
Memorandum

TO: *POSC 3300 International Security Studies*
FROM: *Allexus Bain*
SUBJECT: *Koch: Testing Power Transition Theory*
DATE: *October 24th, 2022*

Executive Summary:

Power Measurement is essential in policy-making. The intelligence that can be drawn from measurements of power is key to understanding a country's internal state, which policy-makers analyze to devise good policy. There are also external factors in power measurement, such as the alliances between states, but the focal point in *Koch's* writing was on the internal factors—to elucidate on the inner workings of power transition theory. *Koch* mentioned a few measurements of power that political scientists rely on in today's era. These are the Composite index of national capabilities (CINC), Gross National Product (GDP), and SDP. Each measurement of power has its pros and cons, but they each provide invaluable information, useful to predict the current standing of a state on the global power-scale, as well as detailing the longevity of a state's puissance.

Different Methods of Power Measurement

There are a wide range of determinants to consider as it pertains to measurements of power. There's demographics, population, landmass and geography, industrialization, and a collection of other factors. Though, *Koch* observed a small few as necessary. "Initially, the most critical determinants of power included: Population size, political structure, economic development, national morale, resources, and geography."¹ The determinants studied in power measurement specifically relies on what political scientists are researching/observing. *Koch* focused on three methods in measuring power, as mentioned previously, which are CINC, GDP, and SDP.

The Gross National Product (GNP) is centered on economics and the population. *Koch* regarded GNP as an "essential benchmark" for measuring power transition theory, but also stated that it had "shortcomings" in prior political studies. "GNP focuses on the output produced by a state's citizens but does not consider any additional output from other people residing in the state.

Koch, Charles J. 2021.

¹ Pp. 93

Additionally, larger populations may produce a higher GNP, but if not fully industrialized, the state's production immediately returns to the subsistence of its population.”² GNP is a reliable resource but can also be prone to inaccuracy.

Many political scientists rely on the Composite index of national capabilities (CINC) as a form of measurement in their political research. *Koch* said that the “Composite index of national capabilities is a robust measure of power because it examines state capability through three dimensions: Demography, industry, and military.”² CINC examines the size, growth rate and expenditure in each of these dimensions, which is uniquely thorough for state intel. Nonetheless, *Koch* mentioned that it is difficult to understand whether a state is improving or declining through the use of CINC alone.

The last measure of power *Koch* discussed was SDP, which “estimates the upper bound on the resources a state can sustainably extract,”³ which happens after the needs of the population are accounted for. SDP is excellent for determining how powerful larger states are in comparison to others, especially when military capabilities are included in the measurement. *Koch* displayed most favorability toward the SDP metric. “SDP is promising because it focuses on the surplus capabilities of a state by accounting for the needs of its population.”³

Analysis

Power Measurement is valuable in power transition theory. “Contributing to the power transition theory provides researchers a better understanding of the conditions necessary for both war and peace.”⁴ The Composite index of national capabilities (CINC), Gross National Product (GDP), and SDP are some power measurements that are studied to identify the effects of internal factors. These different measurements of power are vital to understanding how a state evolves. Policy-makers, and political scientists, rely on these metrics to ensure good policy is made for the state as a whole. It is crucial to account for these factors—population, economics, military, etc.—involved in power measurement, since this guarantees that the data collected is accurate and has a mature reliability standard.

Koch, Charles J. 2021.

² Pp. 94

³ Pp. 95

⁴ Pp. 86

Reference

Koch, Charles J. 2021. "Testing the Power Transition Theory with Relative Military Power." *Journal of Strategic Security* 14, no. 3: 86-111.