

Collusion, Elites and Foreign Entities: The Case of Late Tsarist Russia 1899-1913

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1 Introduction and Background

Political elites can have a substantial impact on economic growth, but if an economy is in the early stages of modern growth, where major structural transformation is required, elites could have an even greater impact by profoundly altering the growth path of that economy. How elites affect growth is still not fully understood, especially for late-industrializers. If one believes the *greasing wheels hypothesis*, they have a positive effect by navigating through existing barriers and accessing resources (Kaufmann and Wei 1999, Méon and Weill 2010). On the other hand, they can have a negative effect by increasing barriers to competitors in order to preserve or increase their own rents (Belletini et al. 2014), thus hampering structural change. Furthermore, foreign agents or entities who have financial capital and technology can have a role to play in a structurally changing economy. It is unclear whether foreigners use their own advantages to inject capital into the economy or increase barriers in a similar way elites possibly do so.

To understand the relationship between growth, elites and foreign entities, I study monopolies and collusion in a late-industrializer. What exactly contributes to anti-competitive behavior in such an economy: Are firms with political elites amongst the founders more likely to engage in forming collusive agreements or organizations? Additionally, the legal set-up by elites could also be exploited by other actors who also hold certain privileges, such as foreign entities. In a late-industrializer, to what extent do foreign entities increase or decrease competition?

To study collusion during late-industrialization, I use the context of the Tsarist Russian Empire during the late 19th and early 20th centuries. The Russian Empire was a technologically backwards economy at a moment when it was possible to import modern Western European technologies, yet it still had trouble industrializing and economically taking off. Simultaneously, Russian society was characterized by a powerful political elite, the nobility and government officials. Given the elite's political influence, education and capital, they could play an outsized role during industrialization by *greasing the wheels*, investing and starting businesses or putting up entry barriers. Additionally, since the Tsarist Empire was capital poor, it sought out foreign direct investment. The impact of foreign investment is unclear. Foreigners could be injecting capital into the economy, or increasing barriers in a similar way elites possibly do so. There exists qualitative evidence that foreign entities encouraged anti-competitive actions in the Tsarist Empire. For instance, foreign banks would direct the firms they were investing in to collude, otherwise they would pull the credit they had extended (Goldstein 1913).

Using a detailed dataset on Tsarist corporate charters, active corporations, and a new dataset I am creating on collusive activity in each industry, I explore the effects of the

presence of political elites and foreign actors on collusion. I do an analysis at the industry level, where I regress whether there is collusive activity—either collusive agreements or organizations—in an industry onto the share of elite founders present in that industry and the presence of foreigners or foreign organizations among the founders.

My paper contributes to four strands of literature. First, it contributes to the long-standing debate on the impact of competition on innovation and subsequently on growth (Aghion et al. 2005). Second, it augments our understanding of the role elites play during industrialization. In the West there was high human capital formation among elites, leading to elites spreading industrialization (Boberg-Fazlic et al. 2023, Mokyr 2018). Tsarist Russia stood in stark contrast to the West in that the conventional wisdom is that elites pursued rent-seeking behavior that impeded industrialization, rather than helping industrialization (Gerschenkron 1962). The third strand of literature the paper contributes to is the relationship between elites and monopolies, and how elites increase barriers to entry to keep their own rents (Acemoglu and Robinson 2000, Bellettini et al. 2013). The fourth literature the paper contributes to is the political economy of foreign direct investment: How foreign firms influence domestic policies for preferential treatment (Desbordes and Vauday 2007), or increase market concentration in less developed countries (Pinto and Zhu 2016).

2 Data

2.1 Data Description

I am in the process of collecting a new dataset on collusive activity and organizations using qualitative sources. I use primary texts from archives that have been published by Soviet historians, such as in *Materials on the history of the USSR* [1959] and *Monopolies in the metallurgical industry of Russia, 1900-1917* [1963]. These include agreements, notes from meetings, and correspondences. Many of these documents were not available during Tsarist times since collusion was not technically legal. I also use secondary texts put together by Soviet historians based on archival documents and general Soviet sources that describe collusion, such as the *Soviet Historical Encyclopedia*. I complement the primary and secondary sources with contemporary sources such as Kafengauz [1910], which also have information on collusive activity.

For the proceeding industry level analysis I will use a list of known 142 collusive agreements and syndicates, spanning from 1880-1917, along with information on the industry and the start date of each agreement or syndicate. Occasionally sources did not have the exact year some collusive agreements and syndicates started, but they would have the earliest year of known activity; in these cases I used the earliest year of known activity.

I then connect my industry level collusion dataset with information on the share of incumbents with elites among the founders and the share of foreign entities or foreigners among the founders in each industry, using two datasets on corporations. While corporations are not the universe of firms in Tsarist Russia, information on corporations is more readily available and it still provides an approximation to the universe of firms.

I use the dataset from Gregg and Nafziger [2024] on the balance-sheets of Tsarist Russian corporations between 1899-1914. If a corporation has balance sheet information for a particular year, I determine that that corporation was active during that year and thus was an incumbent.

I then connect the incumbents with information on their founders from RUSCORP (Owen 2006). RUSCORP contains many details of all corporations formed in Tsarist Russia from 1704-1913, including the date of formation, the industry SIC code using the 1972 system of classification, and founder characteristics. The characteristics include the founder's social status, and their citizenship. Thus I can determine if they were a government official, a high-ranking noble, a merchant or foreign. Using these two datasets I can construct the share of elites and foreigners by industry: the number of corporations with at least one high-ranking noble or government official among the founders divided by the total number of incumbents in that industry, and the number of corporations with a foreign citizen or foreign entity (bank, firm, etc) divided by the total number of incumbents in that industry. I identified the most closely matching SIC code for each collusive agreement and syndicate in my list and connect it with the information on the share of elites and foreigners. My resulting dataset spans 1899-1913.

2.2 Summary Statistics

Tables 1, 2, and 3 contain summary statistics at the industry level at the 1-digit, 2-digit, and 3-digit SIC codes respectively. The variable Nobles and Government Officials is the share of corporations with at least one noble or government official among the incumbents, but containing no foreigners and no merchants. Foreign is the share of any corporations that have a foreign citizen or entity, regardless of who else is among the founders. Merchants is the share of corporations among incumbents with merchants, with no foreign presence, but not excluding those with nobles or government officials among the founders. The reason I do not exclude nobles or government officials is that very often nobles or government officials were hired as a figureheads to make it more likely the firm was approved for incorporation (Owen 2006). Other contains the share of everyone else, such as the professional class, military and non-high ranking gentry.

The summary statistics show that the average number of collusive entities was quite low compared to the number of incumbents. The elite made up a small fraction of incumbents, below a quarter. Foreigners were present in about a quarter of incumbents, and merchants were present in about half.

Figure 1 graphs the mean shares of incumbents by industry at the 1-digit SIC code. It is again clear that the share of collusive entities scaled by incumbents is very low.

3 Analysis

My empirical strategy is to use fixed effects. I run the following specification:

$$y_{kt} = \alpha + \beta x_{kp} + \gamma_k + \delta_t + \varepsilon_{kt}$$

Where y_{kt} is an indicator if there is collusion in industry k in time t . I use an indicator for collusion since the share of collusion is very low. x_{kp} is the proportion of a social group or foreign entities among incumbents at time t . γ_k are industry fixed effects and δ_t are year fixed effects.

I use the industries at the 2-digit SIC code level because 1-digit is too broad and 3-digits is too narrow.

Table 4 shows the results. The first seven columns have year fixed effects, but no industry fixed effects, and the last seven columns have both. In the first column without

industry fixed effects, nobles and government officials have a significant negative effect on collusion. The reason it is negative could be a substitution effect - it is possible the elite do not need to collude because they already have advantages from their influence on the government. Another explanation is that, as Gerschenkron suggested, the elites were not active enough in business, and thus were not undertaking the work to organize and cooperate to collude.

Without industry fixed effects foreigners have a positive, but not very significant effect on collusion in column 2. Merchants, in column 3, have an unclear effect. I separate the variable on merchants into those with no elite presence, and those with elite presence (all while having no foreign presence) in columns four and five respectively, and neither have an effect.

When elites, foreigners and merchants are put into the same regression in column six, none have a highly significant effect. In column seven, I separate foreign by nationality (German, French, British). The French have a positive and significant effect on collusion.

When I add fixed effects, the nobility and government officials still have a significant and negative effect on collusion. Foreigners have a negative and very significant effect. It must be the case that there is a slight positive effect of foreigners when looking at between industry variation. But using within-industry variation reveals that an increase in foreign presence within an industry dampens collusion.

Merchants have a positive and significant effect. This effect comes from merchants with no elite presence among the founders, since I separate the variables. Merchants with elites is negative and not significant.

When put together, elites and foreigners still have a negative effect, but the positive and significant effect goes away for merchants. When separating by nationality, the effect from the French is now negative and not significant.

4 Conclusion

The analysis shows that foreigners (especially the French) can have a positive effect on collusion when comparing industries with each other. Within industries however, more foreign presence leads to less collusion. Elites have a negative effect on collusion. Merchants, the industrializing class, have a positive effect on collusion, especially if they do not have elites among their founders.

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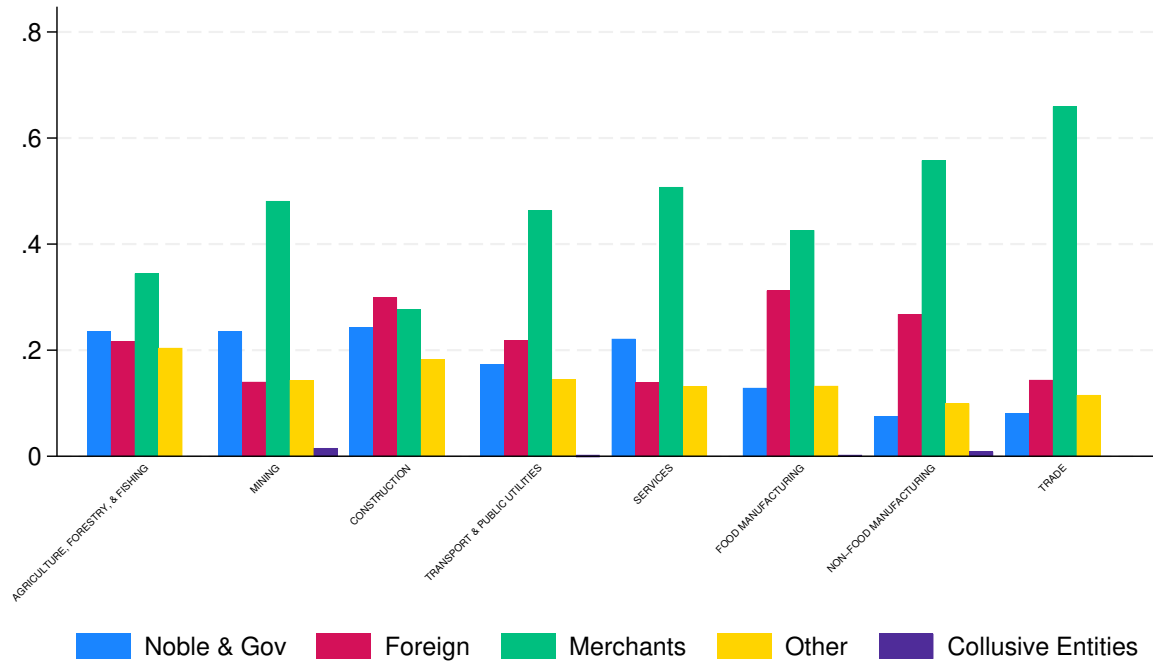
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5 Figures

Figure 1: Mean Share of Incumbents



6 Tables

Table 1: Industry 1-digit SIC Code

	mean	sd	p50	min	max
Number of Collusive Entities	.87	2.3	0	0	14
Number of Incumbents	139	212	56	3	853
Collusive Entities\Incumbents	.0034	.012	0	0	.088
Nobles & Gov Officials	.17	.085	.16	.038	.5
Foreign	.22	.094	.2	0	.5
Merchants	.46	.14	.47	0	.77
Other	.14	.091	.14	0	.6
Observations	128				

Table 2: Industry 2-digit SIC Code

	mean	sd	p50	min	max
Number of Collusive Entities	.15	.53	0	0	5
Number of Incumbents	25	45	10	1	272
Collusive Entities\Incumbents	.0071	.038	0	0	.67
Nobles & Gov Officials	.16	.23	.083	0	1
Foreign	.23	.25	.18	0	1
Merchants	.48	.29	.5	0	1
Other	.14	.18	.091	0	1
Observations	718				

Table 3: Industry 3-digit SIC Code

	mean	sd	p50	min	max
Number of Collusive Entities	.042	.25	0	0	4
Number of Incumbents	7.3	15	2	1	160
Collusive Entities\Incumbents	.0096	.085	0	0	2
Nobles & Gov Officials	.12	.24	0	0	1
Foreign	.25	.32	.12	0	1
Merchants	.5	.38	.5	0	1
Other	.13	.24	0	0	1
Observations	2448				

Table 4: 2-digit SIC code Industry Level

	Collusion Dummy													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Nobles & Gov Officials	-0.094*					-0.082	-0.129*	-0.086*					-0.100**	-0.077
	(0.091)					(0.223)	(0.085)	(0.072)					(0.046)	(0.105)
Foreign		0.100				0.070			-0.107***				-0.120**	
		(0.249)				(0.482)			(0.007)				(0.048)	
Merchants			-0.007			-0.014	-0.070			0.069**			-0.012	0.013
			(0.911)			(0.851)	(0.366)			(0.042)			(0.811)	(0.763)
Merchants - No Elites				0.021							0.100**			
				(0.714)							(0.011)			
Merchants - W\Elites					-0.067							-0.024		
					(0.283)							(0.427)		
German							-0.065							-0.071
							(0.443)							(0.135)
French							0.935*							-0.092
							(0.056)							(0.845)
British							-0.153							-0.185
							(0.229)							(0.133)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	718	718	718	718	718	718	718	717	717	717	717	717	717	717
R^2	0.045	0.046	0.040	0.040	0.041	0.049	0.086	0.320	0.321	0.321	0.321	0.319	0.322	0.322

Bootstrapped standard errors clustered at the industry level, p-values in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$