Regression Results

	OLS (1)	OLS (2)	Backward Spillovers (1)	Backward Spillovers (2)	Forward Spillovers (1)	Forward Spillovers (2)
Dep. Variable	ln Pat	ln Pat	ln Pat	ln Pat	ln Pat	ln Pat
ln L	0.531***	-0.0289	0.355***	0.0603	0.461***	-0.0526
	(0.0224)	(0.137)	(0.0213)	(0.130)	(0.0216)	(0.132)
ln K	-0.0189	-0.317***	-0.00351	-0.221***	-0.0244**	-0.244***
	(0.0129)	(0.0586)	(0.0120)	(0.0560	(0.0123)	(0.0568)
ln M	0.0477**	-0.0312	0.0248	-0.0289	0.0245	-0.0485
	(0.0242)	(0.0828)	(0.0226)	(0.0790)	(0.0232)	(0.0802)
$(\ln L)^2$		0.0749***		0.0532***		0.0434**
		(0.0175)		(0.0167)		(0.0169)
$(\ln K)^2$		-0.0308***		-0.0255***		-0.0279***
		(0.00618)		(0.00589)		(0.00598)
$(\ln M)^2$		-0.0183**		-0.0150*		-0.0218**
		(0.00911)		(0.00869)		(0.00881)
ln RD	0.0611***	-0.103***	0.0349***	-0.0323*	0.0236***	-0.0499***
	(0.00158)	(0.0177)	(0.00159)	(0.0171)	(0.00191)	(0.0173)
$(\ln RD)^2$		0.00688***		0.00172***		0.00294***
		(0.000513)		(0.000515)		(0.000519)
ln REV	0.267***	0.569***	0.254***	0.504***	0.268***	0.598***
	(0.0133)	(0.160)	(0.0124)	(0.152)	(0.0127)	(0.155)
$(\ln REV)^2$		-0.0126*		-0.0102*		-0.0135**
		(0.00645)		(0.00615)		(0.00624)
ln CpE	0.294***	0.591***	0.107***	0.358**	0.141***	0.487***
	(0.0330)	(0.170)	(0.0311)	(0.163)	(0.0319)	(0.165)
$(\ln CpE)^2$		-0.0386**		-0.0306*		-0.0353*
		(0.0187)		(0.0179)		(0.0181)
(ln CpE)(ln L)		0.116***		0.0861***		0.112***
		(0.0257)		(0.0246)		(0.0249)
(ln CpE)(ln RD)		0.0209***		0.0193***		0.0162***
		(0.00372)		(0.00355)		(0.00360)
East	-0.149***	-0.0393	-0.251***	-0.145***	-0.235***	-0.112**
	(0.0479)	(0.0473)	(0.0448)	(0.0453)	(0.0461)	(0.0459)
W(ln Pat)			0.912***	0.808***	0.917***	0.813***
			(0.0208)	(0.0251)	(0.0285)	(0.0312)
R-squared	0.181	0.236				
Observations			10 217			
			Standard errors in parentheses			
			*** p<0.01, ** p<0.05, * p<0.1			

Summary

- We use spatial econometrics to analyze how intermediate goods procurement relationships can predict the flow of knowledge between industries in Germany.
- We find overwhelming evidence that there exist such spillovers and that input-output tables are a good indicator thereof.
- The estimated interaction coefficient lies between 0.8 and 0.9 and is highly significant.
- As a robustness check we do the estimation with a randomly created weighting matrix. This estimation indeed yields an insignificant coefficient, which further confirms our view that input-output relationships indeed play a crucial role.
- A further robustness check is to use a gravity-type predicted input-output matrix to control for endogeneity. → Still in progress...

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