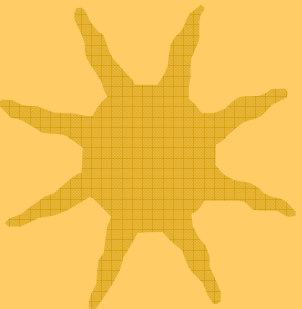
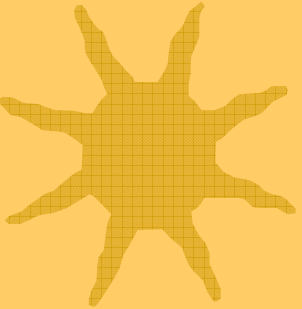




# *Agricultural Policy in Kazakhstan*

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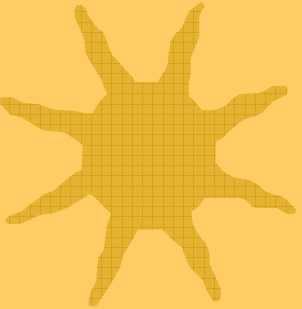
- ★ Neutral in 1990s – policymakers were elsewhere (no sectoral bias in tariffs) – subsidies cut in first half of 1990s
- ★ Price liberalization – initially negative impact because input prices  $\uparrow$  relative to output prices – but short-term. Some price support after 1999.
- ★ Subsidies very small in 1990s -  $\uparrow$  after 1999, especially with 2003-5 AFP.



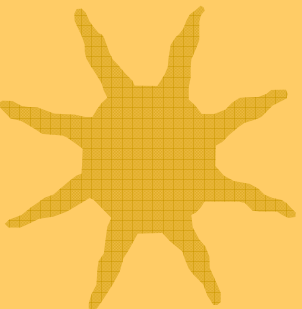


# *Measuring policy-induced distortions*

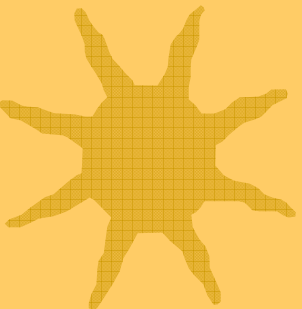
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★ Nominal & effective protection (Corden; Johnson)



★ Use world prices -- Little and Mirrlees (1969)



★ OECD producer support estimates (PSEs)  
= (domestic price - border price).Q + budgetary transfers

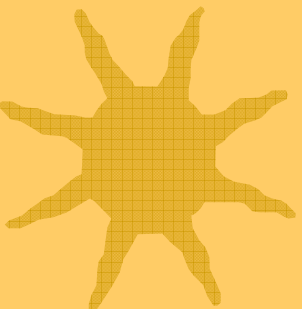
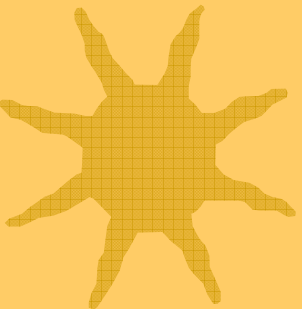
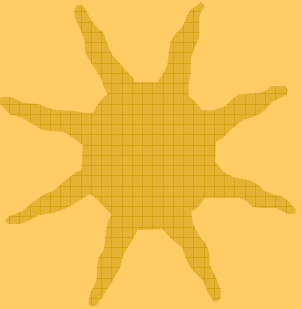


# *PSE-type estimates – Version 1*

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Produced by FAO and WB for Agricultural Policy Assessment project

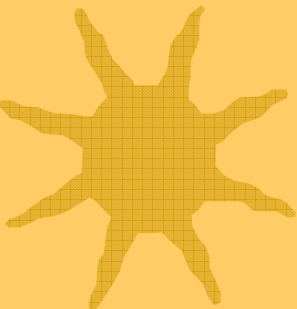
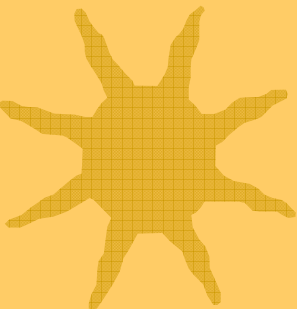
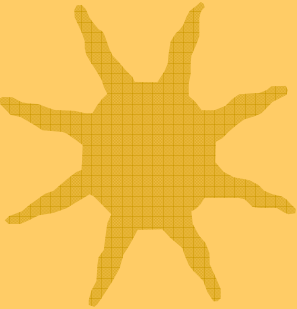
- initial wheat estimates for 2000-4 are -10% to -28%
- this is not consistent with analysis of policy developments in Kazakhstan (especially the upturn in 2002-4)







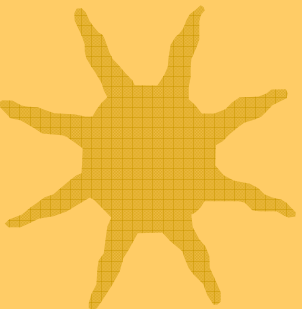
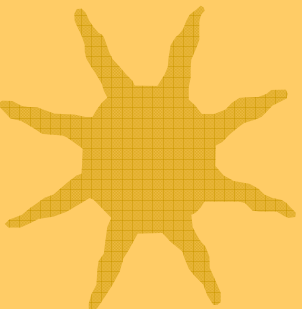
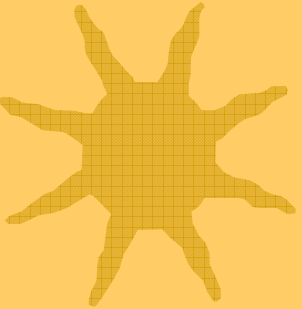
# *Producer Support for 2000-4*



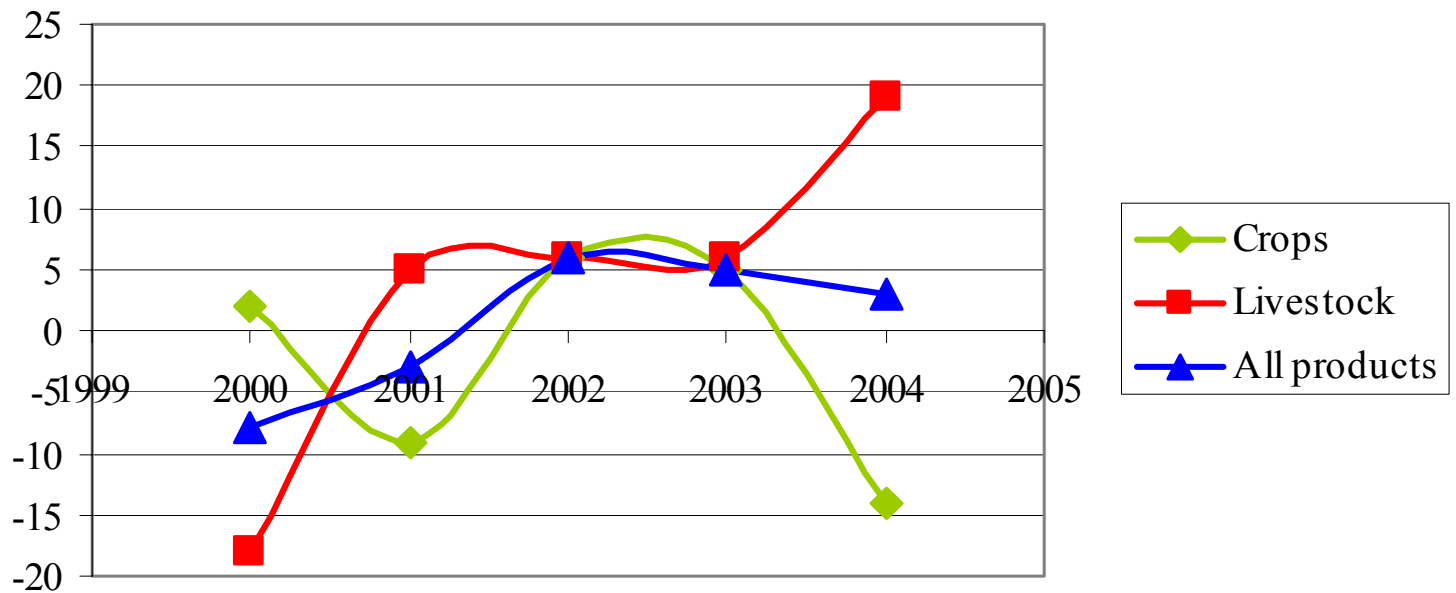
Wheat	-14	-22	-10	-11	-28
Barley	-6	-6	23	-3	-57
Sugar	6	8	26	30	25
Cotton	31	-13	37	39	-23
Beef	-60	-2	0	27	41
Mutton	-150	-5	17	25	34
Poultry	46	86	67	79	108
Eggs	20	14	-1	15	46
Milk	-2	-3	1	-4	8



# World Bank Estimates



APA

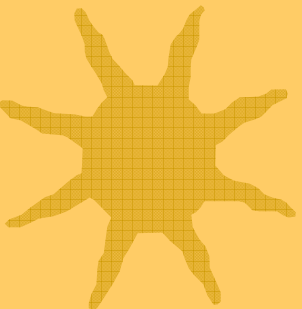
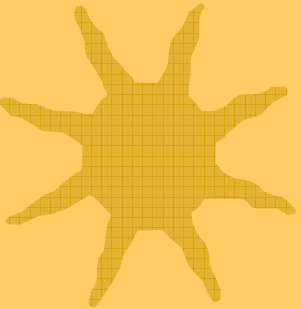
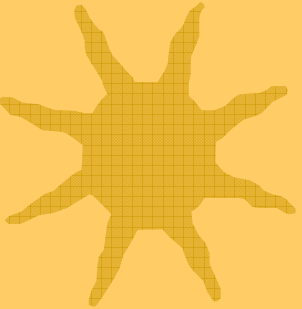




*Question: Why is measuring PSEs hard in Kazakhstan?*

*Answer: difficult to define relevant prices*

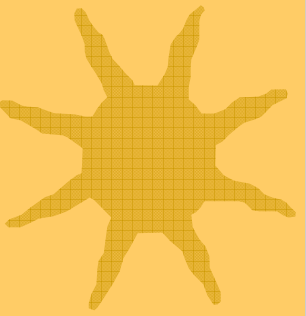
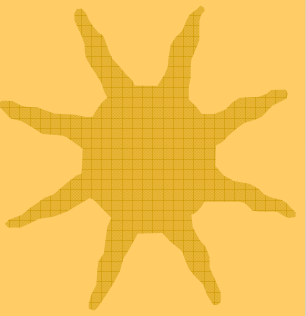
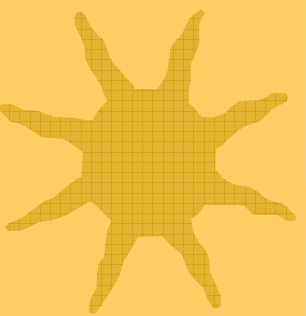
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- ★ Even for a homogeneous product like wheat there is a large variation in reported prices
  - Which border? Which benchmark?
  - Which farm?
- ★ Partly a problem of a large country,
- ★ but also reflects the importance of costs between producer and end-buyer which are not border costs



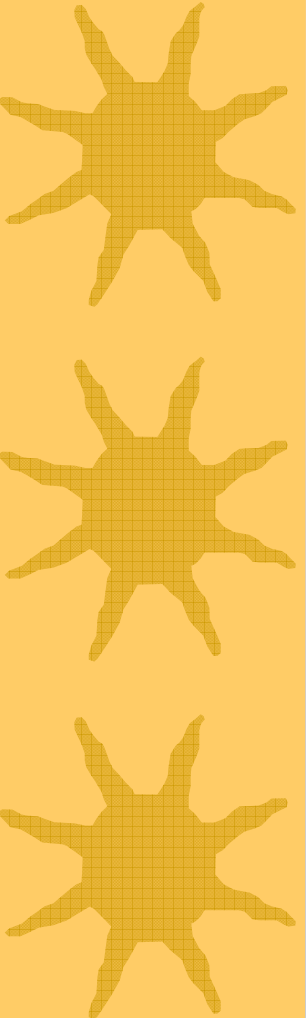
# *Producer Support for 2000-4 remove outliers; revise wheat*



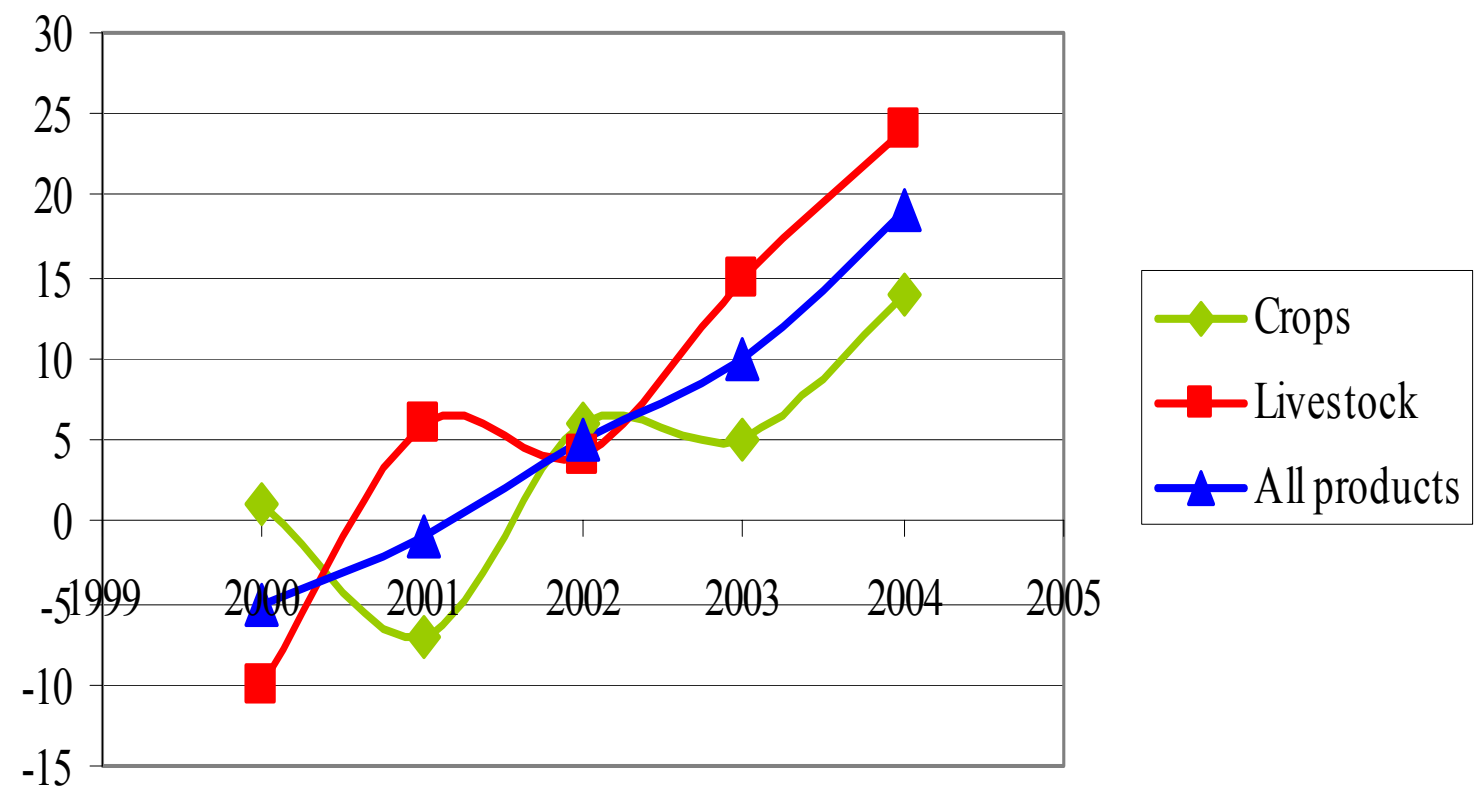
	2000	2001	2002	2003	2004
Wheat	-1	-8	4	2	19
Sugar	-6	-3	17	21	17
Potato	8	-4	4	3	11
(crops)	1	-7	6	5	14
Milk	-2	-3	0	-4	8
beef	-61	-3	-1	26	40
pork	39	32	28	45	37
(live stock)	-5	-1	4	15	24



# Alternative Estimates



Alternative





# *Revised Estimates*

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- ★ Better capture what we know from policy description
  - Negative support in 1990s,
  - positive especially post-2003

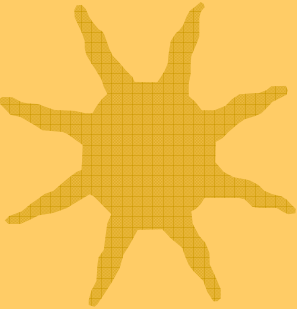
Why are the 2000-1 PSEs negative?

- ★ Calculations
  - dominated by price gap: unit values for border prices minus producer price  
(quality adjustments & transport costs are minor, as are subsidies)
- ★ Explanations
  - trade costs are high due to poor hard & soft infrastructure



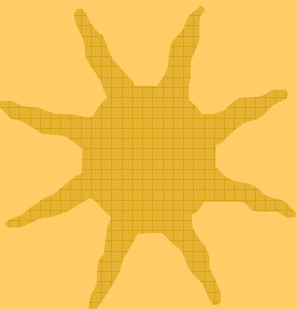
# *Trade Costs*

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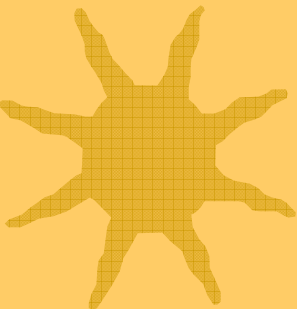
Anderson & van Wincoop (JEL, 2004) - trade costs due to poor hard & soft infrastructure

- only indirectly a distortion against agriculture, but likely to hurt agriculture most (decentralized policy is implemented by local officials who impose taxes especially on dispersed producers, ie. farmers)



★ Can we break down the change in PSEs?

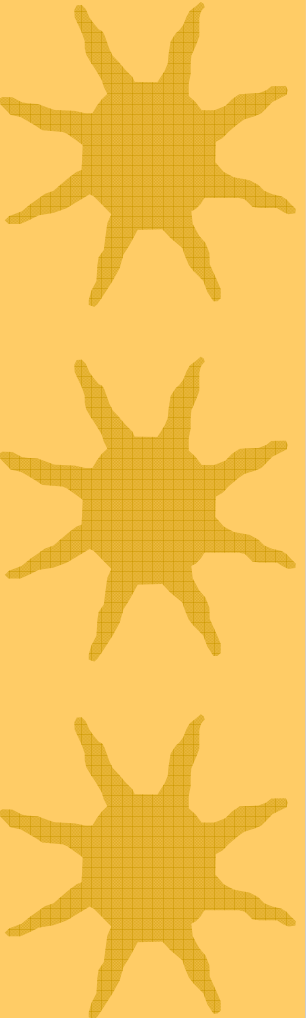
- More favorable policies
- Lower trade costs





# *Impact of Diversification Policy*

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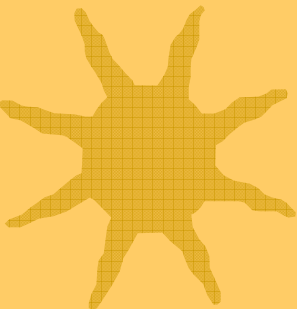
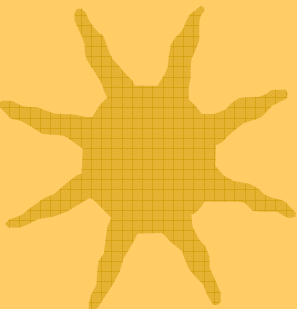
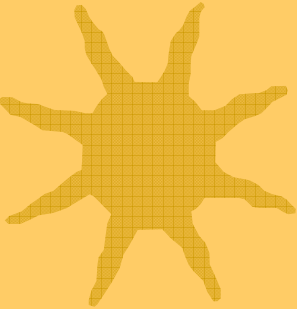
- ★ PSEs suggest that change in ag policy impacted on farm incentives:
  - but it is difficult to pick-up impact of 2003-5 on ag output
- ★ Is that because trade costs remain high and are especially onerous for farmers?





# *Conclusions*

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- ★ Distortion measures such as PSEs have advantages over measures which only capture protection due to tariffs, but they are more difficult to measure.
- ★ Trade costs other than border costs can be large and uneven (both spatially and across sectors)
- ★ If Kaz wants to diversify, then trade costs need to be addressed