



Integration of semi-subsistence farming in the food supply chain - opportunities and barriers -

Liesbeth Dries, Wageningen University
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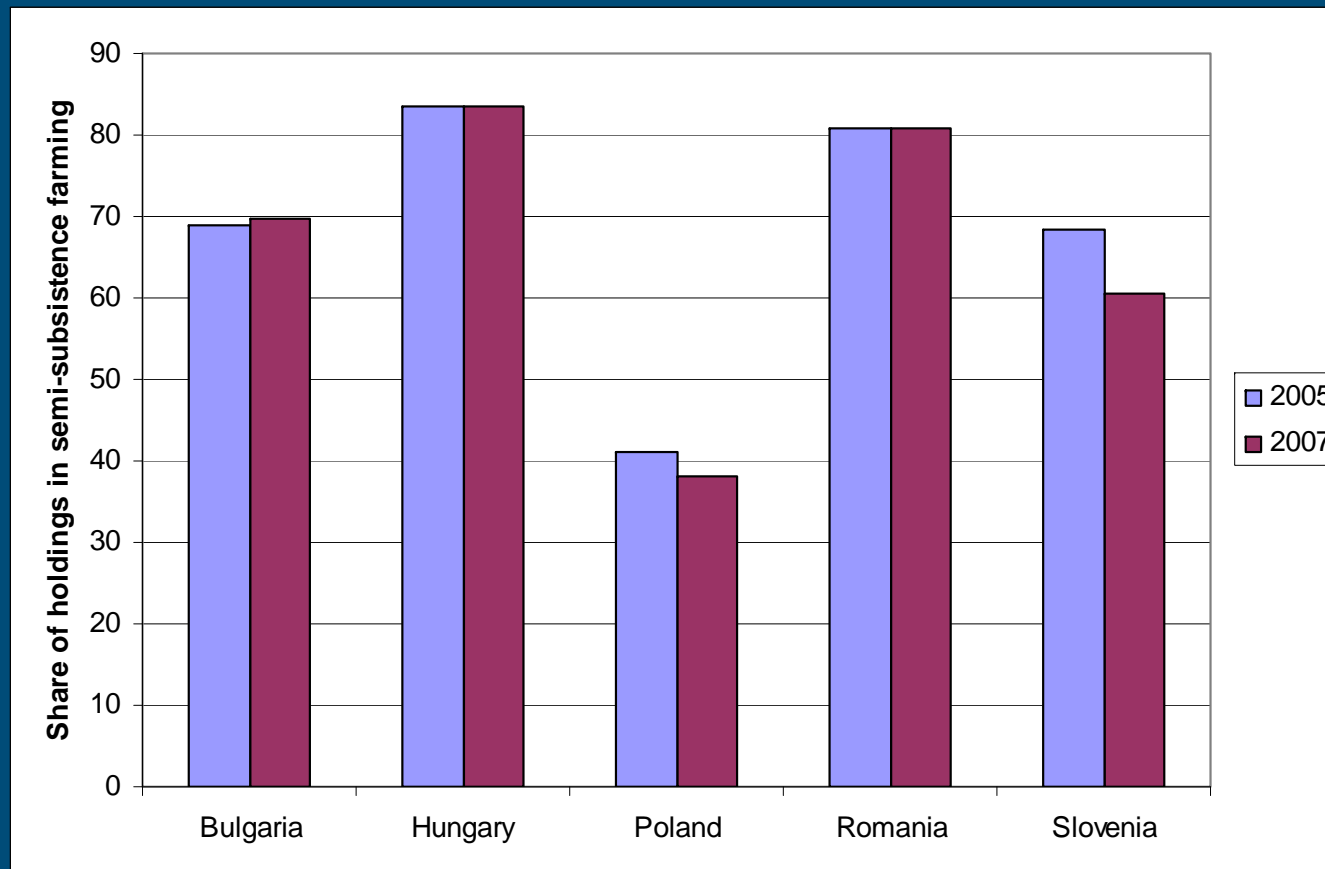


Outline

- Semi-subsistence farming (SSF) in Central and Eastern European countries
- SSF and dynamic food supply chains
- Drivers and barriers for SSF inclusion in food supply chains
- Concluding remarks

Semi-subsistence farming in CEE

- # holdings

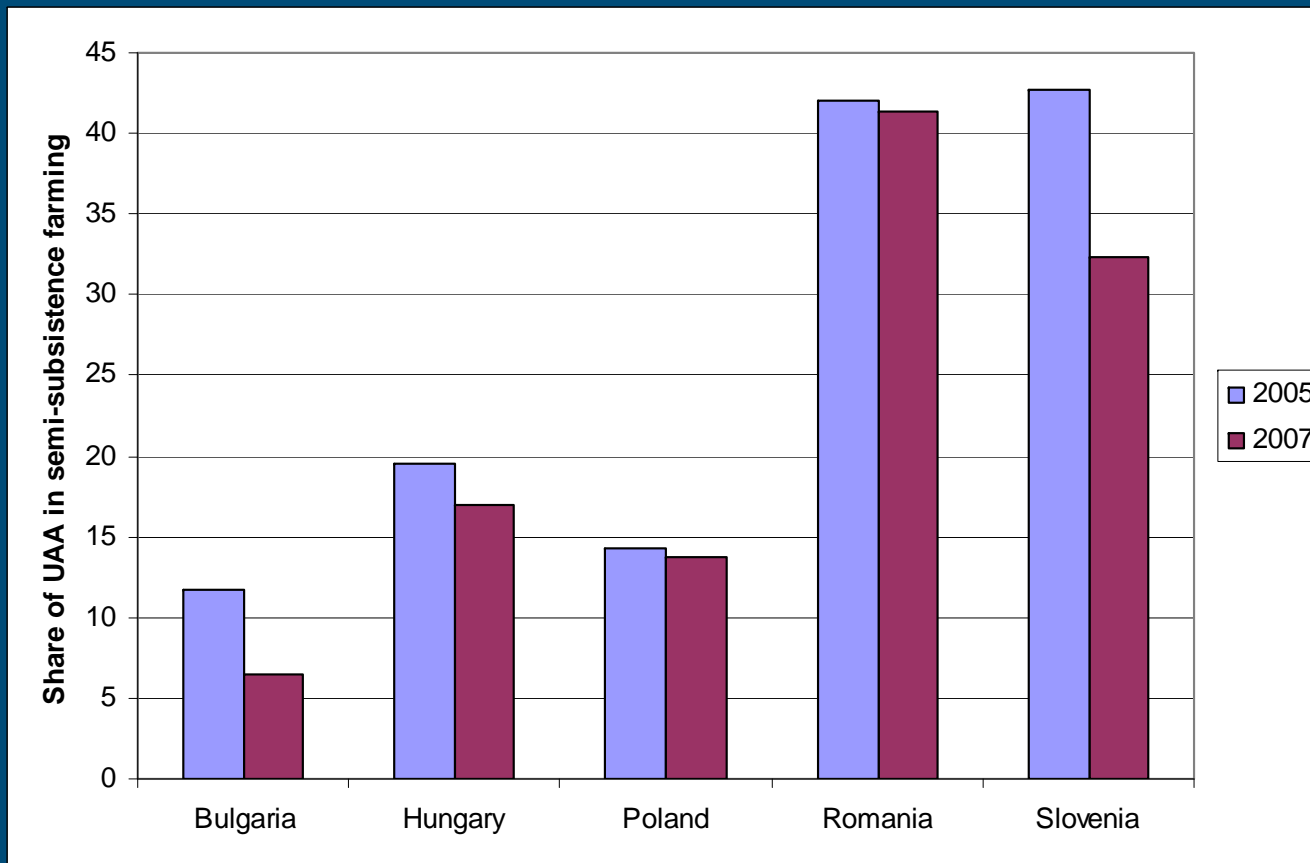


Source: Fredriksson et al. (2007), SCARLED_D6.3



Semi-subsistence farming in CEE

- Utilized Agricultural Area



Source: Fredriksson et al. (2007), SCARLED_D6.3

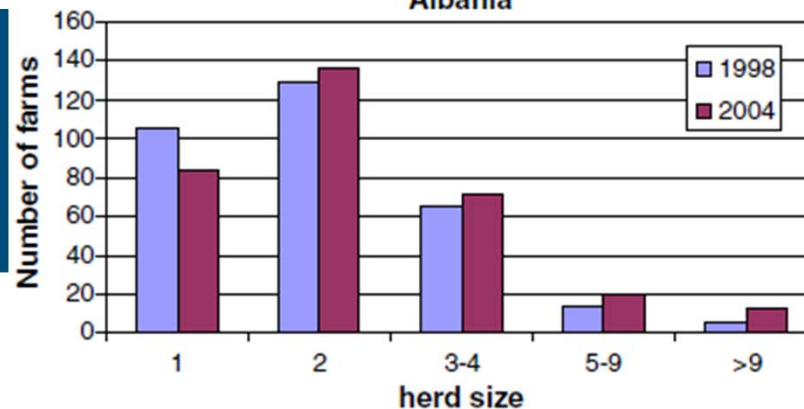
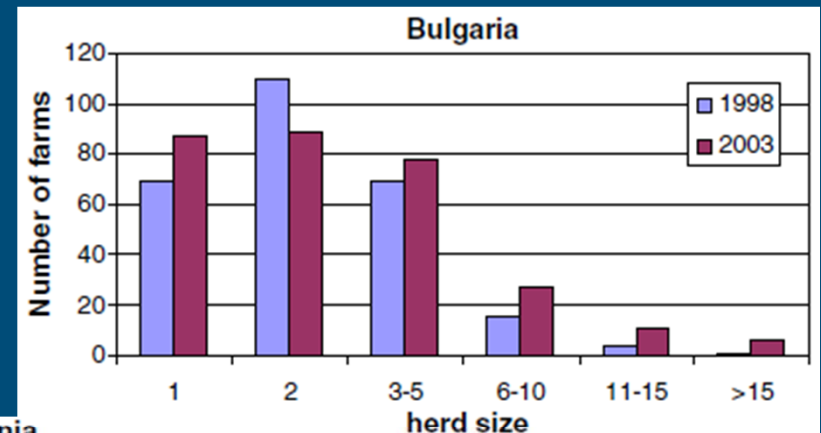
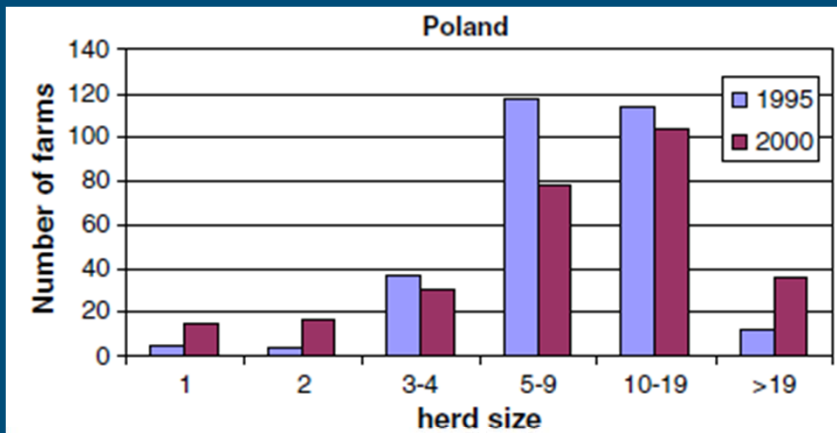


Explaining the dynamics

- SSF stop farming or end commercial activities
 - Anecdotal evidence from Bulgaria
- SSF increase commercial activities and become integrated in (high value) food supply chains
 - Barriers? E.g. high standards and requirements
 - Opportunities? Vertically coordinated systems help small farmers to overcome major constraints

Vertical coordination in CEE food supply

- Evidence based on farm household surveys in chains
 several CEE countries – households that market at least part of their (dairy) output.





Vertical coordination in CEE food supply chains

- In the past 10 – 15 years:
 - An increase in vertical coordination (contracting) between processors and farms to overcome market imperfections at the farm level
 - These contracts include assistance programs for suppliers



Vertical coordination in CEE food supply

chains

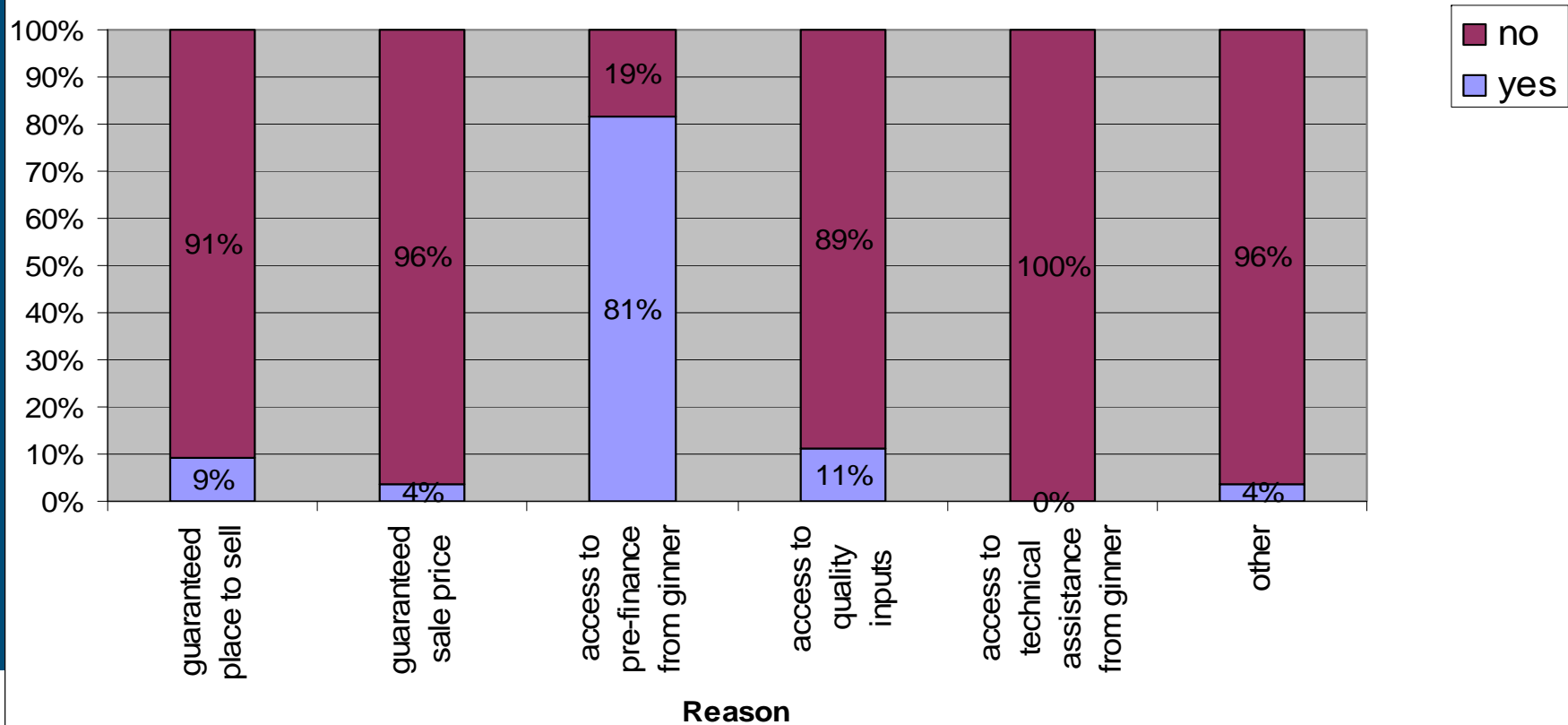
Table 2: Contracts in the Polish dairy sector, share of respondents with contract

Resource-providing contract	88%
--- o.w. Extension	56%
--- o.w. Veterinary	23%
--- o.w. Inputs	71%
--- o.w. Loans for on-farm investments	64%
--- o.w. Loans for buying cows	65%
--- o.w. Bank loan guarantee	23%

Vertical coordination in CEE food supply chains

(Cotton, Kazakhstan)

Q36: If you sign a contract, why do you do it? What is the benefit of having such contract?



Source: Swinnen (2007)



Vertical coordination in CEE food supply chains

- dairy loans and small farmers in Poland

Size (# of cows)	Invests (% of total) <i>A</i>	Uses loan to invest (% of A) <i>B</i>	Uses dairy loan (% of B) <i>C</i>	Uses bank loan (% of B) <i>D</i>
1-5	52	54	41	50
6-10	78	51	43	70
>10	92	74	43	75
ALL	76	58	43	69

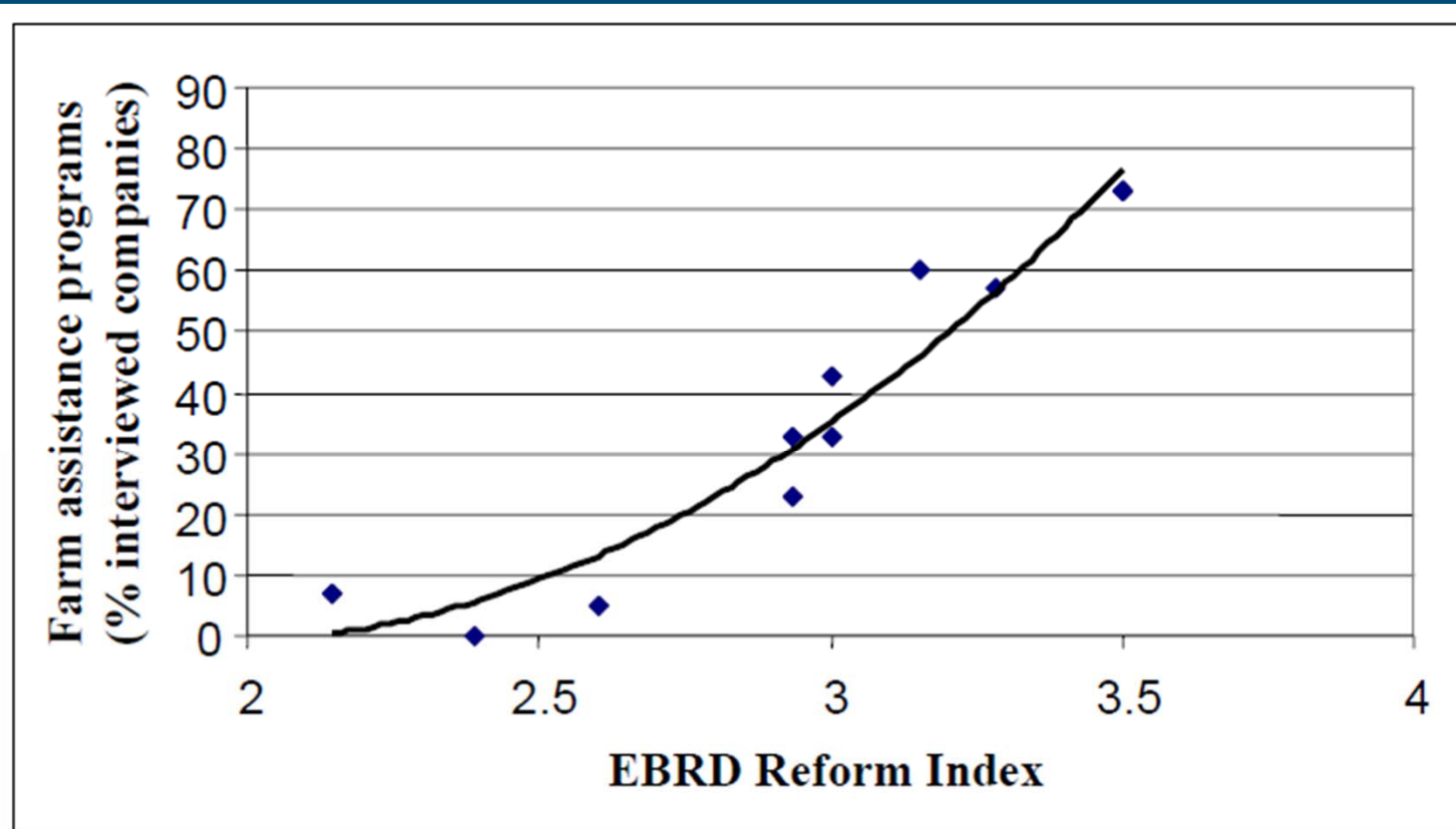


Drivers and barriers for SSF inclusion

- Institutional environment
- Organizational environment
- Foreign Direct Investment (FDI)
- Structure and players in the supply chain



Institutional environment



* Correlation (R^2) is 0.94. Data include observations from Albania, Bulgaria, Poland, Slovakia



Organizational structure

- Farm size distribution
 - Studies confirm that food processors and retailers prefer to deal with large suppliers
 - BUT: also evidence of successful inclusion of smallholders
 - E.g. Polish dairy sector
 - E.g. CIS 5-country study



Organizational structure

- Farm size distribution
 - Importance of SSF in supply base
 - Supplier programs differ to address different organizational structures

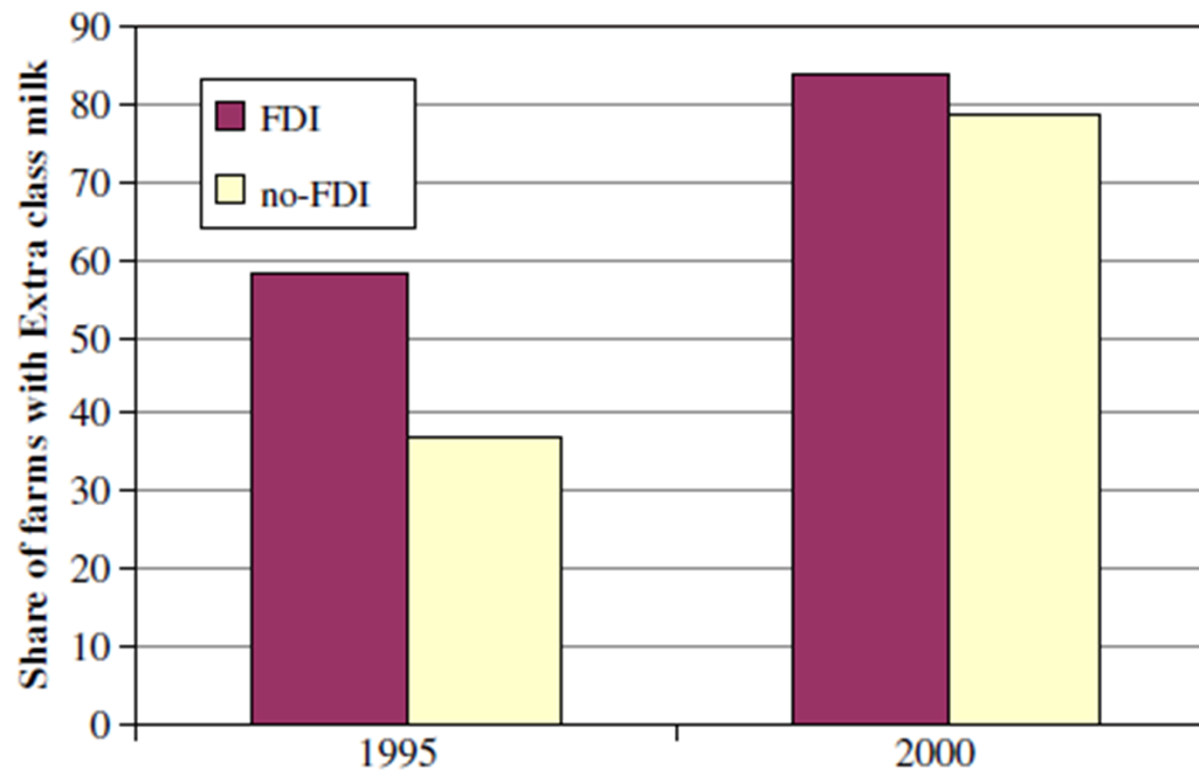


Foreign Direct Investment

- What is the role of FDI?
 - Foreign investors may have the necessary financial means to set-up producer assistance
 - In some cases: farmers delivering to foreign firms were more likely to have access to assistance programs
 - In other cases: foreign firms had initiated assistance programs BUT over time there was no significant difference between foreign and domestic firms (spillover effects)



Foreign Direct Investment



Source: Dries and Swinnen
(2004)

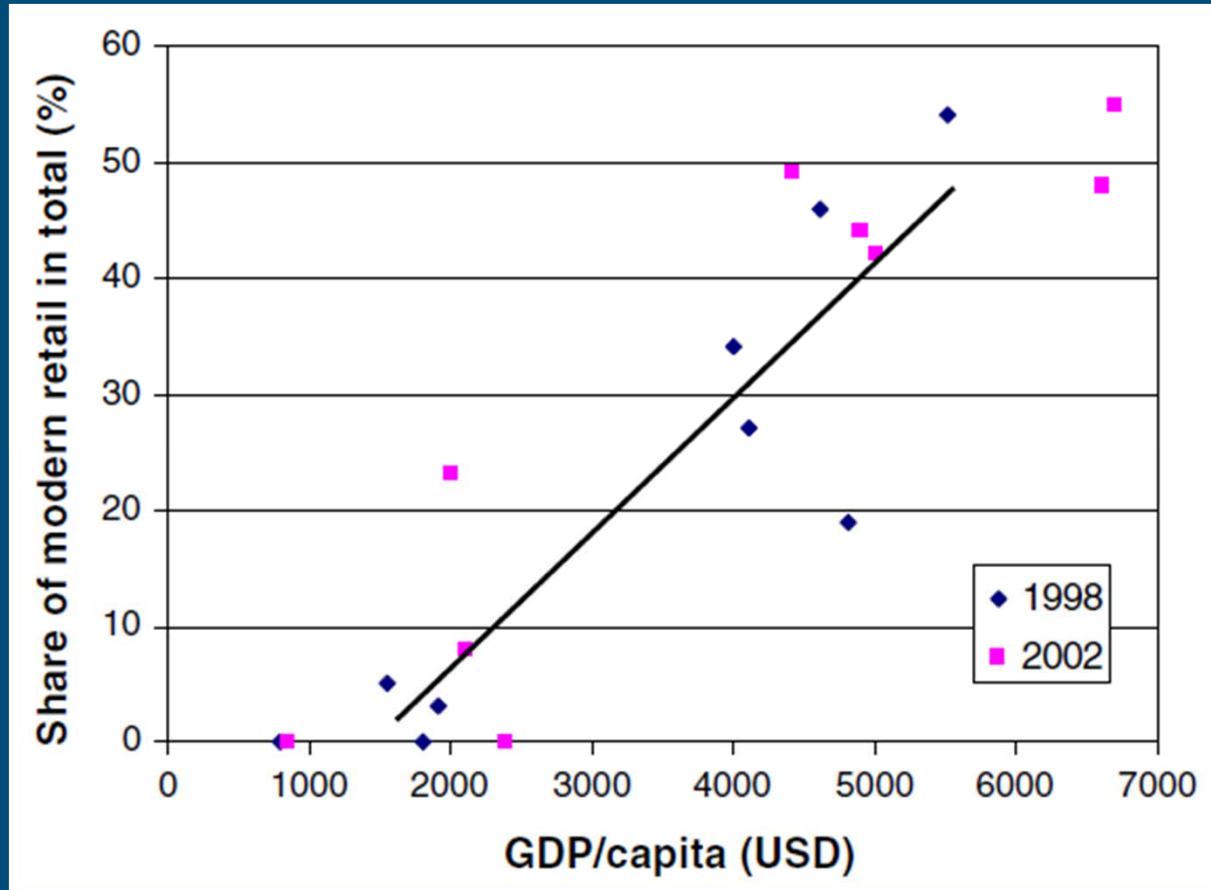


Drivers in the supply chain

- Modern retail investments as a stimulus to food supply chain restructuring?
- Implications for SSF inclusion?



Drivers in the supply chain





Concluding remarks

- How SSF inclusion in food supply chains can be stimulated:
 - Create an enabling environment that stimulates investments
 - Improve efficiency and equity in food supply chains
 - Transaction costs; competition; empowerment
 - Take private initiatives into account when designing policy
 - Public-private partnerships; supply chain development as an instrument of rural development



Further Reading

- Dries, L., Germenji, E., Noev, N. and J.F.M. Swinnen, 2009, “Farmers, Vertical Coordination, and the Restructuring of Dairy Supply Chains in Central and Eastern Europe”, *World Development*, 37(11), pp 1742-1758.
- Dries, L., T. Reardon, and J. Swinnen. 2004. “The Rapid Rise of Supermarkets in Central and Eastern Europe: Implications for the Agrifood Sector and Rural Development,” *Development Policy Review*, 22(5), pp. 525-556.
- Dries, L. and J.F.M. Swinnen, 2004, “Foreign Direct Investment, Vertical Integration, and Local Suppliers: Evidence from the Polish Dairy Sector”, *World Development*, 32(9), pp. 1525-1544.
- Gow, H.R., Streeter, D.H., and J.F.M. Swinnen, 2000, “How Private Contract Enforcement Mechanisms can Succeed where Public Institutions Fail: The Case of Juhocukor a.s.” *Agricultural Economics*, 23(3), pp. 253-265.
- Noev, N., Dries, L. and J.F.M. Swinnen, 2009, “Institutional Change, Contracts and Quality in Transition Agriculture: Evidence from the Bulgarian Dairy Sector“, *Eastern European Economics*, 47(4), pp. 63-86.
- Swinnen, J.F.M. (2007). *Global Supply Chains, Standards and the Poor*, Oxon: CABI Publishing.