

## Overview

This project is a working report on my Honors thesis in International Relations. My thesis attempts to address the question “what factors cause a hegemon to decline in the international system?” A hegemon can be defined as the leading power among all countries, and decline is the process by which the powerful state is replaced by a state which is relatively more powerful. Understanding the factors that contribute to the decline of that leading state is crucial to understanding what actions a powerful state should pursue in order to retain or develop that power.

A theoretical framework of why the leading power declines is crucial to predicting the order of states in the international system. My thesis analyzes the case of the British Empire and compares the predictions of multiple theories of decline with the empirical evidence from that period.

In my thesis I propose a theory that is more able to explain hegemonic decline by analyzing a hegemon's actions through a lens of achieving the most efficient military; a stark difference from current theories. I rely on the mechanics of the economic concept of economies of scale to model states’ interaction in the international arena. My theory attempsts to unify current theories of decline into a model that has more explanatory power.

This topic is particularly important in the context of our current international system, there is an increasingly popular belief that the United States is either currently in decline or will soon experience decline due to the growth of competitor states like China. By analyzing the case of the British Empire's decline, it may be possible to predict the key determinants of decline, which can be used to extend the duration of United States hegemony.

## Theories

Many scholars have proposed theories that explain hegemonic decline, each theory has a different mechanism that triggers decline and different key variables associated with decline. There are three main explanations for why a leading state would be replaced by another state, each of which relies on a different causal mechanism and is represented by different variables in the case study. I have proposed a theory has the potential to provide a more complete explanation by subsuming the current theories into a model that explains hegemonic decline

### Imperial Overstretch

Imperial Overstretch is the idea that a hegemon will pursue expansion, but at some point, the hegemon will spread itself too thin and be unable to deal with all the commitments that it has forced itself to patriciate in. The central idea is that a hegemon will expand beyond what it is capable of dealing with, so decline is a result of the hegemon failing to predict the costs related to its expansion.

#### Mechanics

- A hegemon conquers new territory or allies with a new state
- The size of the hegemon's network becomes too large to properly manage each area that it controls
- The hegemon is no longer able to control all of the regions it claims dominion over due to the costs of control
- The hegemon experiences decline as smaller states who are able to control their territory become functionally more powerful

### Domestic Distributional Coalition

This concept claims that hegemonic decline is caused by powerful domestic interest groups successfully lobbying the state, preventing the state from operating efficiently in the long run. The central mechanism is selective incentives, an incentive that applies to individuals depending on if they contribute to the provision of a collective good, causes small groups to benefit rather than those who would benefit that the collective goods that the state would have created. When only a few members will benefit from collective actions, it is easier for a group to organize, as they will each reap large portions of the benefit that the industry receives. Over time, these niche interests slow the actions of a state to the point that it is unable to operate efficiently or effectively enough to maintain its position in the world. This theory predicts that a hegemon experiences decline due to individual self interest outweighing the benefit to all.

#### Mechanics

- By virtue of the benefits that a hegemon experiences, small interest groups want to ensure that they have access to those benefits
- The small group obtains control over some segment of a hegemon's economy or policymaking process
- The small group's incentives to gain wealth lead it to pursue actions that benefit group members rather than the hegemon as a whole
- The inefficiency that results from these groups self-interest lead the hegemon to experience decline compared to states without these inefficient decision makers

### Differential Growth Rates

This concept is probably the simplest to observe; a hegemon experiences decline in the long run if a competitor state grows at a faster rate. This theory is rooted in the idea that states will continue to increase their wealth and power until they are stopped by another state. This theory predicts that a war for hegemony is the natural outcome of a competitor state achieving a higher growth rate than the hegemon, which will conduct a war in order to protect its position in the international order.

#### Mechanics

- A competitor state develops some ability that increases its growth rate, a function of economic and military variables
- A hegemon experiences a lower growth rate than the competitor due to an inability to develop a comparable ability
- The difference in the growth rates between the competitor state and the hegemon leads to the competitor state becoming the leading state in the long run

### Economies of Scale

I propose a theory that relies on the mechanics of an economic model, monopolistic competition. This model says that firms with large enough market share can expand by acquiring less efficient firms. Large firms are able to produce more efficiently due to a concept called Economies of Scale, a firm that dedicates more resources towards production will be able to produce a good more efficiently. Applied to the international system, my theory states that the state that is able to dedicate the most resources to producing security, or military strength, will be able to produce that military at the most efficient cost. That lower cost allows it to acquire control over more states, so decline occurs when a competitor state produces military strength at a lower cost than the hegemon.

#### Mechanics

- A state is able to produce security at a cost that reflects its current military size and the amount of resources it dedicates to increasing its military, this security can be sold to other states for a profit.
- The rate at which a state can increase its military is determined by how developed the states military production capacity is. A hegemon produces security at a lower cost per unit than other states
- A competitor state allocates enough resources that it can produce its military at a lower cost per unit than the hegemon
- In the long run the competitor state will use its excess profits to gain power in the international system due to the resource increase from the acquisition of less efficient states.

# Causes of Hegemonic Decline: Preliminary Findings and Analysis

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## Case Study

My thesis conducts a case study of the decline of the British Empire, roughly the period from 1870 to 1914. This case is appropriate to make predictions for the United States because of the strong similarities of between the countries.

### Notable Similarities

- Similar cultural background
- Largest GDP/GNP in the world
- Actively involved in world affairs
- Active military bases around the world
- Possess developed financial markets
- Largest navy in the world

### Methodology

Each theory presents different mechanisms to explain the decline of the leading state. Because these mechanisms are very different from each other, the best way to compare the merits of the theory is to identify variables related to the causal mechanisms. In order for a theory to be effective, the trend of variables over time must only be correlated with the period of the country’s decline and also be consistent with the predictions generated by the theory.

### Variables of Interest

#### Imperial Overstretch

- Number of Military Personnel
- Government Spending
- Change in International Commitments

#### Domestic Distributional Coalition

- Policies enacted for specific interest groups

#### Differential Growth Rates

- GDP/GNP per capita
- Share of world trade

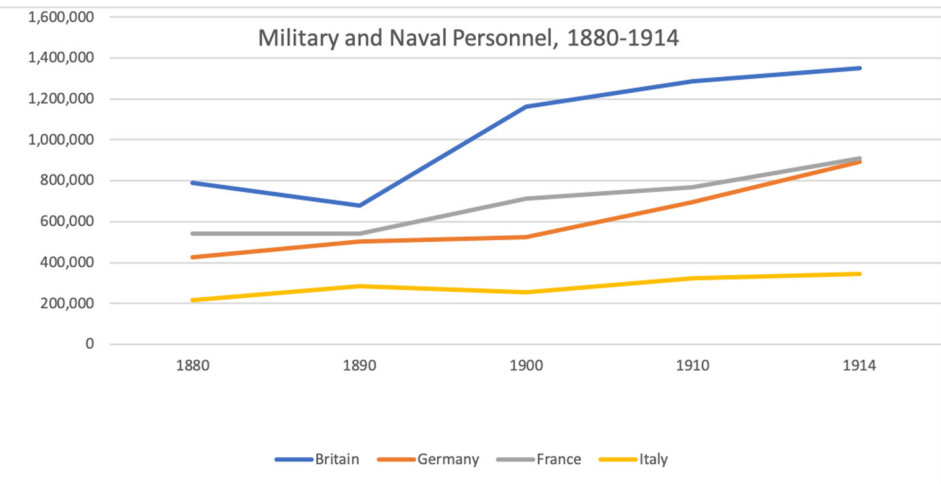
#### Economies of Scale

- Industrialization Level
- Iron/Steel Production
- Military Budget relative to GDP

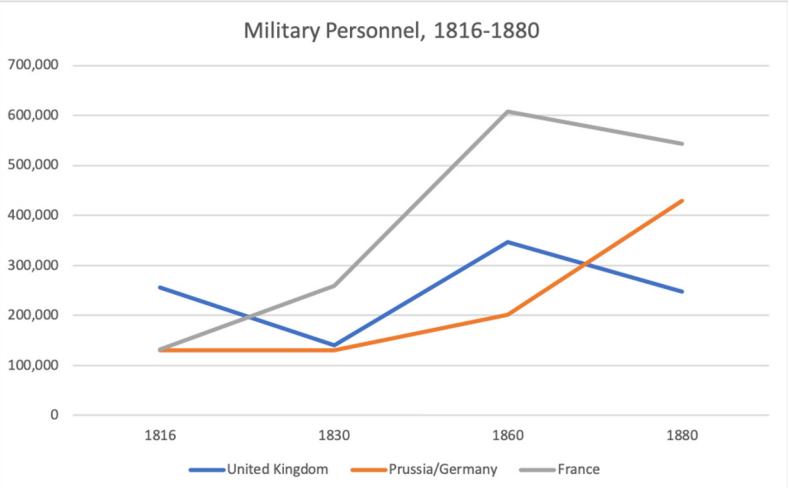
## Preliminary Findings

#### Imperial Overstretch

- Number of Military Personnel



The flattening of Britain's slope as the number of personnel increases is consistent with the theory.



The decline in number of military personnel is inconsistent with the theory.

- Government Spending

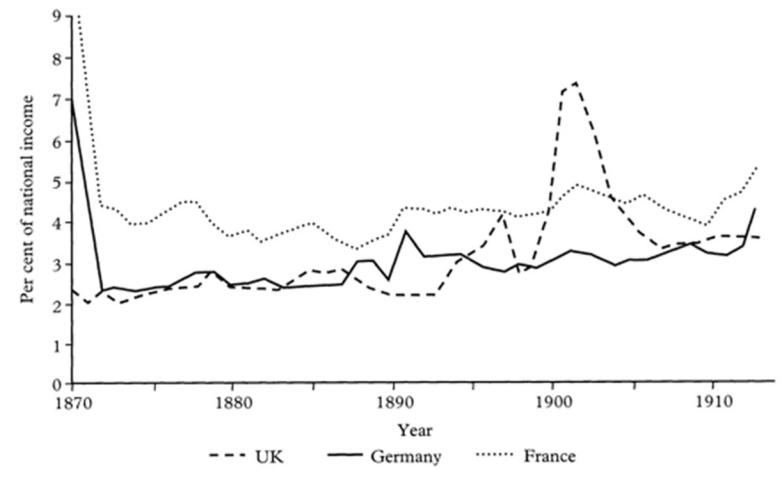


Figure 1. Military and naval spending as a percentage of national income (constant 1906 prices): UK, Germany, and France, 1870-1913  
Source: Charvet and North, 'Oceans in conflict: data on national growth and international violence for 58 European major powers, 1870-1914' (1975). Inco-narcissity consortium for political and social research (Univ. of Michigan). ECPSS on 1/4/15. It is not stated which measure of national income was used.

The spike in government spending as Britains commitments increased is consistent with the theory, but the lack of increase at the end of the data set is inconsistent with the theory.

#### Domestic Distributional Coalition

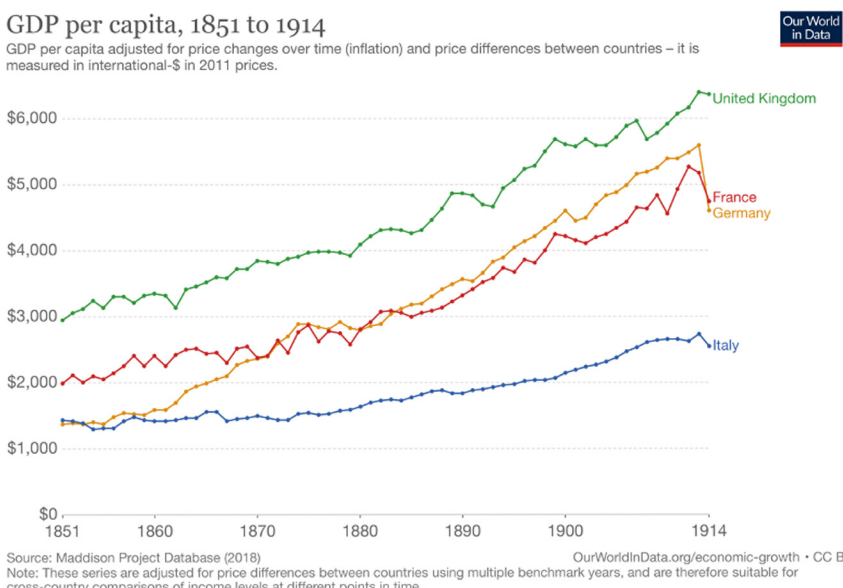
- Policies enacted for specific interest groups

- o “the Liberal and Labour Party supported the goals of the 1899 Hague Conference to discuss disarmament and peace, including naval force limitations for a fixed period, which met stiff resistance from the Conservative Party and navalists” (Marder, 341-343).
- o “By October 1902, the Admiralty hedged upwards the two-power standard to a formula of “equality plus a margin” over the next two strongest naval powers” (Sumida, 23).
- o “Britain’s Admiralty argued... the Naval Defense Act (1889) and the Spencer Act (1894) would discourage the naval aspirations of these rising states and also deter future naval challenges. The Spencer Act would “show once and for all that such competition was futile” (Marder, 204).
- o “The Anglo-French entente (1904) recognized French predominance in Morocco and British trade rights within the region... Internationalists favored reducing Britain’s naval presence in the Mediterranean... British financiers also highlighted financial risks from Anglo – French hostility.” (Lobell, 275)
- o “From 1900 to 1906, Labor MP’s in parliament increased from 2 to 29” (National Archives, Trade Unionism)

Britains decisons to pursue actions that reduce security but protect wealthy members of the finance industry is consistent with the theory. The increase in the political representaion from the party of those wealthy members is also consistent with the theory.

#### Differential Growth Rates

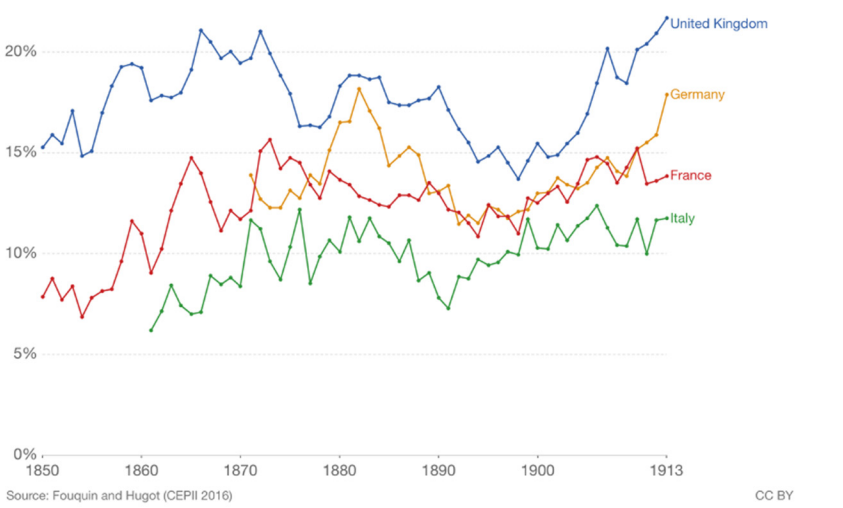
- GDP/GNP per capita



The steeper slope of Germany is consistent with the theory, but the difference in growth rate is inconsistent with the theory.

- Share of world trade

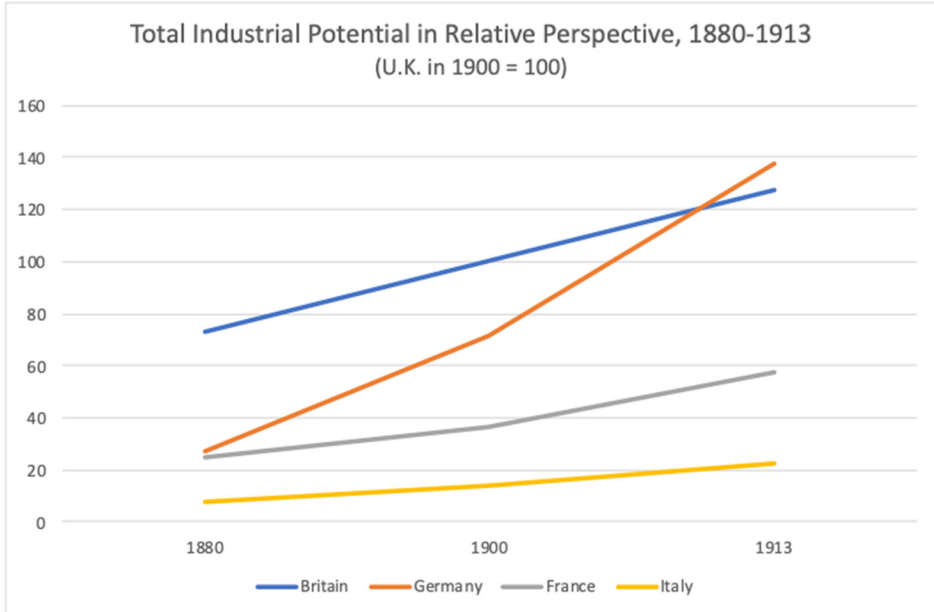
#### Value of exported goods as share of GDP, 1850 to 1913



The steeper slope of Germany is consistent with the theory, but the difference in growth rate is inconsistent with the theory.

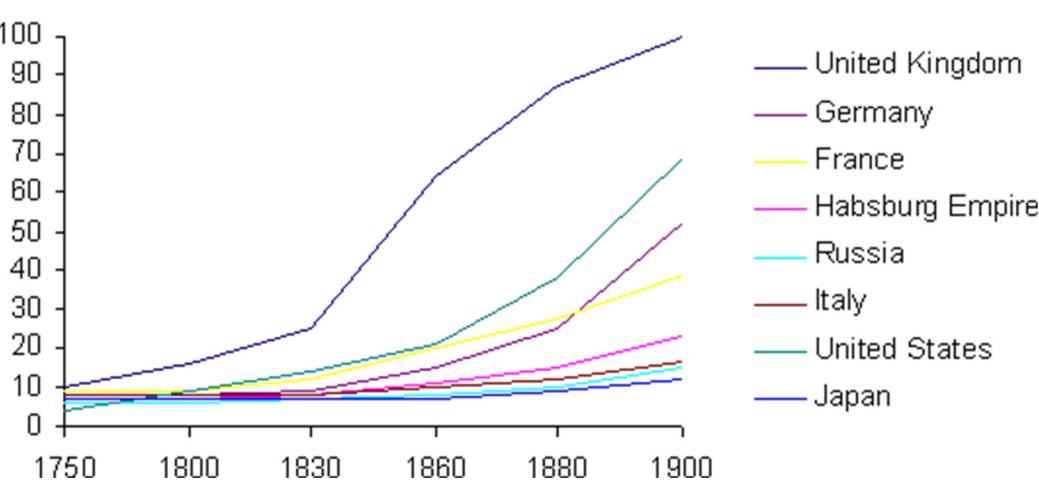
#### Economies of Scale

- Industrialization Level



The intersection of Germany and Britain is consistent with the theory.

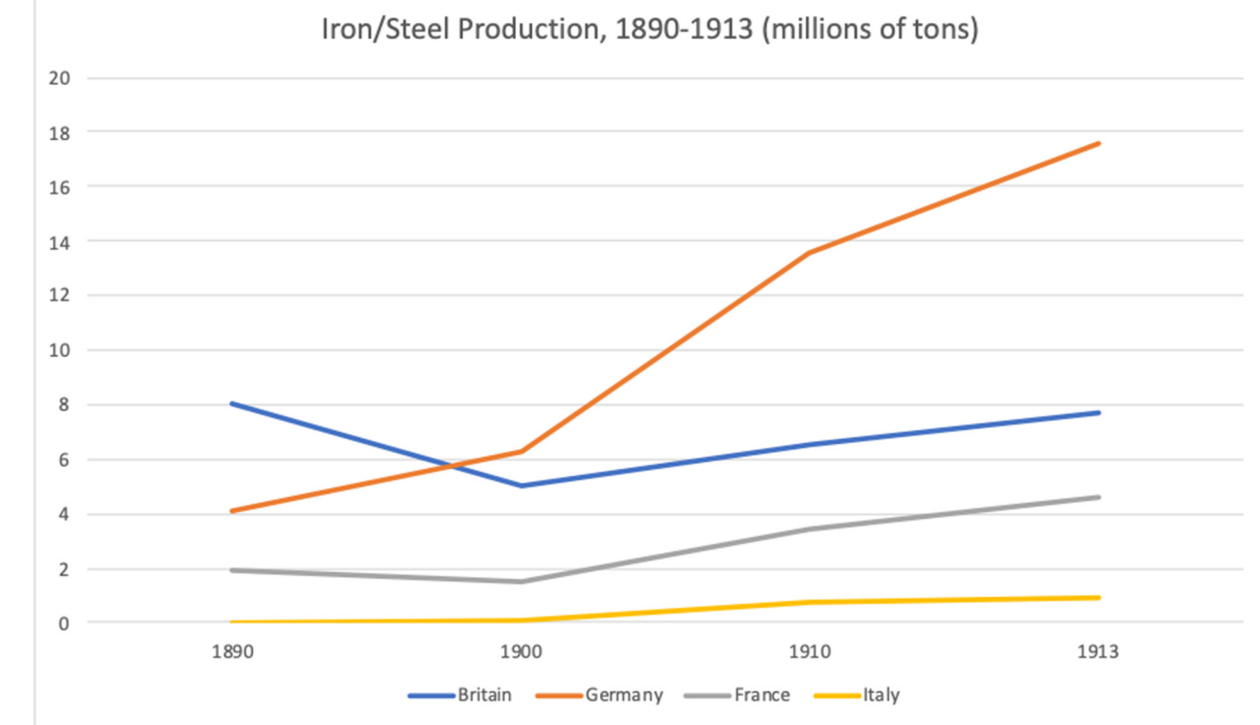
#### Relative Levels of Industrialization, 1750-1900 (U.K. in 1900 = 100)



Data from: Paul Bairoch, “International Industrialization Levels from 1750 to 1980” JEEH 11.

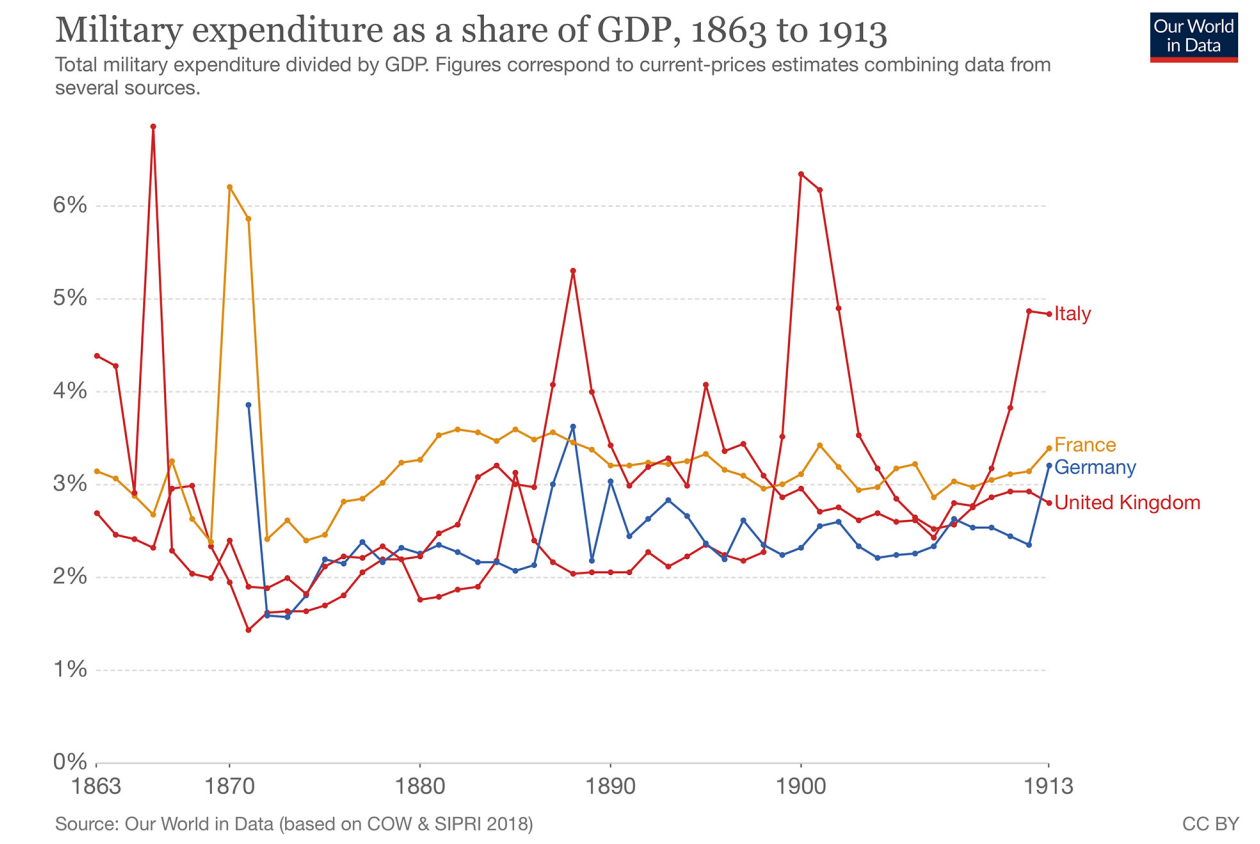
The large gap between Germany and Britain is inconsistent with the theory.

- Iron/Steel Production



The intersection and wide divergence between Germany and Britain is consistent with the theory.

- Military Budget relative to GDP



Germany's observed lower proprotion of military spending compared to Britain is consistent with the theory.

## Conclusions

### Theoretical Consistency Ranking

#### 1. Economies of Scale

This theory predicts that decline will occur when a challenger state demonstrates a significant increase in productive capability as well as a dedication of resources to achieve productive efficiency. This theory doesn't explain Britain's higher level of military and naval personnel, but it explains Germany's significant advantages over Britain in producing military personnel and steel. Britain's low proportion of military expenditure

Based on the preliminary findings, this theory is somewhat consistent with the prediction that it can subsume the existing theories. It can explain the decline in military personnel and the flattening slope of military and naval personnel associated with imperial overstretch, but not the higher number of personnel. While it does not explicitly rely on economic variables, it can explain the flatter growth rates from the variables associated with differential growth rates as a proxy for general productive capabilities.

#### 2. Imperial Overstretch

This theory predicts that a hegemon will face increasingly prohibitive costs as it continues to expand its control. This theory predicts the spike in military spending relative to national income at the same time that the growth rate of military personnel becomes flatter. It can also explain the slight increase in the number of commitments Britain experienced, though it cannot explain the decline in Years of Conflict between the two periods. It can also not explain why Britain's military expenditure relative to GDP declined leading into the First World War.

#### 3. Domestic Distributional Coalition

This theory predicts that the state will decline as narrow interest groups gain favor with the government. There are notable examples of the government pursuing actions that reduced its security but benefited wealthy members of society, which is consistent with the theory. However, most examples surrounded the debate over British naval policy, so there is not significant diversity between the provided examples. Further research is needed in this area to conduct a more representative evaluation.

#### 4. Differential Growth Rates

This theory predicts that decline occurs when a competitor state grows at a faster rate than the hegemon. The theory is able to explain Germany steeper slopes at different points in time, but the data does not indicate that the slightly steeper slope ever brought Germany to similar rates that Britain experienced. Perhaps the variables do not capture enough information to properly evaluate the mechanism, but in this preliminary case study I did not find evidence to support this theory.

### Implications for the United States case

If the preliminary findings from the British case are confirmed in my final thesis, the United States has likely not yet experienced decline. The United States may be vulnerable to decline if its military expenditures relative to GDP are higher than other developed nations for a long period of time. The United States may also be vulnerable to decline by failing to produce sufficient levels of raw materials associated with military production. The United States' hegemony may be vulnerable to narrow interests of domestic distributional coalitions, their interests have the ability reduce the actions the United States is willing to take to protect its wider security interests, especially if they run counter to the interests of coalitions with influence on the decisionmaking process. The United States is known for its high levels of industrialization, even among other developed nations. However, even a wide relative difference in existing industrialization levels may be less consequential than potential industrialization levels, perhaps the ability of a state to quickly industrialize a sector is more beneficial for scaling military production than retrofiting an existing industrial order to achieve the same output.

Conversely, it is possible that the British and the United States' hegemony are significantly different enough that variables consistent with a theory in the British case do not have the same influence on US hegemony. For instance, steel production and industrialization were essential for creating almost every military instrument in the period of the British case, but the rise in electronic and computer based weapons systems may make unexamined variables like computer chip production capacity and native STEM degree holders more predictive in the United States case.

Further research into each variable is required to make a stronger conclusion in the British case, and the implications from variables determined to have causality should be used to make cautions predictions about the United States.