

Master thesis project ideas in environmental economics/corporate finance

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Corporate responsibility and the biodiversity impact of armed conflict?

Russia's war with Ukraine notwithstanding, there are over one hundred armed conflicts currently underway around the world. Conflict causes terrible damages to people's lives, destroys families and communities, and brings societies to collapse. Some armed conflicts are taking place in areas that are rich in biodiversity. Some corporations operate near these conflicts.

This analysis will be investigative and require geographic biodiversity mapping resources that are available from various international monitoring efforts (e.g. Biodiversity intactness index). It will also involve investigating publicly available location data over armed conflicts (e.g.

<https://acleddata.com/>), and publicly available spatial data over corporate concession areas (e.g. <https://cmr.forest-atlas.org/pages/map-domaine-forestier-permanent>).

An approach would be to first identify armed conflict that is destroying biodiversity. A subsequent step could involve identifying various corporate activities or assets. Part of the challenge would be to develop algorithms that can recognize patterns of biodiversity loss caused by armed conflict, and then (ideally) identify the corporations operating or owning the assets in these areas.

How does carbon transition risk impact Swedish firms?

This thesis investigates how climate related transition risk impacts Swedish firms' financing costs. An overarching issue is if firms that face higher transition risks need to compensate investors for this risk. A key challenge is developing an appropriate measure of a firm's transition risk. Related research topics include, e.g. how firms adapt their operations to manage this risk. Do they boost investments in new machinery/capex, or increase R&D? Do they increase or decrease their level of outsourcing?

The analysis relies on the comprehensive Swedish firm-level dataset from Bisnode, which contains financial statements, ownership structures, and firm demographics. The analysis will also draw on firm-level ESG metrics.

How did Russia's invasion of Ukraine in 2022 impact Swedish firms?

Up until the last moment, there was great uncertainty regarding Russia's intentions to invade (or not invade) Ukraine. The economic and financial consequences of Russia's attack rippled through the global economy, and impacted not only people's lives, but also the decisions of governments and firms. The invasion provides a quasi-natural experiment that is suitable for a difference in difference analysis.

This thesis would involve first developing a series of testable hypotheses related to how listed firms responded to the invasion, and the ensuing economic consequences such as the surge in energy prices, increases in economic uncertainty, etc. The research will delve into determining if firms responded to the war by increasing "rainy day" resources such as cash holdings, or holding higher inventories? More generally, is there evidence of other shifts in firm financing and/or firm performance that can be attributed to the war?