

# Introduction

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#Introduction Compulsory Licensing of Patents and Innovation looks at the intervention TWEA has had on patents in organic chemistry to US firms. The Trading with the Enemy Act (TWEA) of 1917 permitted US firms to violate enemy-owned patents if they contributed to the war effort. in this report we are trying to look at the causal effect the intervention of TWEA has had on US Domestic patenting. the report therefore tries to answer the main research question. “Does compulsory licensing increase or discourage domestic invention in countries that license foreign technologies?”

In order to help us answer this research question is the dataframe “exam\_TWEA.r” provided. which is the same dataset as our main reference “Moser, P., Voena, A. (2012). Compulsory licensing: Evidence from the trading with the enemy act. American Economic Review, 102(1), 396-427” used in their study and will be the main paper we are refereeing to throughout the report. the data provided is panel data. this is because the data looks at the following variables relevant for the report:

Table 1: Variable Descriptions

Variable	Description
uspto_class	specific technology grouping of patent based on common subject matter
grntyr	year of patent grant
count_cl	Number of patents adopted under forced licensing
anypatent	1 if any patent have been adopted under forced licensing.
count_usa	Number of patents developed domestically
counter_cl_itt	Number of available patents under forced licensing
mainclass_id	Main class code
subcl	Subclass code
twea	Whether TWEA was enacted

so each observation point provides in the dataframe is the evolution of patents throughout the years. for instance if we look at the first observation of the dataframe we find the organic chemistry patent 008/09410D. which we start measuring at year 1875. we this patent evolution of the patent until year 1939 and then switch to observe a new patent. this is why the data provided is panel data as we observations are for the same subjects each time. moreover since the data provided are longitudinal studies this tells us that the data is observational rather than experimental. this is further verified since we are