$$\frac{\partial Y^*}{\partial \boldsymbol{g}} = \frac{-\boldsymbol{g}}{pt} < 0$$

3. Lax Financial Regulation and Non Co-Operative Countries: An Empirical Investigation

In the previous paragraph we illustrated the following relationship in a formal framework: given the specific structural features and endowments of his own country, a policymaker may find it rational to design lax financial regulations in order to attract capital of illegal origin.

The policymaker finds it advantageous to transform his country into an LFR jurisdiction because, in defining its objective function, the national economic benefits expected from offering money-laundering services are greater than the expected national costs associated with the internal risk of developing terrorism and organized crime, the international risk of loss of reputation and, finally, the possibility of a sanction by the international community. Therefore, peculiar economic and social country endowments can increase the probability of having lax financial regulation.

Now, how we can test this relationship? In the real world, the international community considers LFR countries as potential non-cooperative jurisdictions (NCCTs) in the fight against money laundering. Therefore we can assume that the NCCT jurisdictions share common structural features; we can test this hypothesis using econometric techniques.

In particular, since the international context (i.e. the technical and political enforcement described in our model) is constant, we can assume that:

- An NCCT jurisdiction will be one that, in terms of economic characteristics, has relatively scant physical resources to spend in international trade, and that this is the first channel of *national benefit* expected from lax financial regulation ;
- At the same time, an NCCT jurisdiction has the potential for developing financial services, fundamental for money-laundering purposes, and this is the second channel of *national benefit* expected from lax financial regulation ;
- An NCCT jurisdiction also has social characteristics that shield it to some extent from the risks of terrorism and/or of organized crime, thus reducing the *expected cost* of lax financial regulation;

Now the time has come to analyze the NCCT jurisdictions. Since 22 June 2000, the FATF has been publishing a periodic report on the NCCT jurisdictions: the blacklist. The report lays down 25 criteria, plus eight recent special recommendations on terrorist financing, that, if violated, identify the national rules that in each country are detrimental to international cooperation in the fight against money laundering. From June 2000 to February 2004, 45 countries have been

11

monitored, and nine blacklists have been published, indicating the jurisdictions that fail to conform to the criteria.

Having identified a sample of NCCT jurisdictions, it is possible to perform some econometric exercises. Using a worldwide data set on the main 130 countries[18], we do a Probit analysis. The dependent variable is a Binary Probit Variable equal to 1 for the 45 potential NCCTs and 0 otherwise.

The best estimated equation[19] is as follows:

$$(BinaryLI)_t = \boldsymbol{b}_1 + \boldsymbol{b}_2(A1)_t + \boldsymbol{b}_3(C1) + \boldsymbol{b}_4(E1) + \boldsymbol{e}_t$$

with $t = 1 \mathrm{K} \; N$

where:

$A1$ = Landuse[20];
$B1$ = GDP per capita[21];
$C1$ = Foreign deposits per Capita[22];
$E1$ = Terrorism and organized crime[23] Index[24].

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[18] Given the 267 world countries (UN members=180), our 130 countries (BRI sample) represent the 98% of the world GDP and the 90% of the world population.

[19] Masciandaro and Portolano (2004).

[20] **Landuse**: This entry contains the percentage shares of total land area for five different types of land use: *arable land* - land cultivated for crops that are replanted after each harvest like wheat, maize, and rice; *permanent crops* - land cultivated for crops that are not replanted after each harvest like citrus, coffee, and rubber; *permanent pastures* - land permanently used for herbaceous forage crops; *forests and woodland* - land under dense or open stands of trees; *other* - any land type not specifically mentioned above, such as urban areas. Source: Central Intelligence Agency.

[21] **Gdp-capita**: This entry shows GDP on a purchasing power parity basis divided by population (year 2001). Source: Central Intelligence Agency

[22] **Fordepositscapita**: The data on foreign deposits are derived from reporting as such or calculated by subtracting separately reported data on positions other than deposits from total external assets and liabilities. The only exception is the Netherlands Antilles, which does not provide this information separately (year 2001). Source: BRI. The deposit data are then divided by the popolation (year 2001).

[23] Regarding the Organized Crime Dummy, the size of the drug market dimension is evidently an indirect and imperfect indicator of the organized crime problem. At the same time, the drug market has given organized crime its massive resources. It has been correctly noted that during the '70s the drug trade became far too profitable and easy for even traditional and "conservative" organized crime organisations to ignore (see Rider (2002), pag.17), Furthermore, it is also noted there that even terrorist groups entered the market and by so doing became virtually indistinguishable from "ordinary" organized crime.

[24] **Terrorism and Organized Crime Index**: we built this variable by summing two separate variables for each country: Organized Crime Dummy = 1 if there is drug production and/or drug markets in the country, 0 otherwise (Source: CIA); Normalized Terrorism Indicator = average number of terrorist episodes in the country (years 1968-91) / max

Table 2 Binary Laxity Index determinants (130 countries and territories)

Dependent variable	Binary Laxity Index
Landuse	0.0079108 ****
	(0.003060)
Gdpcapita	-0.0000723****
	(0.0000190)
Fordepositcapita	3.18E-06****
	(1.36E-06)
Terrorismorgcrime	- 0.5737521****
	(0.2436112)

STANDARD ERRORS IN PARENTHESES. SUPERSCRIPT ASTERISKS INDICATE
STATISTICAL SIGNIFICANCE AT 0.01 (****), 0.02 (***), 0.05 (**), 0.10 (*).

The econometric results (Table 2) seem interesting, generally confirming that the probability of being an NCCT jurisdiction will depend on specific country endowments .

Firstly we note that the probability a country will become an NCCT jurisdiction tends to be higher the more it experiences economic growth problems, measuring those problems in terms of per-capita GDP and the level of land exploitation. This variable represents a proxy of the first channel of national laxity benefits .

Secondly we note that the probability a country will become an NCCT jurisdiction tends to be higher the more it has developed the flow of foreign deposits. This variable represents a proxy of the second channel of national laxity benefits.

Thirdly we use a joint Index of the terrorism risks and organized crime risks. In our approach, every national policymaker cares about both risks, and lax financial

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average number of terrorist episodes in a country (1968-91); the Terrorism indicator therefore ranges from 0 to 1 (Source: Blomberg). Consequently, our Index ranges from 0 to 2

Data Sources; Central Intelligence Agency – www.cia.gov/cia/publications/factbook; Democracy Index – www.geocities.com/CapitolHill/Lobby/3535/country/list-di.htm; Foreign Bank Deposits: Bank for International Settlements – www.bri.org/publ/qtrpdf/r_qa0206.pdf#page=44; ; Terrorism Indicators, see Blomberg B.S., Hess D.G., Weerapana A., *Terrorism From Within: An Economic Model of Terrorism*, May 2002 and ITERATE Data Set.

regulation can benefit in principle either terrorism or organized crime. In fact we note that the probability a country will become an NCCT jurisdiction tends to be higher as the degree of terrorism and organized crime risks decrease . We must point out that we have found no data for testing the role of international reputation sensitivity (*Proposition Five*)[25].

It is possible to do a further step if we hypothesize different levels of non-cooperative attitude. We can transform in an order probit variable Table 3) the fact that the 45 NCCTs jurisdictions have different stories: countries just monitored by the FAFT (non-cooperative attitude =1), countries with at least one presence in the black list (non-cooperative attitude=2), and finally the countries that actually remain in the black list (non-cooperative attitude=3)[26]; the non-cooperative attitude is obviously 0 for the other 85 countries of the sample.

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[25] Obviously we cannot use a cross-country analysis to test the role of international economic and political enforcement, since from the standpoint of traditional economic policy the variables are not country-specific, while from the standpoint of new political economics, they should be more testable *prima facie* using country case studies.

[26] The following list of NCCTs is current and was last changed on February 2004: Cook Islands, Guatemala, Indonesia, Myanmar, Nauru, Nigeria, Philippines .

Table 3 Ordered Laxity Index (OLI)

	Countries	OLI
1	Antigua	1
2	Bahamas	2
3	Barbuda	1
4	Belize	1
5	Bermuda	1
6	British Virgin I.	1
7	Cayman I.	2
8	Cook I.	3
9	Cyprus	1
10	Czeck Republic	1
11	Egypt	2
12	Dominica	1
13	Gilbratar	1
14	Grenada	2
15	Guatemala	3
16	Guernsey	1
17	Hungary	2
18	Indonesia	3
19	Isle of Man	1
20	Israel	2
21	Jersey	1
22	Lebanon	2
23	Liechtenstein	2
24	Malta	1
25	Marshall I.	2
26	Mauritius	1
27	Monaco	1
28	Myanamar	3
29	Nauru	3
30	Nigeria	3
31	Niue	2
32	Panama	2
33	Philippines	3
34	Poland	1
35	Russia	2
36	Samoa	1
37	Seychelles	1
38	Slovak Rep.	1
39	St. Kitts Nevis	2
40	St. Lucia	1
41	St. Vincent	2
42	Turk Caicos	1
43	Ukraine	2
44	Uruguay	1

| 45 | Vanuatu | 1 |

We carry out an Ordered Probit analysis with the following results(Table3):

Table 3 Ordered Laxity Index determinants (130 countries and territories)

Dependent variable	Ordered Laxity Index	
Landuse	0.0135717 ****	0.0144398 ****
	(0.0049385)	(0.0049597)
Gdpcapita	-0.0000523****	-0.0000527 ****
	(0.0000155)	(0.0000161)
Fordepositcapita	8.86E-08***	9.04E-08***
	(3.98E-08)	(4.05E-08)
Terrorismorgcrime	- 0.3313072	
	(0.2245221)	
Organized crime		- 0.4018445*
		(0.2414516)
Terrorism		0.0099674
		(0.0293882)

STANDARD ERRORS IN PARENTHESES. SUPERSCRIPT ASTERISKS INDICATE STATISTICAL SIGNIFICANCE AT 0.01 (****), 0.02 (***), 0.05 (**), 0.10 (*).

The regression confirms the robustness of the two channels of national laxity benefits, while the proxy of the terrorism and organized crime risks has the right sign, but it is not significant. If we split the organized crime dummy from the terrorism dummy, we find that the non-cooperative attitude is inversely related with the organized crime risk.

Finally, the econometric analysis allows us to affirm that the non-cooperative attitude does not coincide with the harmful tax competition attitude. While there is a theoretical presumption that international tax evasion and money laundering through *offshore centres* should overlap[27], this is not necessarily the case.

We carried out another Probit analysis where the dependent variable is now an Offshore Binary Probit Variable, that is equal to 1 for the OECD offshore countries and 0 otherwise[28] (Table 4).

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[27] Yaniv (1994) and (1999), Alworth and Masciandaro (2004).

[28] Alworth and Masciandaro (2004).

Table 4 Comparing Binary Offshore Index and Binary Laxity determinants (130 countries and territories)

Dependent Variable	Binary Laxity Index	Binary Offshore Index
Landuse	0.007***	-0.002
	(0.003)	(0.005)
Gdpcapita	-7.07E-05****	-2.04E-07
	(1.92E-05)	(2.60E-07)
Fordepostcapita	3.18E-06****	1.71E-06
	(1.36E-06)	(1.33E-08)
Terrorismorgcrime	-0.508***	-1.888****
	(0.224)	(0.448)

STANDARD ERRORS IN PARENTHESIS. SUPERSCRIPT ASTERISKS INDICATE STATISTICAL SIGNIFICANCE AT 0.01 (****), 0.02 (***), 0.05 (**), 0.10 (*).

As can be see, with the exception of the crime and terrorism index, none of variables have any explanatory power. This seems to suggest that the underlying economic characteristics of offshore centres and our NCCTs tend to differ. In general, therefore, we can reject the hypothesis that the causes of lax financial regulation decisions and of offshore activities are exactly the same.

In conclusion, the non-cooperative attitude seems to be dependent on key structural features of the country. Now, what are the consequences of our analysis on the debate concerning the effectiveness of blacklisting procedures?

4. Conclusions. Is Blacklisting an Effective Device?

In this paper we theoretically discuss and empirically test the relationships between specific country features, policymaker choices toward lax financial regulation, and national non-cooperative attitude with respect to the international effort to combat money-laundering phenomena. Our results suggest two main prescriptions for designing international policies aimed at reducing the global risks of terrorism and organized crime. These prescriptions can help to identify a possible role for the G8 countries in combating black money.
First of all, a pure and just formal "name and shame" approach may even prove counterproductive. Assuming that the international community is capable of effectively singling out NCCT jurisdictions that are indeed involved in black money schemes, a cautious approach is still deemed necessary. When the