Economic Costs of Conflict: How Synthetic Controls Came to Be

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The Economic Costs of Conflict: A Case Study of the Basque Country

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This article investigates the economic effects of conflict, using the terrorist conflict in the Basque Country as a case study. We find that, after the outbreak of terrorism in the late 1960's, per capita GDP in the Basque Country declined about 10 percentage points relative to a synthetic control region without terrorism. In addition, we use the 1998–1999 truce as a natural experiment. We find that stocks of firms with a significant part of their business in the Basque Country showed a positive relative performance when truce became credible, and a negative relative performance at the end of the cease-fire. (*JEL* D74, G14, P16)

Political instability is believed to have strong adverse effects on economic prosperity. However, to date, the evidence on this matter is scarce, probably because it is difficult to know how economies would have evolved in absence of political conflicts.

This article investigates the economic impact of conflict, using the terrorist conflict in the Basque Country as a case study. The Basque conflict is especially interesting from an economic perspective. At the outset of terrorist activity in the early 1970's, the Basque Country was one of the richest regions in Spain, occupying the third position in per capita GDP (out of 17 regions). In the late 1990's, after 30 years of terrorist and political conflict, the Basque Country had dropped to the sixth position in per capita GDP.[1] During that period, terrorist activity by the Basque terrorist organization ETA resulted in almost 800 deaths. Basque entrepreneurs and corporations had been specific targets of violence and extortion (including assassinations, robberies, and kidnappings-for-ransom). Not surprisingly, the economic downturn suffered by the Basque economy during those years has been attributed, at least partially, to the effect of terrorism. However, little research has been carried out to assess the economic effects of the conflict.[2]

This type of study is difficult. On the one hand, a pure time-series analysis of the severity

TABLE 1—CHRONOLOGY OF ETA'S TERRORIST ACTIVITY

Year	Killings	Kidnappings	Event
1968	2	0	First victim of ETA
1969	1	0	
1970	0	1	
1971	0	0	
1972	1	1	
1973	6	1	ETA kills Franco's Prime Minister Admiral Carrero-Blanco
1974	19	0	
1975	16	0	Dictator Franco dies
1976	17	4	
1977	11	1	First democratic elections in Spain after Franco's death
1978	67	6	Spanish Constitution approved in referendum
1979	76	13	Regional Autonomy Statute for the Basque Country approved
1980	92	13	
1981	30	10	Attempted military coup. Spain joins NATO
1982	37	8	
1983	32	5	
1984	32	0	
1985	37	3	
1986	41	3	Spain joins European Community
1987	52	1	
1988	19	1	
1989	19	1	
1990	25	0	
1991	46	0	
1992	26	0	Barcelona hosts the Summer Olympic Games
1993	14	1	
1994	13	0	
1995	15	1	
1996	5	2	
1997	13	1	
1998	6	0	ETA declares indefinite cease-fire starting on September 18
1999	0	0	ETA announces the end of cease-fire on November 28
2000	23	0	

TABLE 2—ETA'S TERRORIST ACTIVITY, 1968–1997

Deaths:	
Basque Country	523
Rest of Spain	236
Percentage in the Basque Country	68.91
Deaths per million inhabitants per year:	
Basque Country	8.17
Rest of Spain	0.22
Ratio Basque Country/Rest of Spain	37.43

Notes: Authors' computations from Fundación BBV (1999) and Spanish Ministry of Interior (2002). Five additional deaths in the Basque portion of the French Atlantic Pyrenees Department are not reflected in the table.

TABLE 3—PRE-TERRORISM CHARACTERISTICS, 1960'S

	Basque Country (1)	Spain (2)	"Synthetic" Basque Country (3)
Real per capita GDP[a]	5,285.46	3,633.25	5,270.80
Investment ratio (percentage)[b]	24.65	21.79	21.58
Population density[c]	246.89	66.34	196.28
Sectoral shares (percentage)[d]			
Agriculture, forestry, and fishing	6.84	16.34	6.18
Energy and water	4.11	4.32	2.76
Industry	45.08	26.60	37.64
Construction and engineering	6.15	7.25	6.96
Marketable services	33.75	38.53	41.10
Nonmarketable services	4.07	6.97	5.37
Human capital (percentage)[e]			
Illiterates	3.32	11.66	7.65
Primary or without studies	85.97	80.15	82.33
High school	7.46	5.49	6.92
More than high school	3.26	2.70	3.10

Sources: Authors' computations from Matilde Mas et al. (1998) and Fundación BBV (1999).
[a] 1986 USD, average for 1960–1969.
[b] Gross Total Investment/GDP, average for 1964–1969.
[c] Persons per square kilometer, 1969.
[d] Percentages over total production, 1961–1969.
[e] Percentages over working-age population, 1964–1969.

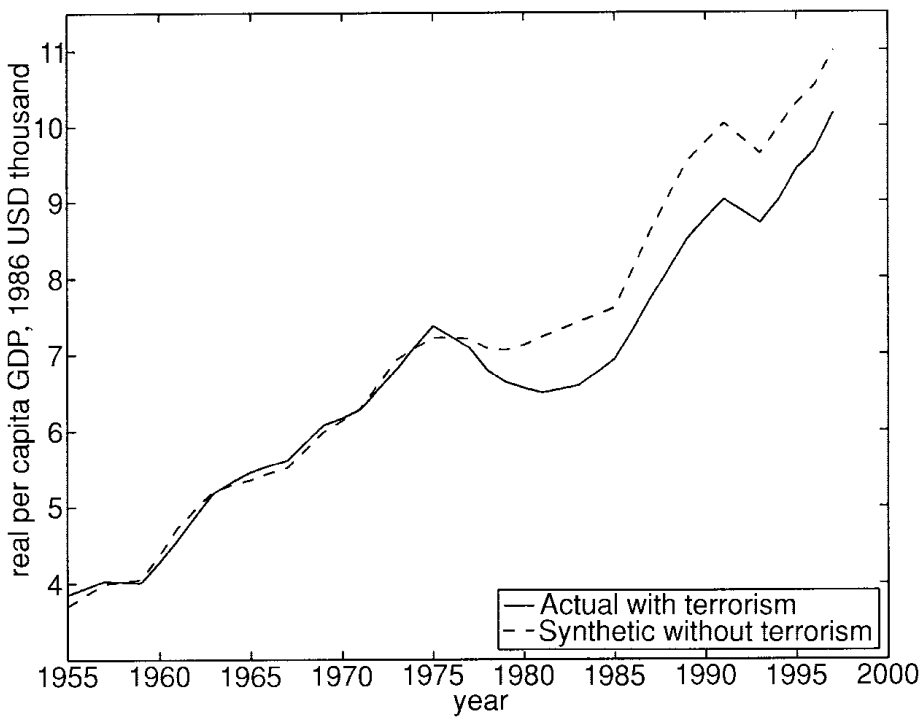

FIGURE 1. PER CAPITA GDP FOR THE BASQUE COUNTRY

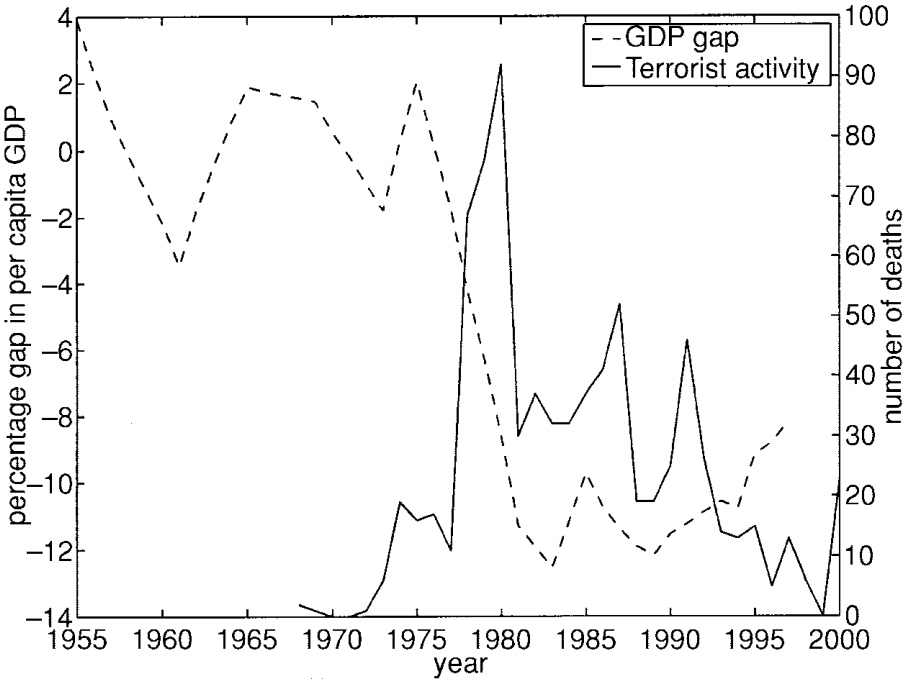

FIGURE 2. TERRORIST ACTIVITY AND ESTIMATED GAP

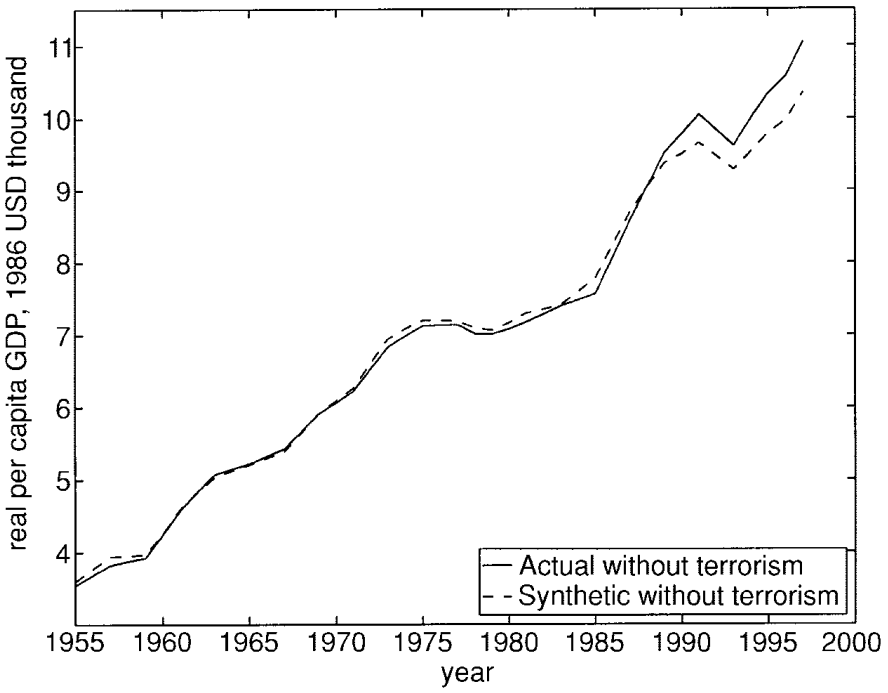

FIGURE 4. A "PLACEBO STUDY," PER CAPITA GDP FOR CATALONIA

TABLE 4—CHRONOLOGY OF THE TRUCE

Number	Date	Event
1	September 12, 1998	Basque nationalist parties (including ETA's political wing) sign joint declaration calling for the end of violence and the start of political negotiations with the Spanish government on issues regarding sovereignty
2	September 15, 1998	Spanish Minister of Interior says the government expects "fake truce" by ETA intended to regroup and gain popular support
3	September 16, 1998	ETA calls cease-fire starting on September 18
4	September 17, 1998	Spanish government expresses "profound skepticism" about the truce and advises caution
5	October 2, 1998	Spanish Prime Minister says ETA has yet to prove its commitment to peace, but promises changes in policy towards incarcerated ETA activists if peace consolidates
6	October 24, 1998	ETA leaders say cease-fire is "firm and serious" in BBC TV broadcast
7	November 3, 1998	Spanish government says it has authorized exploratory contacts with ETA in order to assess ETA's commitment to maintain cease-fire
8	February 24, 1999	ETA's communique pledges to maintain cease-fire and alludes to a new "hopeful climate"
9	May 16, 1999	ETA says it has maintained contacts with Spanish government
10	June 2, 1999	Spanish government confirms conversations with ETA
11	August 25, 1999	Spanish Prime Minister says that contacts with ETA have been interrupted
12	August 26, 1999	ETA confirms that the peace process is paralyzed
13	August 28, 1999	ETA's communique states that the peace process has reached a "critical stage" in which it is either concluded "or else it will rot"
14	November 28, 1999	ETA announces the end of cease-fire

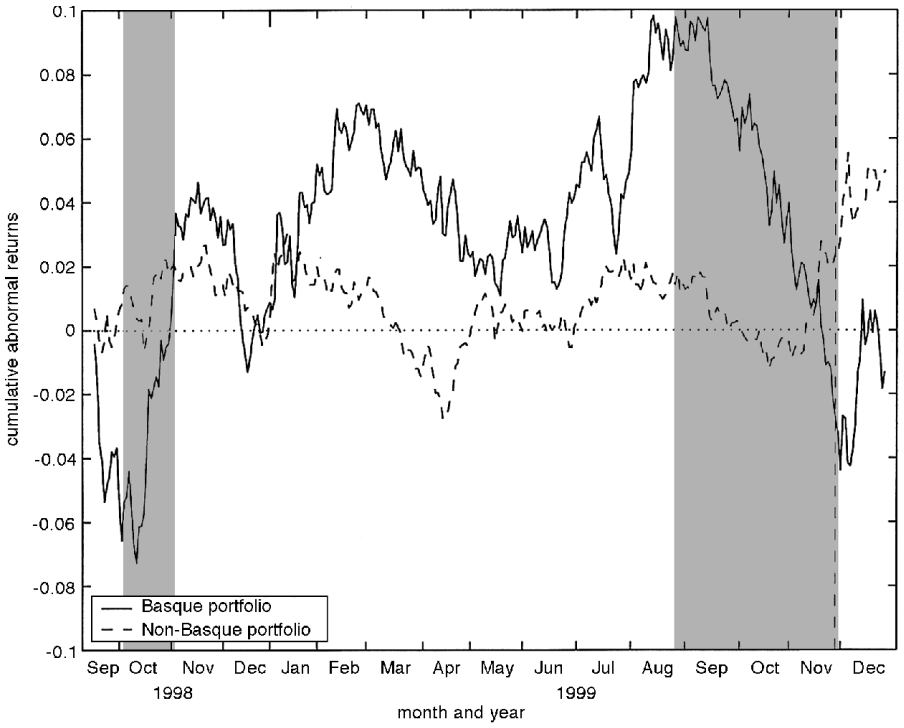

FIGURE 6. CUMULATIVE ABNORMAL PORTFOLIO RETURNS