

Essays on Business and Politics in Resource-Abundant, Low-Income Countries

PhD Defense

1st of March 2024

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This Talk (ca. 30 min)

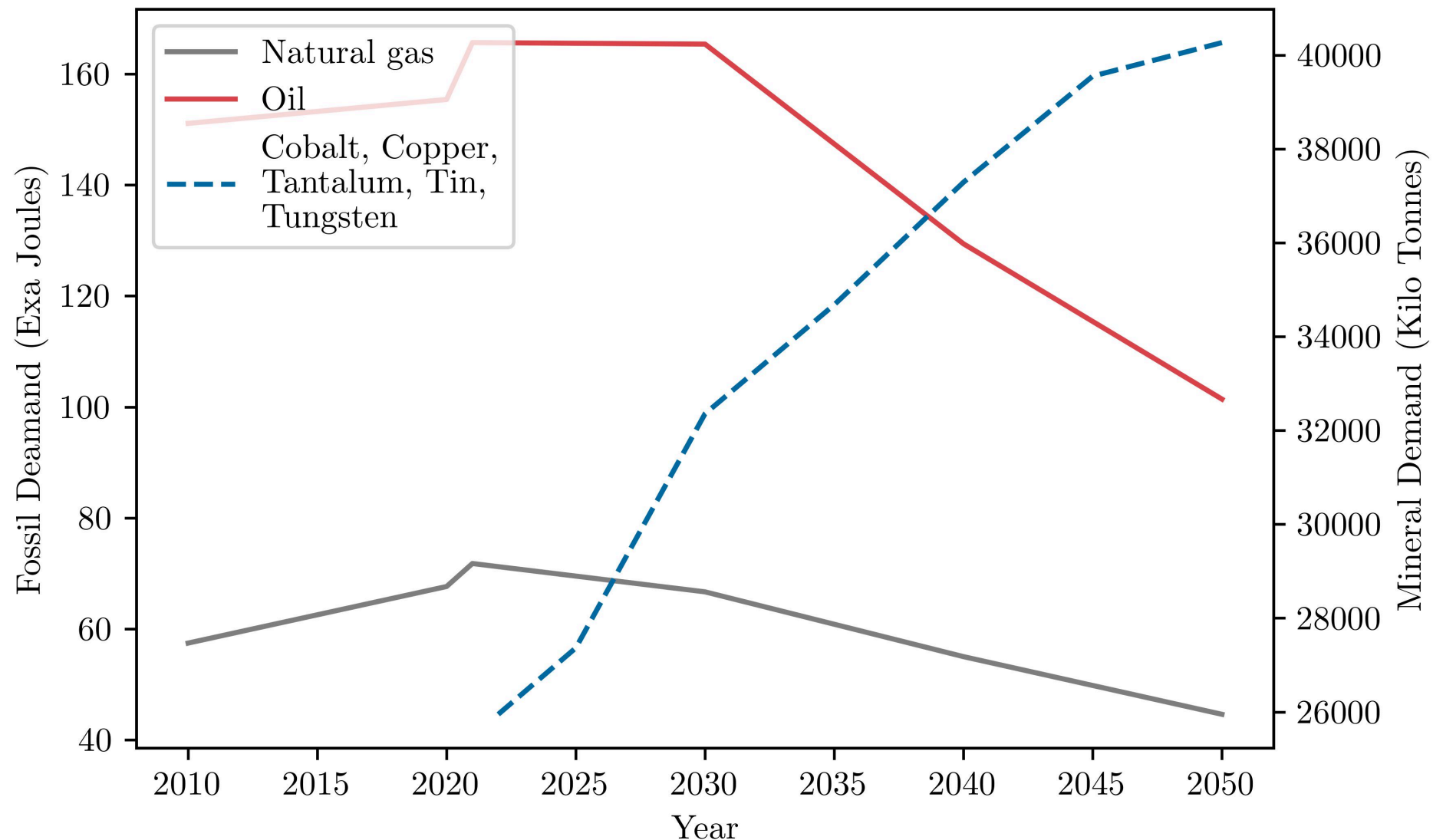
- Introduction: What do I do in this thesis, why should you care?
- Presentation of the key findings of each chapter.
- Scope conditions and concluding remarks.

Why Should I Care About this* Interplay?



*the connection between business and politics in low income countries.

Why Should I Care if I Don't Care About SDGs?



Minerals (and fossil fuels) are crucial for the Green Transformation, Geo Politics

Global trends

- Access to commodities like minerals is an important geopolitical factor.
- Many low income countries (in Africa) operate increasingly independent from the former colonial rulers (Mali, Niger etc.).
- More countries and private companies operate in low income countries -> actors become more heterogenous.

This thesis

- Combines **administrative data** and **satellite images** to gain micro-level insights
- Level of observation: Unique assets (firms, mining licenses), their ownership, value, and location over time.
- Insights into the mechanisms that drive business-politics links in low-income countries.
- Observational data on the entire (formal) population instead of samples.

Questions the Thesis asks

Focus on the *political* implications of the demand for natural resources and policies that address such challenges.

- 1: What are the personal returns of political mandates (in the private sector)?
- 2: How does selection into positions of political power in authoritarian regimes work?
- 3: Do property rights reduce local conflict levels over economically valuable commodities?

Chapter 1: Politicians Doing Business: Evidence from Mozambique's Firm Registry

with Sam Jones and Finn Tarp

Outline

This chapter:

- Investigates the mechanisms through which serving politicians obtain private benefits from holding political office, specifically focusing on business partnerships or co-investments.

Design:

- Individual performance in the private sector and political career.
- Staggered DiD: individual fixed-effects and lagged outcome models to estimate the causal contribution of holding political office to own-business outcomes.
[updated version]
- 1985 to 2019

Context: Mozambique

- Independence from Portugal in 1975.
- Civil war and (formal) democratization in 1994.
- Ruled by FRELIMO since independence (Marxism-Leninism roots)
- Political ties to almost all geopolitical powers



Getting firm data

- Mozambique has a paper based government gazette, but the content is quite unstructured.
- I scraped the data and build relations databases.
- Example of features: Number and type of companies/ organizations a person is shareholder/board member is over time.

Quarta-feira, 2 de Janeiro de 2019

III SÉRIE — Número 1



BOLETIM DA REPÚBLICA

PUBLICAÇÃO OFICIAL DA REPÚBLICA DE MOÇAMBIQUE

SUMÁRIO

Ministério da Justiça, Assuntos Constitucionais e Religiosos:

Direção Nacional dos Registos e Notariado.

Despacho.

Ministério do Trabalho, Emprego e Segurança Social:

Despacho.

Governo da Província de Nampula:

Despacho.

Anúncios Judiciais e Outros:

Associação Brilho do Sol.

Sindicato Nacional dos Trabalhadores da Marinha Mercante e Pesca

- SINTMAP.

Casa Publicadora do Índico, S.A.R.L.

Macaneta Oásis, Limitada.

Ship Service, Limitada.

Mais Humano Consultoria & Serviços Sociedade Unipessoal,

Limitada.

IASA - Sociedade Unipessoal, Limitada.

Agricultural And Ecological Systems International, Limitada.

Mobília Mave, Limitada.

Savana School In Maputo, Limitada.

Imocimentos, S.A.

Tríesse - Sociedade Unipessoal, Limitada.

Oil.Com - Consultoria, Assessoria & Serviços, Limitada.

Nakary Biomet, Sociedade Unipessoal, Limitada.

Kendi Computer Sociedade Unipessoal, Limitada.

Dinilo Aze, Limitada.

Elcurest, Limitada.

Amo Carrigo - Sociedade Unipessoal, Limitada.

JERA Consultoria - Sociedade Unipessoal, Limitada.

La Vida Local - Sociedade Unipessoal, Limitada.

Cochlo Branco - Sociedade Unipessoal, Limitada.

Wepov, Limitada.

H.M.D Mozambique - Sociedade Unipessoal, Limitada.

Compreji, Limitada.

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Nel Moli Services - Sociedade Unipessoal, Limitada.

Runi Despachos, Logísticos & Serviços, Limitada.

Mozken Steel Industries, Limitada.

Solven Fish Lancers, Limitada.

Savon International Trading, Limitada.

Dong Jian, Limitada.

Afrimo, Limitada.

Nobito Comercial, Sociedade Unipessoal, Limitada.

Hotel Fma - Sociedade Unipessoal, Limitada.

AFN - Construções e Serviços - Sociedade Unipessoal, Limitada.

Associação Juvenil para Ajuda à Segurança Alimentar e Nutricional

da Zambézia.

Repro - Clean, Limitada.

Prince Comercial, Limitada.

MINISTÉRIO DA JUSTIÇA, ASSUNTOS CONSTITUCIONAIS E RELIGIOSOS

DESPACHO

A Associação Nascor do Sol, como pessoa jurídica, requeru ao Ministro da Justiça, Assuntos Constitucionais e Religiosos, a alteração da denominação para Associação Brilho do Sol, juntando ao pedido estatutos da sua constituição.

Apreciado o processo verifica-se que:

se trata de uma associação que prossegue fins lícitos, determinados e legalmente possíveis cujo acto de constituição e os estatutos da mesma cumprem o escopo e os requisitos exigidos por lei, portanto, nada obstando a sua alteração.

Nestes termos, ao abrigo do disposto nos n.ºs 1 e 2 do artigo 7 da Lei n.º 891, de 18 de Julho, é deferido o pedido de alteração da denominação Associação Nascor do Sol, para Associação Brilho do Sol.

Ministério da Justiça, Assuntos Constitucionais e Religiosos, em Maputo, 26 de Julho de 2018. — O Ministro, *João Paulo Veríssimo*.

Direção Nacional dos Registos e Notariado

DESPACHO

Nos termos do artigo 362 do Código do Registo Civil, é concedida autorização à senhora Amélia Marlene Francisco Gerente Sispence, a efectuar a mudança do seu nome para passar a usar o nome completo de Marlon Amélia Francisco Gerente Sispence.

Direção Nacional dos Registos e Notariado, em Maputo, 19 de Dezembro de 2018. — A Directora Nacional Adjunta, *Fátima J.A. Alvi Barreto*.

Governo do Distrito de Mopeia

DESPACHO

Um grupo de cidadãos da Associação Juvenil para Ajuda à Segurança Alimentar e Nutricional da Zambézia, localizada na localidade de Lusitu, Posto Administrativo de Campo, Distrito de Mopeia, Província da Zambézia requeru ao Governo do Distrito de Mopeia o seu reconhecimento como pessoa jurídica, juntando ao pedido os respectivos estatutos de constituição.

Apreciados os documentos submetidos verifica-se que se trata de uma associação de carácter agro-pecuária, que prossegue fins lícitos, não lucrativos, determinados e legalmente possíveis e que o acto de Constituição e os estatutos da mesma cumprem o escopo e os requisitos exigidos por lei, nada obstando ao seu reconhecimento.

Os órgãos sociais da referida associação, eleitos por período de 5 anos renováveis em única vez, são os seguintes: Conselho de Direcção, Conselho Fiscal e Mesa de Assembleia Geral.

Nestes termos e nos dispostos no artigo 5 da Lei n.º 2/2006, de 3 de Maio, vai devidamente reconhecida como pessoa colectiva a Assembleia da associação de carácter agro-pecuária.

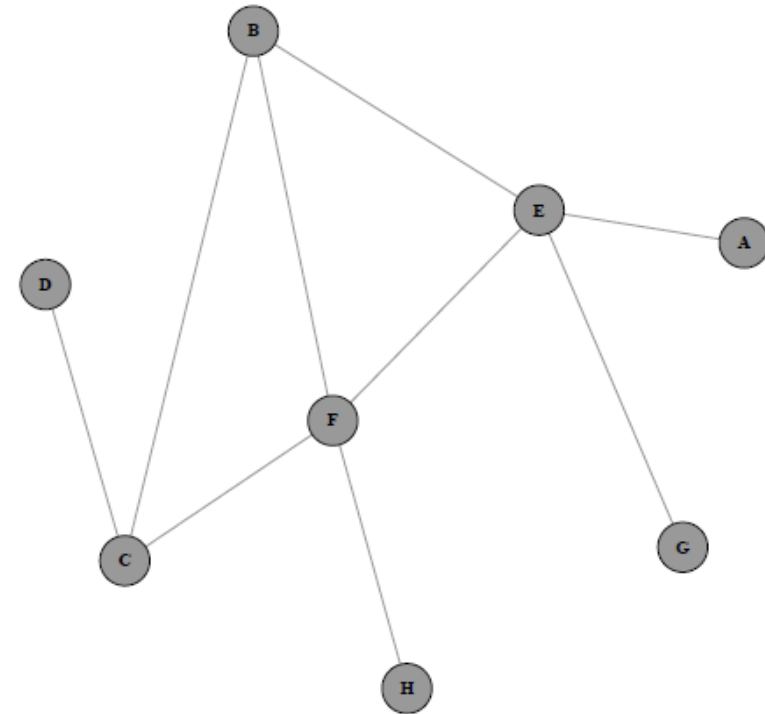
Collecting Political mandate data

	< 2009	> 2009	1975 – 2022
Governor	43	33	69
MP	136	256	361
Minister	111	75	163
Vice Minister	56	51	99
Central Committee	494	227	647
Polit Bureau	47	30	59



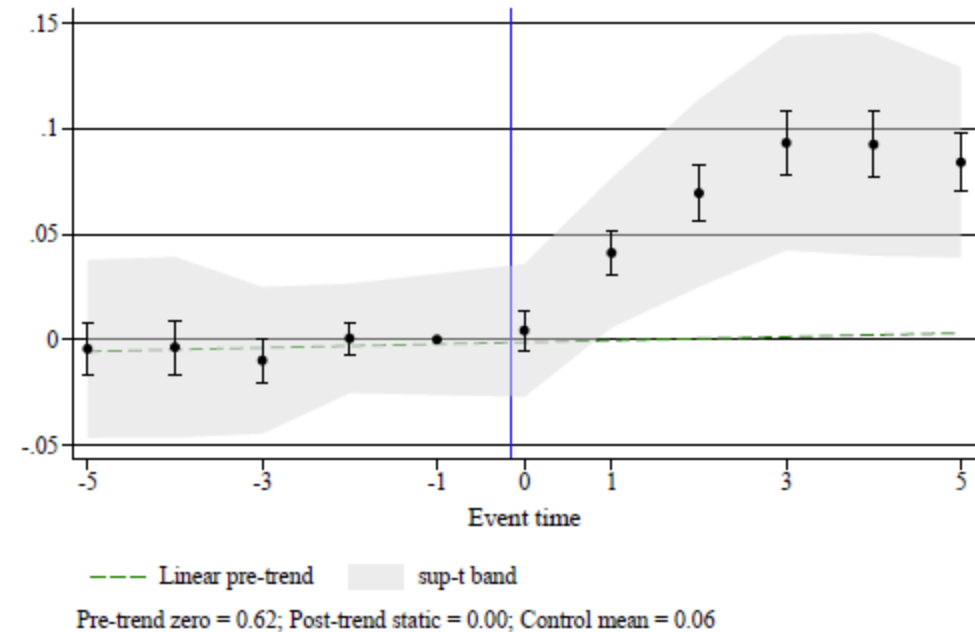
Estimating private sector performance

- Positions in the social network of business owner as proxy of power/access to rents.
- Outcome: Network centralities.



Event study [updated identification]

- Holding political office is associated with faster growth in the number of companies owned by politicians and an increase in their centrality positions within the business network.
- Following Freyaldenhoven et al. (2021),
- sup-t confidence band takes joint set of hypotheses regarding the dynamic effects of the treatment



Chapter 1: Findings

- The effects are larger for politicians who have been in office for around 10 years.
- The results are primarily driven by holders of party political offices, but there is some evidence of gains for executive officeholders after they leave office.
- Family connections also contribute to the magnitude of the results, indicating spillovers beyond individual politicians.
- Politicians prefer to take ownership in joint-stock companies and accumulate interests in business services and investment/finance companies.
- The findings provide evidence of how serving politicians obtain a share of rents from private sector activities through co-investment.

Chapter 2: Authoritarian Political Selection: Ruling Parties and the Rise of Business Elites

with Benjamin C.K. Egerod, Anne Spencer Jamison and Mogens K. Justesen

Chapter 2: Authoritarian Political Selection: Ruling Parties and the Rise of Business Elites

Goal

- Understand the selection process of economic and business elites into positions of political power in authoritarian regimes.

Research Design

- Developing a theory of vertical political integration in authoritarian politics
- Providing empirical evidence to support the theory with a staggered DiD + Quasi experiment.

Chapter 2: Argument

The ruling elite in a non-democratic country needs to fix a dual commitment problem and a dual information problem.

- Commitment problem
 - Cannot credibly commit to refrain from expropriating investment.
 - New economic elite can be a threat to the rule.
- Information problem
 - Business specific knowledge is needed to get access to rents
 - Private sector needs to be monitored

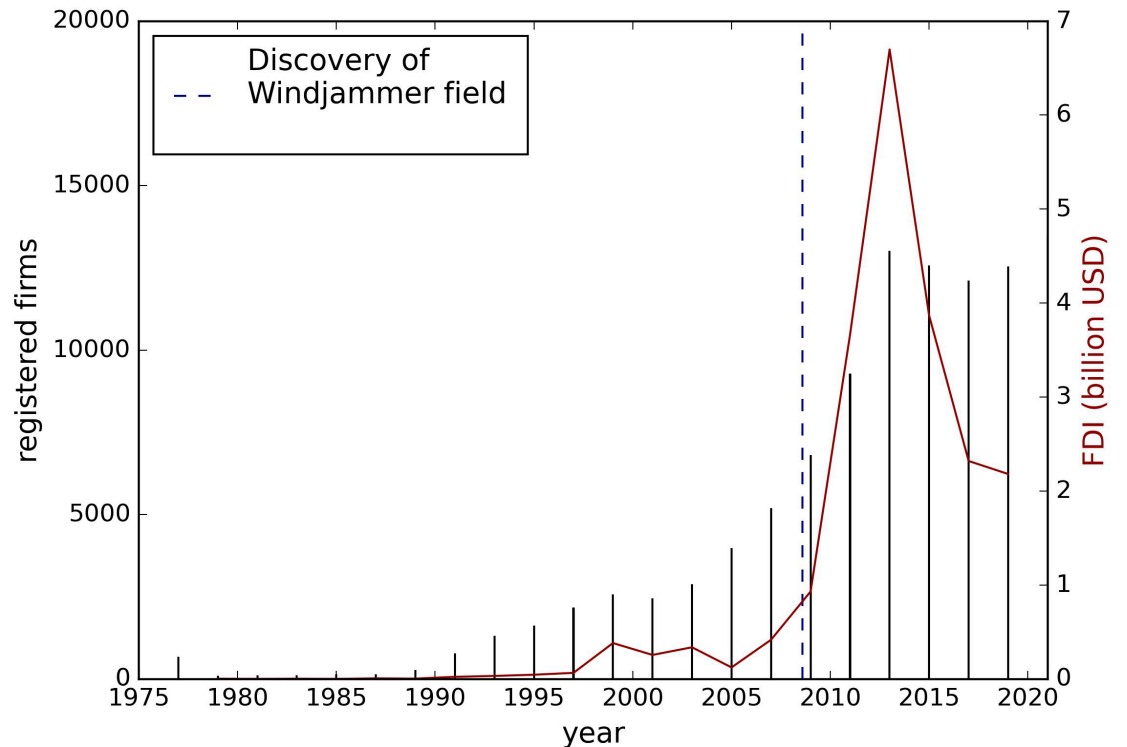
Chapter 2: Prior research

A sudden inflow of new technologies or resources in the private sector can potentially disrupt the power of existing political elites.

- Prior work:
 - Political elites will try to block disruption (Acemoglu and Robinson 2006)
- This paper argues:
 - Existing elite constructs new business elite.
 - The new business elite enters politics.

The gas discovery of 2009

- Firm registrations and FDI inflow in Mozambique. Note: The left scale (bars) lists the number of annual registered firms (BRD3), the right scale (lines) list estimations of FDI inflows into Mozambique in billions of USD (World Bank)



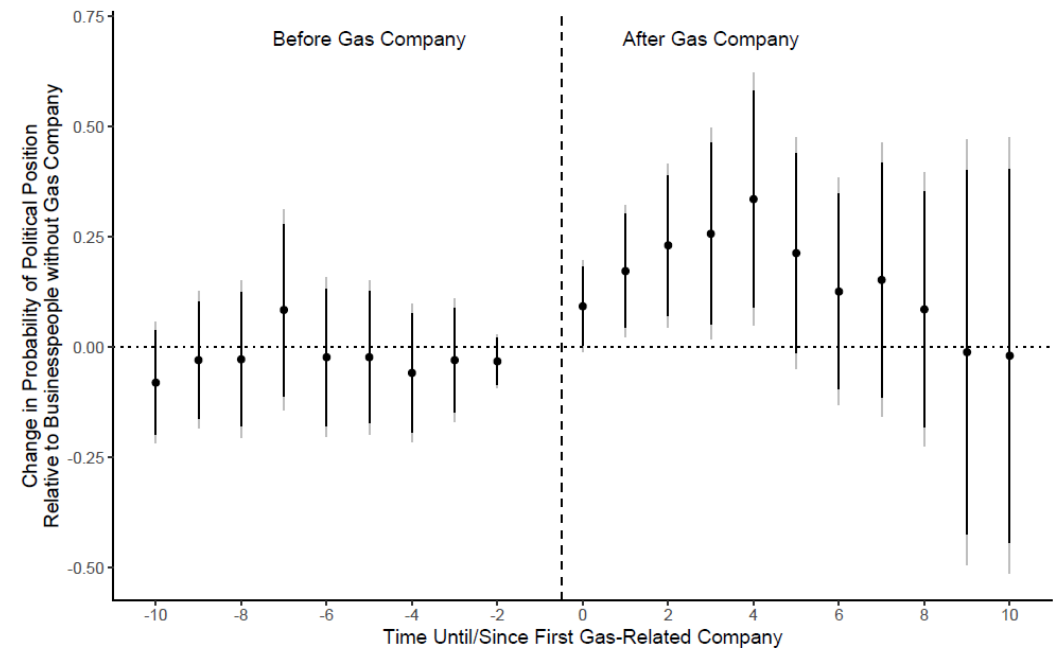
Process the Mission statement to identify gas supplier firms (example)

Example: Platinum Global Sourcing

- Provision of consultancy and engineering support services in the oil sector, specifically, consultancy in corrosion, drilling, exploration, geology, geophysics and project management.
- Provision of hydraulic, mechanical and piping engineering support services.
- Provision of environmental and safety assessment services in oil fields, including environmental monitoring, pollution control and prevention services, etc.
- Manufacture and construction of mechanical, structural, piping, including underwater workshops for oil fields.
- Import, export and sale of instrumentation equipment, drilling machines , marine equipment, paints and coatings, production equipment, valves, etc.

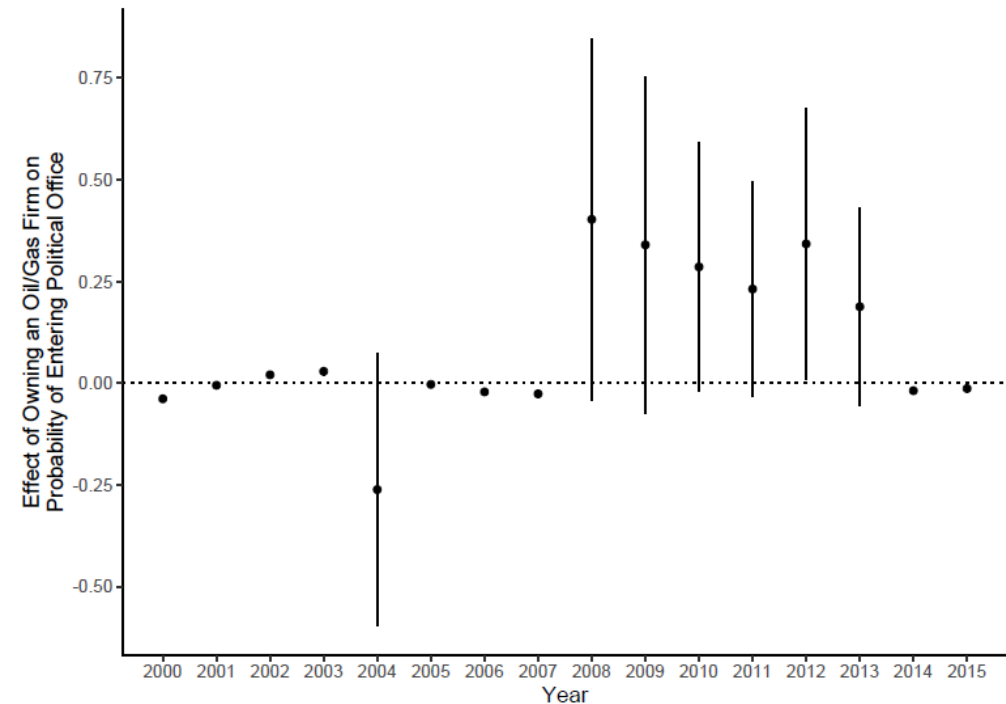
Findings 1A: Gas firms as a springboard into politics

- Business owners are more likely to enter politics after they register a firm in the gas industry.
- Sun and Abraham (2021) estimator.



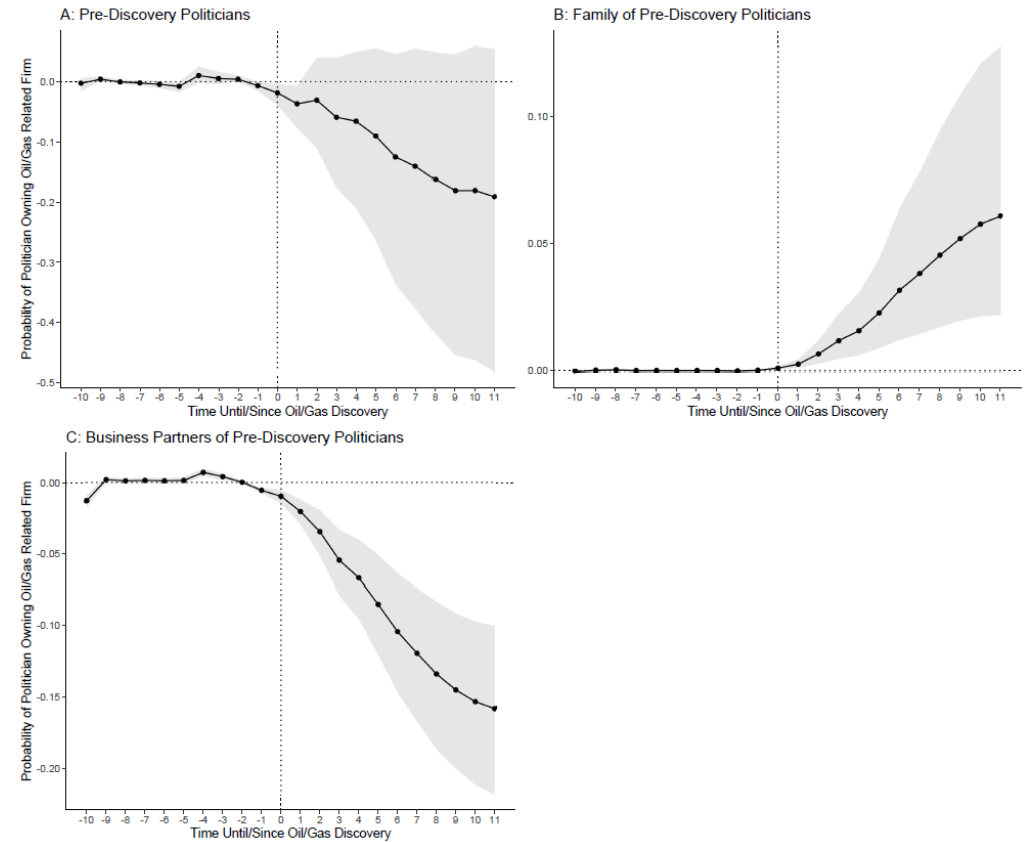
Findings 1B: When are Gas firms useful

- The effect of gas firms in happened only after a major discovery in 2009.



Findings 2: Who is getting a gas firm?

- Family members of existing PEPS get more gas related firms.



Findings:

- Ruling party elites in authoritarian regimes construct and co-opt emerging business elites into positions of firm ownership and political office.
- This recruitment of economic elites into politics is facilitated by positive economic shocks to the economy.
- Bringing business elites into government provides access to their knowledge and expertise about markets and industries, while also allowing better monitoring of their actions and political loyalty.
- For business elites, a seat in a political office reduces policy uncertainty and provides a platform to shape the rules and regulations governing their industries and firms.

Scope conditions: What do we learn from the case of Mozambique?

- Many countries are ruled by electoral autocracies.
- Natural resource commodities are increasingly important. FDI > AID in many cases.
- Regimes in Lusophone countries as "frontrunner" of independence: FRELIMO established ties to multiple foreign powers and found a unique way to pursue their own interest.
- Ideological pragmatism.
- Other countries follow this trend and operate increasingly independent from their former colonial rulers.

Chapter 3: Property Rights Under Selective Enforcement: How Mining Cadastres Relate to Conflict in Low-Income Countries

Chapter 3 Context: Everyone loves property rights

- Scholars (e.g. Besley and Persson 2009, Galiani and Schargrodsky 2010) and Policymakers consider property rights as a key factor to improve institutions.
- Reduced thread of expropriation, better access to credit, etc.
- Many contemporary (aid and foreign) policies try to improve governance levels in low income countries.
- (How) do property rights actually work if they are initiated by foreign actors?

Chapter 3 Research Question:

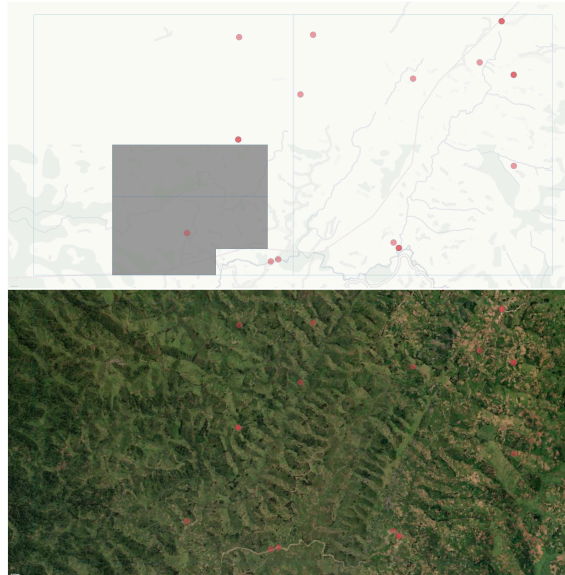
- Do mining licenses reduce the link between economically valuable minerals and local conflict? [In the DRC and its neighboring countries]

Chapter 3: Background

- The Dodd-Frank-Act section 1502 regulates the export of "T3" mineral from the DRC and it's neighboring countries since 2010.
- T3: tin, tantalum, and tungsten
- Reason: Concerns that the exploitation and trade of conflict minerals by armed groups is helping to finance conflict in the DRC region and is contributing to an emergency humanitarian crisis



Chapter 3 Data : Mining licenses and actual mines



Chapter 3: Identification

- Analysis of mining licenses in the DRC and neighboring countries
- Examination of the relationship between mining licenses and local conflict events
- Implementation of the Dodd-Frank Act (DFA) caused an asymmetric shock to the economic value of mining licenses.

Chapter 3: Main Findings

- Foreign support for property rights can reduce conflict if there are incentives to have property rights.
- Foreign regulations can bypass domestic authorities and their strategies for political survival.

Dependent Variable: Model:	P(any ACLED event)			
	(1)	(2)	(3)	(4)
<i>Variables</i>				
DFA ASM	0.0072*** (0.0014)			
License	0.0019*** (0.0007)	0.0017** (0.0007)	0.0014** (0.0006)	0.0016** (0.0007)
DFA ASM × License	-0.0010** (0.0005)			
DFA LSM		0.0159*** (0.0046)		
DFA LSM × License		-0.0046* (0.0024)		
no DFA ASM			0.0037*** (0.0011)	
no DFA ASM × License			0.0006 (0.0011)	
no DFA LSM				0.0046 (0.0029)
no DFA LSM × License				0.0002 (0.0024)
<i>Fixed-effects</i>				
Cell level (333,719)	Yes	Yes	Yes	Yes
Year (21)	Yes	Yes	Yes	Yes
<i>Fit statistics</i>				
R ²	0.23508	0.23501	0.23504	0.23501
Adjusted R ²	0.19683	0.19676	0.19678	0.19676
Observations	7,008,099	7,008,099	7,008,099	7,008,099

Conley (9.2km) standard-errors in parentheses
 Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

Chapter 3: What can we learn from this case?

- Ownership documentation needs to be enforced.
- Technical solutions (e.g. mining cadastres) alone do not make a difference.

Thanks!

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Lessons learned / things I would do differently

ML Operations (MLops) was a way with complex data projects

- Data processing and ML provides unique insides, but comes with "technical debt":
Only a fraction of an ML project is actual ML code
- Robust data infrastructure **before** focus on a specific theory/RQ.

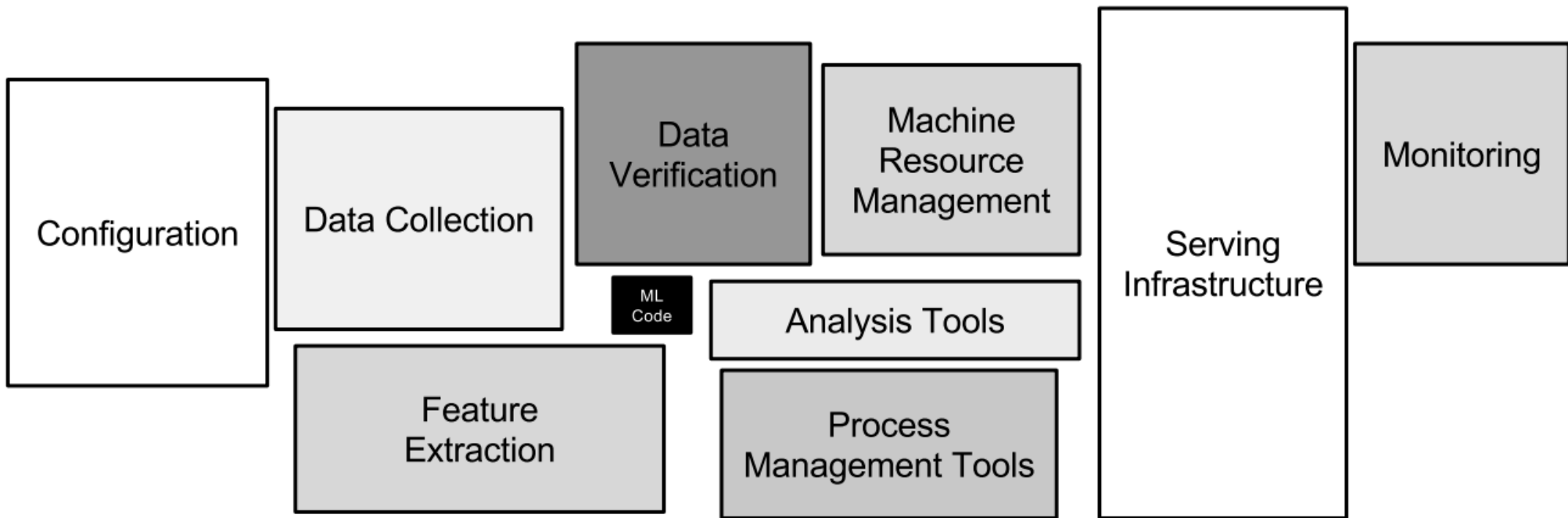


Illustration from Sculley et al. (2015) "Hidden Technical Debt in ML Systems"

Example 1:

Business consultants and lawyers without direct political power are important actors

Example 2:

Mechanism that determine when multinational firms and domestic elites have incentives to support the establishment of property rights.

Better measures of private sector performance:

- BACI / United Nations Commodity Trade Statistics Database (UN Comtrade) to measure national trade flow.
- Topic Modelling to link Trade statistics with mission statements of companies/mining licenses.

