

NUCLEAR WEAPONS AND THE GLOBAL ERA

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01. Introduction

Do nuclear weapons increase economic interdependence and cooperation?

This study examines whether acquiring nuclear weapons and receiving an extended deterrence guarantee (protection from a nuclear-armed ally) influences a country's participation in international organisations and preferential trade agreements.

02. Hypothesis

All else constant gaining nuclear weapons and nuclear extended deterrence should increase the number of International Organisation memberships and Preferential Trade Agreements relative to states without these measures.

States with nuclear weapons or an extended deterrence guarantee feel more secure to cut deals from which they may gain less than their partners thus making it easier to sign agreements. Similarly, these states worry less about the loss of sovereignty to international organisations leading them to join more.

03. Methodology

Following previous literature panel regressions were run across two groups:

- Nuclear powers
- Nuclear deterrence guarantee countries

Panels were taken across the following timeframes:

- 10 years before and after nuclear acquisition or guarantee acquisition
- 5 years before and after
- Post 1960 - to remove countries with unbalanced panels due to data constraints

Control variables for GDP, trade, geographic features, regime type and US hegemony were used

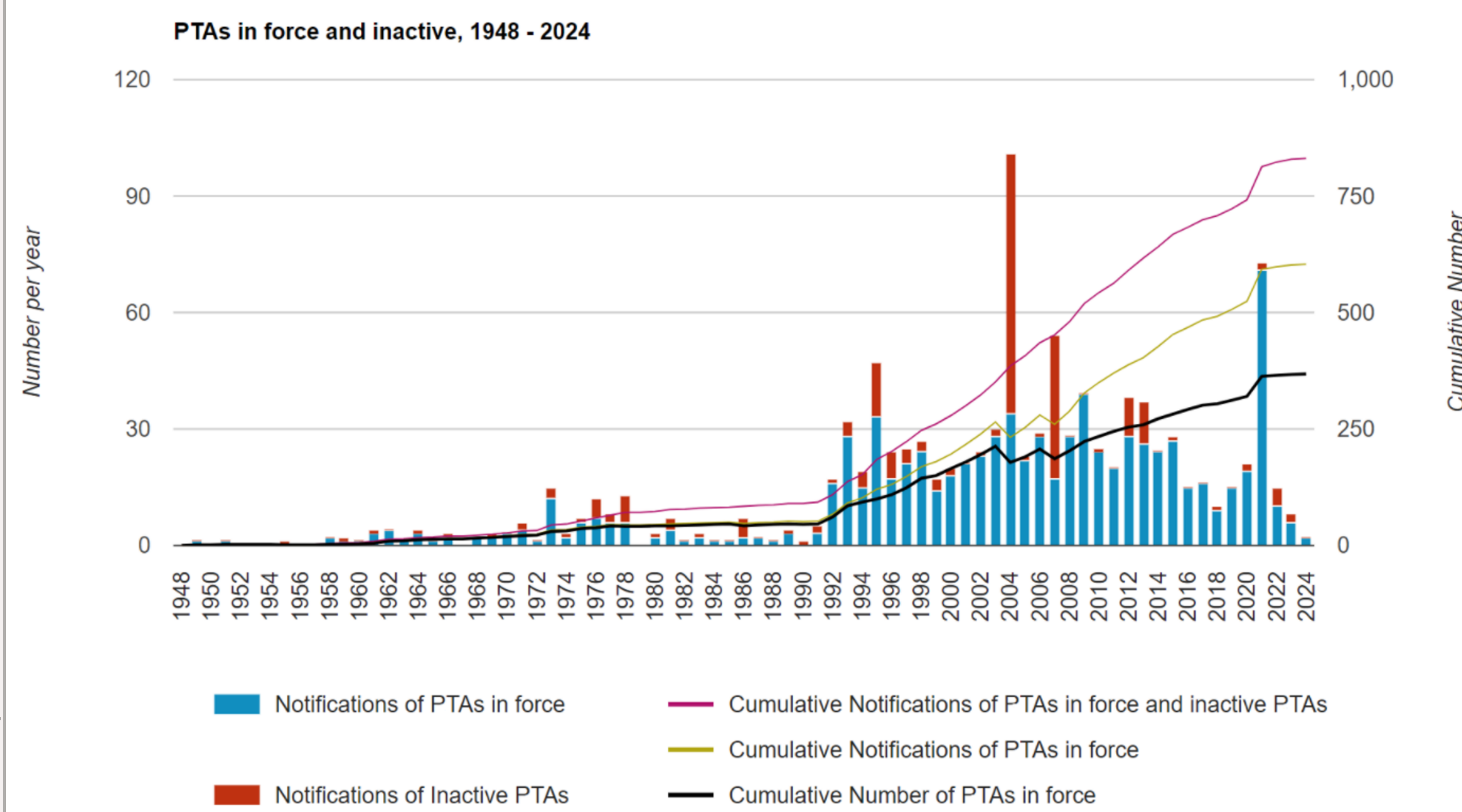
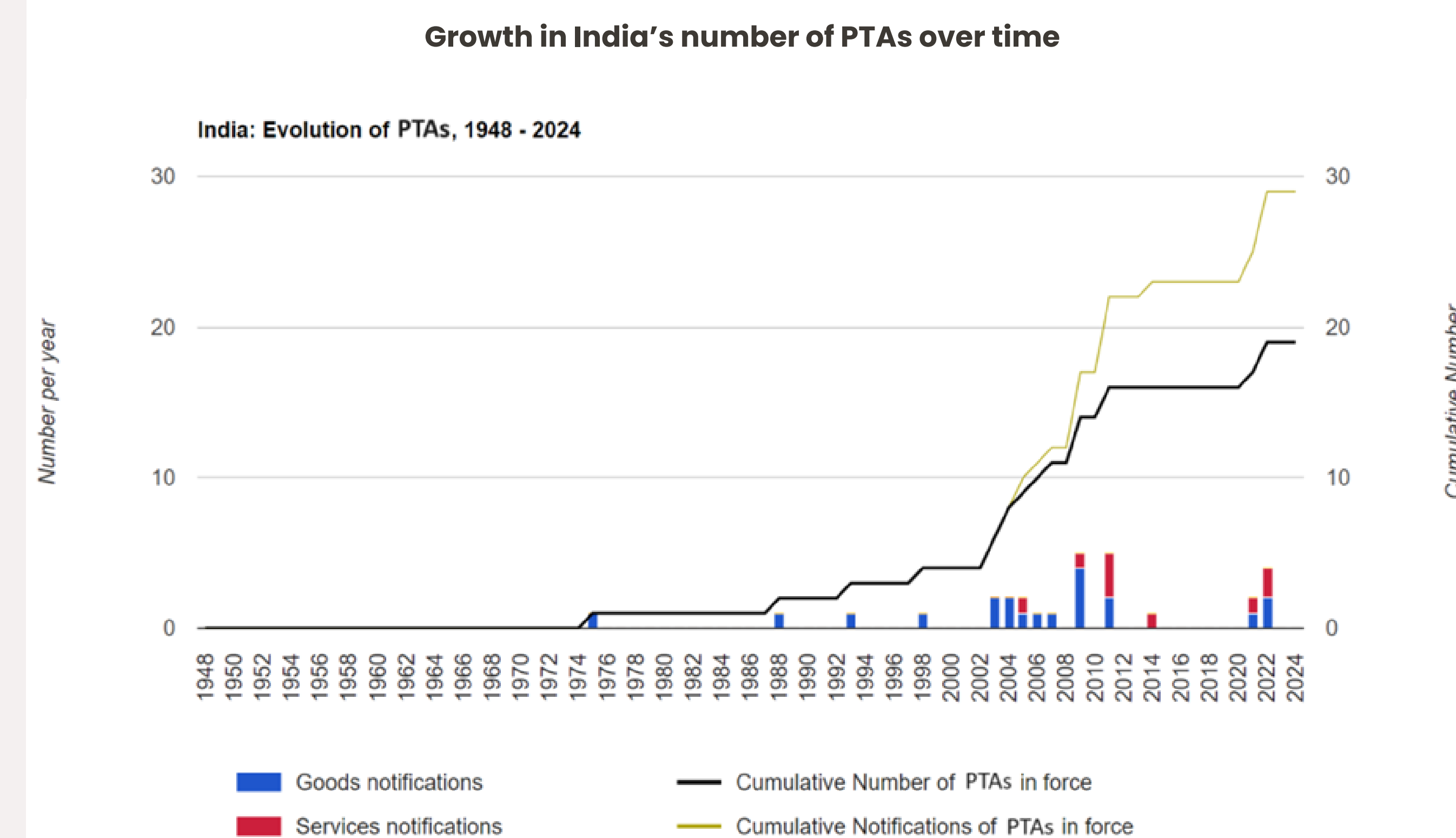
Related Literature:
 • Paul Poast, Johannes Urpelainen, Fit and Feasible: Why Democratizing States Form, not Join, International Organizations, International Studies Quarterly
 • Mansfield ED, Reinhardt E. Multilateral Determinants of Regionalism: The Effects of GATT/WTO on the Formation of Preferential Trading Arrangements. International Organization.

04. Results

It was found that nuclear acquisition and obtaining extended deterrence guarantees both increase participation in International Organisation memberships and Preferential Trade Agreements. The increasing effect is shown by the positive coefficients for the nuclear acquisition and extended deterrence variables as summarised in the tables below.

The analysis revealed a significant positive association between nuclear weapons acquisition and participation in Preferential Trade Agreements within the 10 year time frame after acquisition. For example, India's PTA participation showcases an increase in trade agreements following 1974, this is also the year that the country acquired nuclear weapons, supporting the results of the regression.

In terms of the results for the regression on International Organisation Memberships, countries joining the nuclear umbrella (gaining nuclear extended deterrence) were found to be especially significant in impacting the number of IO memberships. Having an extended deterrence guarantee results in an increase in approximately 8.7 IO memberships in the 10 year period after guarantee acquisition.



The growth in number of PTAs globally

05. Tables of Results

The following tables show the coefficients of the variables for nuclear acquisition and the gaining of extended nuclear deterrence. These coefficients indicate the increase in the number of PTAs or IO memberships after countries have acquired these variables. Nuclear Umbrella countries refer to states with an extended nuclear deterrence guarantee.

International Organisation Regression:

	Nuclear countries	Nuclear Umbrella Countries
10 year period	5.30	8.67
5 year period	1.32	1.00
Post 1960		2.57

Preferential Trade Agreement Regression:

	Nuclear countries	Nuclear Umbrella Countries
10 year period	13.00	6.78
5 year period		5.75
Post 1960		13.79